New York State

Opioid Annual Data Report

2022

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 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 2021. https://www.nysenate.gov/legislation/laws/PBH/3309

[2] New York State Department of Health. Opioid-related Data in New York State. Accessed June 2022. https://health.ny.gov/statistics/opioid/

Glossary

Acronym/Abbreviation	Definition
AI	AIDS Institute
BLS	Basic Life Support
BNE	Bureau of Narcotic Enforcement
CDC	Centers for Disease Control and Prevention
CDS	Client Data System (OASAS)
CFR	Certified First Responders
COOP	Community Opioid Overdose Prevention
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
US	United States

Background

The NYSDOH's role in fighting the overdose epidemic continues to expand as the number of overdose deaths has continued to increase. The NYSDOH is a key partner in implementing the comprehensive NYS strategy to address this public health and public safety emergency. In her 2021 State of the State, 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. Programs that fit this imperative include established initiatives such as expanded access to sterile syringes, naloxone, buprenorphine, and other medications used to treat opioid use disorders.

Prior to 2016, the NYSDOH response to overdoses rested largely on supporting a network of harm reduction-oriented Syringe Exchange Programs (SEPs) for which overdose prevention has always been a focus, improving access to naloxone in the community, and implementing the Internet System for Tracking Over-Prescribing (I-STOP), which strengthened the Prescription Monitoring Program (PMP) and created a safe disposal program for controlled substance medications. The role for the NYSDOH has grown since this initial work and continues to rapidly expand to include the strategies outlined below.

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 comprehensive 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 core principles of the NYSDOH 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.

In keeping with these principles, the NYSDOH continues to implement the following strategies:

- 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.
- Expand and enhance the use and dissemination of relevant surveillance and monitoring data.
- 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.
- Optimize use of the PMP to prevent individuals from becoming dependent on controlled substances.
- Expand education for consumers, families, and healthcare providers that includes reducing stigma against people who use drugs.
- 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.
- Increase access and utilization of evidence-based medication for opioid use disorder.
- Use data, evaluation, and research to inform interventions.
- Use real-time data to identify emerging hazards and target interventions.

The NYSDOH operates evidence-based interventions that employ the strategies identified above to combat this epidemic. Several of these initiatives 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 (COOP) 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, as well as primary care, mental health services, 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.

Through a statewide prescriber education program, healthcare providers receive education on pain management, palliative care, and addiction, which includes appropriate safe prescribing methods, and how to identify and treat substance use disorder. NYSDOH has improved access to the PMP so prescribers can easily access vital information about patients' existing controlled substance prescriptions. NYSDOH has worked with local, state, and federal law enforcement agencies in the investigation of drug diversions, fraudulent prescribing, and pill mills. It has analyzed and disseminated county- and sub-county-level data (where possible) such as naloxone administrations, emergency room visits, hospitalizations, and deaths related to overdose. Data on major opioid-related measures are provided to each county on a quarterly basis to assist communities in assessing their local burden. NYSDOH has worked to provide near real-time information on ED visits to local partners.

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 and enforcing the law, and building local capacity to prevent deaths due to overdoses are all roles of the NYSDOH.

Strong collaboration remains between the NYSDOH 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, abuse, and dependency 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, population-based survey data on perceptions of public health problems as "very serious" by adults in NYS 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.

Rates and percentages using the NYS population in this report are based on annual population estimates from the United States (US) Census Bureau's Population Estimates Program (PEP). The PEP estimates for the NYS total population for 2010 to 2020 are based on the 2010 Census and display a downward trend in recent years. However, preliminary 2020 Census results indicate an increase in the 2020 NYS population estimates. In 2022, the Census Bureau is scheduled to release the revised Intercensal Estimates for 2010 to 2020, which will incorporate the results of the 2020 Census and become the official estimates of the decade.[3] The official population estimates in the upcoming 2010-2020 Intercensal Estimates may be different from the numbers currently used in the Opioid Annual Report 2022. Future reports using the official 2010-2020 Intercensal Estimates for the NYS population may depict lower rates and percentages for certain years.

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.

[3] United States Census Bureau. Schedule. Updated May 17, 2022. Accessed June 22, 2022. https://www.census.gov/programs-surveys/popest/about/schedule.html

Opioid Mortality

Among NYS residents, the number of overdose deaths involving any opioid increased each year between 2010 (1,074 deaths) and 2017 (3,224 deaths).[4] From 2019 to 2020, there was another increase of 44 percent in overdose deaths involving any opioid (from 2,939 deaths to 4,233 deaths) among NYS residents, a 294 percent increase since 2010. The 2020 age-adjusted rate of 21.8 deaths involving any opioid per 100,000 population in NYS was four times that of 5.4 in 2010. The crude rate was highest among those aged 25-44 years (38.7 per 100,000), and the age-adjusted rates were highest among males (32.8 per 100,000), Black non-Hispanic (25.0 per 100,000) and White non-Hispanic (24.9 per 100,000) individuals, and residents of NYS excluding NYC (24.5 per 100,000). In 2020, 87.9 percent of all overdose deaths involving any opioid involved synthetic opioids other than methadone (SOOTM), predominantly illicitly manufactured fentanyl. Most of the opioid-related mortality trends have been driven by deaths involving SOOTM, which had an overall increase of 2,050.9 percent from 2010 (173 deaths) to 2020 (3,721 deaths). The number of overdose deaths involving commonly prescribed opioids, including medications such as Vicodin® or Oxycodone®, increased by 70.6 percent, from 737 deaths in 2010 to 1,257 in 2020.

The number of overdose deaths involving cocaine in NYS increased from 388 overdose deaths in 2010 to 1,765 deaths in 2020 – a 354.9 percent increase. Between 2019 (1,320 deaths) and 2020 (1,765 deaths), the number of overdose deaths involving cocaine increased by 33.7 percent. Deaths involving both cocaine and SOOTM increased from 18 in 2010 to 1,350 in 2020, a 7,400 percent increase, while deaths involving cocaine without SOOTM observed a much smaller increase (12.2 percent) from 370 deaths in 2010 to 415 deaths in 2020. 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.[5]

It is possible that a portion of these observed increases in the past decade 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

There were 18,653 unique naloxone administrations reported electronically by EMS agencies during 2021, representing a 9.6 percent increase from 17,026 administrations in 2020. There was a 22.3 percent increase in NYC and a 3.3 percent decrease in NYS outside of NYC. Administrations were higher Thursdays, Fridays, and Saturdays, highlighting a need for individuals using substances such as opioids to obtain naloxone in their communities and have it available over weekends. The distribution of unique administrations was roughly even across months of the year with counts slightly higher during the summer months (data not shown). For information about EMS naloxone administrations prior to 2020, please see the Opioid Annual Report, 2021.

[4] 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

[5] 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

NYS is a leader in the implementation of public health programming to prevent death from opioid overdoses. The Department of Health's ODUH uses a harm reduction approach with programmatic roots in the State's network of over 30 syringe exchange programs. It also has an emphasis on expanding access to Medication for Opioid Use Disorder, including buprenorphine and methadone. The State's multi-pronged approach also includes a focus on building overdose response capacity within communities throughout the state. The core of this program is for community laypersons to be trained by organizations registered with the NYSDOH 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 900 registered COOP programs, with over 725,000 individuals trained by them since the initiative's inception in 2006. Of these, 100,000 were public safety personnel and the rest were community responders. In 2021, there were 1,702 naloxone administration reports by law enforcement to the NYSDOH and 2,685 reports by COOP programs. In total, including unique administrations by EMS agencies, there were 23,040 reported naloxone administrations in NYS in 2021. For additional information about the State's Harm Reduction programs, please see the Opioid Annual Report, 2021.

Opioid Burden

The NYSDOH combines multiple data sources to measure opioid burden, including opioid overdose deaths, non-fatal outpatient ED visits, and hospital discharges involving opioid overdose, abuse, dependence, and unspecified use. Collectively, these are opioid events that represent the overall health burden of opioids within NYS.

Access to various health settings during the COVID-19 pandemic was impacted; therefore, the discharge volume for 2020 do not represent a typical year of discharges.

Among NYS residents in 2020, there were 42,551 opioid burden events, representing a crude rate of 217.7 per 100,000 population. The rate in 2020 was highest among those aged 25-44 years (447.3 per 100,000) and among Black non-Hispanic individuals (228.7 per 100,000); rates among Hispanic (212.7 per 100,000) and White non-Hispanic (203.6 per 100,000) individuals were nearly as high. The rate was nearly three times higher among males (326.4 per 100,000) than among females (115.0 per 100,000). New York City (NYC) had a higher rate (225.7 per 100,000) than NYS excluding NYC (211.7 per 100,000). The counties with the highest rates for opioid burden, listed in descending order by 2020 rate are Chautauqua, Sullivan, Bronx, Ulster, Dutchess, Niagara, Schenectady, Greene, Broome, New York, Orange, Suffolk, Chemung, Richmond, Monroe, and Albany.

Among NYS residents, the number of newborns with Neonatal Abstinence Syndrome (NAS) and/or affected by maternal use of drugs of addiction increased 5.8 percent from 1,632 in 2019 to 1,726 in 2020, and the crude rate per 1,000 newborn discharges increased from 7.9 to 8.8.

Opioid Morbidity

Among NYS residents in 2020, there were 13,976 hospital discharges for opioid use (including overdose, abuse, dependence, and unspecified use). This represented a crude rate of 71.5 per 100,000 population. The rate in 2020 was highest among those aged 25-44 years and among Hispanic individuals. The rate was two and a half times higher among males (103.1 per 100,000)

than among females (41.6 per 100,000). NYS excluding NYC had a higher rate (75.0 per 100,000) than NYC (66.8 per 100,000).

In 2020, there were 12,245 visits to EDs due to an opioid overdose among NYS residents, a 13.8 percent increase from 2019 (10,762 visits). The crude rate per 100,000 increased from 55.1 in 2019 to 62.7 in 2020. The rate in 2020 was highest among those aged 25-44 years, and the rate for males was two times higher than for females. NYC had a lower rate (53.3 per 100,000) than NYS excluding NYC (69.7 per 100,000). In 2020, the rate was highest among Black non-Hispanic individuals, while in 2019, it was highest among White non-Hispanic individuals.

Office of Addiction Services and Supports Client Data

The NYS OASAS provided data on admissions for any opioid between 2010-2021 from the Client Data System (CDS). This system 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 with a provider in New York State. The CDS does not have data for individuals who get treated by the US 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 medication addiction treatment from a physician outside the OASAS system of care.

It is important to recognize that admissions rates are affected by the availability of treatment at the local level. Access to facility during COVID-19 pandemic was impacted, therefore, admissions data for 2020 and 2021 do not represent a typical year for admissions.

Among NYS residents in 2021, there were 75,783 admissions to OASAS-certified substance use disorder treatment programs for any opioid, including heroin. This represented a crude rate of 450.2 per 100,000 population. Compared to 2020, the 2021 rate for NYS decreased significantly from 502.2 per 100,000 population or 10.4 percent. Those aged 25-34 years consistently had the highest crude rate of clients admitted for opioids between 2010 and 2021. Throughout this period, more than twice as many males as females were admitted for any opioid.

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 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 650.5 per 100,000). 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. The rate of admissions statewide has since declined each year from 2017 (742.4 per 100,000), a trend that was consistent for all regions and among both males and females.

Prescription Monitoring Program

In 2021, 5,972,735 opioid analgesic prescriptions were dispensed to NYS residents, a crude rate of 305.6 per 1,000 population. This was a decline from 9,285,310 prescriptions (crude rate of

474.4 per 1,000 population) in 2012.[6] The rate for opioid analgesic prescriptions was higher in NYS excluding NYC (396.4 per 1,000) than in NYC (184.9 per 1,000) for 2021.

Observed differences in filled prescription patterns and trends during 2020 are noted throughout this report. Some anomalies in the trends can be attributed to the impacts of the COVID-19 pandemic, with many being most pronounced during the second quarter of 2020.

Initiating pain treatment with long-acting or extended-release opioids is associated with higher risk of overdose than the initiation of treatment with immediate-release opioids.[7] The number of incidents in which patients were both opioid-naïve and received long-acting opioid prescriptions drastically declined between 2019 (31,159) and 2021 (15,563) in NYS. During 2019-2021, the percentage of patients who were opioid-naïve and receiving long-acting opioid prescriptions for the initiation of treatment was consistently higher in NYS excluding NYC than in NYC.

Among opioid-naïve patients, a larger number of supply days for the first (initial) opioid prescription is strongly associated with long-term opioid use.[8] In July 2016, NYS limited the initial prescribing of opioids for acute pain to no more than a seven-day supply.[9] In NYS, opioid prescriptions for more than a seven-day supply decreased among opioid-naïve patients from 17.2 percent in the first quarter of 2019 to 15.0 percent in the fourth quarter of 2021.

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 ("doctor shoppers") between 2012 (54.0 per 100,000 population)[6] and 2021 (0.9 per 100,000). There was a slight increase from 0.8 per 100,000 population in 2020 to 0.9 in 2021.

Opioid analgesics prescribed in higher dosages ($\geq$ 90 morphine milligram equivalents (MME)) are associated with higher risks of overdose and death.[7] 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 2018 (11.5 percent) and 2021 (9.8 percent). Statewide, patients aged 55-64 years had the highest percentage of such prescriptions for both males (14.3 percent) and females (12.4 percent).

The risk of opioid overdose increases when taken in combination with other drugs, including benzodiazepines (e.g., Xanax® [alprazolam], Valium® [diazepam]).[7] Among NYS patients receiving at least one prescription for opioid analgesics or at least one for benzodiazepines, the

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[6] New York State Opioid Data Dashboard. New York State Department of Health. Accessed May 2022. https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/opioid_dashboard/op_dashboard&p=tbl&ind_id=op61

[7] 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

[8] 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

[9] 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 August 2021. https://www.health.ny.gov/professionals/narcotic/laws_and_regulations/

percentage with two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions declined between 2018 (8.8 percent) and 2021 (8.1 percent). From 2018-2021, NYS excluding NYC had consistently higher percentages of such overlapping prescriptions compared to NYC. Statewide in 2021, the percentage was higher among those aged 65 and older for both male (10.0 percent) and female (11.8 percent) patients.

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 2018 (16.2 percent) and 2021 (15.1 percent), though it had slightly increased to 16.3 percent in 2020. From 2018-2021, NYS excluding NYC had consistently higher percentages compared to NYC. In 2021, the percentage was higher among males than females in all age groups except among those aged 65 years and older.

In NYS, 81,020 patients were prescribed at least one buprenorphine prescription for outpatient treatment of opioid use disorder (OUD) in 2021. The crude rate of buprenorphine prescribing for OUD increased by 11.8 percent from 370.6 per 100,000 population in 2018 to 414.5 per 100,000 in 2021. The rate was more than two times higher in NYS excluding NYC than for NYC during 2018-2021.

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.[10] Among NYS adult residents, public perception of prescription opioid misuse and abuse and of heroin use as serious public health problems remain higher compared to other public health problems, such as alcohol consumption and access to healthy food and beverages. The percentages of those responding “very serious” to the question of the severity of these public health problems had declined over recent years, possibly indicating a need for more public awareness of the ongoing overdose crisis. However, in the most recent survey, the percentage of “very serious” responses increased for prescription opioid misuse and abuse, potentially reflecting the observed increase in overdose deaths in recent years.

[10] 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

1 - Opioid Overdose Mortality Data

According to death certificate data reported to the NYSDOH, opioid-related overdose deaths have increasingly involved fentanyl.[11,12] 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.[13] Prescription fentanyl is primarily prescribed to manage acute and chronic pain associated with advanced cancer. Non-pharmaceutical grade fentanyl is illicitly manufactured. Illegal 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.[14] 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.[15]

[11] 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

[12] 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

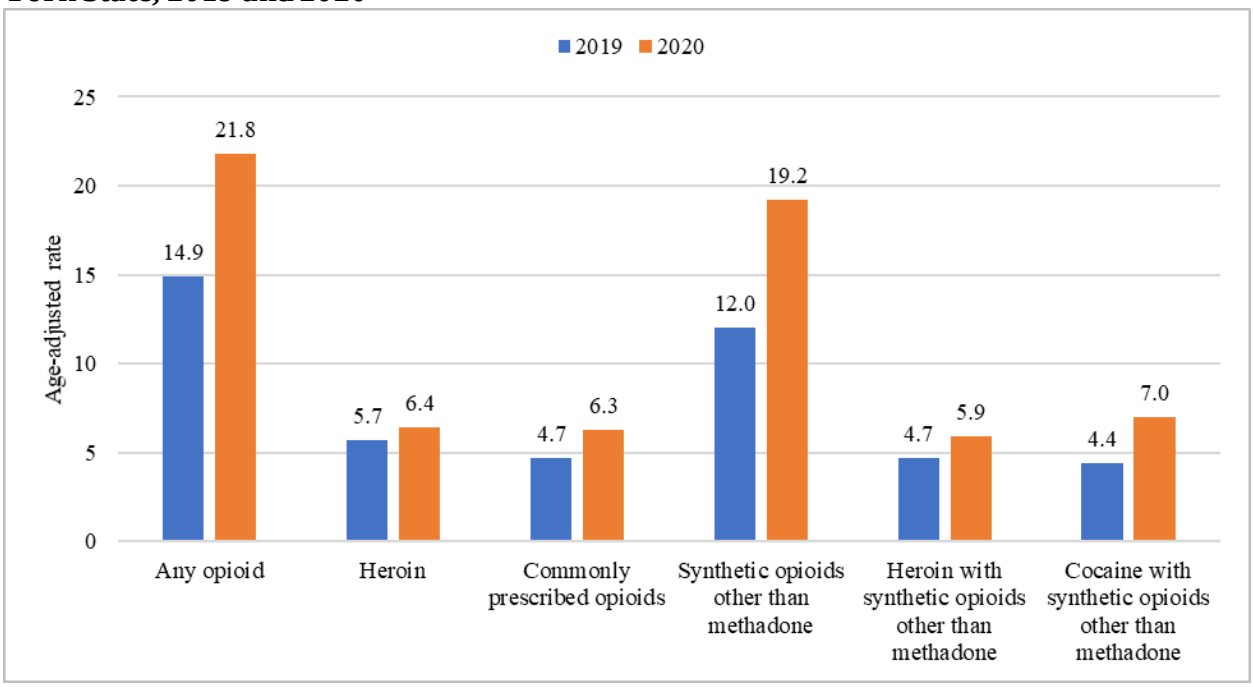
[13] Injury Prevention and Control. Fentanyl. Centers for Disease Control and Prevention. Accessed September 2019. https://www.cdc.gov/drugoverdose/opioids/fentanyl.html

[14] 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

[15] Johnson J, Pizzicato L, Johnson C, et al. Increasing presence of xylazine in heroin and/or fentanyl deaths, Philadelphia, Pennsylvania, 2010–2019. *Injury Prevention*. 2021;27(4):395-398. Accessed June 10, 2022. http://dx.doi.org/10.1136/injuryprev-2020-043968

Among NYS residents, there were 4,233 overdose deaths involving any opioid in 2020, a sharp increase of 44.0 percent from 2,939 deaths in 2019 (Figure 1.1). The age-adjusted rate of overdose deaths involving any opioid increased 46.3 percent from 14.9 per 100,000 population in 2019 to 21.8 per 100,000 population in 2020. Moreover, the 2020 age-adjusted rate was four 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, the effect of use by SOOTM is shown separately from any opioid and from other commonly prescribed opioids (ICD-10 codes T40.2 and T40.3), such as hydrocodone and oxycodone. The rate of overdose deaths involving SOOTM rose considerably by 60.0 percent from 12.0 per 100,000 in 2019 to 19.2 per 100,000 in 2020. Between 2019 and 2020, similar patterns were observed for deaths involving heroin with SOOTM and cocaine with SOOTM, with the rate increasing by 25.5 percent (from 4.7 to 5.9 per 100,000 population) and 59.1 percent (from 4.4 to 7.0 per 100,000 population), respectively. Compared to 2019, the 2020 age-adjusted rate of overdose deaths increased 12.3 percent for heroin and 34.0 percent for commonly prescribed opioids.

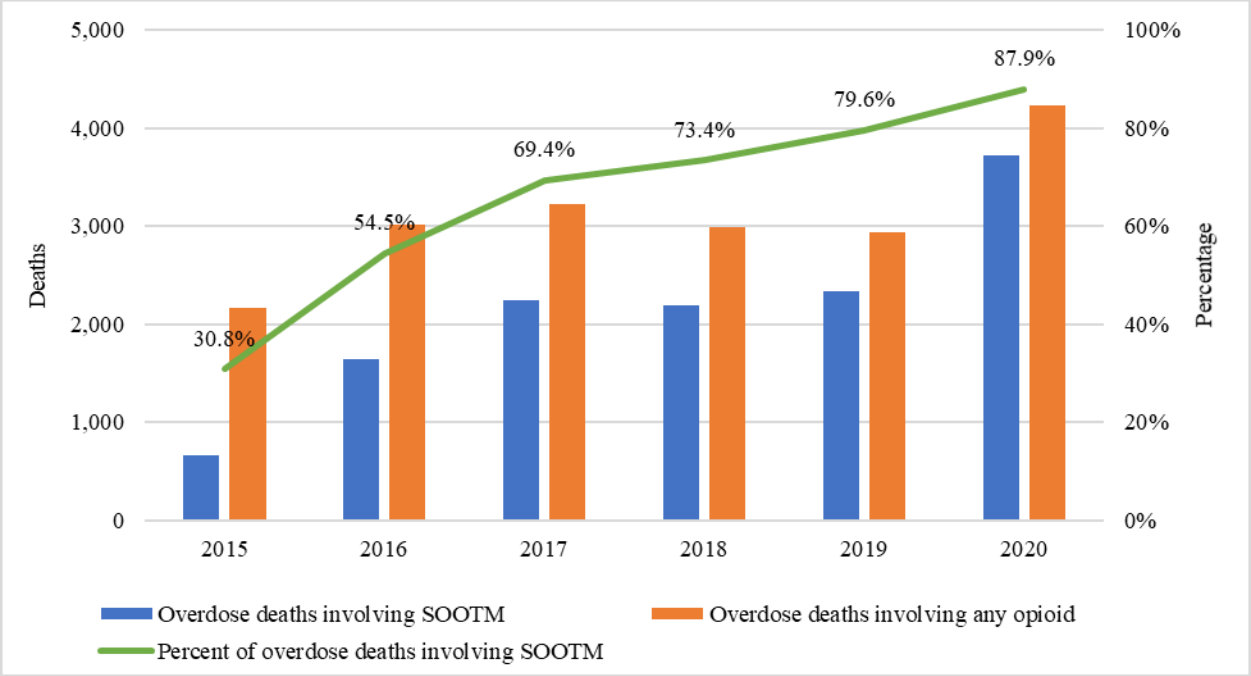
Figure 1.1 Overdose deaths, age-adjusted rate per 100,000 population, by substance, New York State, 2019 and 2020



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.
Data source: CDC WONDER; Accessed January 2022
For complete data, see Appendix: Data Table 1.1.

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).[16,17] From 2015 to 2020, the percentage of any opioid overdose deaths that involved SOOTM increased from 30.8 to 87.9 percent, a total increase of 185.4 percent (Figure 1.2).

Figure 1.2 Percentage of opioid overdose deaths involving synthetic opioids other than methadone*, New York State, 2015-2020



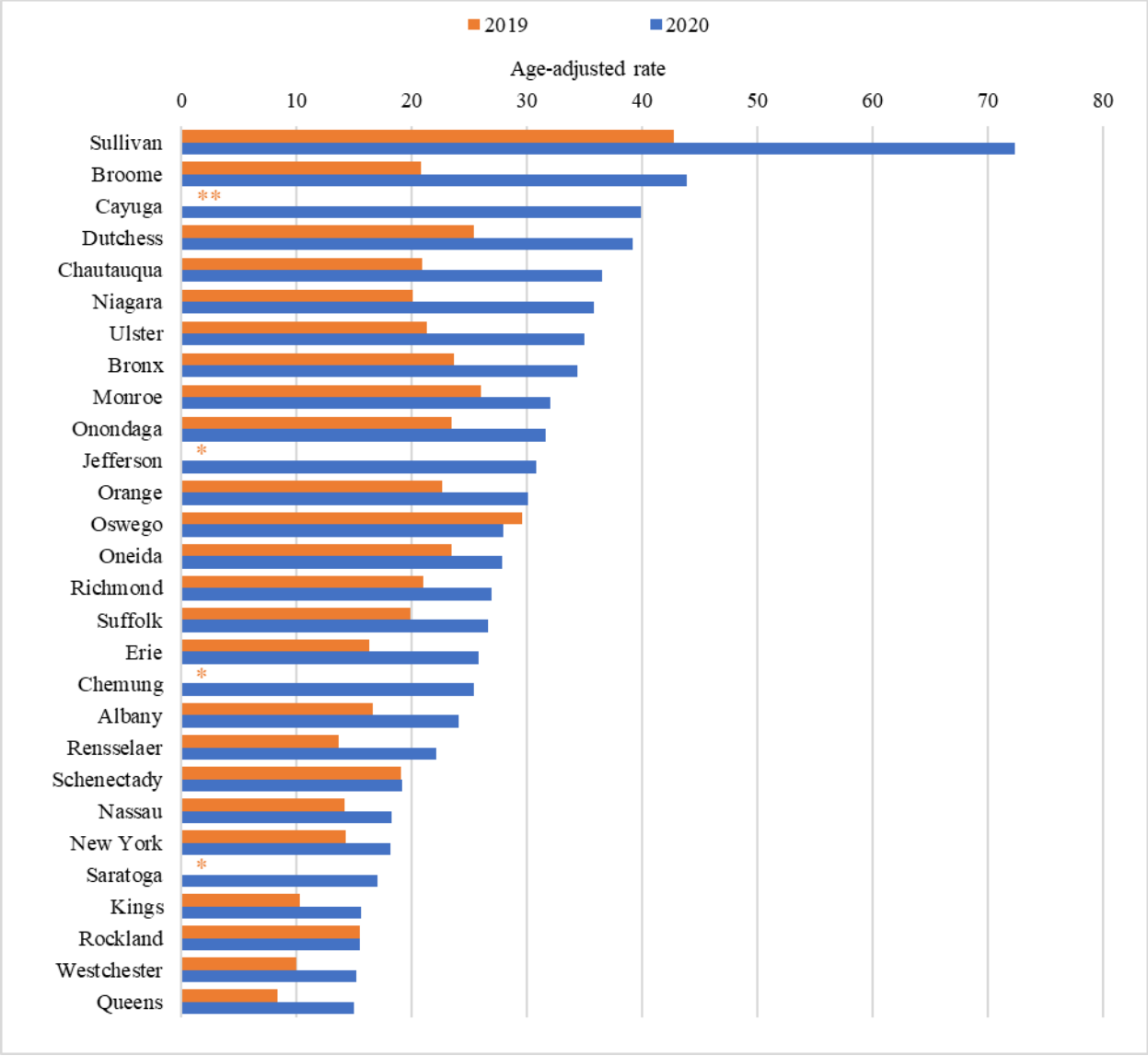
*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
Data source: CDC WONDER; Accessed January 2022
For complete data, see Appendix: Data Table 1.2.

[16] 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)

[17] 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

In NYS, among counties with 20 or more overdose deaths involving any opioid in 2020, the age-adjusted rate per 100,000 population for overdose deaths involving any opioid was highest in Sullivan County (72.4 per 100,000) (Figure 1.3). The ten counties with the highest age-adjusted rates were located in the Mid-Hudson (Sullivan, Dutchess, Ulster), Southern Tier (Broome), Central NY (Cayuga, Onondaga), Western NY (Chautauqua, Niagara), NYC (Bronx), and Finger Lakes (Monroe) regions. Most of these counties, except for Oswego and Rockland, observed increases in the rates of overdose deaths involving any opioid in 2020 as compared to 2019. Sullivan County had the largest absolute increase (29.7 per 100,000) in the 2020 rate (72.4) from the 2019 rate (42.7).

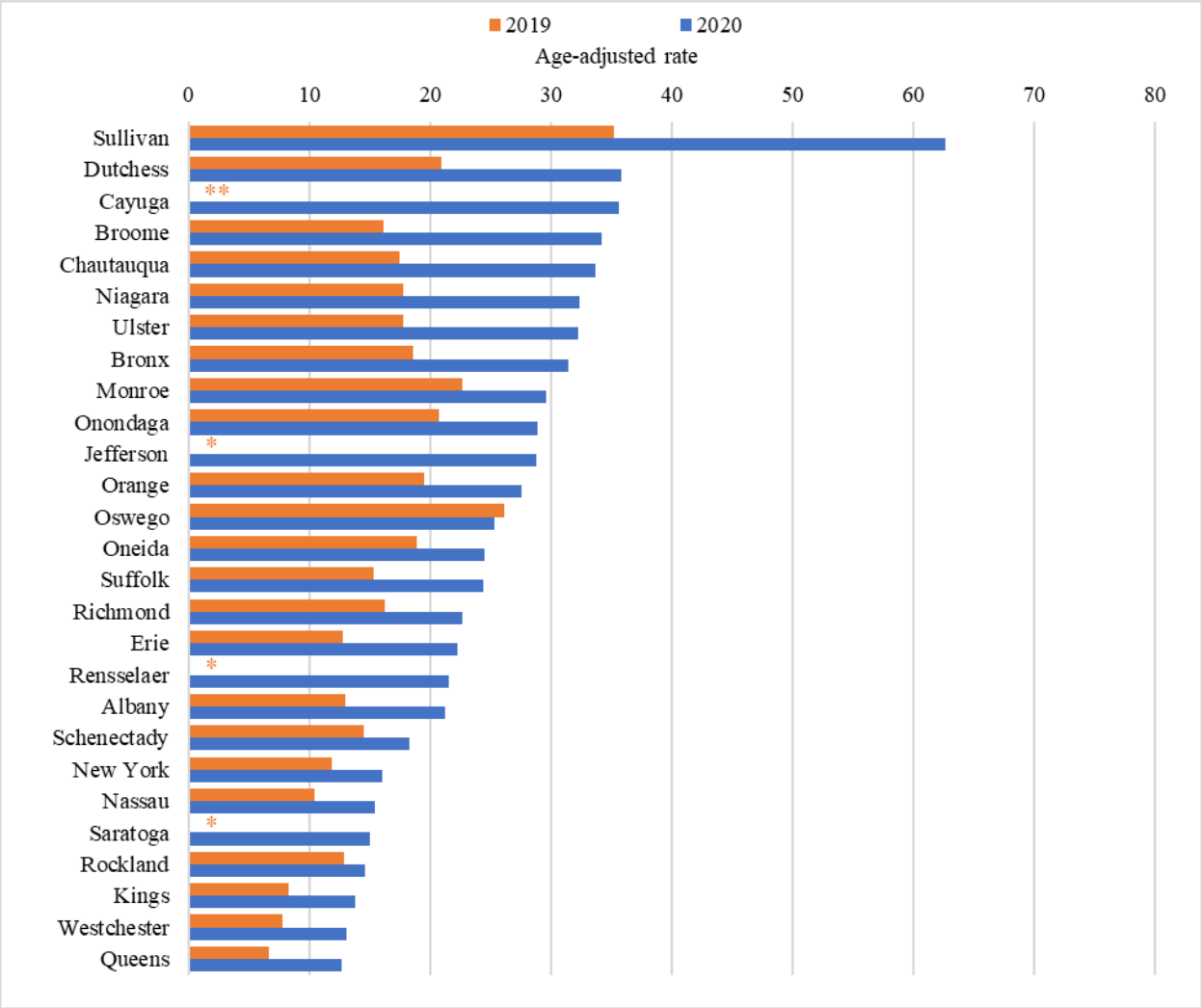
Figure 1.3 Overdose deaths involving any opioid, age-adjusted rate per 100,000 population, by county, New York State, 2019 and 2020



*: 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 source: CDC WONDER; Accessed January 2022
For county data on overdose deaths involving any opioid, see Appendix: Data Table 1.3.

In NYS, among counties with 20 or more overdose deaths involving SOOTM in 2020, the age-adjusted rate per 100,000 population for overdose deaths involving SOOTM was highest in Sullivan County (62.6 per 100,000) (Figure 1.4). The ten counties with the highest age-adjusted rates were in the Mid-Hudson (Sullivan, Dutchess, Ulster), Central NY (Cayuga, Onondaga), Southern Tier (Broome), Western NY (Chautauqua, Niagara), NYC (Bronx), and Finger Lakes (Monroe) regions. Most of these counties, except for Oswego County, observed increases in the rates of overdose deaths involving SOOTM in 2020 as compared to 2019. Sullivan County had the largest absolute increase (27.4 per 100,000) in the 2020 rate (62.6) from 2019 rate (35.2).

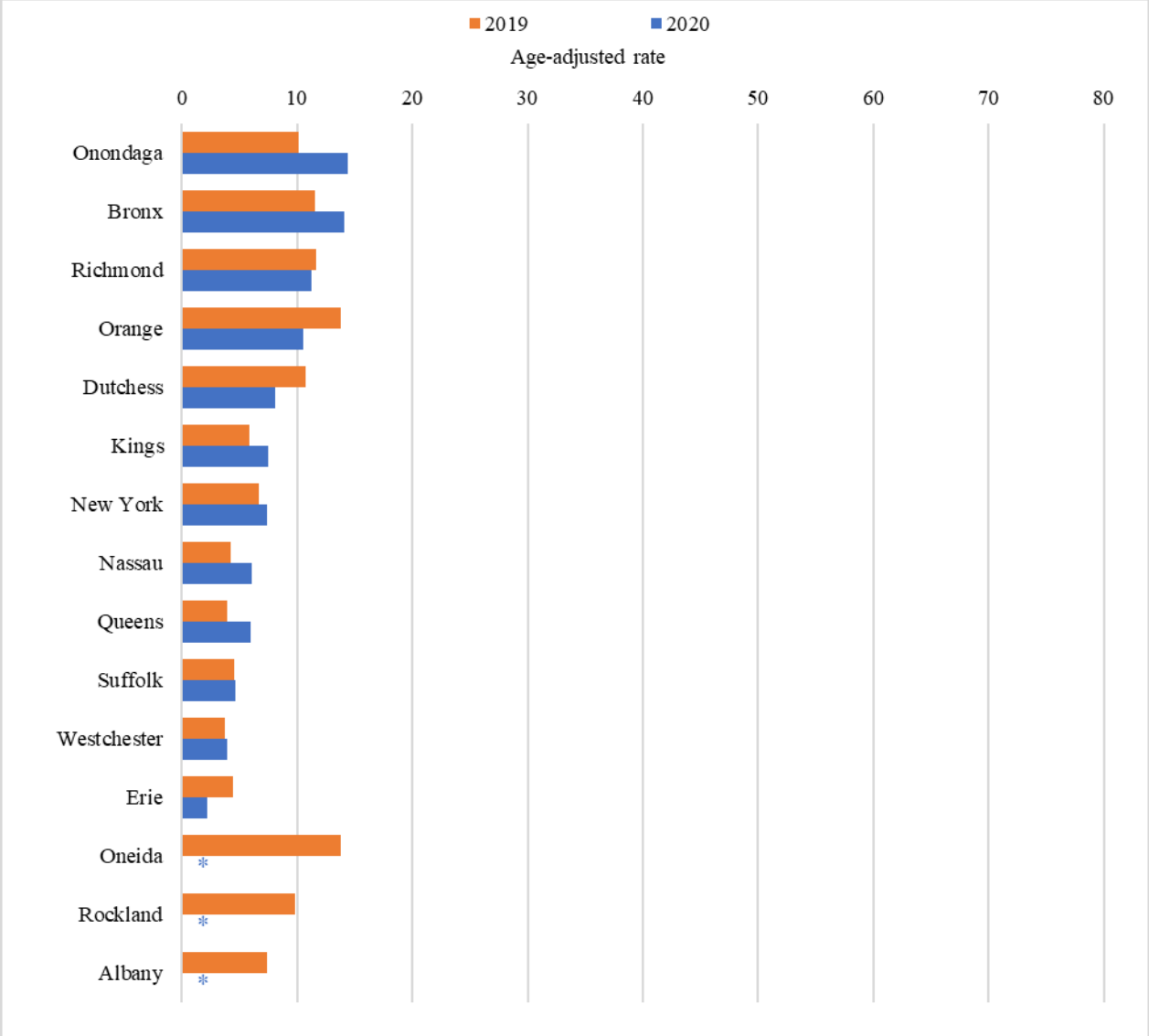
Figure 1.4 Overdose deaths involving synthetic opioids other than methadone^, age-adjusted rate per 100,000 population, by county, New York State, 2019 and 2020



^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.
**: For counties with fewer than 10 deaths in a year, rates are not shown for that year.
Data source: CDC WONDER; Accessed January 2022
For county data on overdose deaths involving synthetic opioids other than methadone, see Appendix: Data Table 1.4.

In NYS, among counties with 20 or more overdose deaths involving heroin in 2020, the age-adjusted rate per 100,000 population for overdose deaths involving heroin was highest in Onondaga County (14.4 per 100,000) (Figure 1.5). The ten counties with the highest age-adjusted rates were in the Central NY (Onondaga), NYC (Bronx, Richmond, Kings, New York, Queens), Mid-Hudson (Orange, Dutchess), and Long Island (Nassau, Suffolk) regions.

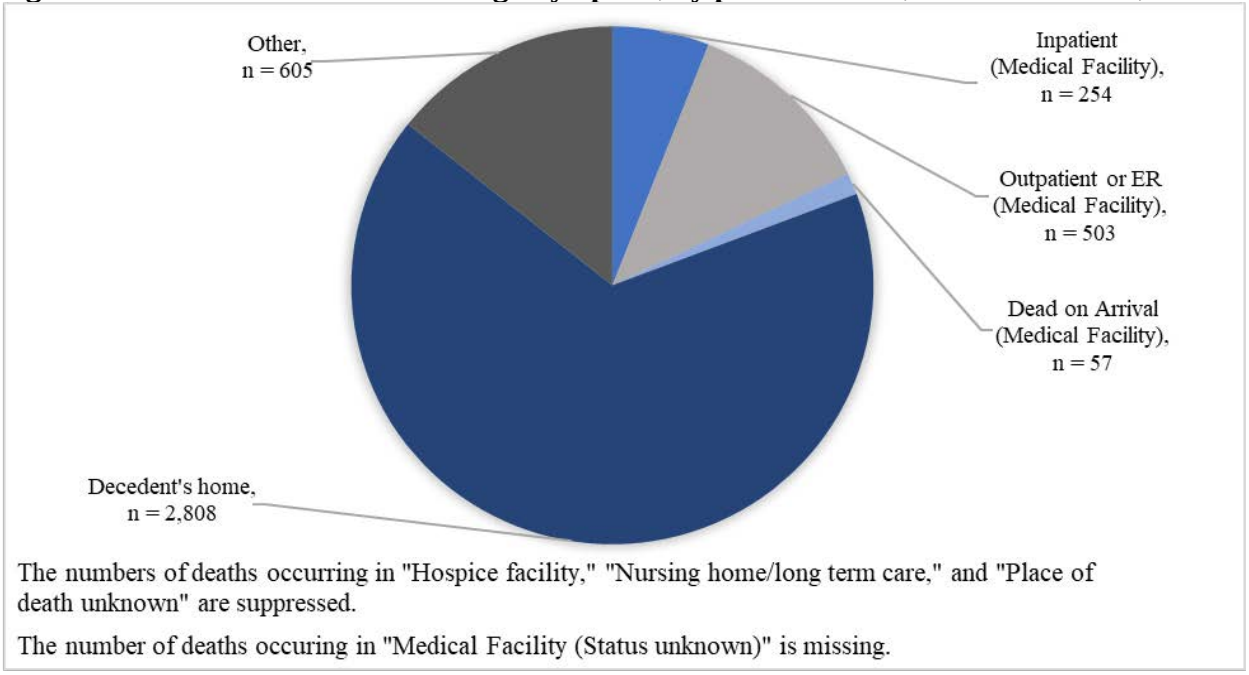
Figure 1.5 Overdose deaths involving heroin, age-adjusted rate per 100,000 population, by county, New York State, 2019 and 2020



*: Rates are unreliable for years with fewer than 20 deaths and are therefore not shown.
Data source: CDC WONDER; Accessed January 2022
For county data on overdose deaths involving heroin, see Appendix: Data Table 1.5.

In NYS during 2020, most overdose deaths involving any opioid occurred at the decedent's home (66.3 percent), a 7.6 percent increase from 2019 (61.6 percent, data not shown) (Figure 1.6). For overdose deaths, knowing the most common place of death can inform programmatic and policy responses.

Figure 1.6 Overdose deaths involving any opioid, by place of death, New York State, 2020

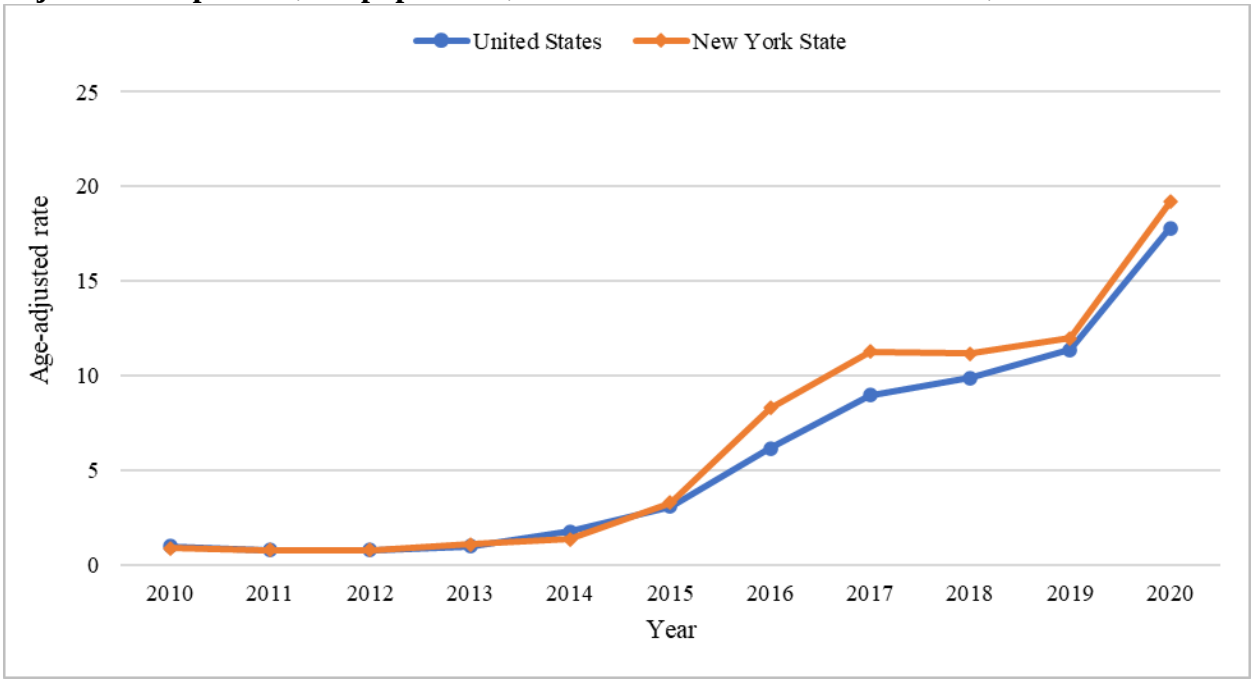


Data source: CDC WONDER; Accessed January 2022
For complete data, see Appendix: Data Table 1.6.

Because substance use trends 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 age-adjusted rates of overdose death involving SOOTM increased sharply in both NYS and the US, from 1.4 per 100,000 population in NYS and 1.8 per 100,000 in the US in 2014, to 19.2 per 100,000 in NYS and 17.8 per 100,000 in the US in 2020, respectively (Figure 1.7). Compared to 2019, the number of overdose deaths involving SOOTM in 2020 significantly increased in both NYS (59.2 percent) and the US (55.4 percent).

Figure 1.7 Overdose deaths involving synthetic opioids other than methadone*, age-adjusted rate per 100,000 population, New York State and United States, 2010-2020



*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: CDC WONDER; Accessed January 2022
For complete data, see Appendix: Data Table 1.7.

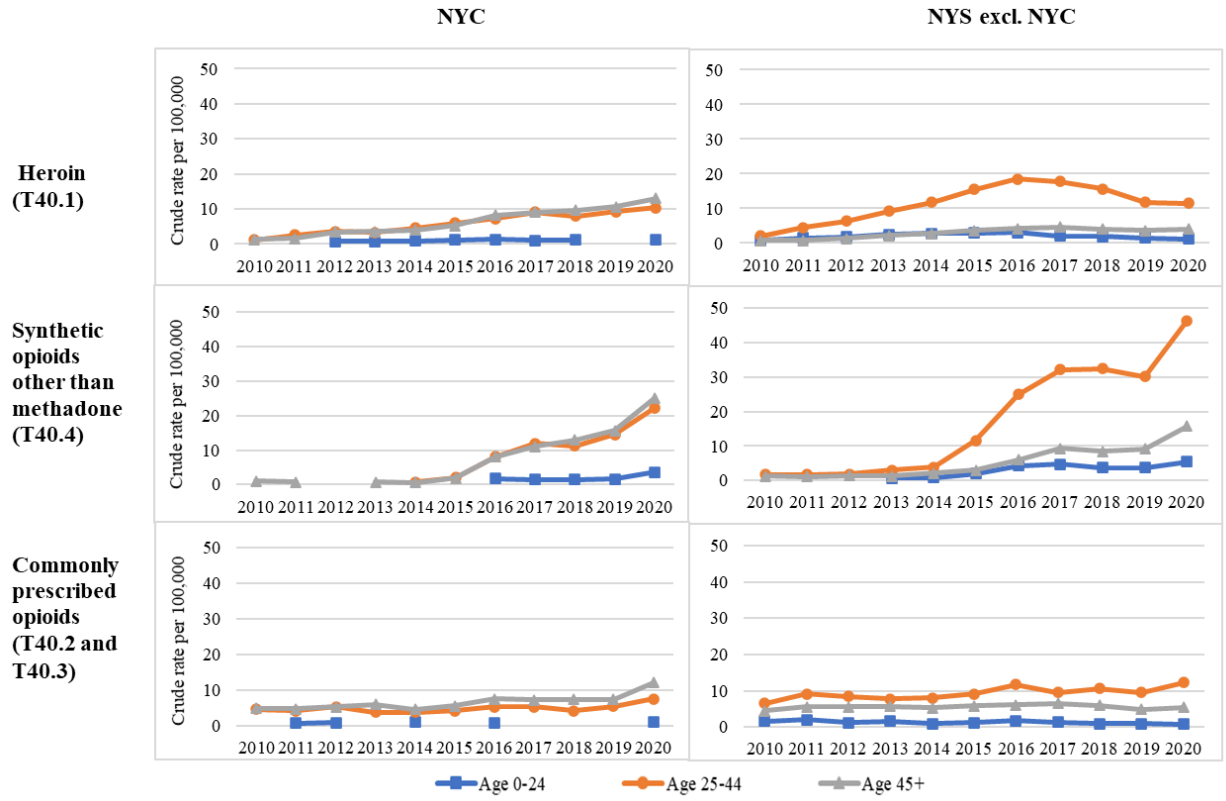
Among New Yorkers aged 25-44 years, the crude rate of overdose deaths involving heroin was lower in NYC than in NYS excluding NYC for every year during 2010-2020 (Figure 1.8). However, from 2018 to 2020 in NYC, the crude rate of overdose deaths involving heroin among those aged 25-44 years increased by 30.4 percent (7.9 to 10.3 per 100,000 population), while NYS excluding NYC experienced a decrease of 26.9 percent (15.6 to 11.4 per 100,000).

Similarly, among New Yorkers aged 25-44 years, the crude rate of overdose deaths involving SOOTM (primarily fentanyl) was lower in NYC than it was in NYS excluding NYC for every year during 2010-2020. The 2020 crude rate of overdose deaths involving fentanyl among those aged 25-44 years was two times higher in NYS excluding NYC (46.4 per 100,000) than it was in

NYC (22.3 per 100,000). Compared to 2019, the rate among this age group increased by about 54.0 percent in both NYS excluding NYC (30.1 to 46.4 per 100,000) and NYC (14.5 to 22.3 per 100,000).

The crude rate of overdose deaths involving commonly prescribed opioids remained fairly steady among all age groups and across regions during 2010-2019, with the highest rates among those aged 25-44 years residing in NYS excluding NYC. However, in 2020, an increase was observed in both the NYC and NYS excluding NYC regions across all age groups, except among those aged 0-24 years in NYS excluding NYC.

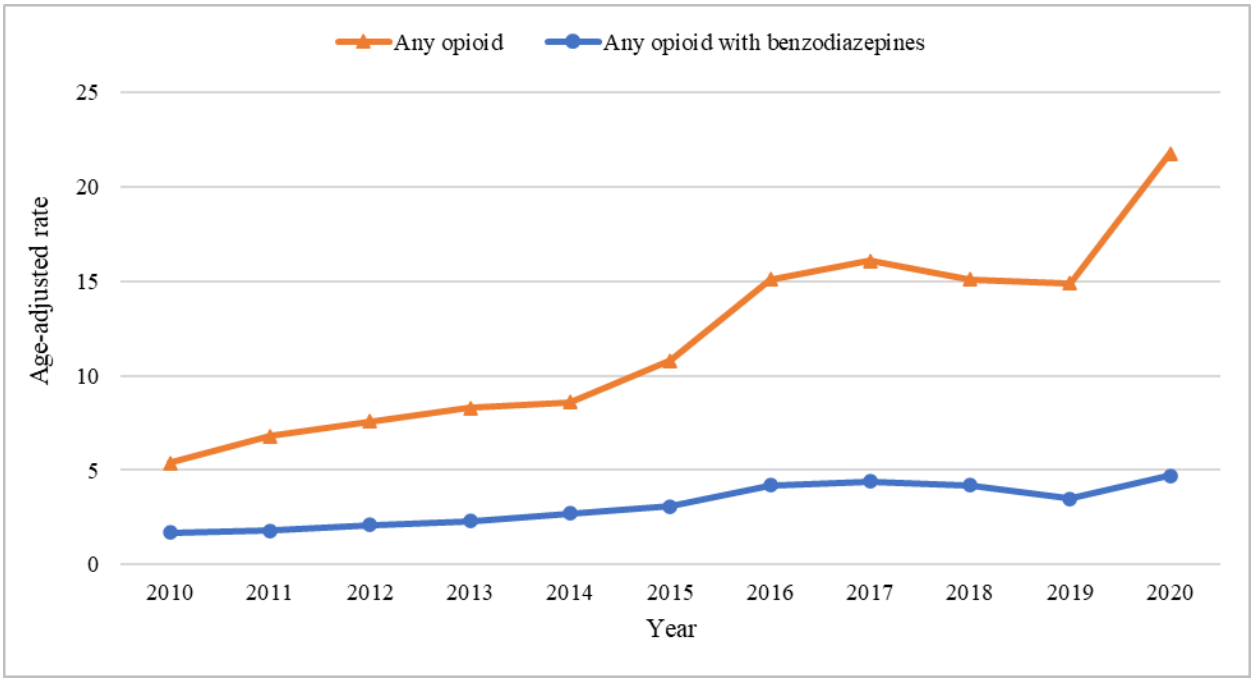
Figure 1.8 Overdose deaths involving heroin (T40.1), synthetic opioids other than methadone (T40.4)*, and commonly prescribed opioids (T40.2 and T40.3)^, crude rate per 100,000, by region, year, and age group, New York State, 2010-2020



*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 source: CDC WONDER; Accessed January 2022
For complete data, see Appendix: Data Table 1.8.

The risk of an opioid overdose increases when opioids are taken in combination with benzodiazepines (e.g., Xanax® [alprazolam], Valium® [diazepam]).[18] In NYS, the age-adjusted rate of overdose deaths involving the concurrent use of any opioids with benzodiazepines increased from 1.7 per 100,000 population in 2010 to 4.7 per 100,000 in 2020 – a smaller increase than was seen over the same period in the age-adjusted rate of overdose death involving any opioid (Figure 1.9). While the rate of overdose death involving any opioid with benzodiazepines increased more slowly than the rate of overdose death involving any opioid, it is important to monitor the involvement of other substances and to provide information to the public about the increased risk of overdose.

Figure 1.9 Overdose deaths involving any opioid and overdose deaths involving any opioid with benzodiazepines, age-adjusted rate per 100,000 population, New York State, 2010-2020

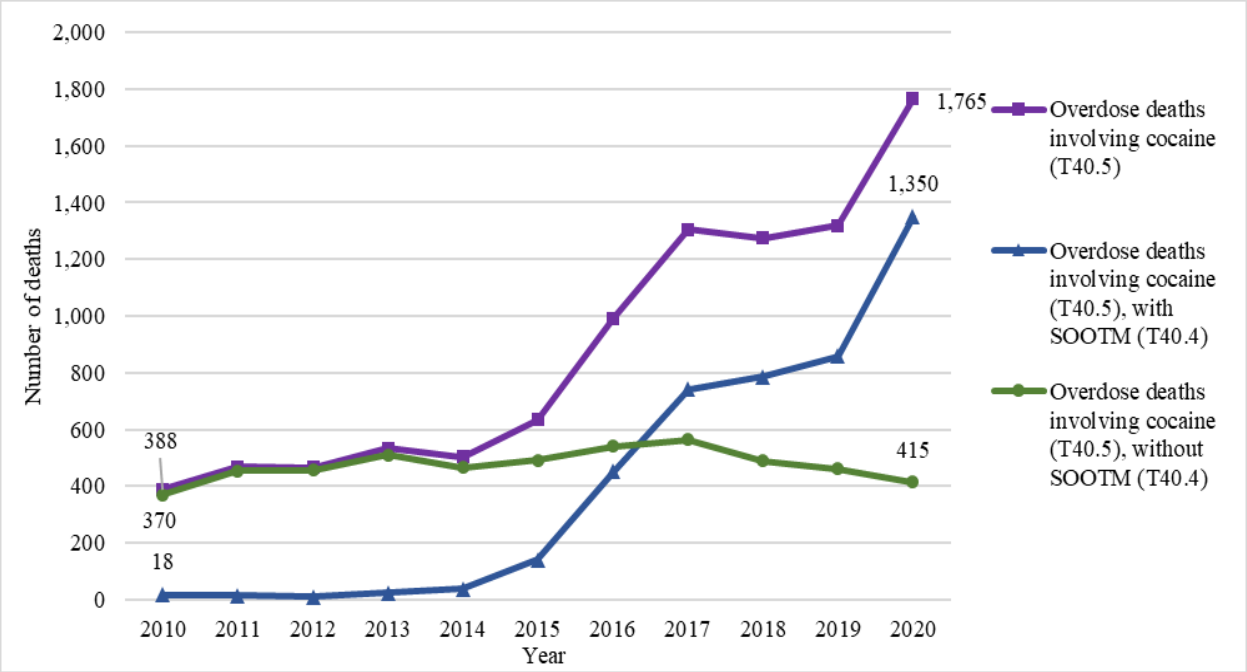


Multiple cause of death ICD-10 definitions: Any opioid – T40.0 (Opium), T40.1 (Heroin), T40.2 (Other opioids), T40.3 (Methadone), T40.4 (Synthetic opioids other than methadone), T40.6 (Other and unspecified narcotics); Any opioid with benzodiazepines – T40.0 (Opium), T40.1 (Heroin), T40.2 (Other opioids), T40.3 (Methadone), T40.4 (Synthetic opioids other than methadone), T40.6 (Other and unspecified narcotics) AND T42.4 (Benzodiazepines).
Data source: CDC WONDER; Accessed January 2022
For complete data, see Appendix: Data Table 1.9.

[18] 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

The number of overdose deaths involving cocaine in NYS increased from 388 overdose deaths in 2010 to 1,765 deaths in 2020 – a 354.9 percent increase (Figure 1.10). Between 2019 (1,320 deaths) and 2020 (1,765 deaths), the number of overdose deaths involving cocaine increased by 33.7 percent. The sharp rise since 2012 was largely driven by the involvement of SOOTM, predominantly illicit fentanyl. The number of overdose deaths involving cocaine *without* SOOTM increased by 52.4 percent, from 370 deaths in 2010 to 564 deaths in 2017 and decreased to 415 deaths in 2020 (a 26.4 percent decrease). However, the number of overdose deaths involving cocaine *with* SOOTM increased by 1,332 deaths over the same period, from 18 in 2010 to 1,350 in 2020, marking a 7,400.0 percent increase over that period. 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.[19]

Figure 1.10 Overdose deaths involving cocaine with and without synthetic opioids other than methadone*, New York State, 2010-2020

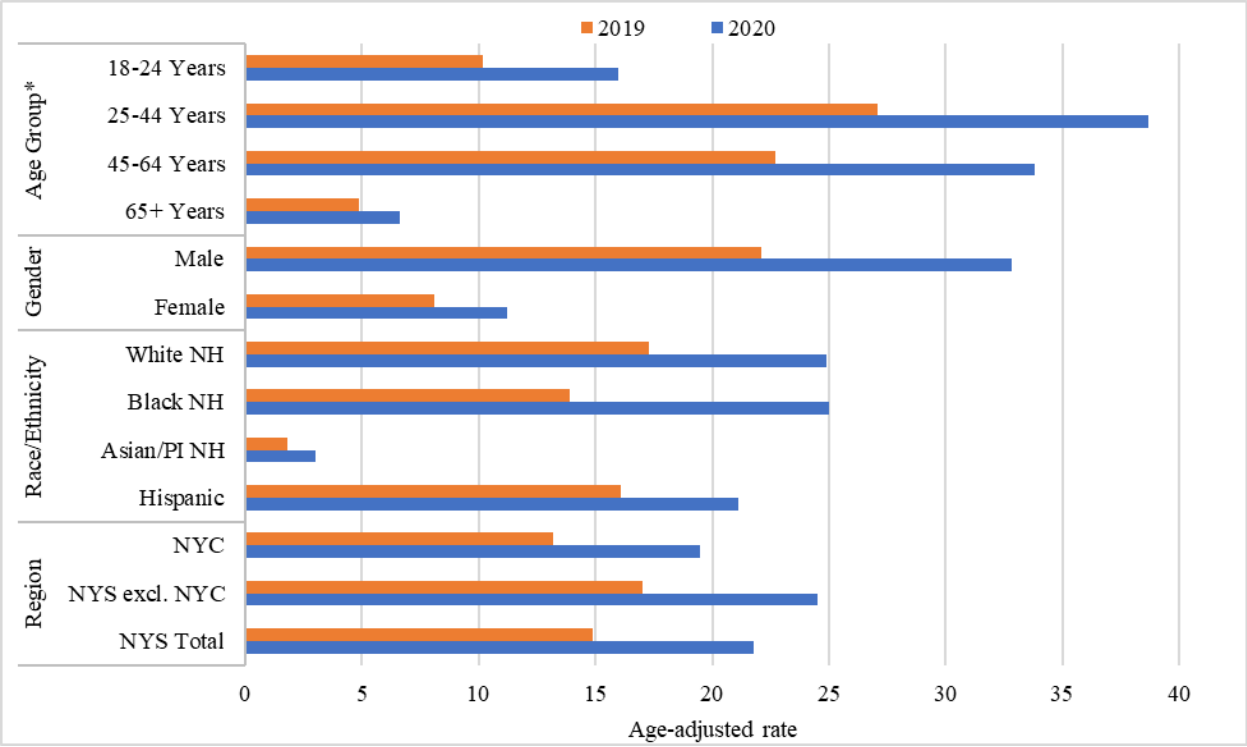


*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
Note: Cocaine overdose is identified by ICD-10 code T40.5.
Data source: CDC WONDER; Accessed January 2022
For complete data, see Appendix: Data Table 1.10.

[19] 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

In NYS during 2020 the crude rates of overdose death involving any opioid were highest among those aged 25-44 years (38.7 per 100,000 population) and 45-64 years (33.8 per 100,000) (Figure 1.11). The age-adjusted rates of overdose death involving any opioid were highest among males (32.8 per 100,000), Black non-Hispanic (25.0 per 100,000) and White non-Hispanic (24.9 per 100,000) individuals, and residents of NYS excluding NYC (24.5 per 100,000). Compared to 2019, the rates of overdose deaths involving any opioid significantly increased across all demographic sub-groups in 2020, with the largest percentage increase in the rate observed among Black non-Hispanic individuals (79.9 percent).

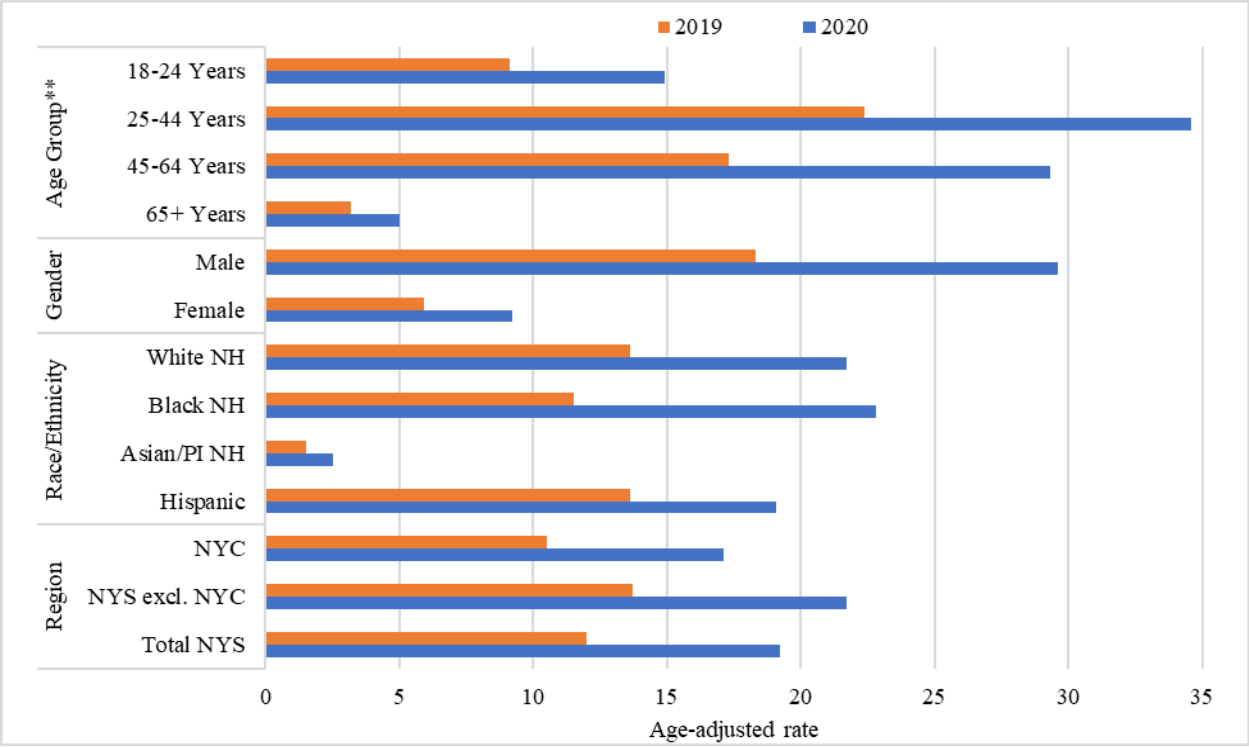
Figure 1.11 Overdose deaths involving any opioid, age-adjusted* rate per 100,000 population, by sub-population, New York State, 2019 and 2020



*Age groups show crude rates.
Data source: CDC WONDER; Accessed January 2022
For complete data, see Appendix: Data Table 1.11.

In NYS during 2020, the crude rates of overdose death involving SOOTM were highest among those aged 25-44 years (34.6 per 100,000 population) and 45-64 years (29.3 per 100,000) (Figure 1.12). The age-adjusted rates of overdose death involving SOOTM were highest among males (29.6 per 100,000), Black non-Hispanic (22.8 per 100,000) and White non-Hispanic (21.7 per 100,000) individuals, and residents of NYS excluding NYC (21.7 per 100,000). Compared to 2019, the rates of overdose death involving SOOTM were significantly higher in 2020 across all demographic sub-groups, with the rate among Black non-Hispanic individuals (22.8 per 100,000) increasing by twice that in 2019 (11.5 per 100,000).

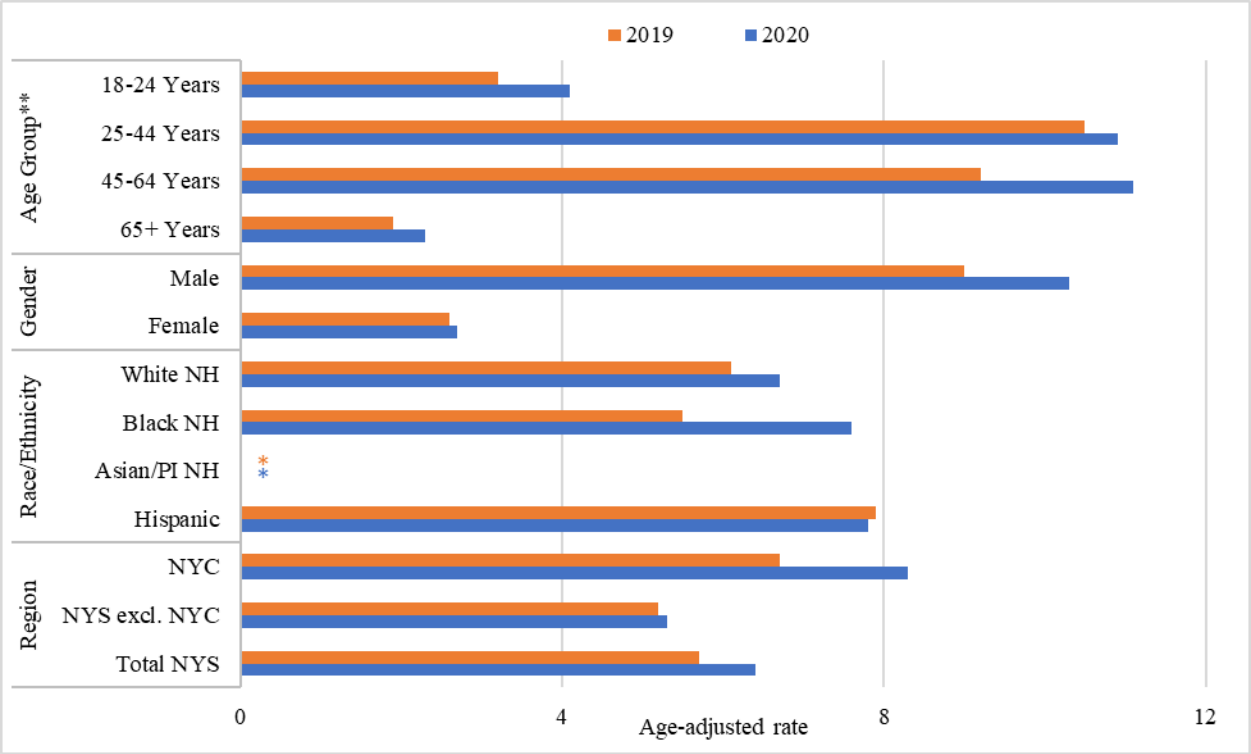
Figure 1.12 Overdose deaths involving synthetic opioids other than methadone*, age-adjusted* rate per 100,000 population, by sub-population, New York State, 2019 and 2020



*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: CDC WONDER; Accessed January 2022
**Age groups show crude rates.
For complete data, see Appendix: Data Table 1.12.

In NYS during 2020, the crude rates of overdose death involving heroin were highest among those aged 45-64 years (11.1 per 100,000 population) and 25-44 years (10.9 per 100,000) (Figure 1.13). The age-adjusted rates of overdose death involving heroin were highest among males (10.3 per 100,000), Hispanic (7.8 per 100,000) and Black non-Hispanic (7.6 per 100,000) individuals, and residents of NYC (8.3 per 100,000). The rates in 2020 were higher across all demographic sub-groups than in 2019, except among Hispanic individuals, with the largest percentage increase observed among Black non-Hispanic individuals (38.2 percent).

Figure 1.13 Overdose deaths involving heroin, age-adjusted rate per 100,000 population, by sub-population, New York State, 2019 and 2020**



*: Rates are unreliable for years with fewer than 20 deaths and are therefore not shown.
**Age groups show crude rates.
Data source: CDC WONDER; Accessed January 2022
For complete data, see Appendix: Data Table 1.13.

2 - Naloxone Administrations

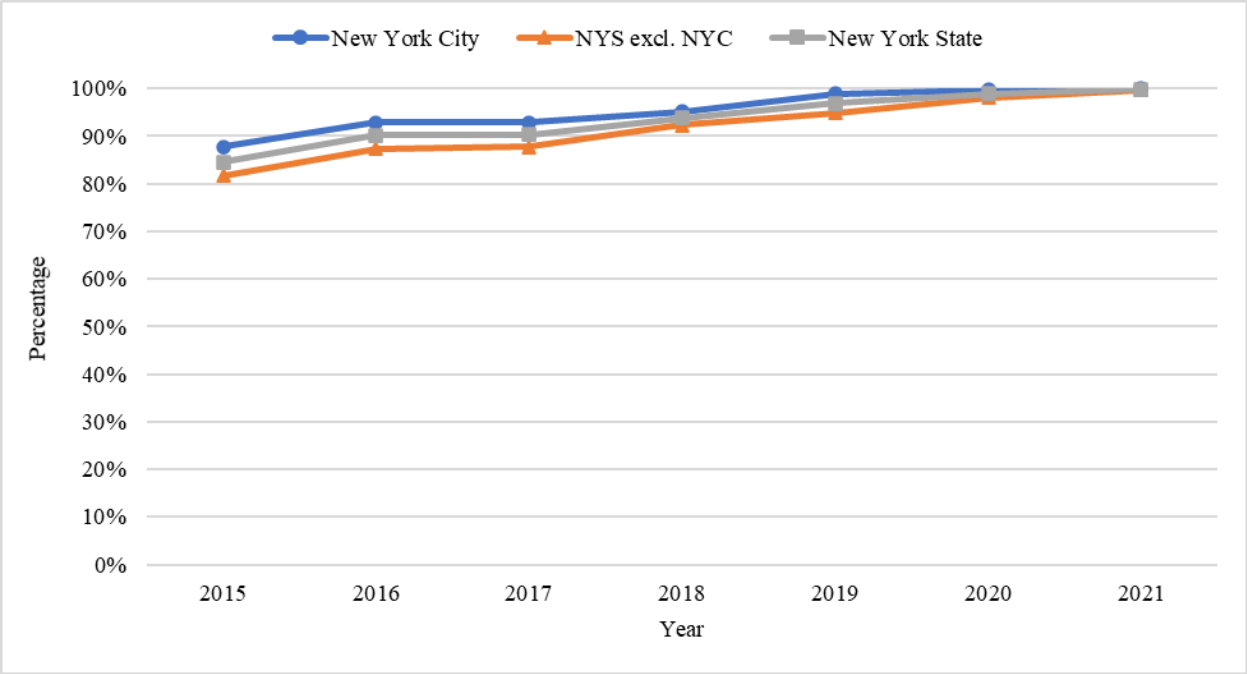
Naloxone (Narcan® and other name brands) is an opioid antagonist used in the event of a suspected opioid overdose. Administrations of naloxone are given for patients presenting with signs and symptoms of a potential opioid overdose.

Naloxone Administrations by Emergency Medical Services

Although naloxone has been used for decades by Advanced Life Support (ALS) EMS agencies, naloxone use by Basic Life Support (BLS) EMS agencies is more recent. Many areas of NYS rely on BLS agencies to provide emergency medical response through Emergency Medical Technicians (EMTs) and Certified First Responders (CFRs). Equipping BLS agencies with intranasal naloxone has significantly expanded the reach of this life-saving medicine into communities where it is needed. EMS agencies provide the most naloxone administrations to suspected overdose events 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 more complete electronic documentation and reporting of 911 EMS dispatches by EMS agencies, the better local coverage, and accurate data for naloxone administrations. In 2021, 99.8 percent of total 911 EMS dispatches in NYS was reported electronically, an increase from 84.6 percent in 2015 (Figure 2.1). This improvement in regional trends for New York City (NYC) and NYS excluding NYC during 2015-2021 followed similar patterns to NYS total. Electronic coverage increased from 87.8 percent in 2015 to 100 percent in 2021 in NYC and increased from 81.7 percent to 99.7 percent in NYS excluding NYC.

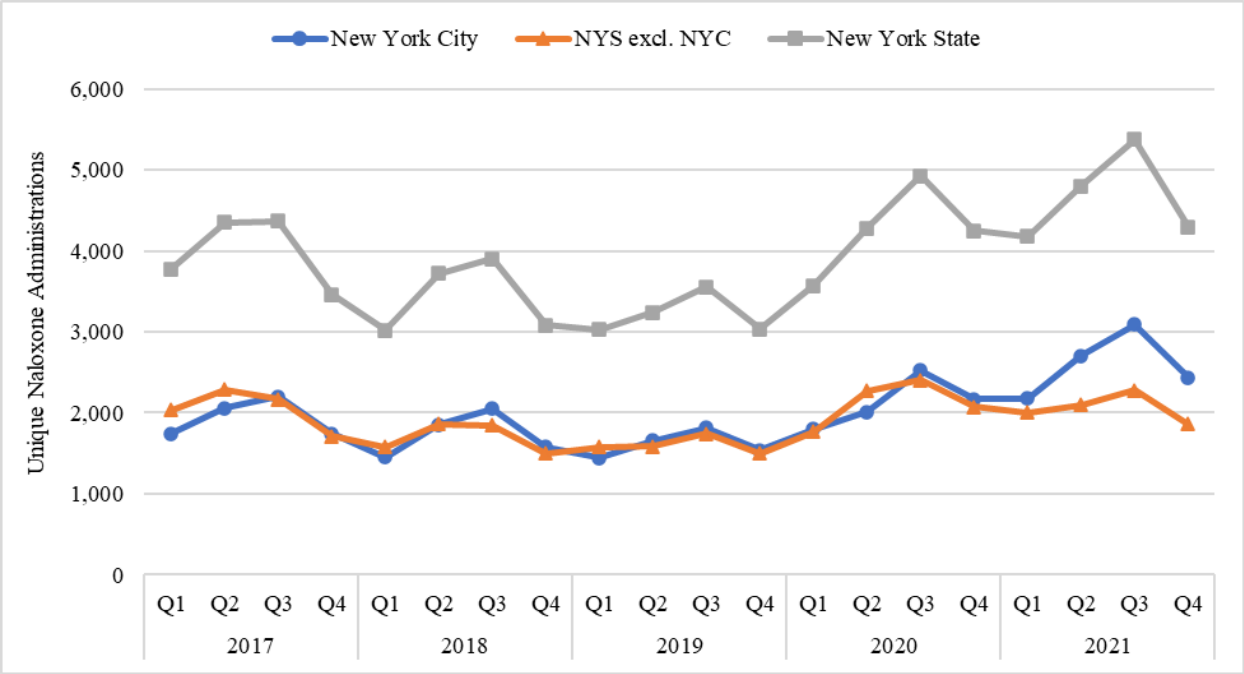
Figure 2.1 Percentage of 911 EMS dispatches reported electronically, by region, New York State, 2015-2021



Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of May 2022
For complete data, see Appendix: Data Table 2.1.

The number of electronically reported unique naloxone administrations by EMS in NYS increased by 9.6 percent, from 17,026 in 2020 to 18,653 in 2021 (Figure 2.2). During that time, Quarter 3 of 2021 had the highest number of reported administrations (5,373).

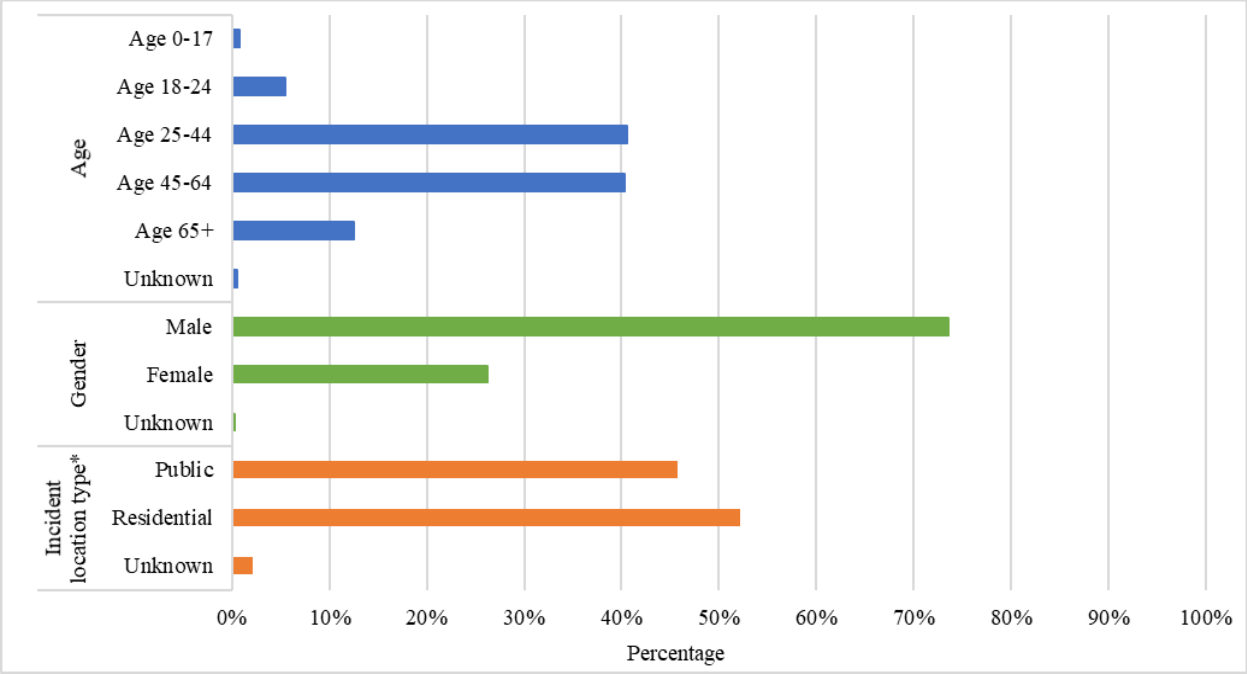
Figure 2.2 Unique naloxone administrations by EMS agencies, by region, New York State, 2017-2021



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 May 2022
For complete data, see Appendix: Data Table 2.2.

In 2021, unique naloxone administrations were highest among individuals aged 25-44 years (7,557 administrations or 40.5 percent), closely followed by those aged 45-64 years (7,514 administrations or 40.3 percent) (Figure 2.3). Most unique naloxone administrations by EMS personnel involved males (13,731 administrations or 73.6 percent). Akin to the overdose deaths shown in Figure 1.6, the majority of EMS unique naloxone administrations occurred in residential settings (9,171 administrations or 52.0 percent).

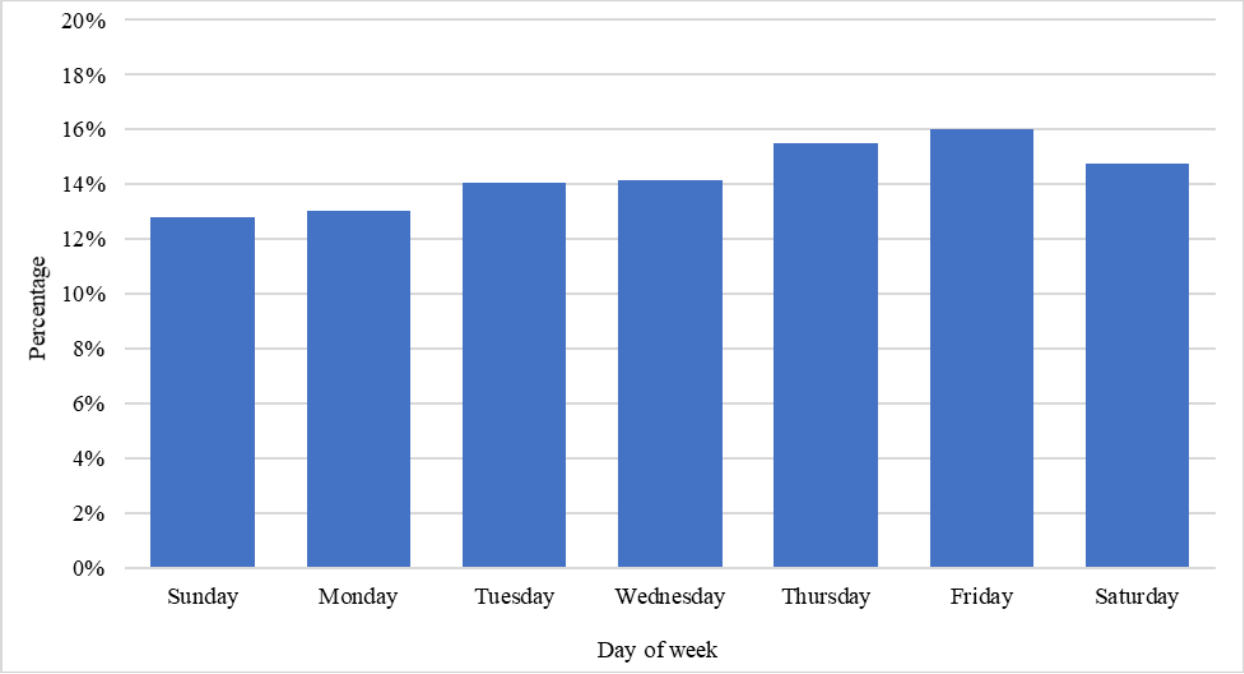
Figure 2.3 Unique naloxone administrations by EMS agencies, by age group, gender, and incident location type*, New York State, 2021



*Incident location type is incomplete for Suffolk County.
Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of May 2022.
For complete data, see Appendix: Data Table 2.3.

In 2021, Friday was the day of the week during which the highest number of unique naloxone administrations by EMS occurred (2,976 administrations or 16.0 percent), followed by Thursday with 15.5 percent and Saturday with 14.8 percent (Figure 2.4). This highlights the need for individuals using substances such as opioids, as well as cocaine and other drugs, to obtain naloxone in their communities and have it available over weekends. The fewest administrations occurred on Sunday (2,380 or 12.8 percent) and Monday (2,421 administrations or 13.0 percent). The distribution of unique administrations was roughly even across months of the year, with counts slightly higher during the summer months and slightly lower during the winter (data not shown). The month with the highest number of naloxone administrations in 2021 was July (1,896 administrations or 11.8 percent), while the month with the lowest number was February (1,166 administrations or 7.3 percent).

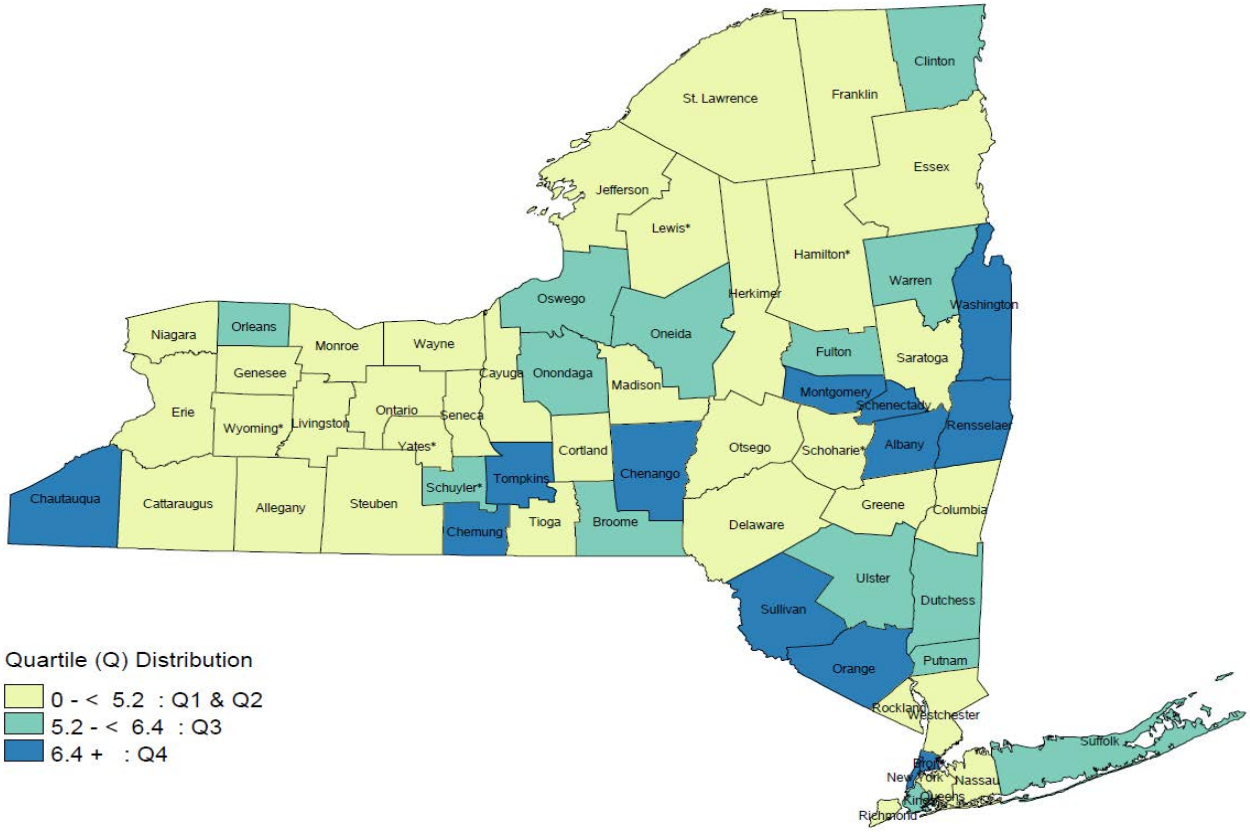
Figure 2.4. Unique naloxone administrations by EMS agencies, by incident day of week, New York State, 2021



Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of May 2022
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 2021. The counties shown in blue had the highest crude rates (rates greater than or equal to 6.40 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 2021 were Chenango, Rensselaer, Chemung, Bronx, New York, Albany, Tompkins, Schenectady, Orange, and Sullivan. 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*, 2021



* 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 May 2022
For complete data, see Appendix: Data Table 2.5.

Naloxone Administrations by Community Programs

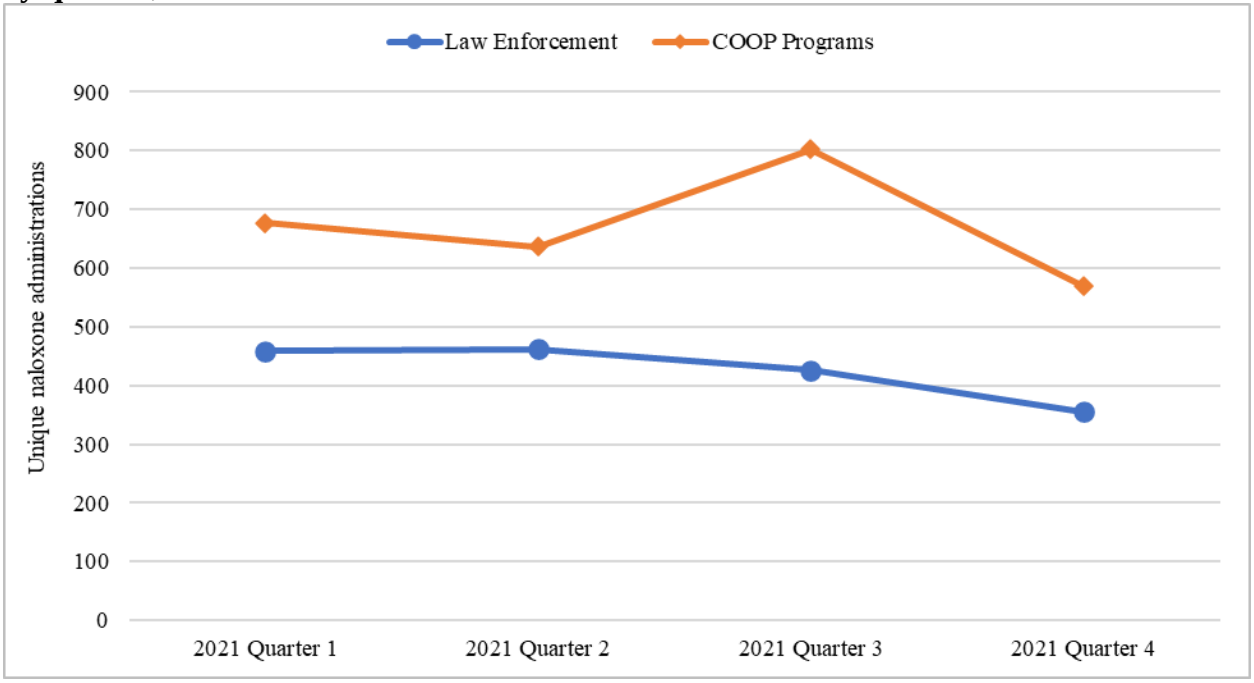
NYS is a leader in the implementation of public health programming to prevent death from opioid overdoses. The Department of Health's ODUH uses a harm reduction approach with programmatic roots in the State's network of 25 syringe exchange programs. It also has an emphasis on expanding access to Medication 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.

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 2021 from EMS (n = 18,653), law enforcement (n = 1,702), and COOP programs (n = 2,685) (Appendix: Data Table 2.9). For additional information about the State's Harm Reduction programs, please see the Opioid Annual Report, 2020. 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 expansion of program 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 2021, law enforcement agencies reported the highest number of naloxone administrations in April through June (Quarter 2) and January through March (Quarter 1), and community opioid overdose prevention programs agencies reported the highest number of naloxone administrations in July through September (Quarter 3) (Figure 2.6).

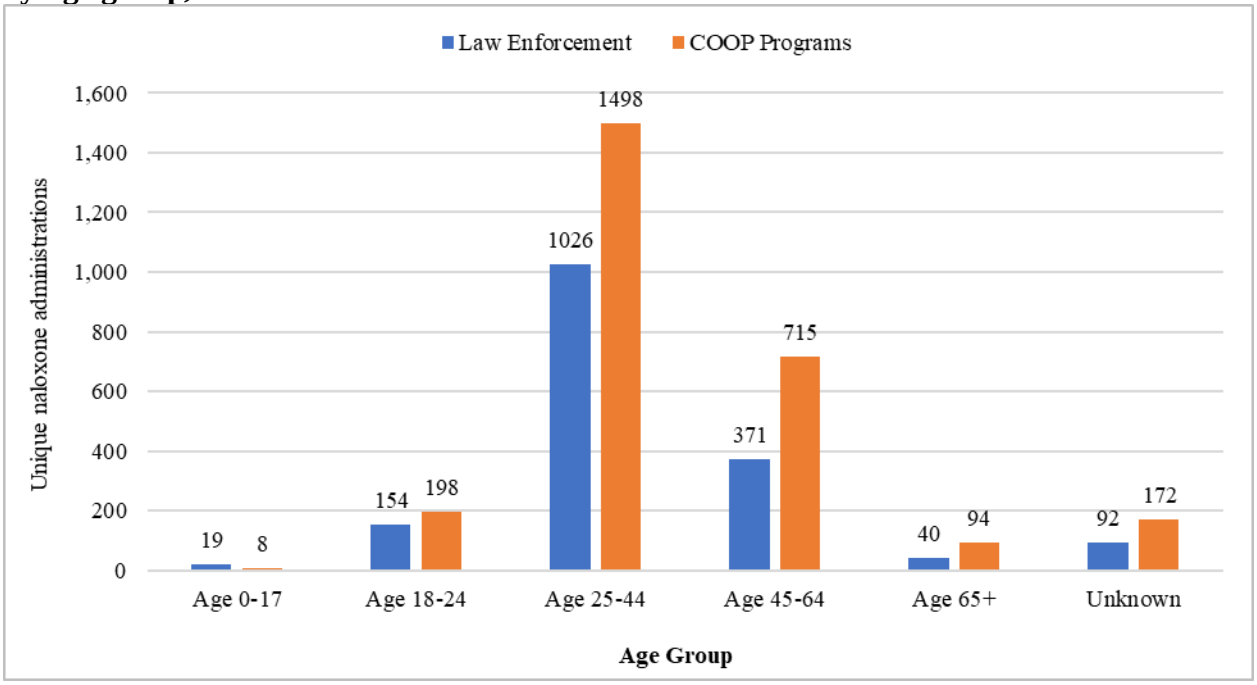
Figure 2.6 Naloxone administration reports by law enforcement and community programs, by quarter, New York State 2021



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 2022
For complete data, see Appendix: Data Table 2.6.

In NYS during 2021, 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).

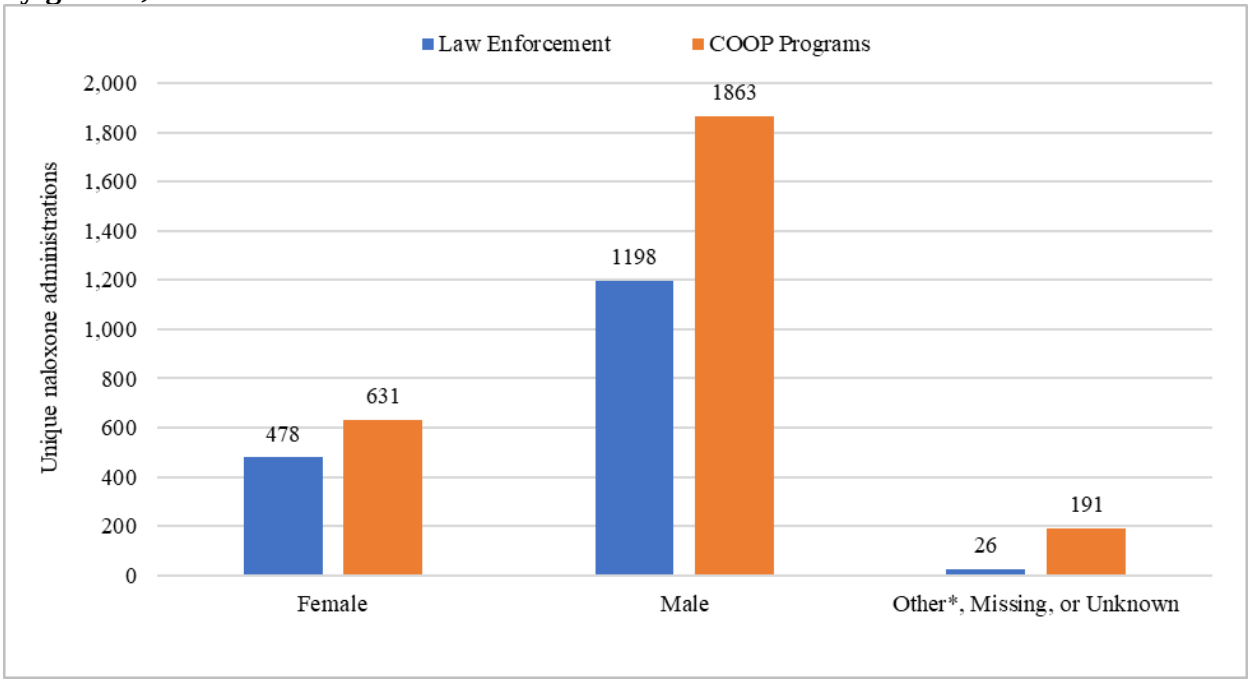
Figure 2.7 Naloxone administration reports by law enforcement and community programs, by age group, New York State 2021



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 2022
For complete data, see Appendix: Data Table 2.7.

In NYS during 2021, most naloxone administrations were for males according to reports from both law enforcement agencies and community opioid overdose prevention programs. This was similar to the pattern among EMS administrations (Figure 2.8).

Figure 2.8 Naloxone administration reports by law enforcement and community programs, by gender, New York State 2021



* 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 2022
For complete data, see Appendix: Data Table 2.8.

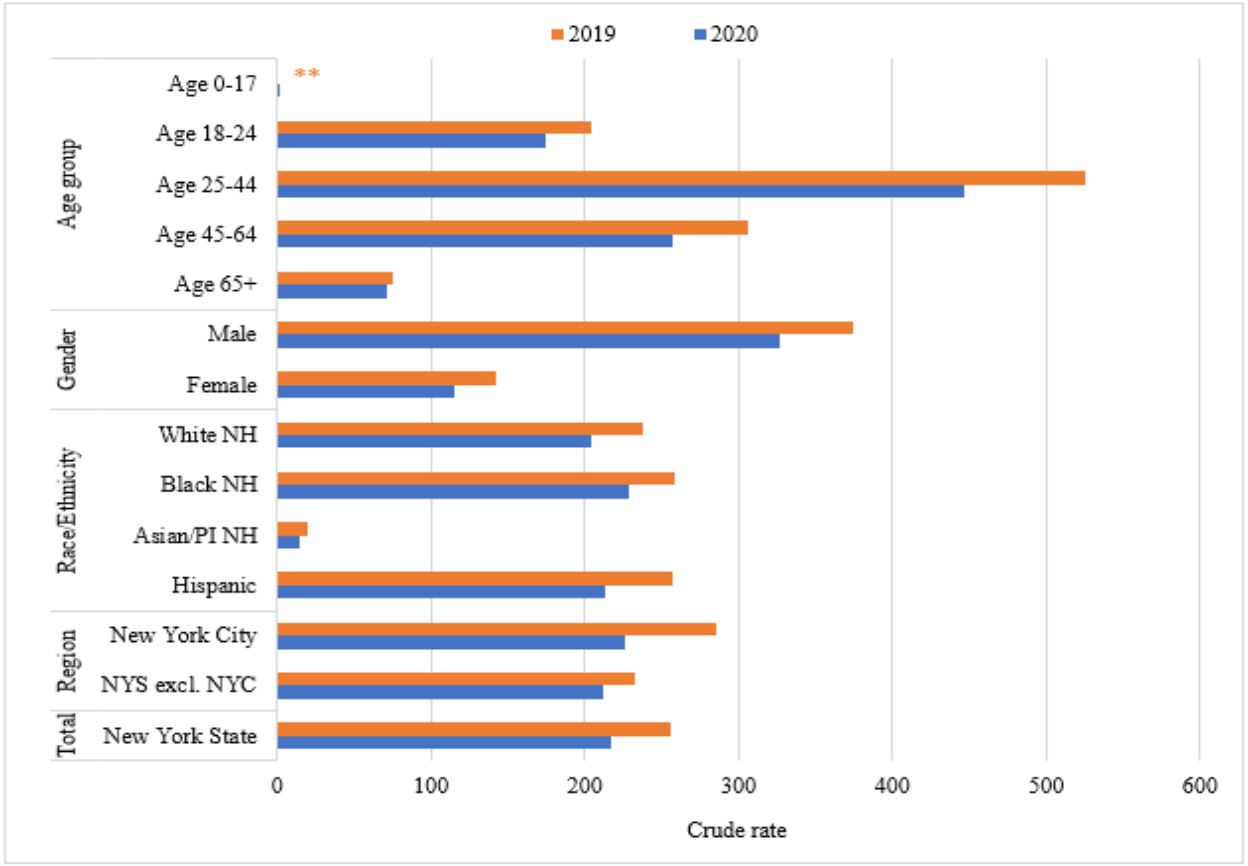
3 - Hospitalization and Emergency Visits Data

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 burden, including opioid overdose deaths, non-fatal outpatient ED visits and hospital discharges involving opioid overdose, abuse, dependence, and unspecified use. Collectively, these are opioid events that represent the overall health burden of opioids within NYS. In 2020, among NYS residents, there were 42,551 opioid burden events, representing a crude rate of 217.7 per 100,000 population. (Figure 3.1). The rate was highest among those aged 25-44 years (447.3 per 100,000), followed by the rate among those aged 45-64 years (257.5 per 100,000). The rate was nearly three times higher among males (326.4 per 100,000) than that among females (115.0 per 100,000). The rate in 2020 was highest among Black non-Hispanic (NH) individuals (228.7 per 100,000), followed by the rates among Hispanic individuals (212.7 per 100,000), and White NH individuals (203.6 per 100,000). In 2020, NYC had a higher rate (225.7 per 100,000) than NYS excluding NYC (211.7 per 100,000).

Figure 3.1 Opioid burden (including opioid overdose deaths, non-fatal outpatient ED visits and hospital discharges involving opioid overdose, abuse, dependence, and unspecified use), crude rate per 100,000 population, by sub-population, New York State, 2019 and 2020*



*The discharge volume for 2020 were impacted by COVID-19 and do not represent a typical year for discharges.

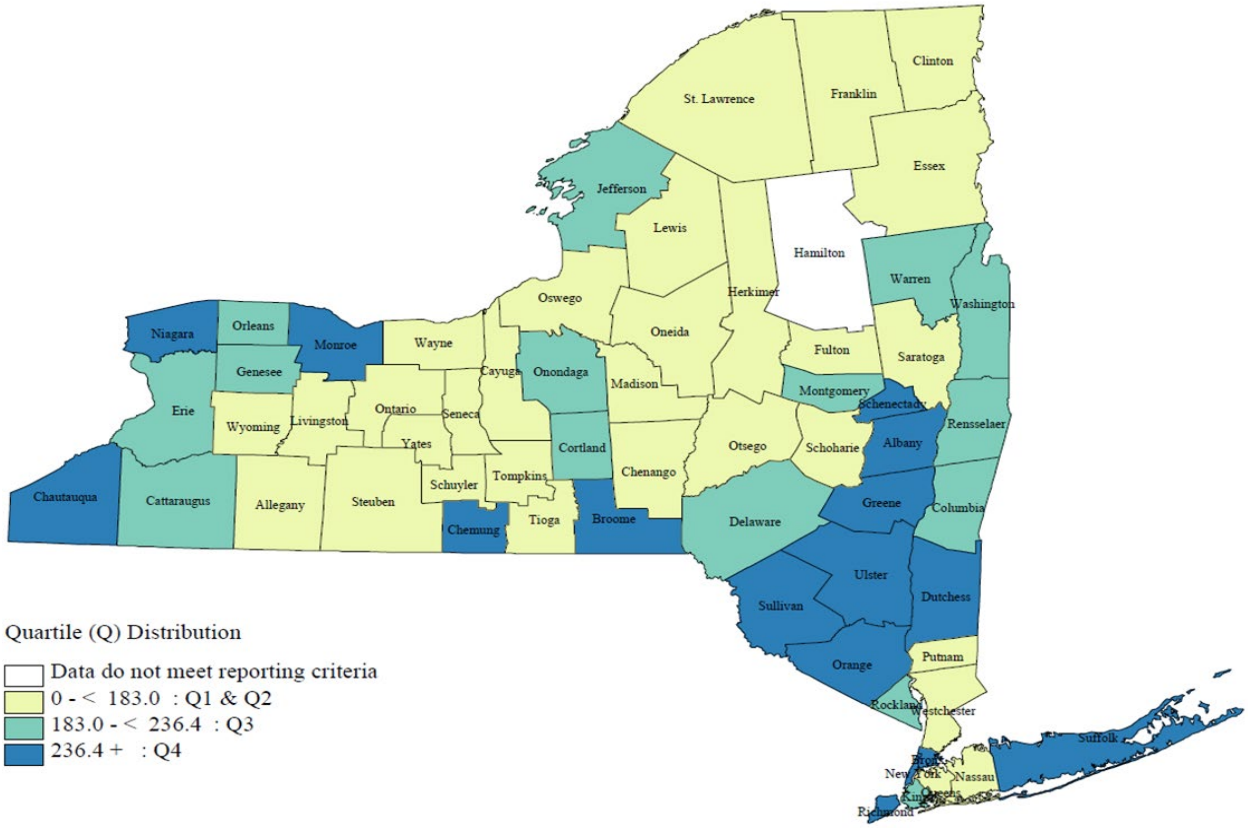
**: Data do not meet reporting criteria.

Data source: CDC WONDER, Data accessed May 2022; New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), Data as of April 2022

For complete data, see Appendix: Data Table 3.1.

In 2020, the 16 counties with opioid burden (including opioid overdose deaths, non-fatal outpatient ED visits and hospital discharges involving opioid overdose, abuse, dependence, and unspecified use) in the highest quartile (crude rates greater than or equal to 236.4 per 100,000 population) were: Chautauqua, Sullivan, Bronx, Ulster, Dutchess, Niagara, Schenectady, Greene, Broome, New York, Orange, Suffolk, Chemung, Richmond, Monroe, and Albany (Figure 3.2).

Figure 3.2 Opioid burden (including opioid overdose deaths, non-fatal outpatient ED visits and hospital discharges involving opioid overdose, abuse, dependence, and unspecified use), crude rate per 100,000 population, by county, New York State, 2020*



*The discharge volume for 2020 were impacted by COVID-19 and do not represent a typical year for discharges.

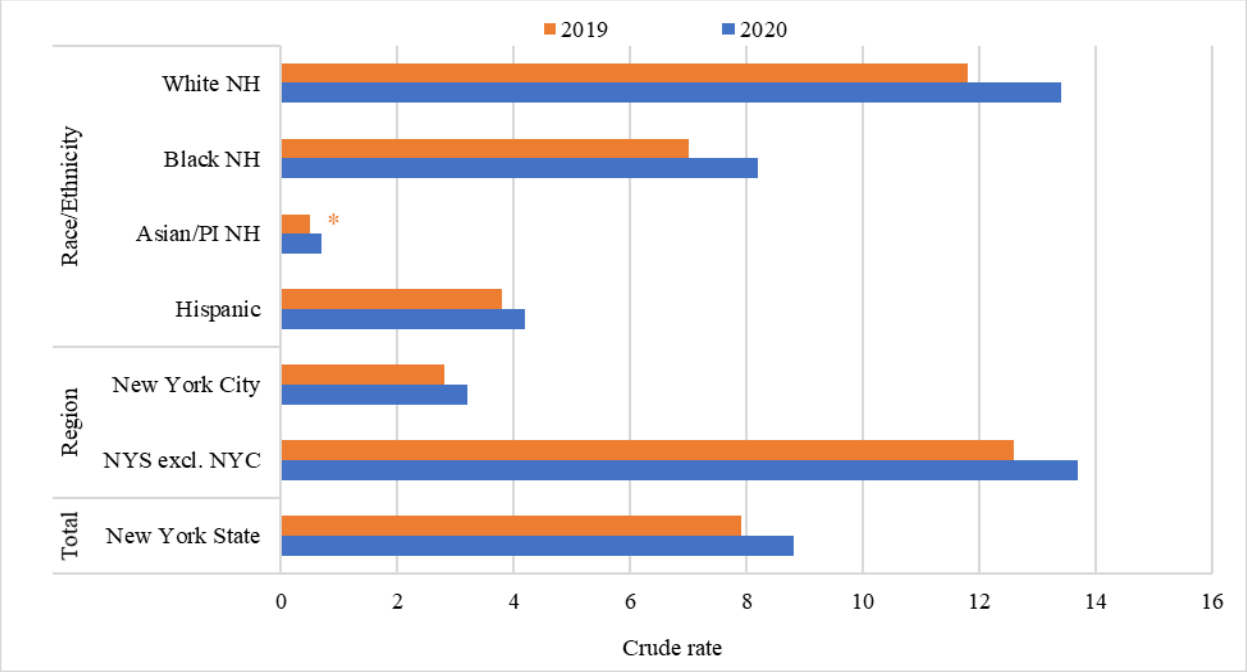
Data sources: NYS Excl NYC death data from New York State Department of Health, Bureau of Vital Statistics, as of January 2022; NYC death data from CDC WONDER, as of April 2022; ED Visits and Hospital Discharges from New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), as of April 2022

For complete data, see Appendix: Data Table 3.2.

Neonatal Abstinence Syndrome

Among NYS residents, the number of newborns with Neonatal Abstinence Syndrome (NAS) and/or affected by maternal use of drugs of addiction increased from 1,632 in 2019 to 1,726 in 2020, and the crude rate per 1,000 newborn discharges increased from 7.9 to 8.8 (Figure 3.3). In 2020, the rate was highest among White NH newborns (13.4 per 1,000), followed by the rates among Black NH (8.2 per 1,000), and Hispanic newborns (4.2 per 1,000). In 2020, the rate for NYS excluding NYC (13.7 per 1,000) was over four times higher than NYC (3.2 per 1,000).

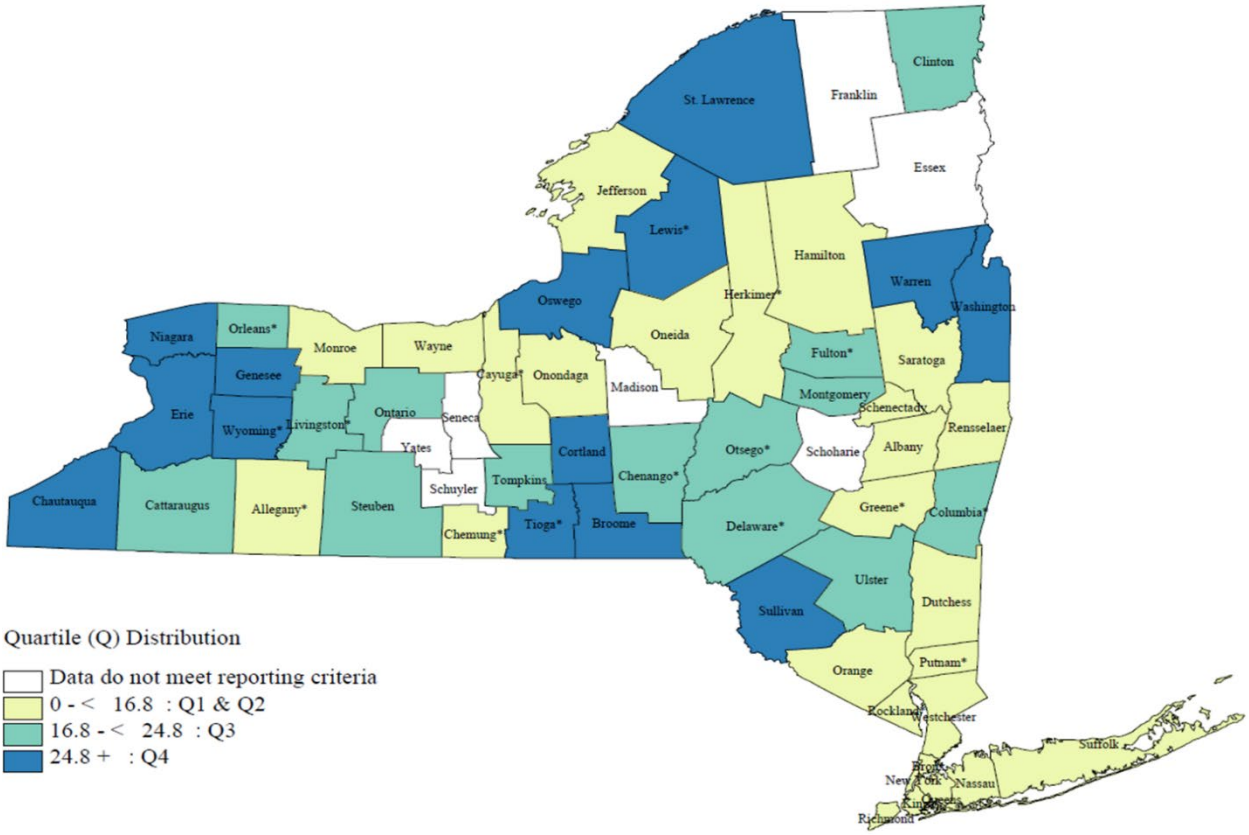
Figure 3.3 Newborns with neonatal abstinence syndrome and/or affected by maternal use of drugs of addiction (any diagnosis), crude rate per 1,000 newborn discharges, by sub-population, New York State, 2019 and 2020



*: 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 April 2022
For complete data, see Appendix: Data Table 3.3.

In 2020, the 14 counties in the highest quartile (crude rates greater than or equal to 24.8 per 1,000 newborn discharges) for newborns with NAS and/or affected by maternal use of drugs of addiction were Sullivan, Oswego, Cortland, Niagara, Lewis, Chautauqua, Broome, Genesee, Washington, St. Lawrence, Tioga, Erie, Wyoming, and Warren (Figure 3.4).

Figure 3.4 Newborns with neonatal abstinence syndrome and/or affected by maternal use of drugs of addiction (any diagnosis), crude rate per 1,000 newborn discharges, by county, New York State, 2020

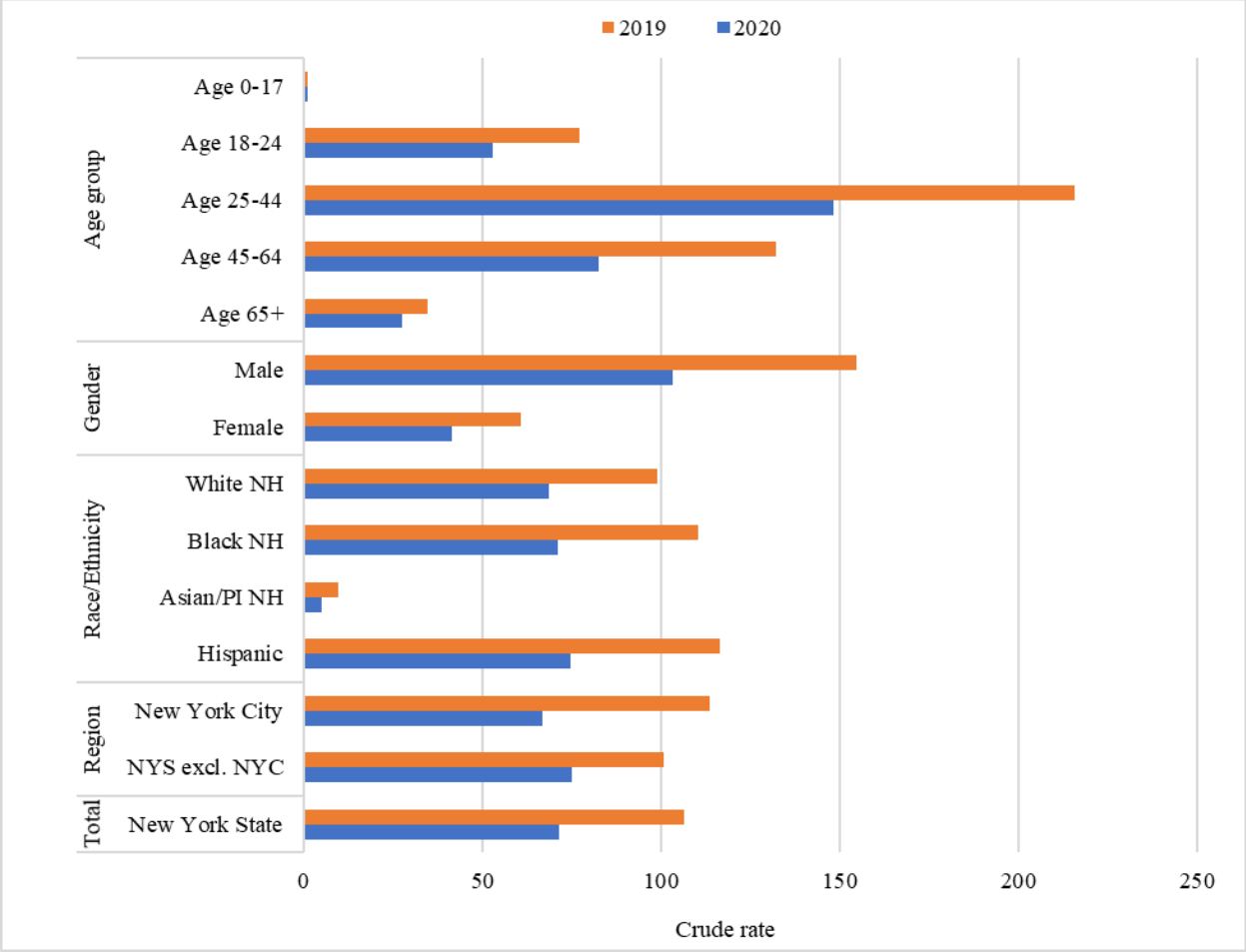


*: Fewer than 10 events in the numerator, therefore the rate is unstable.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of April 2022
For complete data, see Appendix: Data Table 3.4.

Hospital Discharges

Among NYS residents in 2020, there were 13,976 hospital discharges for opioid use (including overdose, abuse, dependence, and unspecified use), representing a crude rate of 71.5 per 100,000 population. (Figure 3.5). In 2020, the rate was highest among those aged 25-44 years (148.1 per 100,000), followed by the rates among those aged 45-64 years (82.4 per 100,000). The rate among males (103.1 per 100,000) was two and a half times higher than that among females (41.6 per 100,000). The rate was highest among Hispanic individuals (74.6 per 100,000), followed by the rates among Black NH individuals (71.1 per 100,000) and White NH individuals (68.5 per 100,000). NYS excluding NYC (75.0 per 100,000) had a higher rate than NYC (66.8 per 100,000).

Figure 3.5 Hospital discharges involving opioid use (including overdose, abuse, dependence, and unspecified use), crude rate per 100,000 population, by sub-population, New York State, 2019 and 2020*



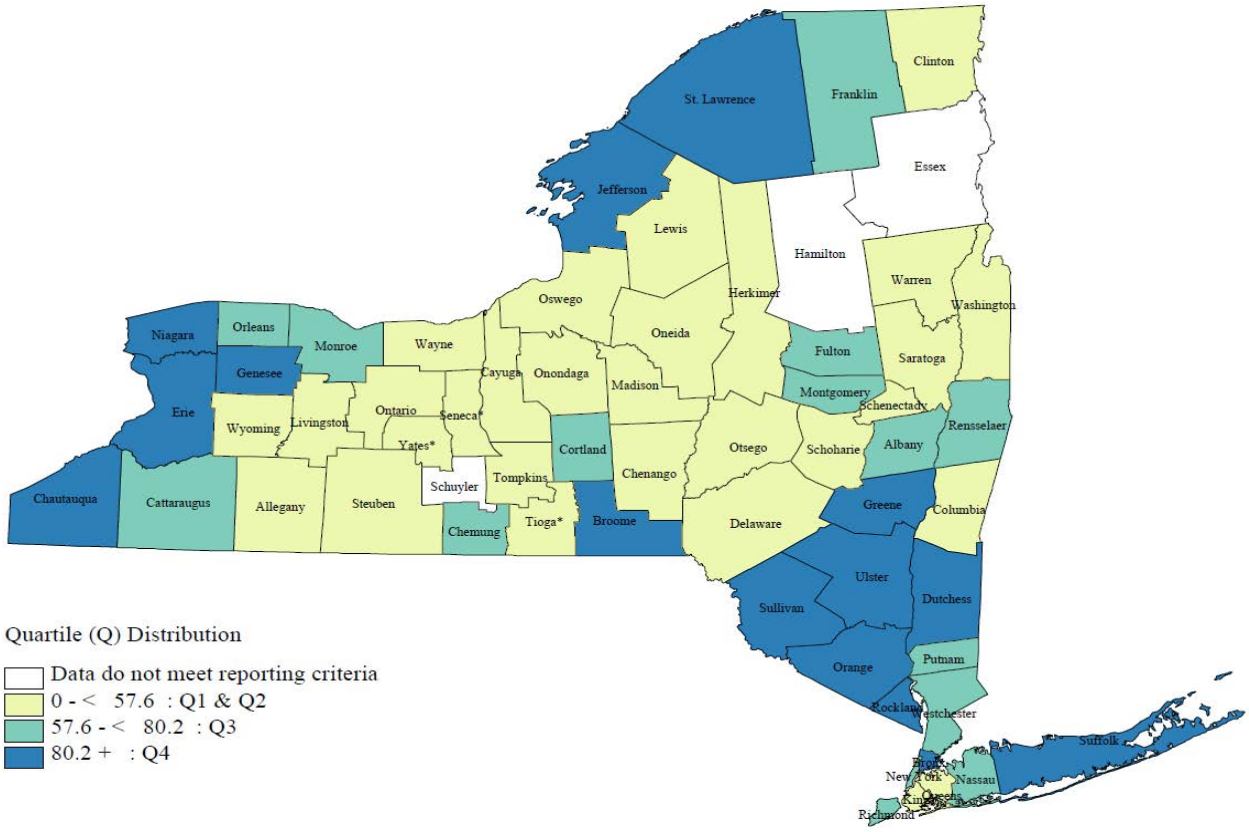
*The discharge volume for 2020 were impacted by COVID-19 and do not represent a typical year for discharges.

Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of April 2022

For complete data, see Appendix: Data Table 3.5.

The 15 counties in the highest quartile (crude rates greater than or equal to 80.2 per 100,000 population) for hospital discharges due to opioid use (including overdose, abuse, dependence, and unspecified use) in 2020 were Chautauqua, Dutchess, Sullivan, Bronx, Ulster, Niagara, St. Lawrence, Orange, Rockland, Jefferson, Suffolk, Broome, Erie, Genesee, and Greene (Figure 3.6).

Figure 3.6 Hospital discharges involving opioid use (including overdose, abuse, dependence, and unspecified use), crude rate per 100,000 population, by county, New York State, 2020^



^The discharge volume for 2020 were impacted by COVID-19 and do not represent a typical year for discharges.

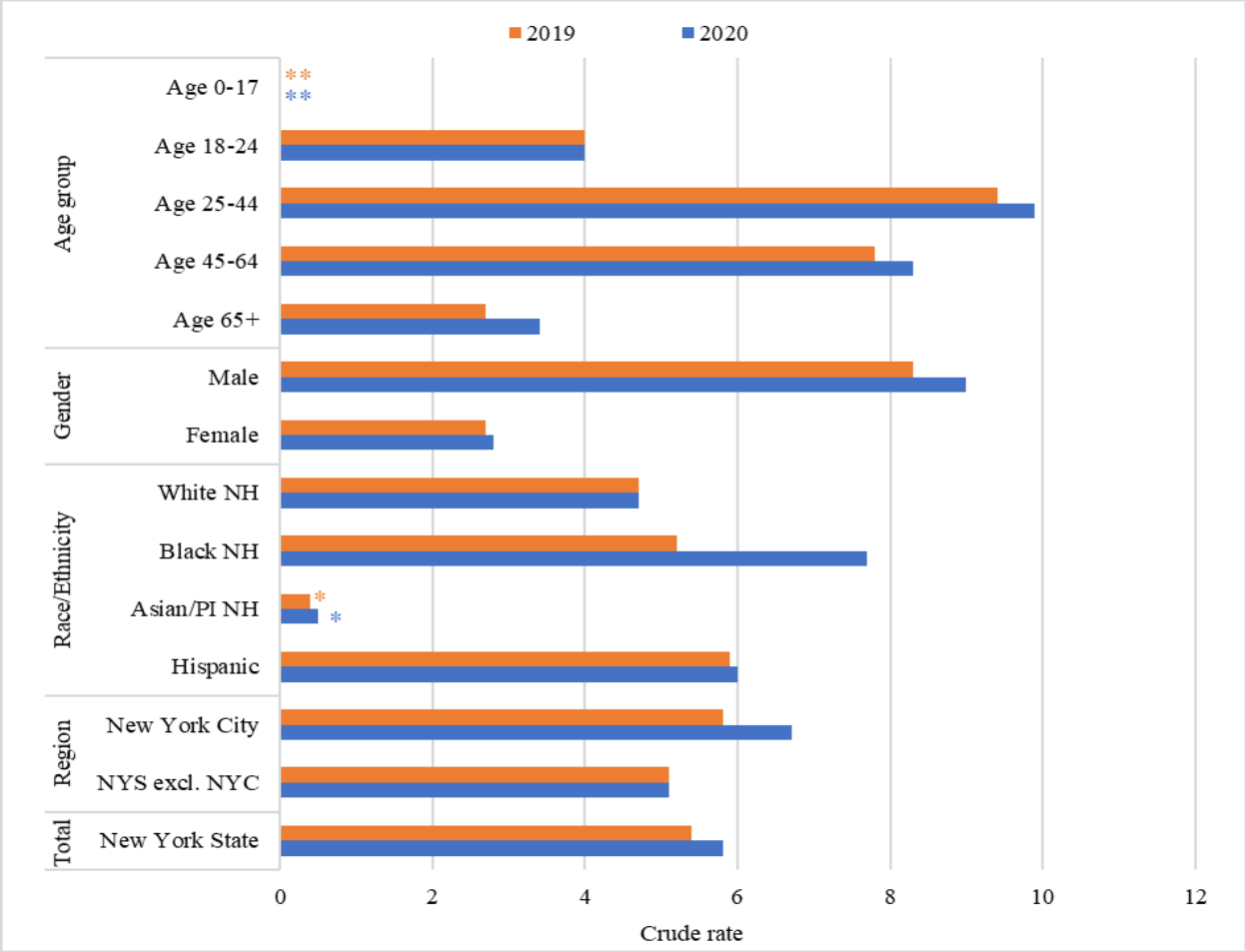
*: Fewer than 10 events in the numerator, therefore the rate is unstable.

Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of April 2022

For complete data, see Appendix: Data Table 3.6.

Among NYS residents, the number of hospital discharges involving heroin overdose increased from 1,061 in 2019 (5.4 per 100,000) to 1,138 in 2020 (5.8 per 100,000) (Figure 3.7). In 2020, the rate was highest among those aged 25-44 years (9.9 per 100,000), followed by the rate among those aged 45-64 years (8.3 per 100,000). The 2020 rate was about three times higher among males (9.0 per 100,000) than that among females (2.8 per 100,000). The rate in 2020 was highest among Black NH individuals (7.7 per 100,000), followed by the rates among Hispanic individuals (6.0 per 100,000) and White NH individuals (4.7 per 100,000), while the rate in 2019 was highest among Hispanic individuals (5.9 per 100,000). In 2020, NYC had a higher rate (6.7 per 100,000) than NYS excluding NYC (5.1 per 100,000).

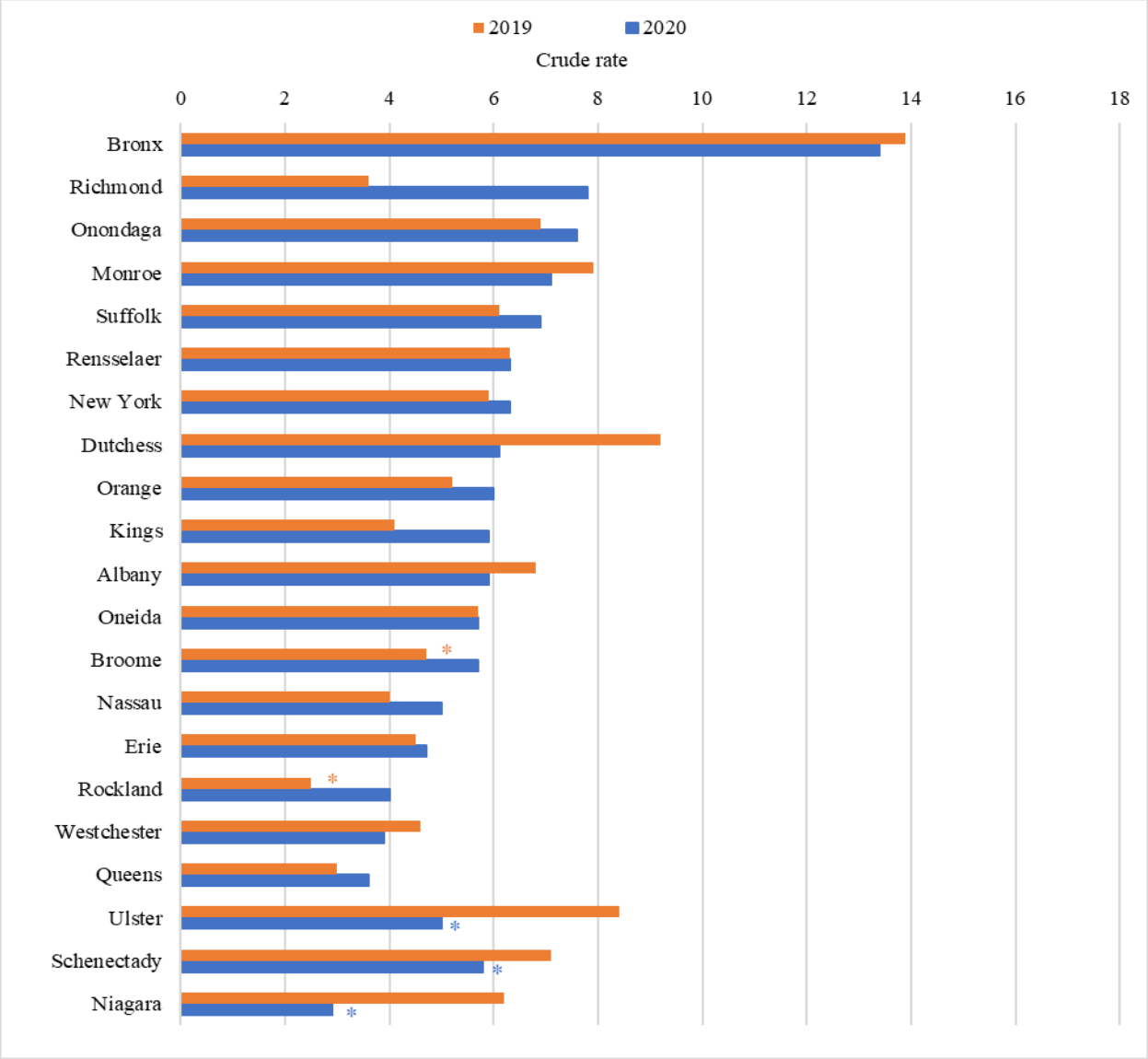
Figure 3.7 Hospital discharges involving heroin overdose, crude rate per 100,000 population, by sub-population, New York State, 2019 and 2020



*: 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 April 2022
For complete data, see Appendix: Data Table 3.7.

In 2020, among counties with ten or more hospital discharges involving heroin overdose, the eleven counties with the highest crude rates were Bronx, Richmond, Onondaga, Monroe, Suffolk, Rensselaer, New York, Dutchess, Orange, Kings, and Albany (Figure 3.8). There were several counties that experienced increases in the 2020 crude rates, including Richmond, Onondaga, Suffolk, Orange, Kings, Nassau, and Queens.

Figure 3.8 Hospital discharges involving heroin overdose, crude rate per 100,000 population, by county, New York State, 2019 and 2020

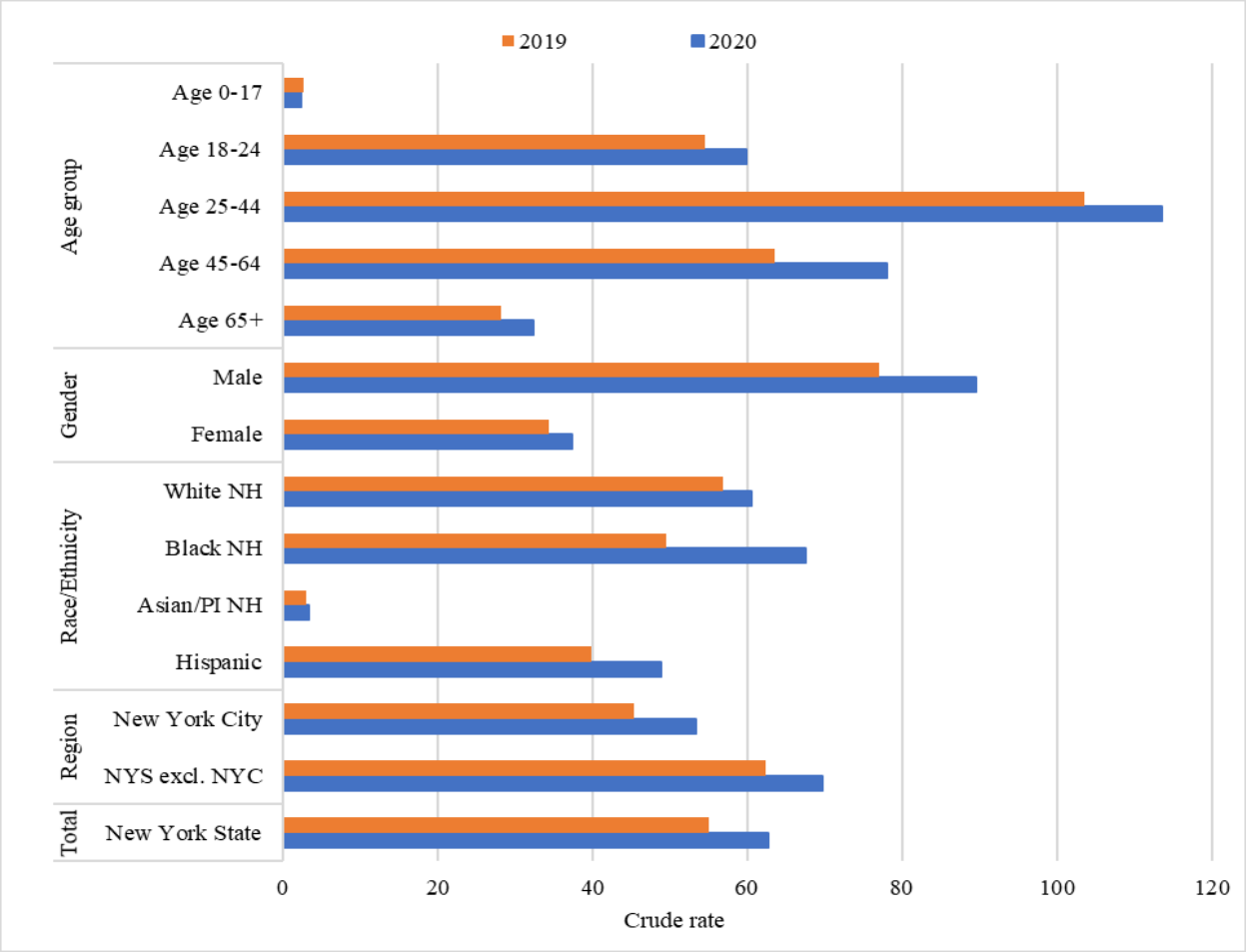


*: Fewer than 10 events in the numerator, therefore the rate is unstable.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of April 2022
For complete data, see Appendix: Data Table 3.8.

Emergency Department Visits

Among NYS residents, the number of all ED visits (including outpatients and patients subsequently admitted) involving any opioid overdose increased from 10,762 in 2019 (55.1 per 100,000) to 12,245 in 2020 (62.7 per 100,000) (Figure 3.9). In 2020, the rate was highest among those aged 25-44 years (113.5 per 100,000), followed by the rate among those aged 45-64 years (78.0 per 100,000). The 2020 rate was more than two times higher among males (89.5 per 100,000) than that among females (37.3 per 100,000). The rate was highest among Black NH individuals (67.5 per 100,000), followed by the rates among White NH individuals (60.5 per 100,000) and Hispanic individuals (48.8 per 100,000), while the rate was highest among White NH individuals (56.9 per 100,000) in 2019. In 2020, NYS excluding NYC (69.7 per 100,000) was 1.3 times higher than NYC (53.3 per 100,000).

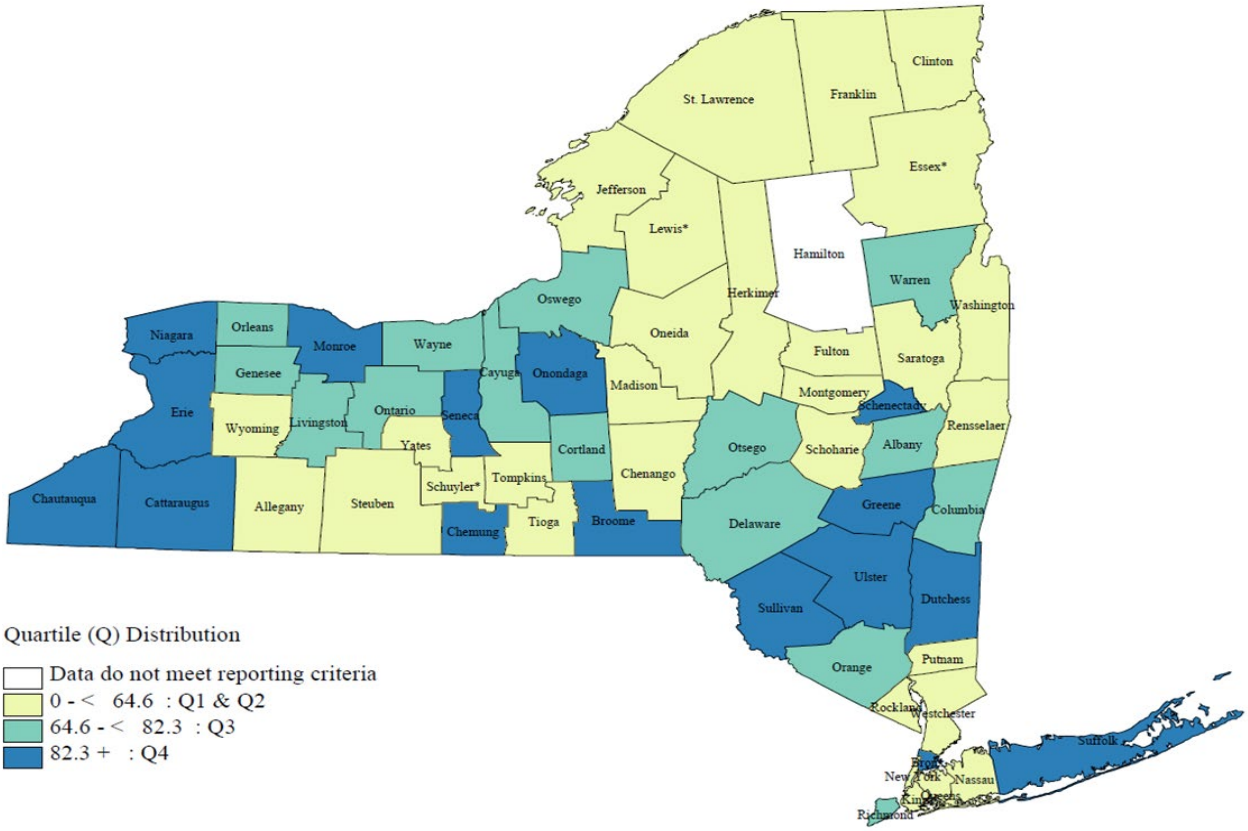
Figure 3.9 All emergency department visits (including outpatients and admitted patients) involving any opioid overdose, crude rate per 100,000 population, by sub-population, New York State, 2019 and 2020



Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of April 2022
For complete data, see Appendix: Data Table 3.9.

In 2020, the 16 counties in the highest quartile (crude rates greater than or equal to 82.3 per 100,000 population) for ED visits due to any opioid overdose were Chautauqua, Sullivan, Ulster, Monroe, Niagara, Schenectady, Bronx, Onondaga, Broome, Chemung, Dutchess, Erie, Cattaraugus, Seneca, Greene, and Suffolk (Figure 3.10).

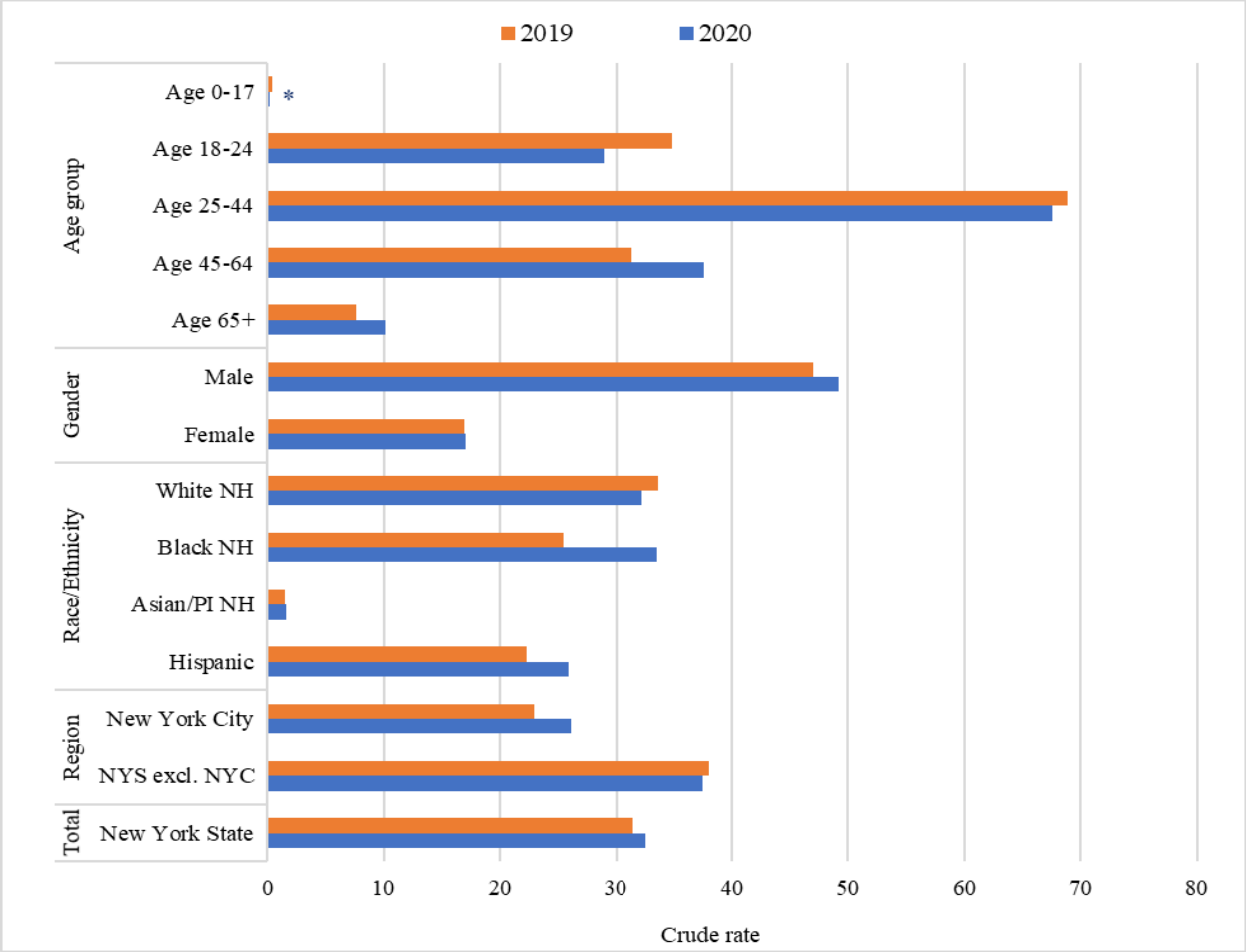
Figure 3.10 All emergency department visits (including outpatients and admitted patients) involving any opioid overdose, crude rate per 100,000 population, by county, New York State, 2020



*: 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 April 2022
For complete data, see Appendix: Data Table 3.10.

Among NYS residents, the number of ED visits (including outpatients and subsequently admitted patients) involving any heroin overdose increased from 6,160 in 2019 (31.5 per 100,000) to 6,376 in 2020 (32.6 per 100,000) (Figure 3.11). In 2020, the rate was highest among those aged 25-44 years (67.5 per 100,000), followed by the rate among those aged 45-64 years (37.6 per 100,000). The rate was more than two and a half times higher for males (49.2 per 100,000) than that for females (17.0 per 100,000). The rate was highest among Black NH individuals (33.5 per 100,000), followed by the rates for White NH individuals (32.2 per 100,000) and Hispanic individuals (25.9 per 100,000), while the rate was highest among White NH individuals (33.7 per 100,000) in 2019. NYS excluding NYC (37.5 per 100,000) had a rate 1.4 times that of NYC (26.1 per 100,000).

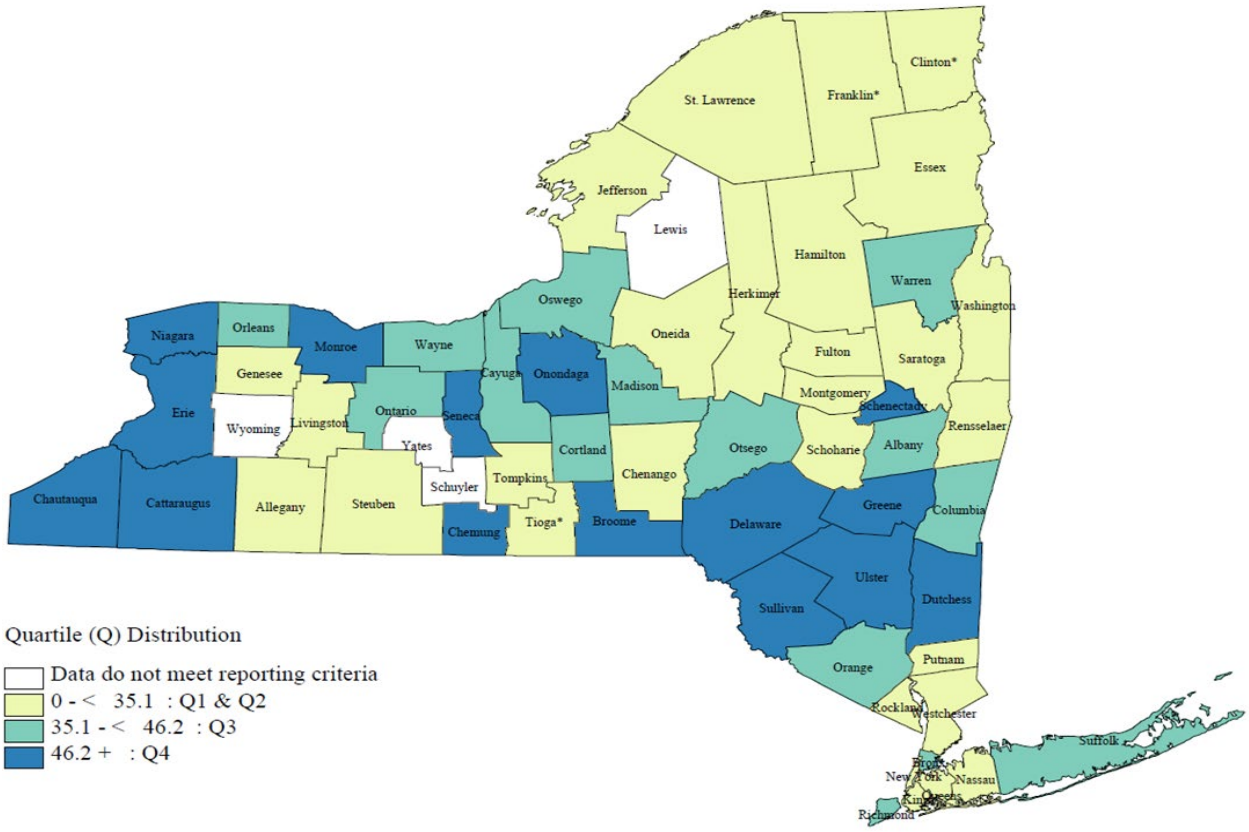
Figure 3.11 All emergency department visits (including outpatients and admitted patients) involving heroin overdose, crude rate per 100,000 population, by sub-population, New York State, 2019 and 2020



*: 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 April 2022
For complete data, see Appendix: Data Table 3.11.

In 2020, the 15 counties in the highest quartile (crude rates greater than or equal to 46.2 per 100,000 population) for ED visits due to heroin overdose were Chautauqua, Sullivan, Broome, Ulster, Greene, Onondaga, Monroe, Chemung, Niagara, Cattaraugus, Schenectady, Dutchess, Delaware, Seneca, and Erie (Figure 3.12).

Figure 3.12 All emergency department visits (including outpatients and admitted patients) involving heroin overdose, crude rate per 100,000 population, by county, New York State, 2020



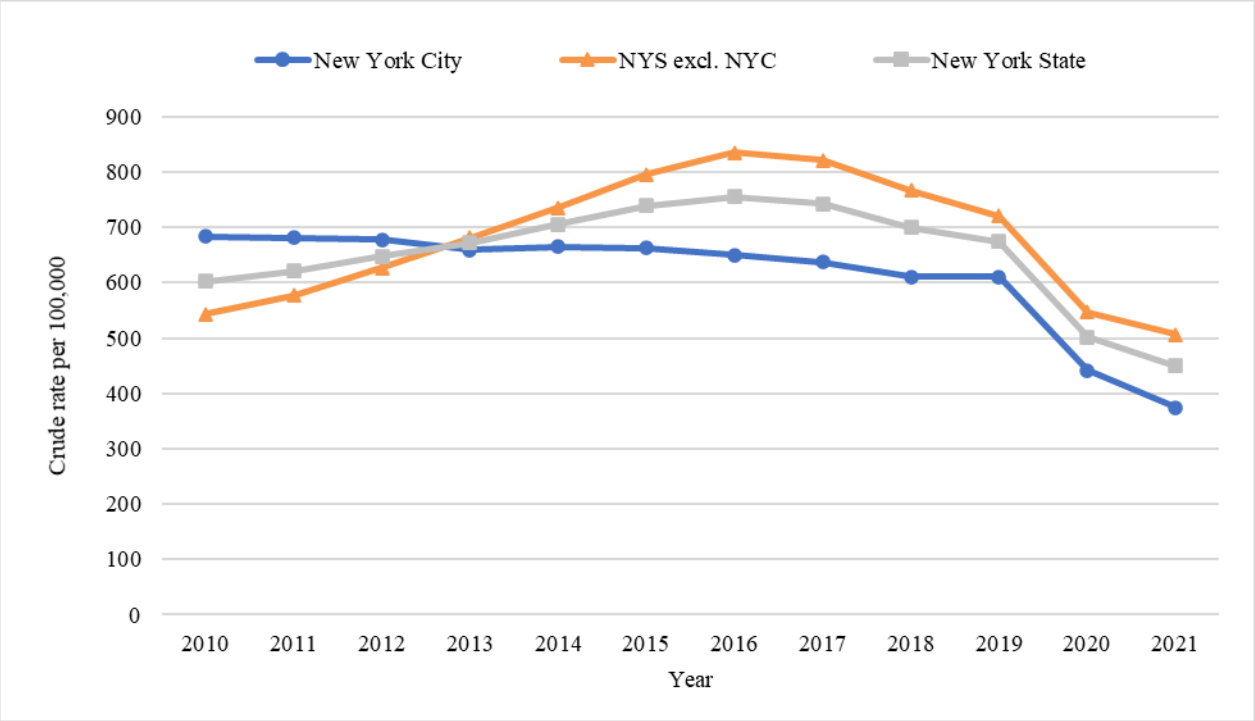
*: Fewer than 10 events in the numerator, therefore the rate is unstable.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of April 2022
For complete data, see Appendix: Data Table 3.12.

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 2021, there were 75,783 admissions to OASAS-certified substance use disorder treatment programs for any opioid, including heroin (Figure 4.1). This represented a crude rate of 450.2 per 100,000 population. Compared to 2020, the 2021 rate for NYS decreased significantly from 502.2 to 450.2 per 100,000 population (10.4 percent). 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, 2010-2021**



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

** Admissions data for 2020 and 2021 were impacted by COVID-19 and do not represent a typical year for admissions.

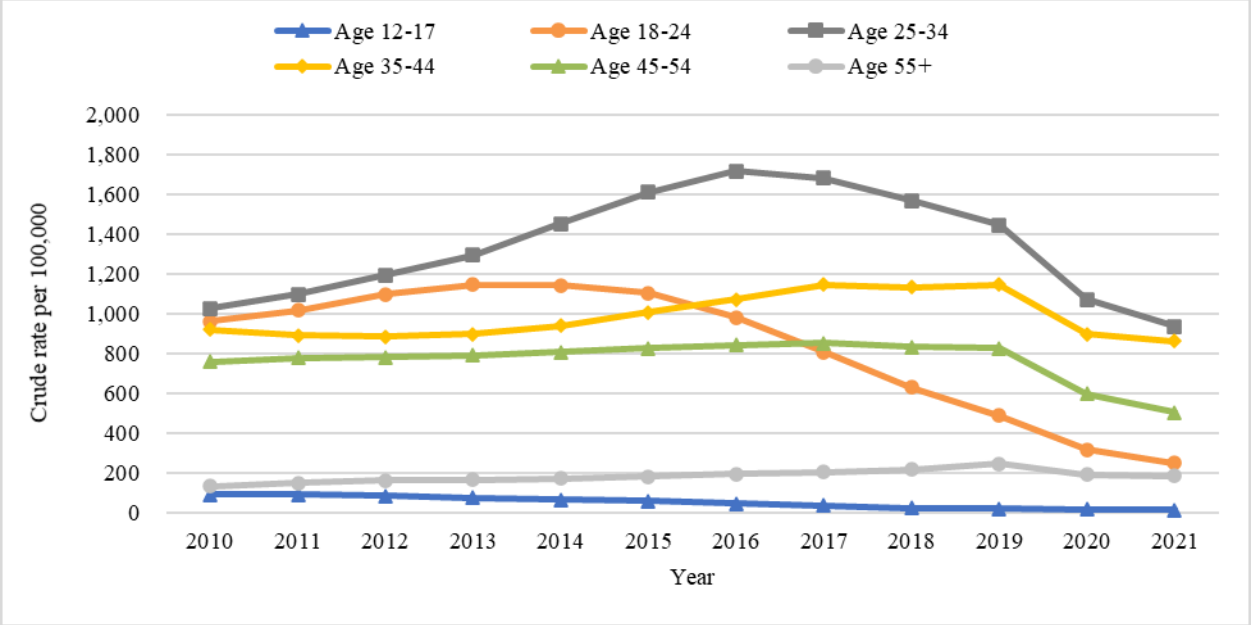
Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of March 2022

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

Since 2010, New Yorkers aged 25-34 years had the highest crude rate per 100,000 population for admissions to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), while those aged 12-17 years had the lowest rate per 100,000 among all age groups (Figure 4.2). From 2013 to 2017, the rates increased for those aged 35-44 years and 55+ years. The rates for those aged 18-24 years declined since 2013.

In 2021, New Yorkers aged 25-34 years had the highest rate (933.5 per 100,000), followed by those aged 35-44 years (859.0 per 100,000) and 45-54 years (502.9 per 100,000).

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, 2010-2021**



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

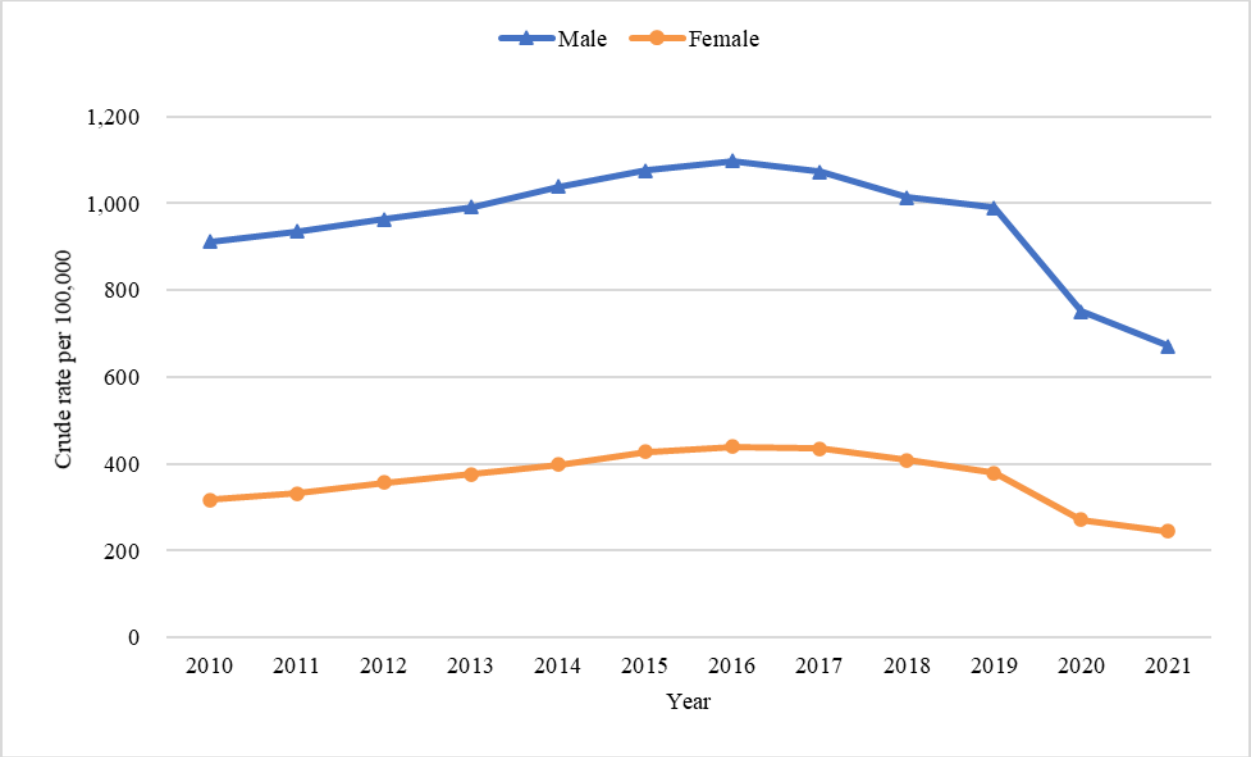
** Admissions data for 2020 and 2021 were impacted by COVID-19 and do not represent a typical year for admissions.

Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of March 2022

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

From 2010 to 2021, 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 increased steadily before starting to decline in 2017. In 2021, the crude rate per 100,000 population was 671.5 for males and 244.7 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, 2010-2021**



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

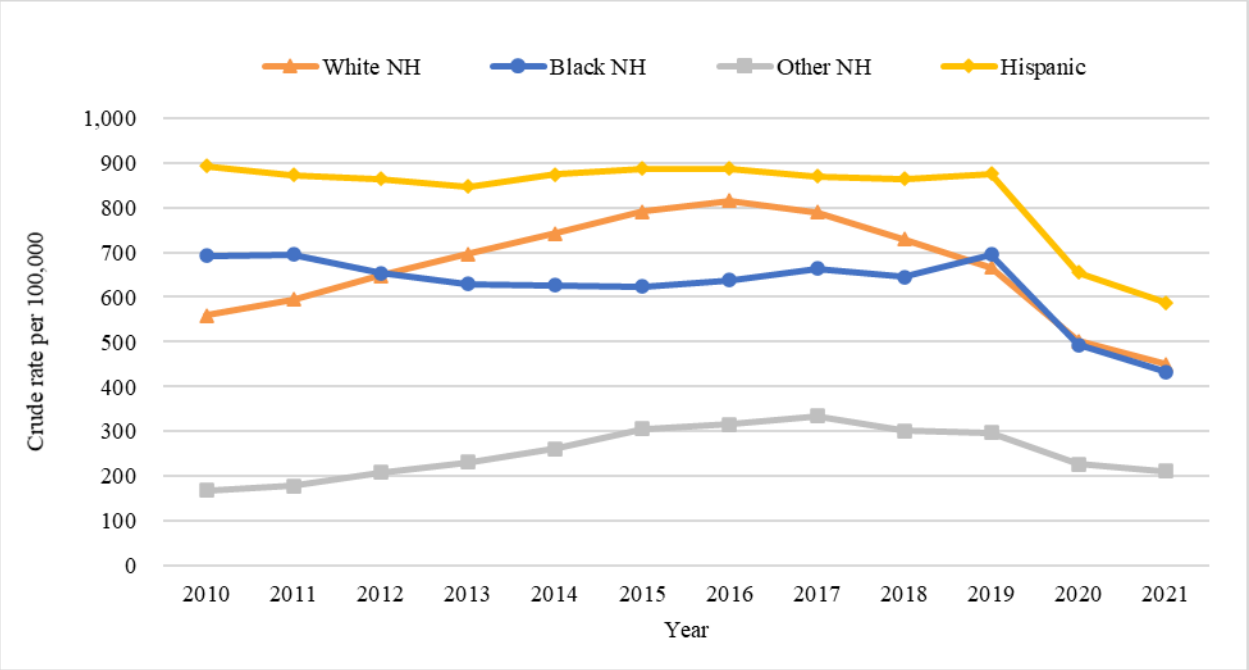
** Admissions data for 2020 and 2021 were impacted by COVID-19 and do not represent a typical year for admissions.

Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of March 2022

For complete data on OASAS client admissions by age group, see Appendix: Data Table 4.3.

Hispanics had consistently higher crude rates per 100,000 population for admissions to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), than any other racial/ethnic group during 2010 to 2021 (Figure 4.4). In 2021, Hispanics had the highest rate (587.4 per 100,000), as compared to Whites non-Hispanic (NH) (450.5 per 100,000) and Blacks non-Hispanic (433.3 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, 2010-2021**



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

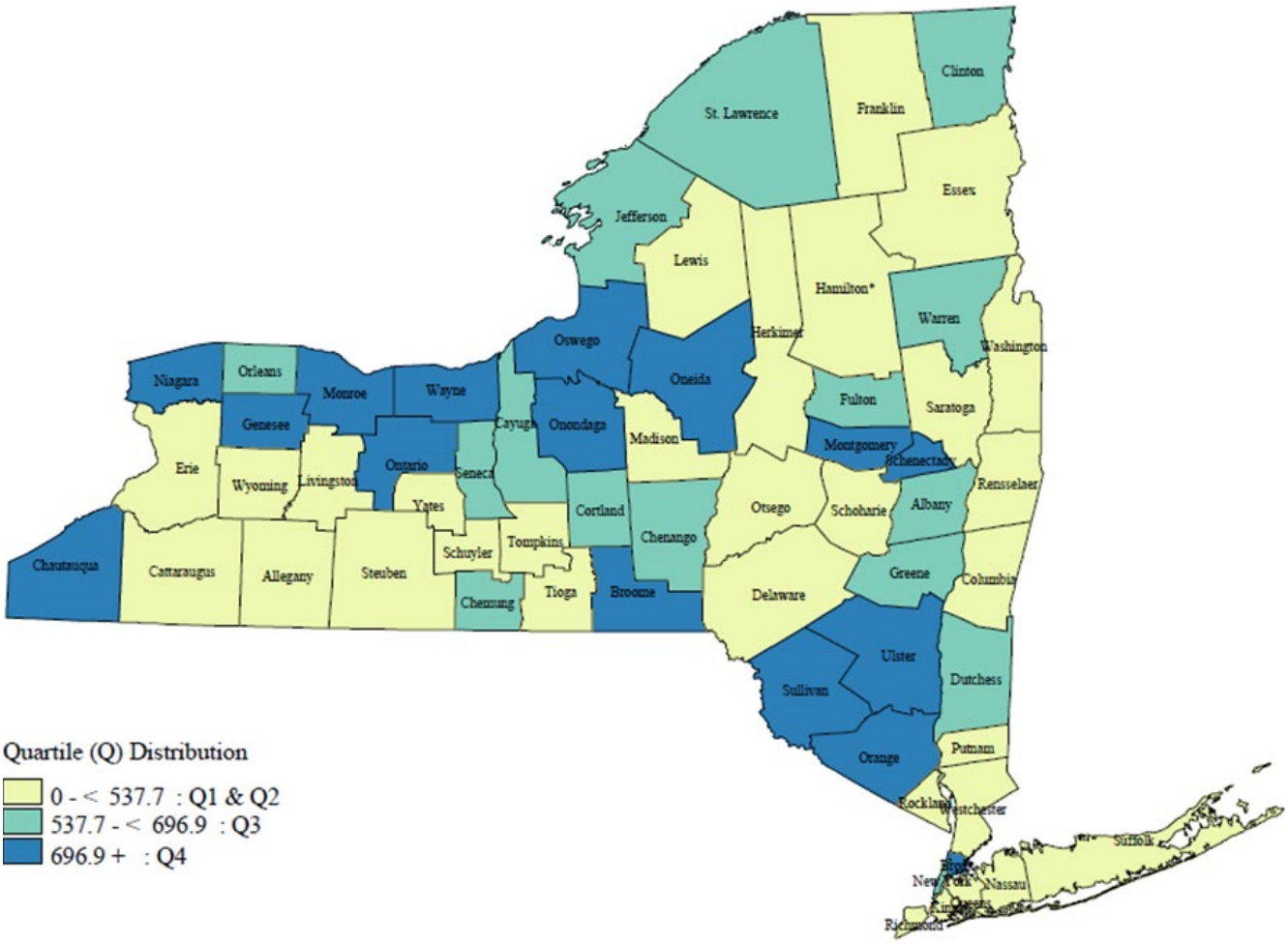
** Admissions data for 2020 and 2021 were impacted by COVID-19 and do not represent a typical year for admissions.

Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of March 2022

For complete data on OASAS client admissions by age group, see Appendix: Data Table 4.4.

In 2021, the 16 counties in the highest quartile (crude rates greater than or equal to 696.9 per 100,000 population) were Sullivan, Broome, Niagara, Onondaga, Ontario, Montgomery, Monroe, Oswego, Chautauqua, Bronx, Wayne, Oneida, Orange, Genesee, Schenectady, and Ulster (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, 2021**



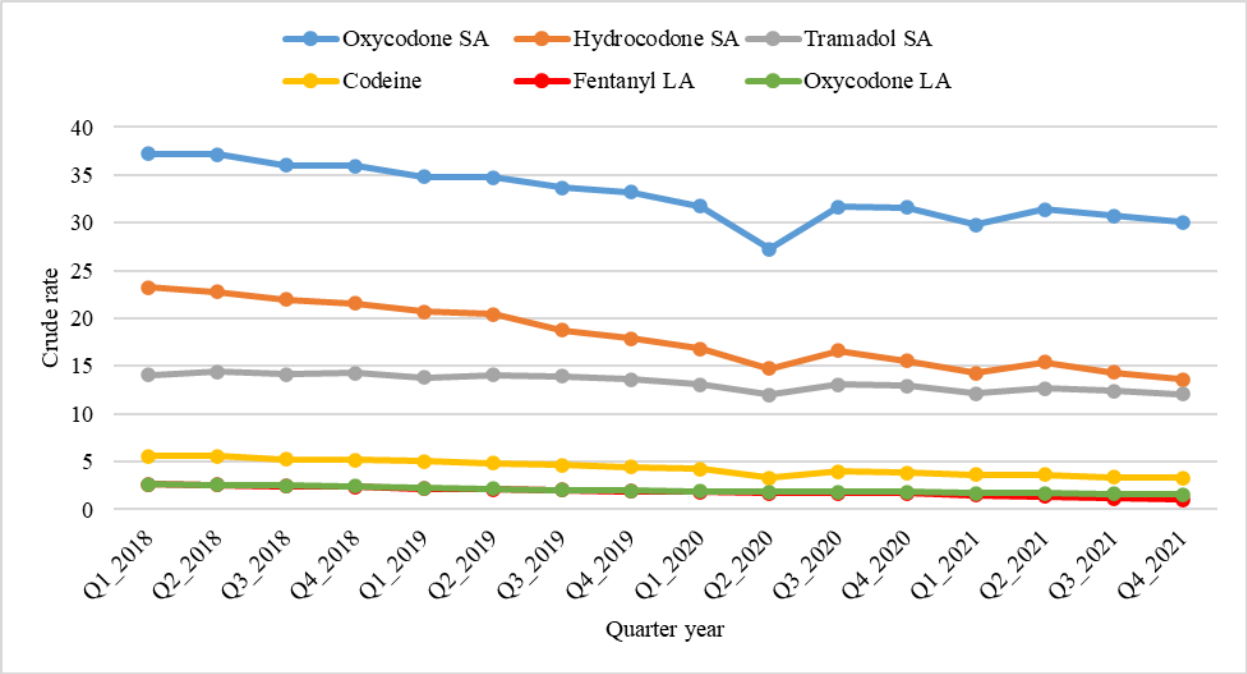
* An individual admitted to more than one level of care or admitted multiple times would count as multiple admissions. In addition, there is a variation in the levels of care (inpatient, outpatient, or both) provided by local facilities. County rates could be impacted, in part, by the levels of care available.
** Admissions data for 2020 and 2021 were impacted by COVID-19 and do not represent a typical year for admissions.
Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of March 2022
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, "doctor-shopping" or multiple-provider episodes, and improper prescribing and dispensing.

Since 2018, the rate of prescribing has remained low for long acting (LA) oxycodone, tramadol, codeine, and LA fentanyl (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 2018 and 2021, there was a 16.7 percent decline in the quarterly average crude prescription rate for short acting (SA) oxycodone and a 35.7 percent decline in the quarterly average crude prescription rate for SA hydrocodone. Note, the trend in LA fentanyl is obscured by the similar trend in LA oxycodone. The temporary reduction in crude rates in opioids during the second quarter of 2020 can be attributable to the COVID-19 pandemic.

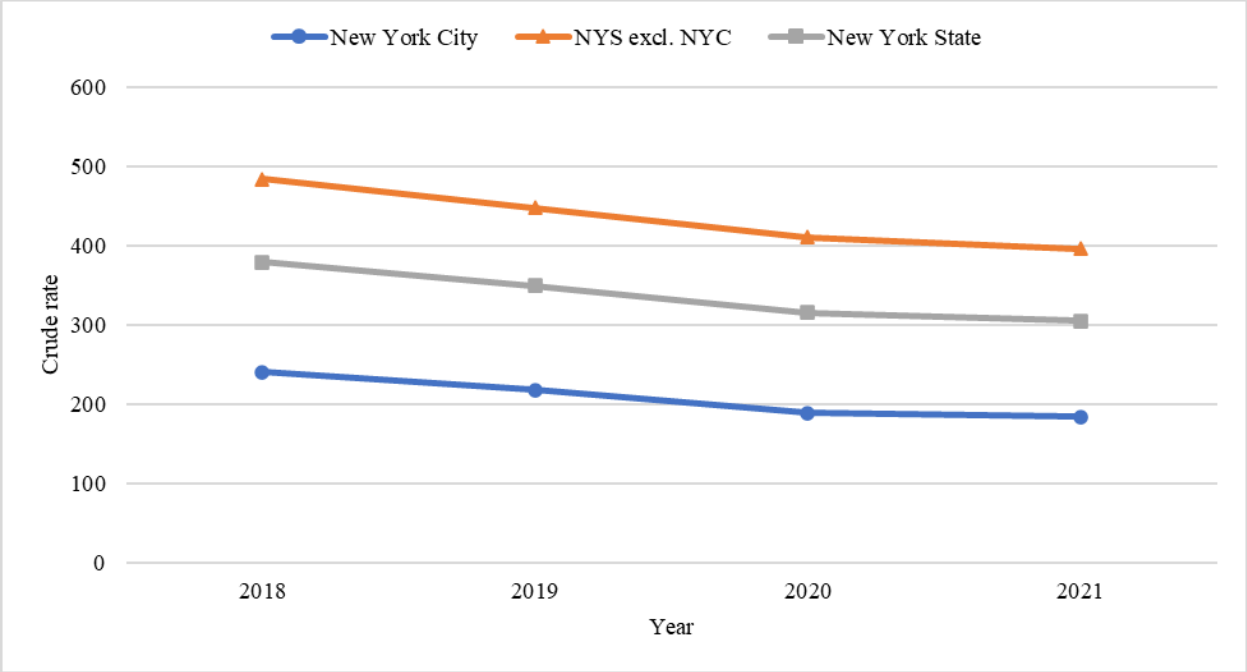
Figure 5.1 Commonly prescribed opioid analgesics, crude rate per 1,000 population, by quarter, New York State, 2018-2021



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 April 2022
For complete data, see Appendix: Data Table 5.1.

In NYS, the crude rate of opioid analgesic prescriptions declined consistently between 2018 (379.5 per 1,000 population) and 2021 (305.6 per 1,000), representing about a 19.5 percent reduction (Figure 5.2). During 2018-2021, NYS excluding NYC consistently had a higher rate of opioid analgesic prescriptions compared to NYC. In 2021, more than five million opioid prescriptions were filled for the state residents; the rate was more than two times higher for NYS excluding NYC (396.4 per 1,000) than NYC (184.9 per 1,000).

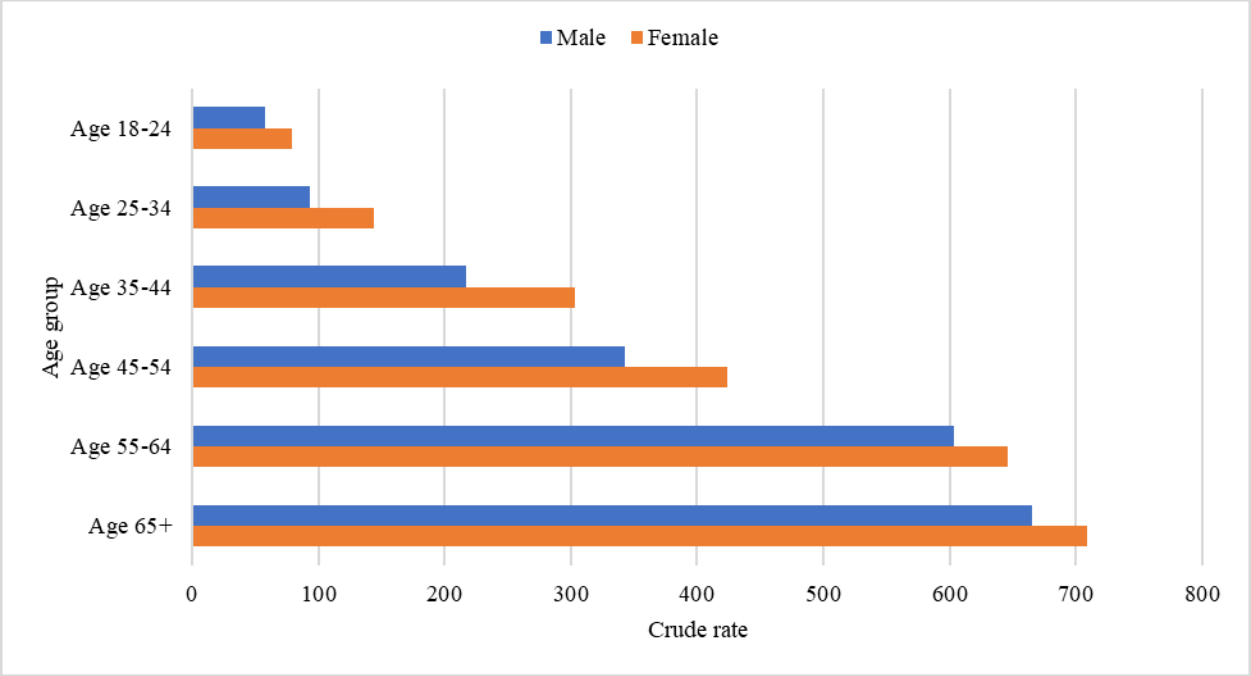
Figure 5.2 Opioid analgesic prescriptions, crude rate per 1,000 population, by region, New York State, 2018-2021



NYS excl. NYC = New York State excluding New York City
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 April 2022
For complete data, see Appendix: Data Table 5.2.

In 2021, 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 was largest among those aged 35-44 years, with crude rates of 216.6 per 1,000 for males and 303.6 per 1,000 for females. The pattern by age group and gender is similar to those observed in the past years.

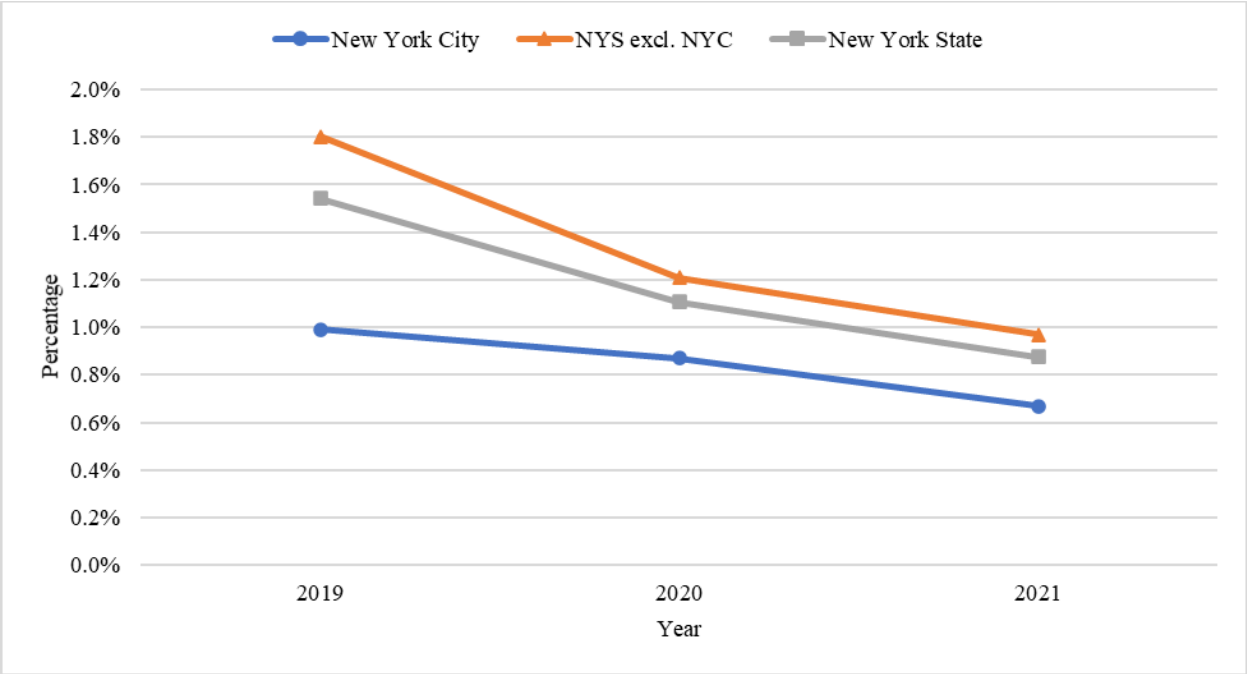
Figure 5.3 Opioid analgesic prescriptions, crude rate per 1,000 population, by age and gender, New York State, 2021



The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
For complete data, see Appendix: Data Table 5.3.

Initiating pain treatment with long-acting or extended release opioids is associated with higher risk of overdose than the initiation of treatment with immediate-release opioids.[20] The percentage of incidents in which patients were both opioid-naïve and received long-acting opioid prescriptions declined between 2019 (1.5 percent) and 2021 (0.9 percent) in NYS (Figure 5.4). During 2019-2021, the percentage was consistently higher in NYS excluding NYC than in NYC.

Figure 5.4 Percentage of incidents when patients were opioid-naïve and received long-acting opioid prescription*, by region, New York State, 2019-2021

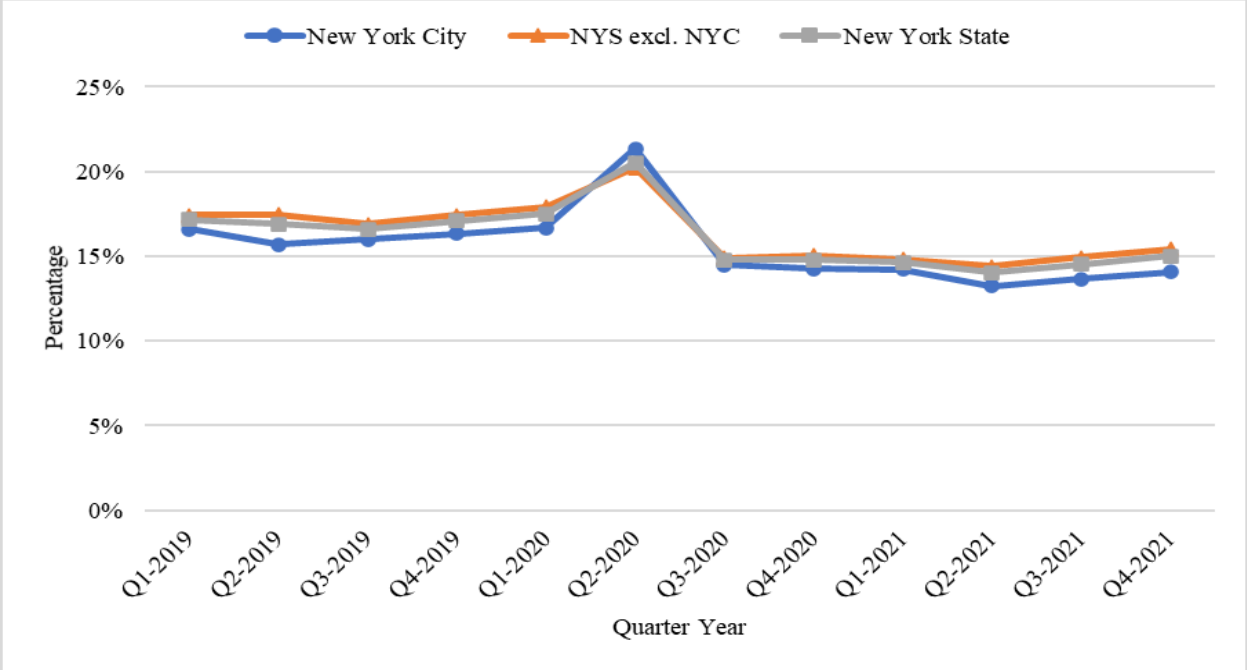


* Patient received index prescription of long-acting opioid and was opioid-naïve.
NYS excl. NYC = New York State excluding New York City
The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
Opioid-naïve was defined as patients with no opioid prescription for pain in last 45 days.
New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
For complete data, see Appendix: Data Table 5.4.

[20] 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

Among opioid-naïve patients, a larger number of supply days for the first (initial) opioid prescription is strongly associated with long-term opioid use.[21] In July 2016, NYS limited the initial prescribing of opioids for acute pain to no more than a seven-day supply.[22] In NYS, opioid index prescriptions for more than a seven-day supply decreased steadily, from 26.5 percent in the first quarter of 2018[23] to 15.0 percent in the fourth quarter of 2021 (Figure 5.5). No large regional differences were observed. Data indicate a higher percentage of incidents of opioid-naïve patients receiving a more than seven-day supply during the second quarter of 2020.

Figure 5.5 Percentage of incidents when patients were opioid-naïve and received an opioid prescription* of more than seven days, by region and quarter, New York State, 2019-2021



* Patient received opioid index prescription of more than seven days and was opioid naïve.
NYS excl. NYC = New York State excluding New York City
The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
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.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
For complete data, see Appendix: Data Table 5.5.

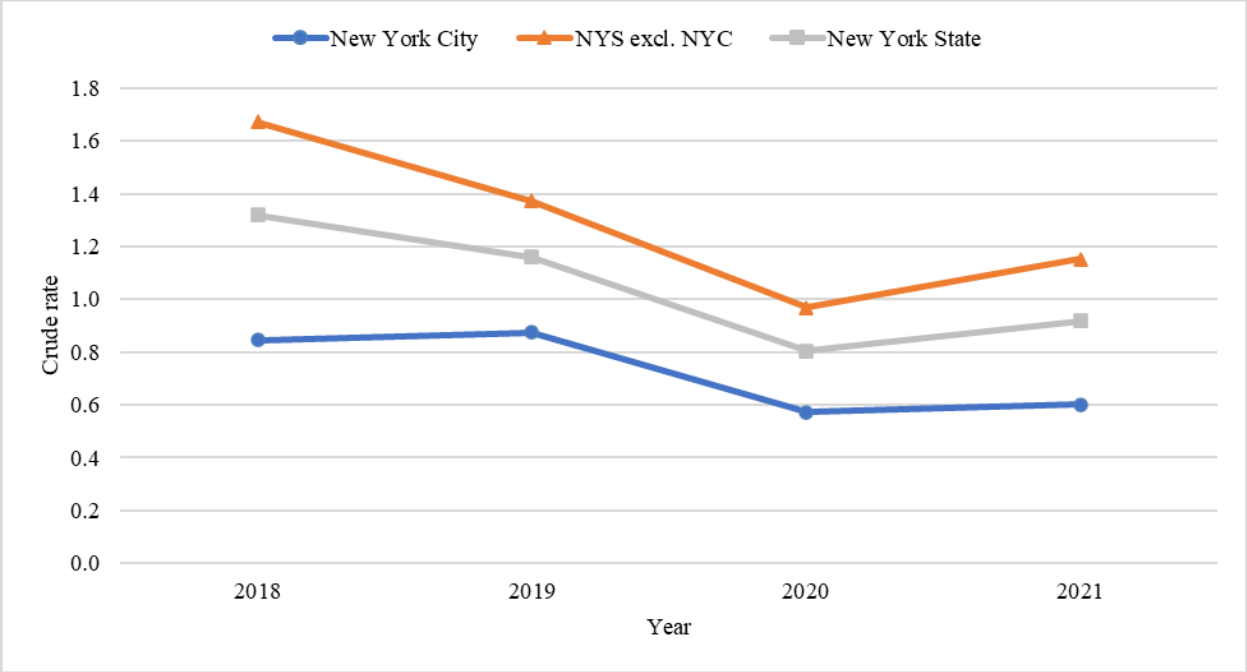
[21] Shah A, Hayes CJ, Martin BC. Factors Influencing Long-Term Opioid Use Among Opioid Naive Patients: An Examination of Initial Prescription Characteristics and Pain Etiologies. *J Pain.* 2017 Nov;18(11):1374-1383. https://doi.org/10.1016%2Fj.jpain.2017.06.010

[22] 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 June 2022. https://www.health.ny.gov/professionals/narcotic/laws_and_regulations/

[23] New York State Department of Health. New York State Opioid Annual Data Report 2021. Opioid-related Data in New York State. Accessed June 2022. https://www.health.ny.gov/statistics/opioid/data/pdf/nys_opioid_annual_report_2021.pdf

The number of patients who received opioid prescriptions from five or more prescribers at five or more pharmacies in a six-month period ("doctor shoppers") dropped across NYS from the crude rate per 100,000 population of 1.3 in 2018 to 0.9 per 100,000 in 2021 (Figure 5.6). There was a slight increase from 0.8 per 100,000 population in 2020 to 0.9 in 2021. In NYS, prior to the implementation of the I-STOP[24], the crude rate per 100,000 population was 54.0[25] in 2012.

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, 2018-2021



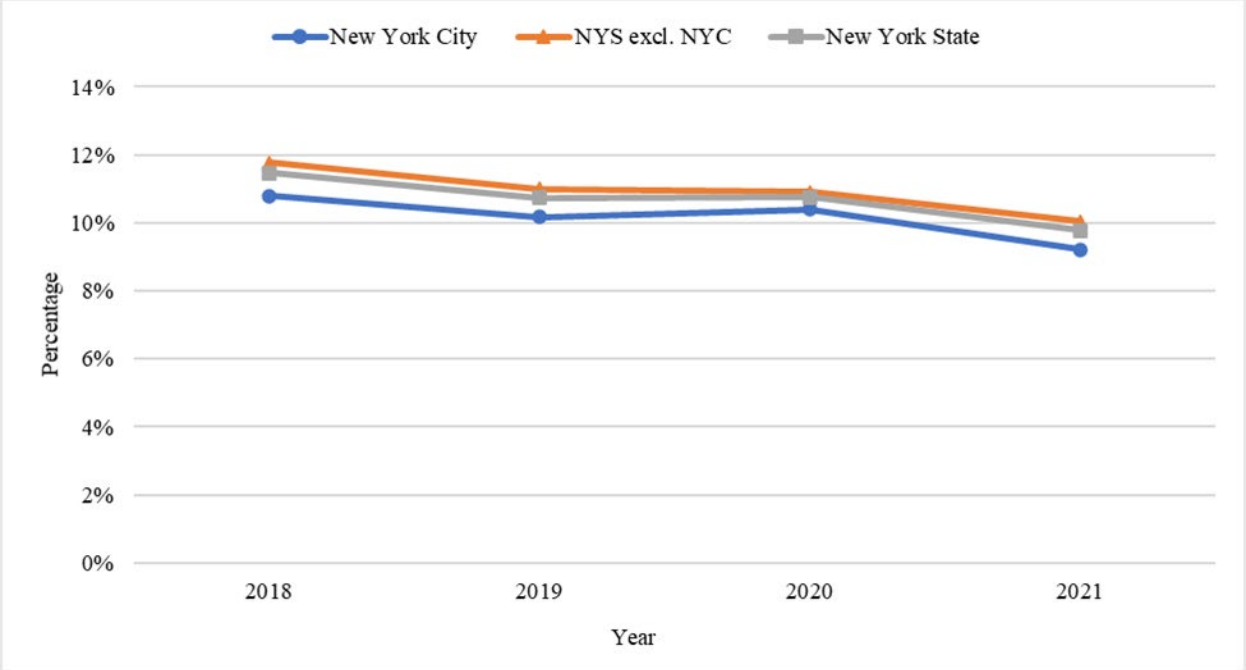
The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
NYS excl. NYC = New York State excluding New York City
A patient will be counted twice if they were included in each 6-month period for the year.
New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
For complete data, see Appendix: Data Table 5.6.

[24] Bureau of Narcotic Enforcement. I-STOP/PMP - Internet System for Tracking Over-Prescribing - Prescription Monitoring Program. New York State Department of Health. Accessed June 2022. https://www.health.ny.gov/professionals/narcotic/prescription_monitoring/

[25] New York State Opioid Data Dashboard. New York State Department of Health. Accessed May 2022. https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/opioid_dashboard/op_dashboard&p=tbl&ind_id=op64

Opioid analgesics prescribed in higher dosages (≥ 90 MME) are associated with higher risk of overdose and death.[26] 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 2018 (11.5 percent) and 2021 (9.8 percent) in NYS (Figure 5.7). During 2018-2021, the percentage was 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, 2018-2021

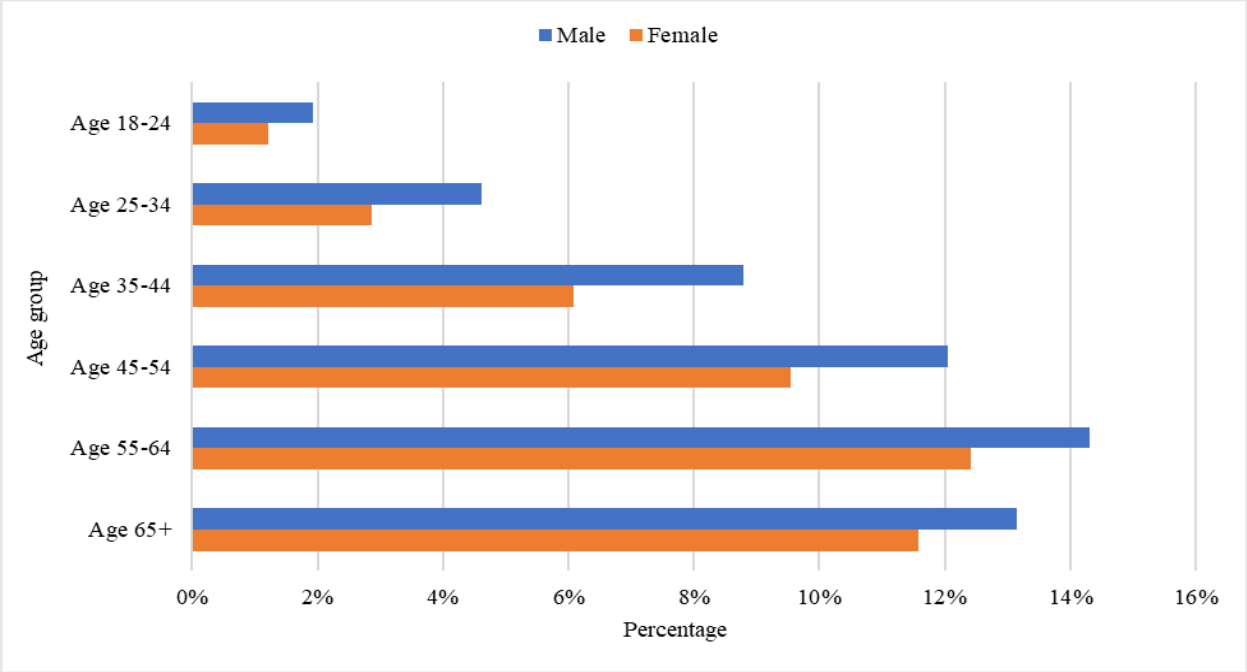


The data exclude buprenorphine prescriptions for pain and treatment of opioid use disorder.
NYS excl. NYC = New York State excluding New York City
New York State total contains number with county unknown.
MME: morphine milligram equivalents
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
For complete data, see Appendix: Data Table 5.7.

[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. http://dx.doi.org/10.15585/mmwr.rr6501e1

In 2021, 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 (14.3 percent) and females (12.4 percent), followed by those aged 65 years and older, for both males (13.2 percent) and females (11.6 percent). The percentage of males receiving a daily dose of ≥ 90 MME was consistently higher than females for all age groups (Figure 5.8). The pattern by age group and gender is similar to those observed in the past years.

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, 2021

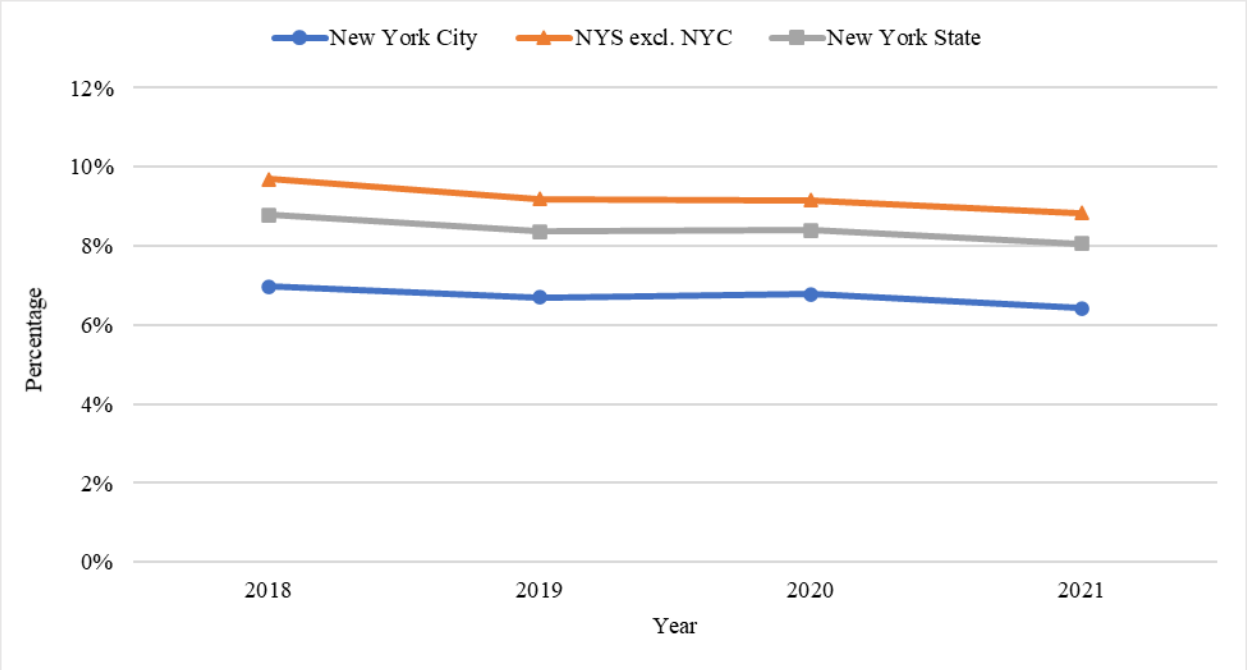


The data exclude buprenorphine prescriptions for pain and treatment of opioid use disorder.
MME: morphine milligram equivalents
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
For complete data, see Appendix: Data Table 5.8.

The risk of opioid overdose increases when taken in combination with other drugs, including benzodiazepines (e.g., Xanax® [alprazolam], Valium® [diazepam]).[27] As such, it is important to monitor the co-prescribing and co-dispensing of these medications, as well as the potential for their prescriptions to overlap, and to provide information to the public 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 2018 (8.8 percent) and 2021 (8.1 percent) in NYS (Figure 5.9). During 2018-2021, compared to NYC, NYS excluding NYC had consistently higher percentages of patients with two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions. In 2021, the percentage was higher for NYS excluding NYC (8.8 percent) than for NYC (6.4 percent).

Figure 5.9 Percentage of patients* with two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions, by region, New York State, 2018-2021

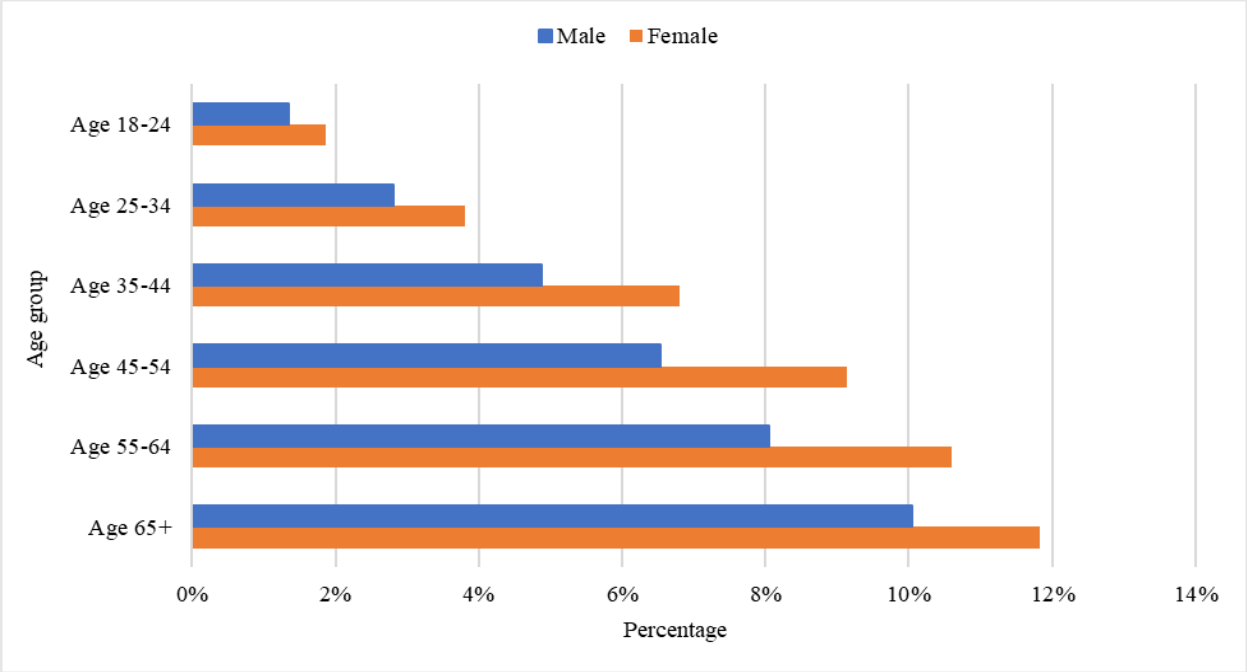


*Patients with at least one prescription for opioid analgesics or benzodiazepines during a given year
NYS excl. NYC = New York State excluding New York City
The data exclude buprenorphine prescriptions for treatment of opioid use disorder.
New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
For complete data, see Appendix: Data Table 5.9.

[27] 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

In 2021, 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 largest gap in percentage was seen among the those aged 45-54 years (6.5 percent for males, 9.1 percent for females), followed by those aged 55-64 years (8.1 percent for males, 10.6 percent for females). The pattern by age group and gender is similar to those observed in the past years.

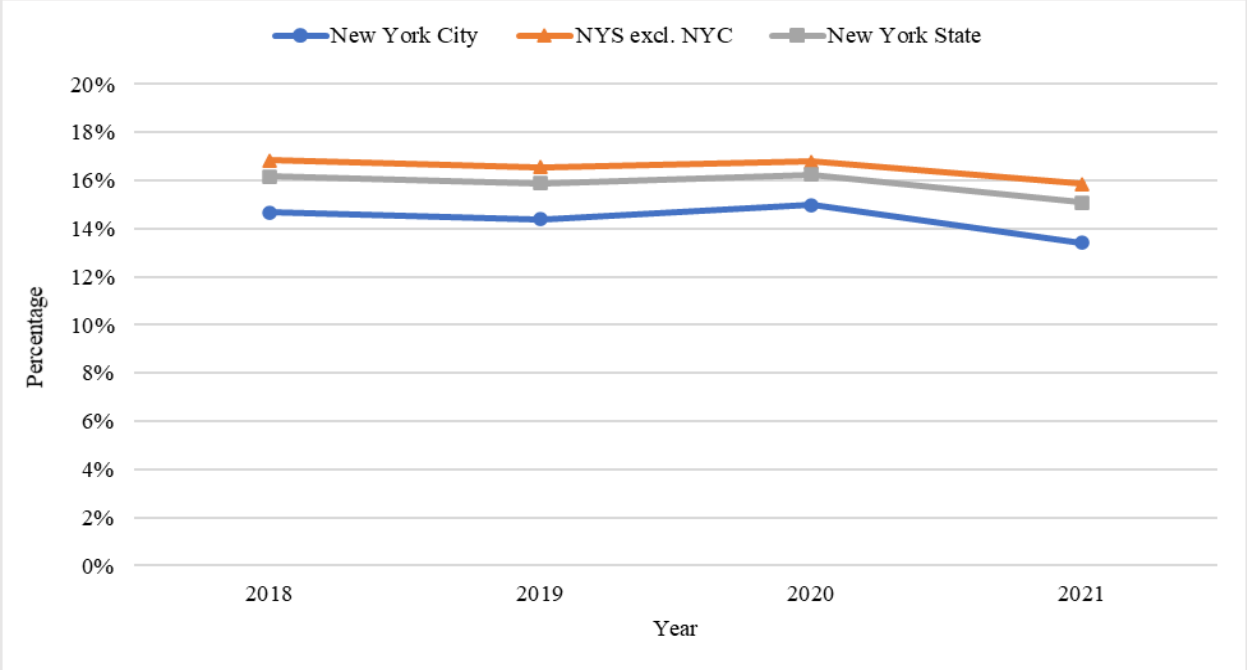
Figure 5.10 Percentage of patients* with two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions, by age and gender, New York State, 2021



*Patients with at least one prescription for opioid analgesics or benzodiazepines during a given year
The data exclude buprenorphine prescriptions for treatment of opioid use disorder.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
For complete data, see Appendix: Data Table 5.10.

Among patients receiving one or more opioid analgesic prescriptions in NYS, the percentage with two or more calendar days of overlapping opioid analgesic prescriptions showed a slight increase to 16.3 percent in 2020 (Figure 5.11), but then resumed declining, to 15.1 percent in 2021. During 2018-2021, NYS excluding NYC had consistently higher percentages compared to NYC, with 15.8 percent for NYS excluding NYC and 13.4 percent for NYC in 2021.

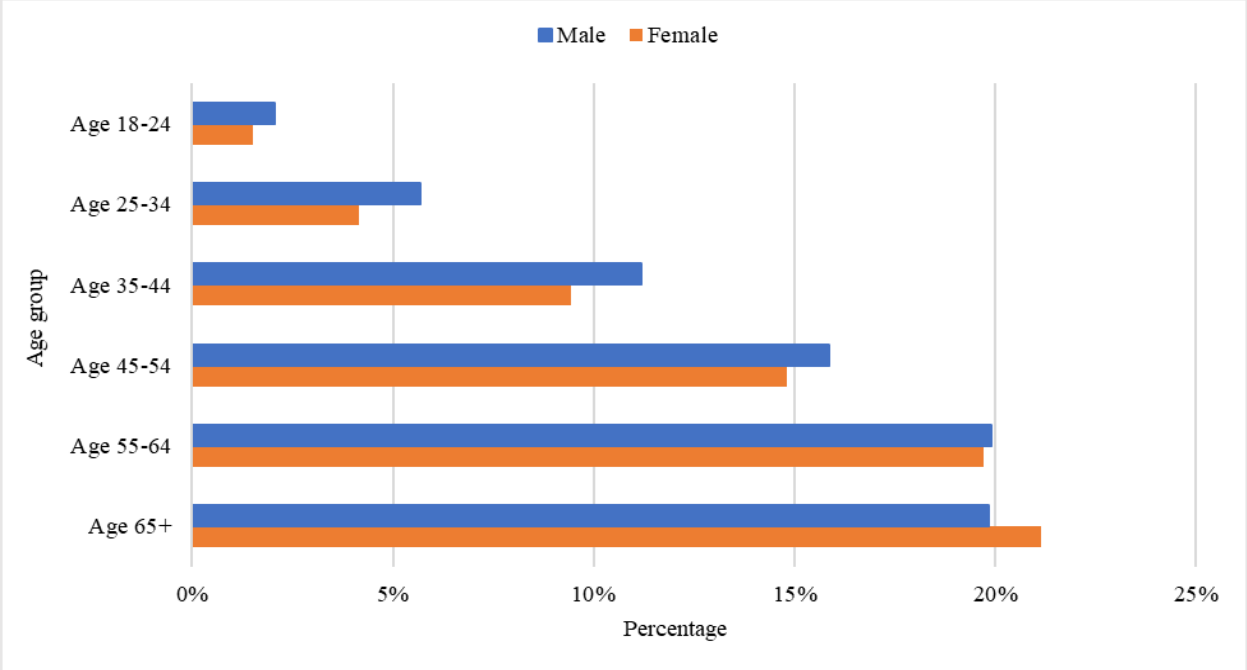
Figure 5.11 Percentage of patients* with two or more calendar days of overlapping opioid analgesic prescriptions, by region, New York State, 2018-2021



*Patients with at least one prescription for opioid analgesics during a given year
NYS excl. NYC = New York State excluding New York City
The data exclude buprenorphine prescriptions for treatment of opioid use disorder.
New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
For complete data, see Appendix: Data Table 5.11.

In 2021, 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 largest gap was seen among those aged 35-44 years (11.2 percent for males, 9.4 percent for females). The pattern by age group and gender is similar to those observed in the past years.

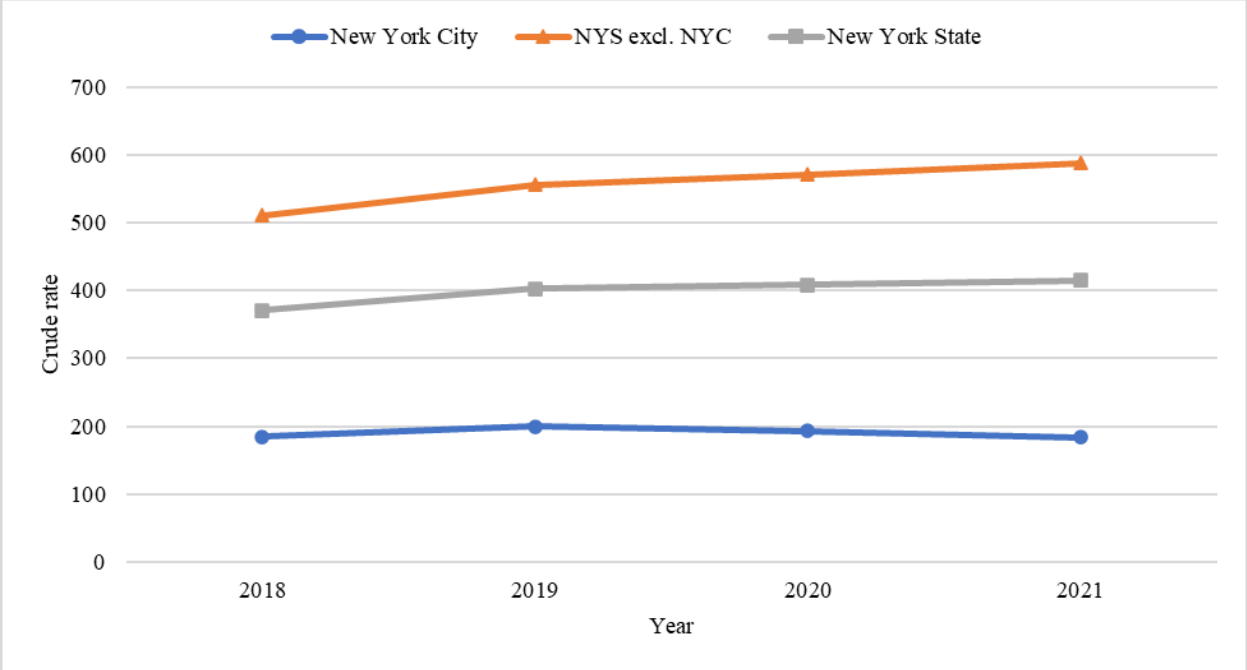
Figure 5.12 Percentage of patients* with two or more calendar days of overlapping opioid analgesic prescriptions, by age and gender, New York State, 2021



*Patients with at least one prescription for opioid analgesics during a given year
The data exclude buprenorphine prescriptions for treatment of opioid use disorder.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
For complete data, see Appendix: Data Table 5.12.

In NYS, the crude rate of patients who received at least one buprenorphine prescription for OUD increased between 2018 (370.6 per 100,000 population) and 2021 (414.5 per 100,000), representing a 11.8 percent increase (Figure 5.13). The statewide increase during this time period was largely contributed by NYS excluding NYC. The rate was more than two times higher in NYS excluding NYC than in NYC during 2018-2021.

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, 2018-2021



NYS excl. NYC = New York State excluding New York City
New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
For complete data, see Appendix: Data Table 5.13.

In 2021, 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 (1,395.2 per 100,000) and females (826.3 per 100,000), followed by those aged 25-34 years, with a rate of 1,011.9 per 100,000 males and 615.5 per 100,000 females. The crude rate of patients who received at least one buprenorphine prescription for OUD was consistently higher in males than females for all age groups (Figure 5.14). The pattern by age group and gender is similar to those observed in the past years.

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, 2021

Data Source: NYS Prescription Monitoring Program; Data as of April 2022
For complete data, see Appendix: Data Table 5.14.

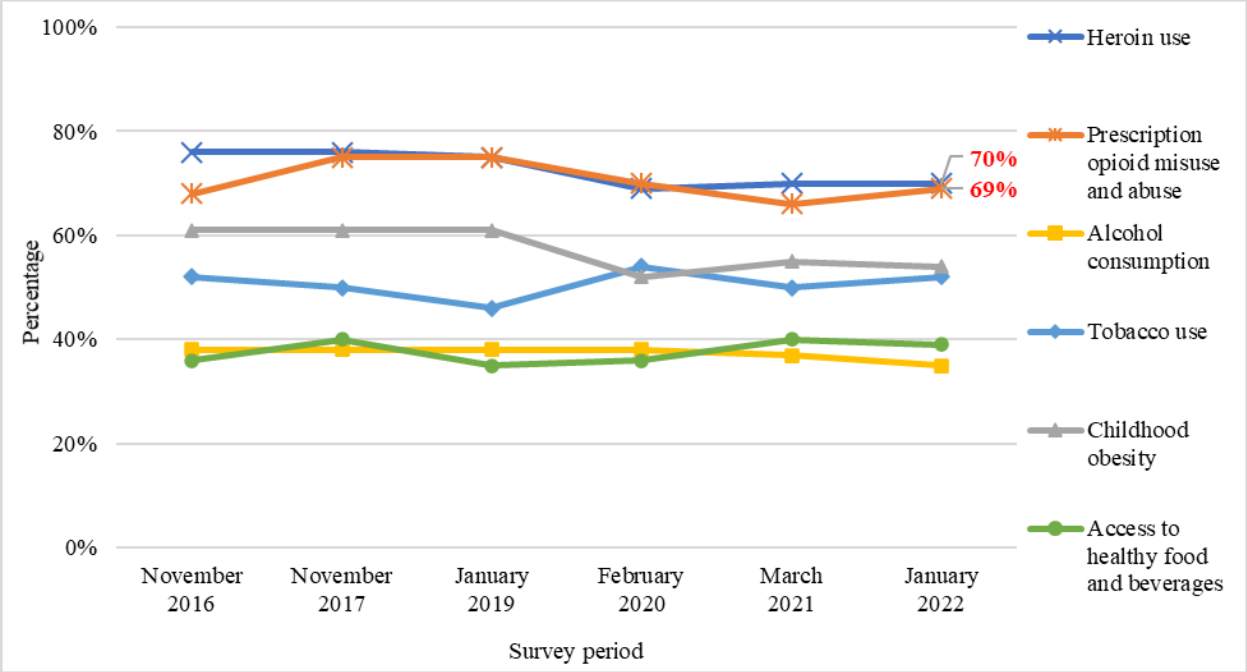
6 - Population surveys on substance use

Public Opinion Poll of Public Health Issues

The Siena College Research Institute, on behalf of the NYSDOH, administers an annual survey of NYS adults. 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, 69 percent of New Yorkers reported that they consider prescription opioid misuse and abuse to be a "very serious" public health problem, representing a decrease from a high of 75 percent in the November 2017 and January 2019 surveys (Figure 6.1). Similarly, 70 percent of New Yorkers considered heroin use to be a "very serious" public health problem. This decreased from 76 percent in November 2017 but remains consistent with the previous survey period. 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 periods, most New Yorkers have consistently reported that they consider heroin use and prescription opioid misuse and abuse to be a "very serious public health problem" (regional data not shown).

Figure 6.1 Perceptions of public health problems as "very serious" by adults in New York State, November 2016 – January 2022



Data source: New York State Department of Health/Siena College Research Institute, New York State Chronic Disease Public Opinion Poll; Accessed April 2022
For complete data, see Appendix: Data Table 6.1.

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

- New York State Department of Health:
  - Office of Public Health Practice
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  - 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
Opioid burden (including outpatient ED visits and hospital discharges for non-fatal opioid overdose, abuse, dependence, and unspecified use; and opioid overdose deaths)	Opioid burden includes opioid overdose deaths, 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 drugs of addiction	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 abuse, poisoning, dependence and unspecified use)	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 COOP 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 COOP programs are excluded from the county report.	Not applicable	NYS Community Opioid Overdose Prevention (COOP) Naloxone Administration Database

Indicator	Definition	ICD Codes/Detailed Explanation	Data Source
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 Poll
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 Poll
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 Poll

Indicator	Definition	ICD Codes/Detailed Explanation	Data Source
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 Poll
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 Poll
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 Poll

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 prescriptions[c] for opioid analgesics from five or more prescribers and that are dispensed at five or more pharmacies in a 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.

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 2019 and 2020.

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 (COOP) Program Dataset:

The NYS COOP program dataset provides information on naloxone administrations by lay persons who have been trained by registered NYS COOP programs in the case of a suspected opioid overdose. Naloxone administration reports are submitted by registered COOP 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):

The NYS Office of Addiction Services and Supports (OASAS) collects data on people treated in all OASAS-certified substance use disorder 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, and 2021.

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, and 2021.

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 1-6 clients
Prehospital Care Reports	None
NYS Law Enforcement Naloxone Administration Dataset	None
NYS Community Opioid Overdose Prevention Program (COOP) Dataset	None
NYS Prescription Monitoring Program (PMP)	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 included in this report.
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 90% of all EMS data statewide, from 45%-50% of all certified EMS agencies. 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 (COOP) 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 COOP 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.
NYSDOH/Siena College Research Institute, Chronic Disease Prevention Public Opinion Poll	Survey data were collected through random-digit dialing samples of both landline and cell phone numbers and are potentially limited by non-response bias.

Appendix

Data Table 1.1 Overdose deaths, age-adjusted rate per 100,000 population, by substance, New York State, 2019 and 2020

Substance	2019		2020	
	Deaths	Age-adjusted rate per 100,000 population	Deaths	Age-adjusted rate per 100,000 population
Any opioid	2,939	14.9	4,233	21.8
Heroin	1,145	5.7	1,275	6.4
Commonly prescribed opioids	939	4.7	1,257	6.3
Synthetic opioids other than methadone*	2,338	12.0	3,721	19.2
Heroin with other synthetic opioids other than methadone	949	4.7	1,173	5.9
Cocaine with other synthetic opioids other than methadone	858	4.4	1,350	7.0

*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.
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: Categories of substances are not mutually exclusive.
Data source: CDC WONDER; Accessed January 2022
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Data Table 1.2 Percentage of opioid overdose deaths involving synthetic opioids other than methadone*, New York State, 2015-2020

Year	Overdose deaths involving synthetic opioids other than methadone	Overdose deaths involving any opioid	Percentage of overdose deaths involving synthetic opioids other than methadone
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: CDC WONDER; Accessed January 2022
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Data Table 1.3 Overdose deaths involving any opioid, age-adjusted rate per 100,000 population, by county, New York State, 2019 and 2020

County	2019			2020		
	Deaths	Population	Age-adjusted rate per 100,000 population	Deaths	Population	Age-adjusted rate per 100,000 population
Albany	47	305,506	16.6	69	303,654	24.1
Allegany	**	46,091	**	**	45,587	**
Bronx	339	1,418,207	23.6	495	1,401,142	34.4
Broome	34	190,488	20.8	70	189,420	43.9
Cattaraugus	10	76,117	*	12	75,863	*
Cayuga	**	76,576	**	28	76,029	39.9
Chautauqua	24	126,903	20.9	41	126,032	36.5
Chemung	14	83,456	*	20	82,622	25.4
Chenango	**	47,207	**	11	46,730	*
Clinton	**	80,485	**	11	79,778	*
Columbia	**	59,461	**	**	59,534	**
Cortland	**	47,581	**	**	47,173	**
Delaware	**	44,135	**	**	43,938	**
Dutchess	68	294,218	25.4	110	293,293	39.2
Erie	142	918,702	16.3	230	917,241	25.8
Essex	**	36,885	**	**	36,891	**
Franklin	**	50,022	**	**	49,965	**
Fulton	**	53,383	**	13	52,812	*
Genesee	12	57,280	*	19	56,994	*
Greene	**	47,188	**	14	47,177	*
Hamilton	0	4,416	*	**	4,345	**
Herkimer	**	61,319	**	13	60,945	*
Jefferson	15	109,834	*	32	108,095	30.8
Kings	277	2,559,903	10.3	404	2,538,934	15.6
Lewis	**	26,296	**	**	26,187	**
Livingston	**	62,914	**	14	62,398	*
Madison	**	70,941	**	10	70,478	*
Monroe	187	741,770	26.0	233	740,900	32.0
Montgomery	**	49,221	**	**	49,170	**
Nassau	183	1,356,924	14.1	235	1,351,334	18.2
New York	263	1,628,706	14.3	327	1,611,989	18.1
Niagara	37	209,281	20.1	66	208,396	35.8
Oneida	47	228,671	23.4	57	227,346	27.8
Onondaga	101	460,528	23.4	137	459,214	31.6
Ontario	16	109,777	*	11	110,091	*
Orange	80	384,940	22.6	107	385,234	30.1

County	2019			2020		
	Deaths	Population	Age-adjusted rate per 100,000 population	Deaths	Population	Age-adjusted rate per 100,000 population
Orleans	**	40,352	**	**	39,978	**
Oswego	31	117,124	29.6	28	116,346	27.9
Otsego	**	59,493	**	10	58,701	*
Putnam	13	98,320	*	19	98,532	*
Queens	197	2,253,858	8.3	342	2,225,821	15.0
Rensselaer	22	158,714	13.6	35	158,108	22.1
Richmond	101	476,143	21.0	125	475,327	26.9
Rockland	46	325,789	15.5	43	326,225	15.5
Saratoga	16	229,863	*	38	230,298	17.0
Schenectady	28	155,299	19.0	28	155,358	19.2
Schoharie	**	30,999	**	**	31,132	**
Schuyler	**	17,807	**	0	17,685	*
Seneca	**	34,016	**	**	33,991	**
St. Lawrence	**	107,740	**	13	107,185	*
Steuben	**	95,379	**	12	94,657	*
Suffolk	275	1,476,601	19.9	363	1,474,273	26.6
Sullivan	31	75,432	42.7	52	75,802	72.4
Tioga	**	48,203	**	**	47,904	**
Tompkins	11	102,180	*	17	101,058	*
Ulster	34	177,573	21.3	59	177,716	35.0
Warren	**	63,944	**	17	63,756	*
Washington	**	61,204	**	16	60,606	*
Wayne	**	89,918	**	16	89,339	*
Westchester	92	967,506	10.0	140	965,802	15.2
Wyoming	**	39,859	**	**	39,465	**
Yates	**	24,913	**	**	24,780	**

*: Age-adjusted rates are unreliable when there are fewer than 20 deaths and are therefore not shown.
**: Counts and age-adjusted rates are suppressed when there are fewer than 10 deaths.
Data source: CDC WONDER; Accessed January 2022
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Data Table 1.4 Overdose deaths involving synthetic opioids other than methadone^, age-adjusted rate per 100,000 population, by county, New York State, 2019 and 2020

County	2019			2020		
	Deaths	Population	Age-adjusted rate per 100,000 population	Deaths	Population	Age-adjusted rate per 100,000 population
Albany	37	305,506	13.0	61	303,654	21.2
Allegany	**	46,091	**	**	45,587	**
Bronx	266	1,418,207	18.6	453	1,401,142	31.4
Broome	26	190,488	16.1	55	189,420	34.2
Cattaraugus	**	76,117	**	**	75,863	**
Cayuga	**	76,576	**	25	76,029	35.6
Chautauqua	20	126,903	17.4	37	126,032	33.7
Chemung	11	83,456	*	13	82,622	*
Chenango	**	47,207	**	**	46,730	**
Clinton	**	80,485	**	**	79,778	**
Columbia	**	59,461	**	**	59,534	**
Cortland	**	47,581	**	**	47,173	**
Delaware	**	44,135	**	**	43,938	**
Dutchess	53	294,218	20.9	99	293,293	35.8
Erie	109	918,702	12.7	198	917,241	22.2
Essex	0	36,885	*	**	36,891	**
Franklin	**	50,022	**	**	49,965	**
Fulton	**	53,383	**	12	52,812	*
Genesee	**	57,280	**	18	56,994	*
Greene	**	47,188	**	14	47,177	*
Hamilton	0	4,416	*	**	4,345	**
Herkimer	**	61,319	**	12	60,945	*
Jefferson	14	109,834	*	30	108,095	28.8
Kings	222	2,559,903	8.3	361	2,538,934	13.8
Lewis	**	26,296	**	**	26,187	**
Livingston	**	62,914	**	12	62,398	*
Madison	**	70,941	**	**	70,478	**
Monroe	161	741,770	22.6	214	740,900	29.6
Montgomery	0	49,221	*	**	49,170	**
Nassau	133	1,356,924	10.4	193	1,351,334	15.4
New York	216	1,628,706	11.8	287	1,611,989	16.0
Niagara	32	209,281	17.7	59	208,396	32.3
Oneida	39	228,671	18.9	50	227,346	24.5
Onondaga	89	460,528	20.7	126	459,214	28.9
Ontario	10	109,777	*	**	110,091	**
Orange	68	384,940	19.5	97	385,234	27.5
Orleans	**	40,352	**	**	39,978	**

County	2019			2020		
	Deaths	Population	Age-adjusted rate per 100,000 population	Deaths	Population	Age-adjusted rate per 100,000 population
Oswego	27	117,124	26.1	25	116,346	25.3
Otsego	**	59,493	**	10	58,701	*
Putnam	10	98,320	*	13	98,532	*
Queens	155	2,253,858	6.6	287	2,225,821	12.6
Rensselaer	16	158,714	*	34	158,108	21.5
Richmond	79	476,143	16.2	104	475,327	22.6
Rockland	36	325,789	12.8	40	326,225	14.6
Saratoga	15	229,863	*	33	230,298	15.0
Schenectady	22	155,299	14.5	27	155,358	18.3
Schoharie	**	30,999	**	**	31,132	**
Schuyler	**	17,807	**	0	17,685	*
Seneca	**	34,016	**	**	33,991	**
St. Lawrence	0	107,740	*	13	107,185	*
Steuben	**	95,379	**	11	94,657	*
Suffolk	209	1,476,601	15.3	327	1,474,273	24.4
Sullivan	25	75,432	35.2	45	75,802	62.6
Tioga	**	48,203	**	**	47,904	**
Tompkins	**	102,180	**	16	101,058	*
Ulster	28	177,573	17.7	53	177,716	32.2
Warren	**	63,944	**	13	63,756	*
Washington	**	61,204	**	15	60,606	*
Wayne	**	89,918	**	11	89,339	*
Westchester	70	967,506	7.7	120	965,802	13.1
Wyoming	**	39,859	**	**	39,465	**
Yates	**	24,913	**	**	24,780	**

^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.
*: Age-adjusted rates are unreliable when there are fewer than 20 deaths and are therefore not shown.
**: Counts and age-adjusted rates are suppressed when there are fewer than 10 deaths.
Data source: CDC WONDER; Accessed January 2022
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Data Table 1.5 Overdose deaths involving heroin, age-adjusted rate per 100,000 population, by county, New York State, 2019 and 2020

County	2019			2020		
	Deaths	Population	Age-adjusted rate per 100,000 population	Deaths	Population	Age-adjusted rate per 100,000 population
Albany	21	305,506	7.4	17	303,654	*
Allegany	0	46,091	*	0	45,587	*
Bronx	171	1,418,207	11.6	202	1,401,142	14.1
Broome	**	190,488	**	14	189,420	*
Cattaraugus	0	76,117	*	**	75,863	**
Cayuga	**	76,576	**	10	76,029	*
Chautauqua	**	126,903	**	13	126,032	*
Chemung	**	83,456	**	**	82,622	**
Chenango	**	47,207	**	**	46,730	**
Clinton	0	80,485	*	**	79,778	**
Columbia	**	59,461	**	**	59,534	**
Cortland	0	47,581	*	**	47,173	**
Delaware	**	44,135	**	**	43,938	**
Dutchess	29	294,218	10.7	23	293,293	8.1
Erie	40	918,702	4.4	22	917,241	2.2
Essex	0	36,885	*	0	36,891	*
Franklin	0	50,022	*	0	49,965	*
Fulton	**	53,383	**	**	52,812	**
Genesee	**	57,280	**	0	56,994	*
Greene	**	47,188	**	**	47,177	**
Hamilton	0	4,416	*	0	4,345	*
Herkimer	**	61,319	**	**	60,945	**
Jefferson	**	109,834	**	**	108,095	**
Kings	158	2,559,903	5.9	197	2,538,934	7.5
Lewis	**	26,296	**	**	26,187	**
Livingston	0	62,914	*	0	62,398	*
Madison	**	70,941	**	**	70,478	**
Monroe	18	741,770	*	17	740,900	*
Montgomery	0	49,221	*	0	49,170	*
Nassau	55	1,356,924	4.2	79	1,351,334	6.1
New York	127	1,628,706	6.7	135	1,611,989	7.4
Niagara	**	209,281	**	**	208,396	**
Oneida	28	228,671	13.8	14	227,346	*
Onondaga	43	460,528	10.1	63	459,214	14.4
Ontario	**	109,777	**	**	110,091	**
Orange	48	384,940	13.8	38	385,234	10.5
Orleans	**	40,352	**	**	39,978	**

County	2019			2020		
	Deaths	Population	Age-adjusted rate per 100,000 population	Deaths	Population	Age-adjusted rate per 100,000 population
Oswego	15	117,124	*	10	116,346	*
Otsego	**	59,493	**	**	58,701	**
Putnam	**	98,320	**	**	98,532	**
Queens	93	2,253,858	3.9	138	2,225,821	6.0
Rensselaer	**	158,714	**	**	158,108	**
Richmond	55	476,143	11.7	53	475,327	11.3
Rockland	27	325,789	9.8	13	326,225	*
Saratoga	**	229,863	**	**	230,298	**
Schenectady	12	155,299	*	14	155,358	*
Schoharie	**	30,999	**	**	31,132	**
Schuyler	0	17,807	*	0	17,685	*
Seneca	**	34,016	**	**	33,991	**
St. Lawrence	0	107,740	*	**	107,185	**
Steuben	**	95,379	**	**	94,657	**
Suffolk	62	1,476,601	4.5	62	1,474,273	4.6
Sullivan	14	75,432	*	16	75,802	*
Tioga	**	48,203	**	0	47,904	*
Tompkins	**	102,180	**	**	101,058	**
Ulster	12	177,573	*	12	177,716	*
Warren	0	63,944	*	0	63,756	*
Washington	**	61,204	**	**	60,606	**
Wayne	0	89,918	*	**	89,339	**
Westchester	34	967,506	3.7	34	965,802	3.9
Wyoming	**	39,859	**	0	39,465	*
Yates	0	24,913	*	0	24,780	*

*: Age-adjusted rates are unreliable when there are fewer than 20 deaths and are therefore not shown.
**: Counts and age-adjusted rates are suppressed when there are fewer than 10 deaths.
Data source: CDC WONDER; Accessed January 2022
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Data Table 1.6 Overdose deaths involving any opioid, by place of death, New York State, 2020

Place of death	Deaths (%)
Inpatient (medical facility)	254 (6.0%)
Outpatient or ER (medical facility)	503 (11.9%)
Dead on arrival (medical facility)	57 (1.3%)
Decedent's home	2,808 (66.3%)
Other	605 (14.3%)

The numbers of deaths occurring in "Hospice facility", "Nursing home/long term care", and "Place of death unknown" are suppressed.
Data source: CDC WONDER; Accessed January 2022
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Data Table 1.7 Overdose deaths involving synthetic opioids other than methadone*, age-adjusted rate per 100,000 population, New York State and United States, 2010-2020

	New York State		United States	
Year	Deaths	Age-adjusted rate per 100,000 population	Deaths	Age-adjusted rate per 100,000 population
2020	3,721	19.2	56,516	17.8
2019	2,338	12.0	36,359	11.4
2018	2,195	11.2	31,335	9.9
2017	2,238	11.3	28,466	9.0
2016	1,641	8.3	19,413	6.2
2015	668	3.3	9,580	3.1
2014	294	1.4	5,544	1.8
2013	210	1.1	3,105	1.0
2012	164	0.8	2,628	0.8
2011	155	0.8	2,666	0.8
2010	173	0.9	3,007	1.0

*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: CDC WONDER; Accessed January 2022
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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 rates per 100,000, by region, year, and age group, New York State, 2010-2020

	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	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
	2014	0.9	4.5	4.0	**	0.8	0.6	1.1	3.9	4.6
	2013	0.8	3.3	3.6	**	**	0.8	*	3.8	6.1
	2012	0.8	3.6	3.4	**	*	*	0.9	5.4	5.4
	2011	**	2.6	1.6	**	*	0.8	0.8	4.3	4.8
	2010	**	1.2	1.3	**	*	1.0	*	4.6	4.9
New York State excl. New York City	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
	2014	2.8	11.7	2.8	0.9	3.9	2.2	1.0	8.1	5.3
	2013	2.5	9.2	2.2	0.7	3.1	1.3	1.6	7.8	5.7
	2012	1.7	6.3	1.3	**	1.9	1.4	1.3	8.4	5.6
	2011	1.5	4.4	0.8	*	1.7	1.2	2.0	9.1	5.6
	2010	0.7	2.1	0.8	*	1.7	1.3	1.7	6.5	4.5

^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.
[#]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: CDC WONDER; Accessed January 2022
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Data Table 1.9 Overdose deaths involving any opioid and overdose deaths involving any opioid with benzodiazepines, age-adjusted rate per 100,000 population, New York State, 2010-2020

Year	Any opioid		Any opioid with benzodiazepines	
	Deaths	Age-adjusted rate per 100,000 population	Deaths	Age-adjusted rate per 100,000 population
2020	4,233	21.8	893	4.7
2019	2,939	14.9	687	3.5
2018	2,991	15.1	821	4.2
2017	3,224	16.1	874	4.4
2016	3,009	15.1	843	4.2
2015	2,166	10.8	636	3.1
2014	1,739	8.6	538	2.7
2013	1,681	8.3	473	2.3
2012	1,530	7.6	427	2.1
2011	1,356	6.8	358	1.8
2010	1,074	5.4	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: CDC WONDER; Accessed January 2022
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Data Table 1.10 Overdose deaths involving cocaine with and without synthetic opioids other than methadone*, New York State, 2010-2020

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
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
2014	503	2.5	38	0.2	465	2.4
2013	533	2.7	23	0.1	510	2.6
2012	467	2.4	10	0.1**	457	2.3
2011	469	2.4	15	0.1**	454	2.3
2010	388	2.0	18	0.1**	370	1.9

*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.
**: 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: CDC WONDER; Accessed January 2022
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Data Table 1.11 Overdose deaths involving any opioid, age-adjusted* rate per 100,000 population, by sub-population, New York State, 2019 and 2020

Group	Characteristic	2019		2020	
		Deaths	Age-adjusted rate per 100,000 population	Deaths	Age-adjusted rate per 100,000 population
Age group*	Age 18-24	179	10.2	275	16.0
	Age 25-44	1,436	27.1	2,038	38.7
	Age 45-64	1,153	22.7	1,686	33.8
	Age 65+	162	4.9	221	6.6
Gender	Male	2,130	22.1	3,133	32.8
	Female	809	8.1	1100	11.2
Race/Ethnicity	White NH	1,791	17.3	2,516	24.9
	Black NH	441	13.9	794	25.0
	Asian/PI NH	34	1.8	55	3.0
	Hispanic	601	16.1	793	21.1
Region	New York City	1,177	13.2	1,693	19.5
	NYS excl. NYC	1,762	17.0	2,540	24.5
Total	New York State	2,939	14.9	4,233	21.8

*Age groups show crude rates.
White NH = White non-Hispanic; Black NH = Black non-Hispanic; Asian/PI NH = Asian / Pacific Islander non-Hispanic; NYS excl. NYC = New York State excluding New York City
Data source: CDC WONDER; Accessed January 2022
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Data Table 1.12 Overdose deaths involving synthetic opioids other than methadone*, age-adjusted rate per 100,000 population, by sub-population, New York State, 2019 and 2020**

Group	Characteristic	2019		2020	
		Deaths	Age-adjusted rate per 100,000 population	Deaths	Age-adjusted rate per 100,000 population
Age group**	Age 18-24	161	9.1	257	14.9
	Age 25-44	1,187	22.4	1,823	34.6
	Age 45-64	879	17.3	1,461	29.3
	Age 65+	107	3.2	169	5.0
Gender	Male	1,758	18.3	2,821	29.6
	Female	580	5.9	900	9.2
Race/Ethnicity	White NH	1,381	13.6	2,171	21.7
	Black NH	366	11.5	721	22.8
	Asian/PI NH	27	1.5	46	2.5
	Hispanic	510	13.6	718	19.1
Region	New York City	938	10.5	1,492	17.1
	NYS excl. NYC	1,400	13.7	2,229	21.7
Total	New York State	2,338	12.0	3,721	19.2

*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.
**Age groups show crude rates.
White NH = White non-Hispanic; Black NH = Black non-Hispanic; Asian/PI NH = Asian / Pacific Islander non-Hispanic; NYS excl. NYC = New York State excluding New York City
Data source: CDC WONDER; Accessed January 2022
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Data Table 1.13 Overdose deaths involving heroin, age-adjusted rate per 100,000 population, by sub-population, New York State, 2019 and 2020**

Group	Characteristic	2019		2020	
		Deaths	Age-adjusted rate per 100,000 population	Deaths	Age-adjusted rate per 100,000 population
Age group**	Age 18-24	57	3.2	70	4.1
	Age 25-44	556	10.5	572	10.9
	Age 45-64	466	9.2	555	11.1
	Age 65+	64	1.9	77	2.3
Gender	Male	878	9.0	1,005	10.3
	Female	267	2.6	270	2.7
Race/Ethnicity	White NH	628	6.1	681	6.7
	Black NH	181	5.5	249	7.6
	Asian/PI NH	12	*	16	*
	Hispanic	292	7.9	293	7.8
Region	New York City	604	6.7	725	8.3
	NYS excl. NYC	541	5.2	550	5.3
Total	New York State	1,145	5.7	1,275	6.4

*: Age-adjusted rates are unreliable when there are fewer than 20 deaths and are therefore not shown.
**Age groups show crude rates.
White NH = White non-Hispanic; Black NH = Black non-Hispanic; Asian/PI NH = Asian / Pacific Islander non-Hispanic; NYS excl. NYC = New York State excluding New York City
Data source: CDC WONDER; Accessed January 2022
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Data Table 2.1 Percentage of 911 EMS dispatches reported electronically, by region, New York State, 2015-2021

Year	Region	EMS response reported electronically	Percentage
2021	New York City	1,748,440	100.0%
	NYS excl. NYC	1,833,822	99.7%
	New York State	3,582,262	99.8%
2020	New York City	1,664,622	99.7%
	NYS excl. NYC	1,777,498	98.1%
	New York State	3,442,120	98.9%
2019	New York City	1,903,155	99.0%
	NYS excl. NYC	1,805,007	94.9%
	New York State	3,708,162	96.9%
2018	New York City	1,764,242	95.1%
	NYS excl. NYC	1,627,601	92.3%
	New York State	3,391,843	93.7%
2017	New York City	1,663,609	92.8%
	NYS excl. NYC	1,548,622	87.7%
	New York State	3,212,231	90.3%
2016	New York City	1,711,277	92.8%
	NYS excl. NYC	1,476,020	87.4%
	New York State	3,187,297	90.2%
2015	New York City	1,335,506	87.8%
	NYS excl. NYC	1,435,753	81.7%
	New York State	2,771,259	84.6%

Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of May 2022

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Data Table 2.2 Unique naloxone administrations by EMS agencies, by region, New York State, 2017-2021

Year/Quarter	Region		
	New York City	NYS excluding NYC	New York State
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
2017	**7,742**	**8,207**	**15,949**
Q1	1,745	2,032	3,777
Q2	2,058	2,291	4,349
Q3	2,197	2,168	4,365
Q4	1,742	1,716	3,458

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 May 2022
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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, 2021

Subpopulation	Number	Percentage
Age		
Age 0-17	140	0.8%
Age 18-24	1,023	5.5%
Age 25-44	7,557	40.5%
Age 45-64	7,514	40.3%
Age 65+	2,327	12.5%
Unknown	92	0.5%
Gender		
Male	13,731	73.6%
Female	4,882	26.2%
Unknown	40	0.2%
Incident location type*		
Public	8,527	45.7%
Residential	9,727	52.1%
Unknown	399	2.1%

*Incident location type is incomplete for Suffolk County.
Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of May 2022
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Data Table 2.4 Unique naloxone administrations by EMS agencies, by incident day of week, New York State, 2021

Day of week	Number of unique naloxone administrations	Percentage
Sunday	2,380	12.8%
Monday	2,421	13.0%
Tuesday	2,613	14.1%
Wednesday	2,633	14.2%
Thursday	2,885	15.5%
Friday	2,976	16.0%
Saturday	2,745	14.8%
Total	18,653	100.0%

Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of May 2022
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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*, 2021

County	Number of unique naloxone administrations (numerator)	Unique EMS dispatch volume (denominator)	Crude rate per 1,000
Albany	646	77,185	8.4
Allegany	31	7,963	3.9
Broome	198	31,866	6.2
Cattaraugus	51	12,472	4.1
Cayuga	65	14,167	4.6
Chautauqua	140	19,446	7.2
Chemung	158	17,421	9.1
Chenango	51	5,279	9.7
Clinton	52	9,168	5.7
Columbia	57	13,726	4.2
Cortland	36	7,959	4.5
Delaware	24	5,417	4.4
Dutchess^	231	43,734	5.3
Erie	596	131,101	4.5
Essex	15	4,651	3.2
Franklin	31	6,654	4.7
Fulton	68	11,504	5.9
Genesee	50	11,768	4.2
Greene	36	7,710	4.7
Hamilton	2	784	2.6*
Herkimer	52	11,062	4.7
Jefferson	55	17,036	3.2
Lewis	4	3,288	1.2*
Livingston	25	7,128	3.5
Madison	45	8,783	5.1
Monroe	617	146,433	4.2
Montgomery	94	14,346	6.6
Nassau^ +	563	144,788	3.9
Niagara	159	32,709	4.9
Oneida	267	45,795	5.8
Onondaga	548	89,603	6.1
Ontario	69	18,536	3.7
Orange^	307	41,067	7.5
Orleans	27	4,575	5.9
Oswego	131	22,592	5.8
Otsego	19	7,336	2.6
Putnam	56	9,309	6.0
Rensselaer	200	21,827	9.2

County	Total 2021 (numerator)	Unique EMS dispatch volume (denominator)	Crude rate per 1,000
Rockland^	72	26,791	2.7
Saratoga	153	30,700	5.0
Schenectady	266	34,921	7.6
Schoharie	9	2,878	3.1*
Schuyler	3	490	6.1*
Seneca	11	3,583	3.1
St. Lawrence	46	15,169	3.0
Steuben	57	15,413	3.7
Suffolk**	1,028	175,191	5.9
Sullivan^	89	12,085	7.4
Tioga	16	5,214	3.1
Tompkins	118	14,588	8.1
Ulster^	127	22,027	5.8
Warren	81	13,685	5.9
Washington	64	8,838	7.2
Wayne	44	17,381	2.5
Westchester^	268	103,888	2.6
Wyoming	8	3,676	2.2*
Yates	6	4,068	1.5*
NYS excl. NYC	8,242	1,596,774	5.2
Bronx^	2,755	309,609	8.9
Kings^	2,619	492,190	5.3
New York^	3,049	341,991	8.9
Queens^	1,487	311,266	4.8
Richmond^	501	96,682	5.2
New York City	10,411	1,551,738	6.7
New York State	18,653	3,148,512	5.9

* 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 May 2022
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Data Table 2.6 Naloxone administration reports by law enforcement and community programs, by quarter, New York State, 2021

2021	Quarter 1 January - March	Quarter 2 April - June	Quarter 3 July - September	Quarter 4 October - December
Law Enforcement	459	462	426	355
Community Programs	677	637	802	569

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 2022
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Data Table 2.7 Naloxone administration reports by law enforcement and community programs, by age group, New York State, 2021

Age Group	Law Enforcement	Community Programs
< 18 years	19	8
18-24 years	154	198
25-44 years	1,026	1,498
45-64 years	371	715
65+ years	40	94
Unknown	92	172

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 2022
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Data Table 2.8 Naloxone administration reports by law enforcement and community programs, by gender, New York State, 2021

Gender	Law Enforcement	Community Programs
Female	478	631
Male	1,198	1,863
Other*, Missing, or Unknown	26	191

* 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 2022
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Data Table 2.9 Naloxone administration reports by administrator type, New York State, 2021

Type	Naloxone Administration Reports
EMS	18,653
Law Enforcement	1,702
Community Opioid Overdose Prevention (COOP) Programs	2,685

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 May 2022; New York State Department of Health AIDS Institute; Data as of April 2022
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Data Table 3.1 Opioid burden (including outpatient emergency department visits and hospital discharges for non-fatal opioid overdose, abuse, dependence, and unspecified use; and opioid overdose death), crude rate per 100,000 population, by sub-population, New York State, 2019 and 2020*

Group	Characteristics	2019		2020	
		Numerator	Crude rate per 100,000 population	Numerator	Crude rate per 100,000 population
Age group	Age 0-17	**	**	161	4.0
	Age 18-24	3,676	204.7	3,129	174.3
	Age 25-44	27,898	525.9	23,727	447.3
	Age 45-64	15,743	306.0	13,249	257.5
	Age 65+	2,442	75.7	2,284	70.8
Gender	Male	35,567	374.8	30,979	326.4
	Female	14,347	142.7	11,565	115.0
Race/Ethnicity	White NH	26,114	237.1	22,426	203.6
	Black NH	7,585	257.9	6,727	228.7
	Asian/PI NH	348	19.5	263	14.7
	Hispanic	9,606	257.6	7,931	212.7
Region	New York City	24,022	286.1	18,954	225.7
	NYS Excl NYC	25,898	232.3	23,597	211.7
Total	New York State	49,920	255.4	42,551	217.7

*The discharge volume for 2020 were impacted by COVID-19 and do not represent a typical year for discharges.
**: Data do not meet reporting criteria.
White NH = White non-Hispanic; Black NH = Black non-Hispanic; Asian/PI NH = Asian / Pacific Islander non-Hispanic; NYS excl. NYC = New York State excluding New York City
Data sources: Death data from CDC WONDER, accessed May 2022; ED visits and hospital discharges from New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), as of April 2022
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Data Table 3.2 Opioid burden (including outpatient emergency department visits and hospital discharges for non-fatal opioid overdose, abuse, dependence, and unspecified use; and opioid overdose death), crude rate per 100,000 population, by county, New York State, 2020*

County	Numerator	Population	Crude Rate per 100,000 Population
Albany	725	306,691	236.4
Allegany	61	46,286	131.8
Bronx	5,556	1,432,316	387.9
Broome	541	192,222	281.4
Cattaraugus	177	76,748	230.6
Cayuga	122	77,121	158.2
Chautauqua	646	127,516	506.6
Chemung	206	84,033	245.1
Chenango	68	47,502	143.2
Clinton	83	80,675	102.9
Columbia	118	59,852	197.2
Cortland	102	47,721	213.7
Delaware	84	44,624	188.2
Dutchess	1,015	293,814	345.5
Erie	2,127	919,941	231.2
Essex	28	37,309	75.0
Franklin	66	50,325	131.1
Fulton	90	53,654	167.7
Genesee	123	57,509	213.9
Greene	134	47,401	282.7
Hamilton	**	4,453	**
Herkimer	57	61,760	92.3
Jefferson	226	112,266	201.3
Kings	5,192	2,580,088	201.2
Lewis	25	26,503	94.3
Livingston	80	63,281	126.4
Madison	96	71,180	134.9
Monroe	1,795	744,239	241.2
Montgomery	103	49,502	208.1
Nassau	2,094	1,357,423	154.3
New York	4,235	1,632,393	259.4
Niagara	647	210,300	307.7
Oneida	266	229,431	115.9

County	Numerator	Population	Crude Rate per 100,000 Population
Onondaga	1,049	461,890	227.1
Ontario	146	109,962	132.8
Orange	979	382,411	256.0
Orleans	88	40,708	216.2
Oswego	193	117,520	164.2
Otsego	89	59,828	148.8
Putnam	140	98,871	141.6
Queens	2,816	2,275,286	123.8
Rensselaer	354	159,452	222.0
Richmond	1,155	476,531	242.4
Rockland	596	325,656	183.0
Saratoga	328	230,127	142.5
Schenectady	440	155,334	283.3
Schoharie	57	31,182	182.8
Schuyler	14	17,842	78.5
Seneca	38	34,277	110.9
St. Lawrence	194	108,534	178.7
Steuben	117	95,876	122.0
Suffolk	3,794	1,482,275	256.0
Sullivan	342	75,381	453.7
Tioga	34	48,515	70.1
Tompkins	96	102,382	93.8
Ulster	692	178,510	387.7
Warren	127	64,269	197.6
Washington	114	61,335	185.9
Wayne	145	90,110	160.9
Westchester	1,376	968,928	142.0
Wyoming	39	40,068	97.3
Yates	38	24,959	152.2

*The discharge volume for 2020 were impacted by COVID-19 and do not represent a typical year for discharges.
**: 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 January 2022; NYC death data from CDC WONDER, as of April 2022; ED visits and hospital discharges from New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), as of April 2022
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Data Table 3.3 Newborns with neonatal abstinence syndrome and/or affected by maternal use of drugs of addiction (any diagnosis), crude rate per 1,000 newborn discharges, by sub-population, New York State, 2019 and 2020

Group	Characteristics	2019		2020	
		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	929	11.8	991	13.4
	Black NH	162	7.0	174	8.2
	Asian/PI NH	8	0.5*	10	0.7
	Hispanic	117	3.8	128	4.2
Region	New York City	282	2.8	287	3.2
	NYS Excl NYC	1,350	12.6	1,439	13.7
Total	New York State	1,632	7.9	1,726	8.8

*: Fewer than 10 events in the numerator, therefore the rate is unstable.
White NH = White non-Hispanic; Black NH = Black non-Hispanic; Asian/PI NH = Asian / Pacific Islander non-Hispanic; NYS excl. NYC = New York State excluding New York City
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of April 2022
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Data Table 3.4 Newborns with neonatal abstinence syndrome and/or affected by maternal use of drugs of addiction (any diagnosis), crude rate per 1,000 newborn discharges, by county, New York State, 2020

County	Neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction	Newborn discharges	Crude rate per 100,000 population
Albany	25	2,646	9.4
Allegany	6	391	15.3*
Bronx	64	16,001	4.0
Broome	56	1,757	31.9
Cattaraugus	14	707	19.8
Cayuga	9	638	14.1*
Chautauqua	37	1,042	35.5
Chemung	6	753	8.0*
Chenango	8	438	18.3*
Clinton	10	563	17.8
Columbia	7	382	18.3*
Cortland	17	441	38.5
Delaware	7	308	22.7*
Dutchess	38	2,386	15.9
Erie	237	9,270	25.6
Essex	**	176	**
Franklin	**	362	**
Fulton	7	404	17.3*
Genesee	16	543	29.5
Greene	6	389	15.4*
Hamilton	0	23	0.0*
Herkimer	8	565	14.2*
Jefferson	11	1,739	6.3
Kings	72	32,773	2.2
Lewis	9	248	36.3*
Livingston	8	477	16.8*
Madison	**	530	**
Monroe	63	7,448	8.5
Montgomery	11	541	20.3
Nassau	43	13,194	3.3
New York	60	13,596	4.4
Niagara	74	1,933	38.3
Oneida	27	2,310	11.7

County	Neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction	Newborn discharges	Crude rate per 100,000 population
Onondaga	74	4,842	15.3
Ontario	18	882	20.4
Orange	52	4,876	10.7
Orleans	9	365	24.7*
Oswego	53	1,154	45.9
Otsego	8	420	19.0*
Putnam	8	731	10.9*
Queens	52	23,834	2.2
Rensselaer	13	1,346	9.7
Richmond	39	4,776	8.2
Rockland	9	4,671	1.9*
Saratoga	13	1,791	7.3
Schenectady	16	1,698	9.4
Schoharie	**	213	**
Schuyler	**	137	**
Seneca	**	248	**
St. Lawrence	23	839	27.4
Steuben	17	831	20.5
Suffolk	171	14,414	11.9
Sullivan	44	771	57.1
Tioga	8	302	26.5*
Tompkins	10	571	17.5
Ulster	33	1,368	24.1
Warren	12	483	24.8
Washington	13	473	27.5
Wayne	14	841	16.6
Westchester	29	7,717	3.8
Wyoming	8	315	25.4*
Yates	**	194	**

*: 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 April 2022
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Data Table 3.5 Hospital discharges involving opioid use (including overdose, abuse, dependence, and unspecified use), crude rate per 100,000 population, by sub-population, New York State, 2019 and 2020*

Group	Characteristics	2019		2020	
		Hospital discharges	Crude rate per 100,000 population	Hospital discharges	Crude rate per 100,000 population
Age group	Age 0-17	38	0.9	45	1.1
	Age 18-24	1,387	77.3	949	52.9
	Age 25-44	11,438	215.6	7,857	148.1
	Age 45-64	6,797	132.1	4,241	82.4
	Age 65+	1,123	34.8	884	27.4
Gender	Male	14,664	154.5	9,788	103.1
	Female	6,117	60.8	4,187	41.6
Race/Ethnicity	White NH	10,883	98.8	7,549	68.5
	Black NH	3,249	110.5	2,091	71.1
	Asian/PI NH	175	9.8	90	5.0
	Hispanic	4,336	116.3	2,783	74.6
Region	New York City	9,551	113.7	5,610	66.8
	NYS Excl NYC	11,232	100.8	8,366	75.0
Total	New York State	20,783	106.3	13,976	71.5

*The discharge volume for 2020 were impacted by COVID-19 and do not represent a typical year for discharges.

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

Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of April 2022

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Data Table 3.6 Hospital discharges involving opioid use (including overdose, abuse, dependence, and unspecified use), crude rate per 100,000 population, by county, New York State, 2020^

County	Hospital Discharges	Population	Crude Rate per 100,000 Population
Albany	205	306,691	66.8
Allegany	14	46,286	30.2
Bronx	2,022	1,432,316	141.2
Broome	174	192,222	90.5
Cattaraugus	57	76,748	74.3
Cayuga	30	77,121	38.9
Chautauqua	209	127,516	163.9
Chemung	58	84,033	69.0
Chenango	14	47,502	29.5
Clinton	24	80,675	29.7
Columbia	28	59,852	46.8
Cortland	29	47,721	60.8
Delaware	23	44,624	51.5
Dutchess	477	293,814	162.3
Erie	828	919,941	90.0
Essex	**	37,309	**
Franklin	29	50,325	57.6
Fulton	35	53,654	65.2
Genesee	48	57,509	83.5
Greene	38	47,401	80.2
Hamilton	**	4,453	**
Herkimer	15	61,760	24.3
Jefferson	111	112,266	98.9
Kings	1,305	2,580,088	50.6
Lewis	12	26,503	45.3
Livingston	19	63,281	30.0
Madison	15	71,180	21.1
Monroe	528	744,239	70.9
Montgomery	32	49,502	64.6
Nassau	875	1,357,423	64.5
New York	1,034	1,632,393	63.3
Niagara	274	210,300	130.3
Oneida	55	229,431	24.0
Onondaga	243	461,890	52.6

County	Hospital Discharges	Population	Crude Rate per 100,000 Population
Ontario	40	109,962	36.4
Orange	410	382,411	107.2
Orleans	28	40,708	68.8
Oswego	41	117,520	34.9
Otsego	17	59,828	28.4
Putnam	57	98,871	57.7
Queens	929	2,275,286	40.8
Rensselaer	103	159,452	64.6
Richmond	320	476,531	67.2
Rockland	324	325,656	99.5
Saratoga	42	230,127	18.3
Schenectady	84	155,334	54.1
Schoharie	14	31,182	44.9
Schuyler	**	17,842	**
Seneca	7	34,277	20.4*
St. Lawrence	126	108,534	116.1
Steuben	11	95,876	11.5
Suffolk	1,407	1,482,275	94.9
Sullivan	120	75,381	159.2
Tioga	8	48,515	16.5*
Tompkins	16	102,382	15.6
Ulster	250	178,510	140.0
Warren	27	64,269	42.0
Washington	26	61,335	42.4
Wayne	37	90,110	41.1
Westchester	649	968,928	67.0
Wyoming	10	40,068	25.0
Yates	7	24,959	28.0*

^The discharge volume for 2020 were impacted by COVID-19 and do not represent a typical year for discharges.
*: 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 April 2022
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Data Table 3.7 Hospital discharges involving heroin overdose, crude rate per 100,000 population, by sub-population, New York State, 2019 and 2020

Group	Characteristics	2019		2020	
		Hospital discharges	Crude rate per 100,000 population	Hospital discharges	Crude rate per 100,000 population
Age group	Age 0-17	**	**	**	**
	Age 18-24	71	4.0	71	4.0
	Age 25-44	501	9.4	527	9.9
	Age 45-64	400	7.8	429	8.3
	Age 65+	86	2.7	109	3.4
Gender	Male	786	8.3	858	9.0
	Female	275	2.7	280	2.8
Race/Ethnicity	White NH	520	4.7	521	4.7
	Black NH	154	5.2	226	7.7
	Asian/PI NH	7	0.4*	9	0.5*
	Hispanic	220	5.9	222	6.0
Region	New York City	488	5.8	566	6.7
	NYS Excl NYC	573	5.1	572	5.1
Total	New York State	1,061	5.4	1,138	5.8

*: Fewer than 10 events in the numerator, therefore the rate is unstable.
**: Data do not meet reporting criteria.
White NH = White non-Hispanic; Black NH = Black non-Hispanic; Asian/PI NH = Asian / Pacific Islander non-Hispanic; NYS excl. NYC = New York State excluding New York City
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of April 2022
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Data Table 3.8 Hospital discharges involving heroin overdose, crude rate per 100,000 population, by county, New York State, 2019 and 2020

County	2019		2020	
	Hospital discharges	Crude rate per 100,000 population	Hospital discharges	Crude rate per 100,000 population
Albany	21	6.8	18	5.9
Allegany	**	**	**	**
Bronx	199	13.9	192	13.4
Broome	9	4.7*	11	5.7
Cattaraugus	**	**	**	**
Cayuga	**	**	6	7.8*
Chautauqua	7	5.5*	**	**
Chemung	7	8.3*	**	**
Chenango	**	**	**	**
Clinton	0	0.0*	**	**
Columbia	**	**	0	0.0*
Cortland	**	**	8	16.8*
Delaware	0	0.0*	**	**
Dutchess	27	9.2	18	6.1
Erie	41	4.5	43	4.7
Essex	0	0.0*	0	0.0*
Franklin	0	0.0*	0	0.0*
Fulton	**	**	**	**
Genesee	**	**	**	**
Greene	**	**	**	**
Hamilton	0	0.0*	0	0.0*
Herkimer	0	0.0*	**	**
Jefferson	7	6.2*	**	**
Kings	107	4.1	153	5.9
Lewis	**	**	**	**
Livingston	**	**	**	**
Madison	**	**	**	**
Monroe	59	7.9	53	7.1
Montgomery	**	**	**	**
Nassau	54	4.0	68	5.0
New York	97	5.9	103	6.3
Niagara	13	6.2	6	2.9*
Oneida	13	5.7	13	5.7
Onondaga	32	6.9	35	7.6
Ontario	4**	**	**	**

County	2019		2020	
	Hospital discharges	Crude rate per 100,000 population	Hospital discharges	Crude rate per 100,000 population
Orange	20	5.2	23	6.0
Orleans	**	**	**	**
Oswego	**	**	**	**
Otsego	0	0.0*	**	**
Putnam	**	**	**	**
Queens	68	3.0	81	3.6
Rensselaer	10	6.3	10	6.3
Richmond	17	3.6	37	7.8
Rockland	8	2.5*	13	4.0
Saratoga	9	3.9*	9	3.9*
Schenectady	11	7.1	9	5.8*
Schoharie	0	0.0*	**	**
Schuyler	**	**	0	0.0*
Seneca	0	0.0*	**	**
St. Lawrence	**	**	**	**
Steuben	**	**	**	**
Suffolk	91	6.1	102	6.9
Sullivan	**	**	6	8.0*
Tioga	**	**	**	**
Tompkins	**	**	**	**
Ulster	15	8.4	9	5.0*
Warren	**	**	**	**
Washington	**	**	**	**
Wayne	**	**	**	**
Westchester	45	4.6	38	3.9
Wyoming	**	**	0	0.0*
Yates	**	**	**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 April 2022
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Data Table 3.9 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, 2019 and 2020

Groups	Characteristics	2019		2020	
		ED visits	Crude rate per 100,000 population	ED visits	Crude rate per 100,000 population
Age group	Age 0-17	109	2.7	96	2.4
	Age 18-24	979	54.5	1,073	59.8
	Age 25-44	5,498	103.6	6,019	113.5
	Age 45-64	3,268	63.5	4,011	78.0
	Age 65+	908	28.2	1,046	32.4
Gender	Male	7,312	77.0	8,490	89.5
	Female	3,445	34.3	3,751	37.3
Race/Ethnicity	White NH	6,262	56.9	6,659	60.5
	Black NH	1,455	49.5	1,985	67.5
	Asian/PI NH	54	3.0	59	3.3
	Hispanic	1,484	39.8	1,821	48.8
Region	New York City	3,802	45.3	4,474	53.3
	NYS Excl NYC	6,960	62.4	7,771	69.7
Total	New York State	10,762	55.1	12,245	62.7

White NH = White non-Hispanic; Black NH = Black non-Hispanic; Asian/PI NH = Asian / Pacific Islander non-Hispanic; NYS excl. NYC = New York State excluding New York City
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of April 2022
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Data Table 3.10 All emergency department visits (including outpatient and admitted patients) involving any opioid overdose, crude rate per 100,000 population, by county, New York State, 2020

County	Emergency Department Visits	Population	Crude Rate per 100,000 Population
Albany	223	306,691	72.7
Allegany	23	46,286	49.7
Bronx	1,316	1,432,316	91.9
Broome	171	192,222	89.0
Cattaraugus	65	76,748	84.7
Cayuga	51	77,121	66.1
Chautauqua	217	127,516	170.2
Chemung	73	84,033	86.9
Chenango	24	47,502	50.5
Clinton	32	80,675	39.7
Columbia	44	59,852	73.5
Cortland	36	47,721	75.4
Delaware	31	44,624	69.5
Dutchess	250	293,814	85.1
Erie	781	919,941	84.9
Essex	6	37,309	16.1*
Franklin	24	50,325	47.7
Fulton	26	53,654	48.5
Genesee	39	57,509	67.8
Greene	40	47,401	84.4
Hamilton	**	4,453	**
Herkimer	26	61,760	42.1
Jefferson	48	112,266	42.8
Kings	1,211	2,580,088	46.9
Lewis	7	26,503	26.4*
Livingston	41	63,281	64.8
Madison	41	71,180	57.6
Monroe	863	744,239	116.0
Montgomery	30	49,502	60.6
Nassau	531	1,357,423	39.1
New York	905	1,632,393	55.4
Niagara	209	210,300	99.4
Oneida	129	229,431	56.2
Onondaga	412	461,890	89.2

County	Emergency Department Visits	Population	Crude Rate per 100,000 Population
Ontario	71	109,962	64.6
Orange	285	382,411	74.5
Orleans	29	40,708	71.2
Oswego	89	117,520	75.7
Otsego	42	59,828	70.2
Putnam	49	98,871	49.6
Queens	684	2,275,286	30.1
Rensselaer	95	159,452	59.6
Richmond	358	476,531	75.1
Rockland	114	325,656	35.0
Saratoga	98	230,127	42.6
Schenectady	149	155,334	95.9
Schoharie	17	31,182	54.5
Schuyler	7	17,842	39.2*
Seneca	29	34,277	84.6
St. Lawrence	27	108,534	24.9
Steuben	59	95,876	61.5
Suffolk	1,220	1,482,275	82.3
Sullivan	102	75,381	135.3
Tioga	12	48,515	24.7
Tompkins	54	102,382	52.7
Ulster	218	178,510	122.1
Warren	47	64,269	73.1
Washington	33	61,335	53.8
Wayne	72	90,110	79.9
Westchester	332	968,928	34.3
Wyoming	11	40,068	27.5
Yates	15	24,959	60.1

*: 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 April 2022
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Data Table 3.11 All emergency department visits (including outpatient and admitted patients) involving heroin overdose, crude rate per 100,000 population, by sub-population, New York State, 2019 and 2020

Groups	Characteristics	2019		2020	
		ED visits	Crude rate per 100,000 population	ED visits	Crude rate per 100,000 population
Age group	Age 0-17	17	0.4	9	0.2*
	Age 18-24	626	34.9	521	29.0
	Age 25-44	3,655	68.9	3,583	67.5
	Age 45-64	1,618	31.4	1,933	37.6
	Age 65+	244	7.6	330	10.2
Gender	Male	4,460	47.0	4,668	49.2
	Female	1,697	16.9	1,707	17.0
Race/Ethnicity	White NH	3,712	33.7	3,545	32.2
	Black NH	749	25.5	985	33.5
	Asian/PI NH	27	1.5	29	1.6
	Hispanic	833	22.3	964	25.9
Region	New York City	1,923	22.9	2,192	26.1
	NYS Excl NYC	4,237	38.0	4,184	37.5
Total	New York State	6,160	31.5	6,376	32.6

*: Fewer than 10 events in the numerator, therefore the rate is unstable.
White NH = White non-Hispanic; Black NH = Black non-Hispanic; Asian/PI NH = Asian / Pacific Islander non-Hispanic; NYS excl. NYC = New York State excluding New York City
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of April 2022

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Data Table 3.12 All emergency department visits (including outpatient and admitted patients) involving heroin overdose, crude rate per 100,000 population, by county, New York State, 2020

County	Emergency Department Visits	Population	Crude Rate per 100,000 Population
Albany	134	306,691	43.7
Allegany	16	46,286	34.6
Bronx	661	1,432,316	46.1
Broome	126	192,222	65.5
Cattaraugus	39	76,748	50.8
Cayuga	33	77,121	42.8
Chautauqua	128	127,516	100.4
Chemung	45	84,033	53.6
Chenango	15	47,502	31.6
Clinton	8	80,675	9.9*
Columbia	25	59,852	41.8
Cortland	17	47,721	35.6
Delaware	21	44,624	47.1
Dutchess	140	293,814	47.6
Erie	425	919,941	46.2
Essex	0	37,309	0.0*
Franklin	9	50,325	17.9*
Fulton	12	53,654	22.4
Genesee	11	57,509	19.1
Greene	28	47,401	59.1
Hamilton	0	4,453	0.0*
Herkimer	12	61,760	19.4
Jefferson	25	112,266	22.3
Kings	581	2,580,088	22.5
Lewis	**	26,503	**
Livingston	21	63,281	33.2
Madison	25	71,180	35.1
Monroe	402	744,239	54.0
Montgomery	16	49,502	32.3
Nassau	277	1,357,423	20.4
New York	434	1,632,393	26.6
Niagara	109	210,300	51.8
Oneida	74	229,431	32.3
Onondaga	266	461,890	57.6

County	Emergency Department Visits	Population	Crude Rate per 100,000 Population
Ontario	40	109,962	36.4
Orange	166	382,411	43.4
Orleans	17	40,708	41.8
Oswego	51	117,520	43.4
Otsego	21	59,828	35.1
Putnam	25	98,871	25.3
Queens	340	2,275,286	14.9
Rensselaer	52	159,452	32.6
Richmond	176	476,531	36.9
Rockland	58	325,656	17.8
Saratoga	56	230,127	24.3
Schenectady	78	155,334	50.2
Schoharie	10	31,182	32.1
Schuyler	**	17,842	**
Seneca	16	34,277	46.7
St. Lawrence	12	108,534	11.1
Steuben	33	95,876	34.4
Suffolk	615	1,482,275	41.5
Sullivan	66	75,381	87.6
Tioga	6	48,515	12.4*
Tompkins	34	102,382	33.2
Ulster	116	178,510	65.0
Warren	28	64,269	43.6
Washington	16	61,335	26.1
Wayne	35	90,110	38.8
Westchester	159	968,928	16.4
Wyoming	**	40,068	**
Yates	**	24,959	**

*: 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 April 2022
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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, 2010-2021**

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
2021	26,959	374.8	48,824	506.4	75,783	450.2
2020	31,788	442.0	52,754	547.2	84,542	502.2
2019	43,955	611.2	69,478	720.6	113,433	673.9
2018	43,953	611.1	73,939	766.9	117,892	700.3
2017	46,026	637.4	79,180	821.1	125,206	742.4
2016	47,101	650.5	80,532	834.9	127,633	755.8
2015	47,946	663.0	76,881	796.0	124,827	739.1
2014	47,926	665.0	71,172	736.0	119,098	705.7
2013	47,300	659.3	65,865	681.4	113,165	672.0
2012	48,312	677.2	60,436	626.5	108,748	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 for 2020 and 2021 were impacted by COVID-19 and do not represent a typical year for admissions.

Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of March 2022

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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, 2010-2021**

Year	Age group	OASAS admissions	Crude rate per 100,000 population
2021	Age 12-17	178	13.1
	Age 18-24	4,431	246.8
	Age 25-34	26,853	933.5
	Age 35-44	20,858	859.0
	Age 45-54	12,833	502.9
	Age 55+	10,630	182.7
2020	Age 12-17	182	13.3
	Age 18-24	5,661	315.3
	Age 25-34	30,784	1,070.1
	Age 35-44	21,745	895.5
	Age 45-54	15,226	596.7
	Age 55+	10,944	188.1
2019	Age 12-17	251	18.4
	Age 18-24	8,732	486.4
	Age 25-34	41,516	1,443.2
	Age 35-44	27,776	1,143.9
	Age 45-54	21,038	824.5
	Age 55+	14,120	242.7
2018	Age 12-17	297	21.8
	Age 18-24	11,271	627.8
	Age 25-34	45,046	1,565.9
	Age 35-44	27,471	1,131.3
	Age 45-54	21,236	832.3
	Age 55+	12,571	216.1
2017	Age 12-17	471	34.0
	Age 18-24	14,707	805.1
	Age 25-34	48,347	1,680.7
	Age 35-44	27,711	1,143.4
	Age 45-54	22,319	850.1
	Age 55+	11,651	203.4
2016	Age 12-17	602	43.0
	Age 18-24	18,251	979.9
	Age 25-34	49,329	1,716.4
	Age 35-44	26,048	1,071.8
	Age 45-54	22,579	840.9
	Age 55+	10,824	192.2

Year	Age group	OASAS admissions	Crude rate per 100,000 population
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	22,535	825.5
	Age 55+	9,865	178.4
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+	9,227	170.4
2013	Age 12-17	1,042	71.8
	Age 18-24	22,606	1,144.2
	Age 25-34	36,180	1,291.6
	Age 35-44	22,477	896.6
	Age 45-54	22,147	789.4
	Age 55+	8,713	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	22,132	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
	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 for 2020 and 2021 were impacted by COVID-19 and do not represent a typical year for admissions.

Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS)
Data as of March 2022

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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, 2010-2021**

Year	Female		Male	
	OASAS Admissions	Crude rate per 100,000 population	OASAS Admissions	Crude rate per 100,000 population
2021	21,361	244.7	54,422	671.5
2020	23,719	271.7	60,823	750.5
2019	33,140	379.6	80,293	990.8
2018	35,692	408.9	82,200	1,014.3
2017	38,074	435.3	87,132	1,073.5
2016	38,492	439.3	89,141	1,097.1
2015	37,486	427.5	87,341	1,075.4
2014	34,887	398.0	84,211	1,038.2
2013	32,918	376.3	80,247	991.8
2012	31,088	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 for 2020 and 2021 were impacted by COVID-19 and do not represent a typical year for admissions.

Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of March 2022

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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, 2010-2021**

Year	Race/ethnicity	OASAS admissions	Crude rate per 100,000 population
2021	White NH	43,623	450.5
	Black NH	10,870	433.3
	Other NH	3,374	211.9
	Hispanic	17,916	587.4
2020	White NH	48,579	501.7
	Black NH	12,362	492.8
	Other NH	3,612	226.9
	Hispanic	19,989	655.4
2019	White NH	64,571	666.9
	Black NH	17,453	695.7
	Other NH	4,728	297.0
	Hispanic	26,681	874.8
2018	White NH	70,580	728.9
	Black NH	16,163	644.3
	Other NH	4,793	301.0
	Hispanic	26,356	864.1
2017	White NH	76,908	789.2
	Black NH	16,683	663.5
	Other NH	5,279	334.6
	Hispanic	26,336	869.8
2016	White NH	79,990	815.8
	Black NH	16,045	637.2
	Other NH	4,921	316.5
	Hispanic	26,677	886.8
2015	White NH	78,076	791.3
	Black NH	15,680	622.8
	Other NH	4,654	305.3
	Hispanic	26,417	886.1
2014	White NH	73,663	742.5
	Black NH	15,736	626.2
	Other NH	3,912	262.2
	Hispanic	25,787	873.9
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

Year	Race/ethnicity	OASAS admissions	Crude rate per 100,000 population
	Other NH	2,979	208.4
	Hispanic	24,834	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 for 2020 and 2021 were impacted by COVID-19 and do not represent a typical year for admissions.
Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of March 2022
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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, 2021*****

Region / County	OASAS admissions	Population	Crude rate per 100,000 population
Albany	1,301	269,560	569.4
Allegany	181	40,264	434.6
Bronx	7,934	1,190,238	765.8
Broome	2,287	167,840	1,169.6
Cattaraugus	341	65,734	471.6
Cayuga	496	67,348	583.5
Chautauqua	751	110,674	768.0
Chemung	402	72,253	682.3
Chenango	264	41,201	565.5
Clinton	515	71,115	615.9
Columbia	210	53,554	519.1
Cortland	340	41,774	612.8
Delaware	182	39,902	406.0
Dutchess	1,689	259,633	645.1
Erie	3,889	798,247	537.9
Essex	108	33,481	316.6
Franklin	182	44,014	493.0
Fulton	216	46,651	583.1
Genesee	308	49,883	709.7
Greene	185	42,420	539.8
Hamilton	8	4,111	194.6
Herkimer	184	53,585	408.7
Jefferson	574	92,859	584.8
Kings	6,286	2,167,159	338.3
Lewis	66	22,544	341.6
Livingston	235	56,232	481.9
Madison	231	62,546	433.3
Monroe	4,076	643,192	803.5
Montgomery	246	42,034	816.0
Nassau	2,766	1,169,751	258.7
New York	6,740	1,466,496	592.2
Niagara	1,327	182,920	880.2
Oneida	1,206	197,317	719.7
Onondaga	3,362	397,474	876.3
Ontario	638	95,901	822.7
Orange	1,952	319,401	715.7
Orleans	174	35,695	638.7
Oswego	704	101,538	779.0
Otsego	180	53,634	359.8
Putnam	251	87,041	278.0
Queens	4,242	1,959,200	232.2
Rensselaer	497	139,100	527.7
Richmond	1,757	408,946	515.5

Region / County	OASAS admissions	Population	Crude rate per 100,000 population
Rockland	880	264,128	338.1
St. Lawrence	482	94,322	536.5
Saratoga	594	200,569	338.0
Schenectady	777	133,161	700.7
Schoharie	92	27,722	465.3
Schuyler	101	15,618	512.2
Seneca	194	29,842	569.7
Steuben	417	82,510	495.7
Suffolk	6,329	1,284,884	523.9
Sullivan	812	64,924	1,338.5
Tioga	223	42,178	329.6
Tompkins	643	92,571	283.0
Ulster	1,177	158,553	696.9
Warren	339	56,828	568.4
Washington	226	53,991	500.1
Wayne	470	77,556	753.0
Westchester	2,376	833,192	306.9
Wyoming	63	35,214	201.6
Yates	105	21,297	511.8

*Fewer than 10 events in the numerator, therefore the rate is unstable

** 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 for 2020 and 2021 were impacted by COVID-19 and do not represent a typical year for admissions.

Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of March 2022

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Data Table 5.1 Commonly prescribed opioid analgesics, crude rate per 1,000 population, by quarter, New York State, 2018-2021

		Crude rate per 1,000 population					
Year	Quarter	Oxycodone SA	Hydrocodone SA	Tramadol SA	Codeine	Fentanyl LA	Oxycodone LA
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	31.7	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
2018	Jan - Mar	37.2	23.2	14.0	5.6	2.6	2.6
	Apr - Jun	37.1	22.8	14.4	5.6	2.6	2.6
	Jul - Sep	36.0	22.0	14.1	5.2	2.4	2.5
	Oct - Dec	35.9	21.6	14.3	5.2	2.3	2.4

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 April 2022
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Data Table 5.2 Opioid analgesic prescriptions, crude rate per 1,000 population, by region, New York State, 2018-2021

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
2021	1,552,587	184.9	4,418,856	396.4	5,972,735	305.6
2020	1,592,646	189.7	4,577,500	410.6	6,171,566	315.8
2019	1,835,159	218.6	4,998,089	448.4	6,835,092	349.7
2018	2,019,990	240.6	5,395,256	484.0	7,417,405	379.5

The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
New York State total contains number with county unknown.
NYS excl. NYC = New York State excluding New York City
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
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Data Table 5.3 Opioid analgesic prescriptions, crude rate per 1,000 population, by age and gender, New York State, 2021

Age group	Gender	Number of opioid analgesics prescriptions	Crude rate per 1,000 population
Age 18-24	Male	52,228	58.0
	Female	70,748	79.1
Age 25-34	Male	133,812	92.9
	Female	206,602	143.8
Age 35-44	Male	259,137	216.6
	Female	373,948	303.6
Age 45-54	Male	424,463	342.4
	Female	556,207	424.0
Age 55-64	Male	749,300	603.1
	Female	873,386	646.5
Age 65+	Male	923,342	665.3
	Female	1,302,136	708.9

The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
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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, 2019-2021

Year	Region	Number of incidents when patients were opioid naïve and received long-acting opioid prescription*	Number of opioid naïve incidents	Percentage
2021	New York City	3,737	559,191	0.7
	NYS excl. NYC	11,822	1,220,660	1.0
	New York State	15,563	1,780,048	0.9
2020	New York City	4,601	528,389	0.9
	NYS excl. NYC	14,365	1,187,995	1.2
	New York State	18,969	1,716,559	1.1
2019	New York City	6,395	645,978	1.0
	NYS excl. NYC	24,761	1,373,933	1.8
	New York State	31,159	2,020,193	1.5

*Patient received index prescription of long-acting opioid and was opioid naïve.
The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
Opioid naïve was defined as patients with no opioid prescription for pain in last 45 days.
New York State total includes records where county is unknown.
NYS excl. NYC = New York State excluding New York City
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
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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, 2019-2021

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
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
2019	New York City	16.6	15.7	16.0	16.3
	NYS excl. NYC	17.4	17.5	16.9	17.4
	New York State	17.2	16.9	16.6	17.1

*Patient received index prescription of an opioid of more than seven days and was opioid naïve.
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.
NYS excl. NYC = New York State excluding New York City
Data Source: NYS Prescription Monitoring Program; Data as of April 2022.
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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, 2018-2021

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
2021	101	0.6	257	1.2	359	0.9
2020	96	0.6	216	1.0	314	0.8
2019	147	0.9	306	1.4	453	1.2
2018	142	0.8	373	1.7	516	1.3

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.
NYS excl. NYC = New York State excluding New York City
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
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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, 2018-2021

Year	Region	Number of patients received opioid analgesics ≥ 90 MME	Number of patients received opioid analgesic prescriptions	Percentage
2021	New York City	50,077	544,044	9.2
	NYS exc. NYC	122,739	1,223,326	10.0
	New York State	172,887	1,767,624	9.8
2020	New York City	53,997	519,312	10.4
	NYS exc. NYC	130,808	1,199,079	10.9
	New York State	184,883	1,718,660	10.8
2019	New York City	63,762	626,416	10.2
	NYS exc. NYC	150,095	1,365,216	11.0
	New York State	213,950	1,991,984	10.7
2018	New York City	74,897	694,313	10.8
	NYS exc. NYC	174,197	1,479,489	11.8
	New York State	249,220	2,174,237	11.5

The data exclude buprenorphine prescriptions for pain and treatment of opioid use disorder.
MME: morphine milligram equivalents.
NYS excl. NYC = New York State excluding New York City
New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022.
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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, 2021

Age group	Gender	Number of patients received opioid analgesics ≥ 90 MME	Number of patients received opioid analgesic prescriptions	Percentage
Age 18-24	Male	783	40,707	1.9
	Female	696	56,861	1.2
Age 25-34	Male	3,328	71,972	4.6
	Female	3,467	120,758	2.9
Age 35-44	Male	7,894	89,799	8.8
	Female	8,465	139,024	6.1
Age 45-54	Male	13,879	115,279	12.0
	Female	14,736	154,471	9.5
Age 55-64	Male	24,967	174,370	14.3
	Female	24,915	200,693	12.4
Age 65+	Male	31,726	241,021	13.2
	Female	37,625	324,834	11.6

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 April 2022
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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, 2018-2021

Year	Region	Number of patients with two or more overlapping days	Number of patients received opioid or benzo prescriptions	Percentage
2021	New York City	53,516	832,879	6.4
	NYS exc. NYC	156,596	1,772,994	8.8
	New York State	210,153	2,606,284	8.1
2020	New York City	55,611	820,121	6.8
	NYS exc. NYC	160,328	1,750,094	9.2
	New York State	215,990	2,570,662	8.4
2019	New York City	62,408	930,937	6.7
	NYS exc. NYC	175,639	1,912,168	9.2
	New York State	238,099	2,843,650	8.4
2018	New York City	69,802	1,000,255	7.0
	NYS exc. NYC	195,895	2,021,917	9.7
	New York State	265,761	3,022,855	8.8

* Patients with at least one prescription for opioid analgesics or benzodiazepines during a given year.
The data exclude buprenorphine prescriptions for treatment of opioid use disorder.
New York State total contains number with county unknown.
NYS excl. NYC = New York State excluding New York City
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
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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, 2021

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	705	52,754	1.3
	Female	1,440	76,895	1.9
Age 25-34	Male	3,138	112,017	2.8
	Female	7,174	188,918	3.8
Age 35-44	Male	6,692	137,263	4.9
	Female	14,937	219,787	6.8
Age 45-54	Male	10,631	162,790	6.5
	Female	22,233	243,339	9.1
Age 55-64	Male	18,677	231,903	8.1
	Female	32,648	308,009	10.6
Age 65+	Male	32,428	322,946	10.0
	Female	58,302	493,358	11.8

* Patients with at least one prescription for opioid analgesics or benzodiazepines during a given year.
The data exclude buprenorphine prescriptions for treatment of opioid use disorder.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022.
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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, 2018-2021

Year	Region	Number of patients with two or more overlapping days	Number of patients received opioid prescriptions	Percentage
2021	New York City	72,951	544,202	13.4
	NYS exc. NYC	194,029	1,224,400	15.8
	New York State	267,060	1,768,856	15.1
2020	New York City	77,881	519,453	15.0
	NYS exc. NYC	201,582	1,200,086	16.8
	New York State	279,560	1,719,809	16.3
2019	New York City	90,230	626,549	14.4
	NYS exc. NYC	226,200	1,366,164	16.6
	New York State	316,544	1,993,065	15.9
2018	New York City	101,952	694,443	14.7
	NYS exc. NYC	249,448	1,480,274	16.9
	New York State	351,547	2,175,152	16.2

* Patients with at least one prescription for opioid analgesics during a given year.
The data exclude buprenorphine prescriptions for treatment of opioid use disorder.
New York State total contains number with county unknown.
NYS excl. NYC = New York State excluding New York City
Data Source: NYS Prescription Monitoring Program; Data as of April 2022
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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, 2021

Age group	Gender	Number of patients with two or more overlapping days	Number of patients received opioid prescriptions	Percentage
Age 18-24	Male	836	40,709	2.1
	Female	867	56,861	1.5
Age 25-34	Male	4,093	71,990	5.7
	Female	5,003	120,778	4.1
Age 35-44	Male	10,046	89,837	11.2
	Female	13,125	139,086	9.4
Age 45-54	Male	18,322	115,363	15.9
	Female	22,926	154,609	14.8
Age 55-64	Male	34,734	174,499	19.9
	Female	39,595	200,874	19.7
Age 65+	Male	47,908	241,225	19.9
	Female	68,824	325,190	21.2

* Patients with at least one prescription for opioid analgesics during a given year.
The data exclude buprenorphine prescriptions for treatment of opioid use disorder.
Data Source: NYS Prescription Monitoring Program; Data as of April 2022.
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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, 2018-2021

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
2021	15,416	183.6	65,572	588.2	81,020	414.5
2020	16,215	193.1	63,632	570.8	79,882	408.7
2019	16,720	199.1	61,941	555.7	78,718	402.8
2018	15,483	184.4	56,894	510.4	72,435	370.6

New York State total contains number with county unknown.
NYS excl. NYC = New York State excluding New York City
Data Source: NYS Prescription Monitoring Program; Data as of April 2022.
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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, 2021

Age group	Gender	Number of patients	Crude rate per 100,000 population
Age 18-24	Male	1,262	140.1
	Female	760	85.0
Age 25-34	Male	14,572	1,011.9
	Female	8,842	615.5
Age 35-44	Male	16,694	1,395.2
	Female	10,177	826.3
Age 45-54	Male	9,080	732.4
	Female	4,918	374.9
Age 55-64	Male	6,854	551.7
	Female	3,689	273.1
Age 65+	Male	2,587	186.4
	Female	1,447	78.8

Data Source: NYS Prescription Monitoring Program; Data as of April 2022

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Data Table 6.1. Perceptions of public health problems as "very serious" among New York State residents, November 2016 – January 2022

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 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 2022

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