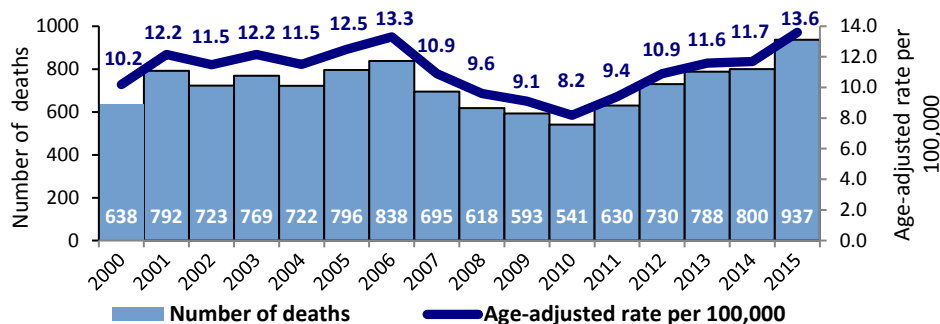




Unintentional Drug Poisoning (Overdose) Deaths Involving Heroin and/or Fentanyl in New York City, 2000–2015

- In 2015, there were 937 unintentional drug overdose deaths in New York City (NYC) compared with 800 unintentional drug overdose deaths in 2014.
- The rate of unintentional drug overdose death increased for the fifth consecutive year, from 8.2 per 100,000 residents in 2010 to 13.6 per 100,000 residents in 2015, a 66% increase.

Unintentional overdose deaths, New York City, 2000–2015*

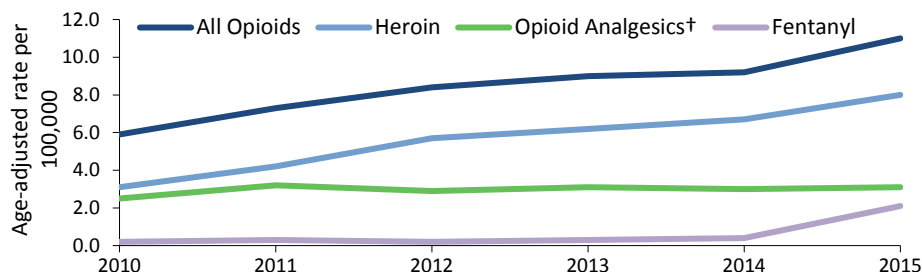


*Data for 2015 are provisional and are subject to change.

Source: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics, 2000–2015

- In 2015, the rate was highest among Bronx residents, 22.6 per 100,000 residents, a 46% increase from 15.5 per 100,000 residents in 2014.
- Latino New Yorkers had the largest increase (46%) compared with all other races/ethnicities. The rate increased from 11.2 per 100,000 residents in 2014 to 16.4 per 100,000 residents in 2015.
- In 2015, nearly all (97%) overdose deaths involved more than one substance. Eight in ten (80%) overdose deaths involved an opioid.
- Heroin was involved in 556 (59%) of all overdose deaths in NYC in 2015, making it the most common substance involved in overdose deaths. Opioid analgesics, excluding fentanyl, were involved in 214 (23%) of overdose deaths in 2015. A total of 146 (16%) overdose deaths involved fentanyl.

Unintentional overdose deaths by opioid type (not mutually exclusive), New York City, 2010–2015*



*Data for 2015 are provisional and are subject to change.

†Opioid analgesics excludes fentanyl.

Source: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics, 2010–2015

Data Source:

NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics:

Mortality data for 2000–2015 were collected through an in-depth review of data and charts from DOHMH Bureau of Vital Statistics and NYC Office of the Chief Medical Examiner. Data for 2015 are provisional and subject to change.

Rate calculation: DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000–2014, updated October, 2015. Rates from 2015 use estimates from 2014. These rates will differ from previously reported rates based on Census counts or previous versions of population estimates. Rates are age-adjusted to Census 2000 US standard population, except those for specific age groups.

Definitions:

Opioid analgesics: Commonly known as prescription pain relievers, such as oxycodone (Percocet®) and hydrocodone (Vicodin®).

†For this analysis, opioid analgesics exclude fentanyl.

Fentanyl: a synthetic and short-acting opioid analgesic 50–100 times more potent than morphine.

Race/ethnicity: White and Black race categories exclude Latino ethnicity. Latino includes Hispanic and Latino origin.

Neighborhood poverty: Based on ZIP code and defined as percentage of residents with incomes below 100% of the federal poverty level (FPL), per American Community Survey 2007–2011, in four groups: low (<10% FPL), medium (10%–<20% FPL), high (20%–<30% FPL), and very high (≥30% FPL).

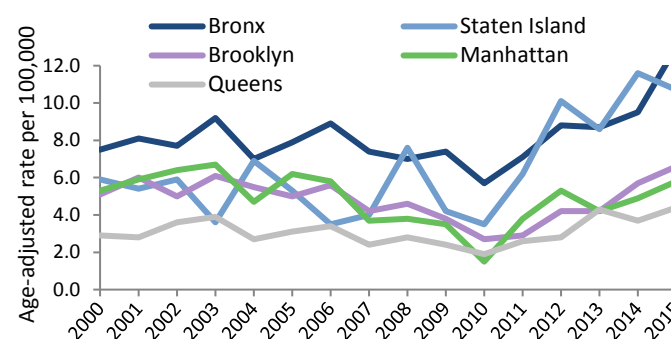
Unintentional overdose deaths involving opioid analgesics (excluding fentanyl)

- The rate of overdose death involving opioid analgesics, excluding fentanyl, has been stable for the last five years, 2011 to 2015 (3.1 per 100,000 residents).
- In 2015, the rate of overdose deaths involving opioid analgesics was highest among residents of Staten Island; the rate decreased by 8%, from 7.6 in 2014 to 7.0 per 100,000 Staten Island residents in 2015.
- The largest increase (44%) was among residents of the Bronx; the rate of opioid analgesic-involved overdose deaths (excluding fentanyl) increased from 3.4 to 4.9 per 100,000 residents from 2014 to 2015.

Unintentional overdose deaths involving heroin

- The rate of heroin-involved overdose death in NYC increased for the fifth consecutive year since 2010.
- The rate increased 158%, from 3.1 per 100,000 residents in 2010 to 8.0 per 100,000 residents in 2015.
- In 2015, heroin-involved overdose death rates increased in all boroughs except Staten Island.
- Bronx residents had the highest rate of heroin-involved overdose death, 13 per 100,000 residents (146 deaths) in 2015.
- The rate in the Bronx was more than double the rate in Queens (4.4 per 100,000; 83 deaths), Manhattan (5.8 per 100,000; 78 deaths), and Brooklyn (6.6 per 100,000 ; 136 deaths). The rate in Staten Island was 10.7 per 100,000 (38 deaths).

Unintentional overdose deaths involving heroin by borough of residence, New York City, 2000–2015*

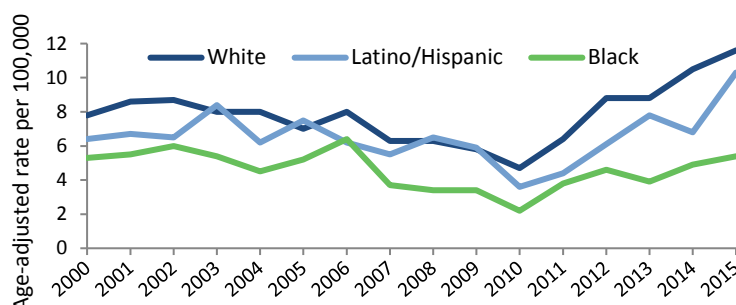


* Data for 2015 are provisional and are subject to change.

Source: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics, 2000–2015

- In 2015, four of the five neighborhoods with the highest rates of heroin-involved overdose death were in the Bronx: Hunts Point-Mott Haven (18.8 per 100,000), Crotona-Tremont (18.4 per 100,000), Highbridge-Morrisania (15.9 per 100,000), and Fordham-Bronx Parkway (15.4 per 100,000). South Beach-Tottenville in Staten Island had the fifth highest rate, 14.9 per 100,000.
- From 2014 to 2015, the rate of heroin-involved overdose death more than doubled among residents of Downtown Brooklyn-Heights-Slope (Brooklyn), an increase of 170%. Rates increased more than 50% in Flushing (Queens), Washington Heights-Inwood (Manhattan), Highbridge-Morrisania (Bronx), Fordham-Bronx Parkway (Bronx), Borough Park (Brooklyn), and Southwest Queens (Queens).

Unintentional overdose deaths involving heroin by race/ethnicity, New York City, 2000–2015*



* Data for 2015 are provisional and subject to change.

White and Black race categories exclude Hispanic/Latino ethnicity.

Source: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics, 2000–2015

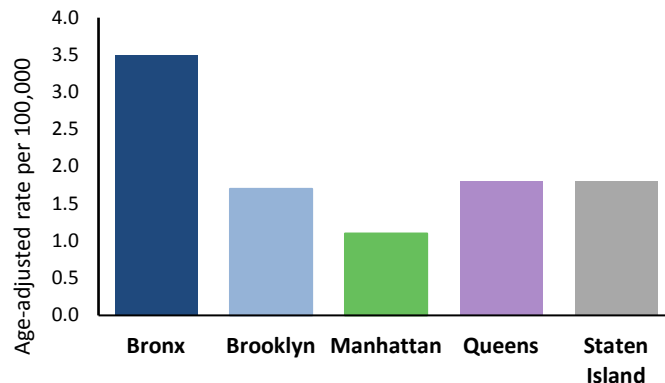
- In 2015, the rate was highest among White New Yorkers (11.6 per 100,000). The rate increased 51% among Latino New Yorkers from 6.8 per 100,000 in 2014 to 10.3 per 100,000 in 2015.
- Residents of the highest poverty neighborhoods had a higher rate of overdose death involving heroin (12.5 per 100,000) than residents of the lowest poverty neighborhoods (5.5 per 100,000) in 2015.
- From 2010 to 2015, New Yorkers aged 35 to 54 had the highest rates. The rate increased 135% from 4.9 per 100,000 residents in 2010 to 11.5 per 100,000 residents in 2015.

- New Yorkers aged 15 to 34 had the largest increase in heroin-related overdose deaths. The rate increased by 248%, from 2.1 per 100,000 residents in 2010 to 7.3 per 100,000 residents in 2015.

Unintentional overdose deaths involving fentanyl

- In 2015, 146 (16%) overdose deaths involved fentanyl (2.1 per 100,000 residents).
- Data from the previous ten years show that at most 3% of overdose deaths annually involved fentanyl.
- In 2015 the rate of fentanyl-involved overdose was highest among Bronx residents, 3.5 per 100,000 residents, double the rate of all other boroughs.
- Of the 146 fentanyl-involved overdose deaths in 2015, 102 (70%) also involved heroin.
- In 2015, the rates of overdose death involving both fentanyl and heroin were highest among residents of very high poverty neighborhoods (2.3 per 100,000), New Yorkers aged 25 to 34 (2.4 per 100,000), and residents of the Bronx (2.4 per 100,000).
- Rates of overdose death involving fentanyl without heroin differed only by age, and were highest among New Yorkers aged 45 to 54 (1.3 per 100,000).

Unintentional overdose deaths involving fentanyl by borough of residence, New York City, 2015*



* Data for 2015 are provisional and are subject to change.

Source: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics, 2015

COMMENT

- Fentanyl, a synthetic and short-acting opioid analgesic, is 50 to 100 times more potent than morphine and approved for managing acute or chronic pain associated with advanced cancer.¹
- While pharmaceutical fentanyl can be diverted for misuse, most cases of fentanyl-related morbidity and mortality have been linked to illicitly manufactured fentanyl and fentanyl analogues.²
- While fentanyl-involved overdoses can be reversed with naloxone, patients may require a higher dose or multiple doses due to fentanyl's high potency.¹
- Early results have identified three issues related to fentanyl:
 - Survey data collected from syringe exchange program (SEP) participants in NYC found that the vast majority of drug users buying heroin were not intentionally seeking fentanyl, thus were not aware if they had used fentanyl.^{3,4}
 - Thus, drug users that are not aware that they are using fentanyl are at increased risk of overdose. This suggests the need to educate users on risk reduction practices, such as not using alone and having naloxone.
 - Street level sellers who use drugs may not know their drug products are tainted and may not want to be associated with deaths among users they have supplied.³

1. Centers for Disease Control and Prevention. Increases in Fentanyl Drug Confiscations and Fentanyl-related Overdose Fatalities. HAN Health Advisory. October 26, 2015.
2. National Heroin Threat Assessment Summary. DEA Intelligence Report. April 2015.
3. An Open Letter to United States Public Health Agencies. Johns Hopkins University and Brown University. May 4, 2016.
4. NYC Department of Health and Mental Hygiene. Unpublished data. May 2016.

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