Patterns of Opioid Analgesic Prescriptions for New York City Residents

- The number of New York City (NYC) residents who filled an opioid analgesic prescription increased by 19% between 2008 and 2011, from 632,000 (75 per 1,000 residents) to 765,000 (89 per 1,000 residents).
- In 2011, Staten Island residents filled prescriptions at higher rates than residents of all other boroughs (131 per 1,000 residents compared with about 100 per 1,000 residents of the Bronx and Manhattan and close to 80 per 1,000 residents of Brooklyn and Queens).

**Rate of opioid analgesic prescriptions filled by New York City residents, by borough, 2011**

Characteristics and patterns of New York City residents filling opioid analgesic prescriptions

- More than two-thirds of NYC residents who filled an opioid analgesic prescription (68%) filled only one prescription; 18% filled two or three prescriptions; 13% filled four or more prescriptions in 2011.
- Female New Yorkers filled more than half (57%) of opioid analgesic prescriptions (95 per 1,000 females versus 82 per 1,000 males).
- New Yorkers aged 45 or older had a higher rate of prescriptions filled (139 per 1,000 residents) than younger residents aged 44 and younger (65 per 1,000 residents).
- In 2011, the most common payment method was commercial insurance (55%), followed by cash or credit (18%) and Medicaid (13%).
- More than three-quarters (77%) of New Yorkers filled prescriptions written by only one prescriber, while 19% filled prescriptions written by two to three prescribers, and 4% by four or more prescribers in 2011.
- Nearly all (95%) New Yorkers filled prescriptions at only one or two pharmacies.
- Approximately 90% of prescriptions were for short-acting opioid analgesics.

**Data Source:**
NYS PMP: The Prescription Monitoring Program (PMP) managed by the New York State Department of Health Bureau of Narcotics, includes data from drug dispensers on schedule II-V controlled substances.

**Methods:**
This report includes data from 2008 to 2011 on schedule II and select schedule III opioid analgesics prescribed to New York City (NYC) residents. The term New Yorkers in this brief refers to NYC residents. Prescribers listed as veterinarians (1%) were removed from analyses.

**Data limitations:**
Patient diagnosis was unavailable, so the reason for opioid prescriptions could not be determined.

**Definitions:**
Opioid Analgesics: Also known as prescription pain relievers, such as oxycodone (Percocet®) and hydrocodone (Vicodin®)
Duration: Opioid analgesic formulations are classified as short-acting or long-acting on the basis of their duration of action.
Median day supply: Calculated from day supply of each prescription filled in the year.
High dose: is any opioid analgesic prescription with a calculated morphine equivalent dose (MED) greater than 100.

Among patients receiving opioid prescriptions, overdose rates increase with increasing doses of prescribed opioids.

**Authored by:**
Ellenie Tuazon, Deysia Levin, Daniella Bradley O’Brien, Denise Paone
Prescription characteristics: median day supply and high dose prescriptions

- In 2011, the median day supply of short-acting opioid analgesic prescriptions was 15 days.
- Those aged 45 to 54 received the highest median day supply (22 days), while those aged 15 or younger had the lowest median day supply (5 days).
- Males had a longer median day supply (16 days) than females (15 days).
- In 2011, Staten Island residents had the highest median day supply (25 days), compared with 15 days among residents of the Bronx, Brooklyn, and Queens, and 10 days among Manhattan residents.

- Between 2008 and 2011, the median day supply of short-acting opioid analgesic prescriptions increased among residents of all boroughs; for residents of Staten Island from 19 to 25 days, Queens 10 to 15 days, for residents of the Bronx from 11 to 15 days, Brooklyn from 13 to 15 days, and Manhattan from 8 to 10 days.

**Median day supply\(^1\) of short-acting\(^2\) opioid analgesic prescriptions filled by New York City residents, by borough and gender, 2011**

![Graph showing median day supply by borough and gender]

\(^1\) Median day supply is calculated from day supply of each prescription filled in the year.

\(^2\) Opioid analgesic formulations are classified as short-acting or long-acting on the basis of their duration of action. *Source: NYS Prescription Monitoring Program, 2011*

**Rate of high-dose\(^1\) opioid analgesic prescriptions filled by New York City residents, by borough, 2008-2011**

![Graph showing rate of high-dose prescriptions by borough]

\(^1\) High dose is any opioid analgesic prescription with a calculated morphine equivalent dose (MED) greater than 100. Among patients receiving opioid prescriptions, overdose rates increase with increasing doses of prescribed opioids. *Source: NYS Prescription Monitoring Program, 2008-2011*

- The high-dose prescription rate for all boroughs increased from 2008 to 2011, but was far higher and rose more in Staten Island than any other borough.
- In 2011, there were approximately 40 high dose prescriptions filled per 1,000 NYC residents. Staten Island residents had the highest rate of high dose prescriptions (121 per 1,000), more than double the rate of residents from all other boroughs. Staten Island residents also had the highest rate of opioid analgesic overdose deaths (11.2 vs. 3.3 per 100,000 for NYC overall).
- Males filled high dose prescriptions more than females (49 per 1,000 males versus 32 per 1,000 females).
- New Yorkers aged 45 to 54 filled high dose prescriptions at higher rates (10 per 1,000) than any other age group.

**MORE New York City Health Data and Publications**

- For more information on drug use, check out the following Health Department resources: [Help to Stop Using; Opioid Analgesics in NYC: Prescriber Practices Epi Data Brief; Unintentional Opioid Analgesic Poisoning Deaths Epi Data Brief](http://www.nyc.gov/html/doh/downloads/pdf/epi/datatable32.pdf)
- Visit EpiQuery – the Health Department’s online, interactive health data system at [www.nyc.gov/health/EpiQuery](http://www.nyc.gov/health/EpiQuery)