

Drug use related mortality, morbidity, and prevalence among New York City Youth (Ages 15-24)

Introduction:

This fact sheet describes drug use related morbidity, mortality, and prevalence among New York City youth from 2000 to 2013. Drug-related hospitalizations and fatal overdoses are rare among New York City youth; from 2000 to 2013, 5% of overdose deaths (502 out of 9,873) were among NYC residents aged 15 to 24. Similarly, NYC residents in this age group made up 9% (28,939 out of 331,828) of drug-related hospitalizations from 2007 to 2012. In 2013, 8% of New York City public high school students had tried any illicit drug.

A. Mortality:

Source: New York City Office of the Chief Medical Examiner & New York City Department of Health and Mental Hygiene, 2000- 2013.

Summary: Over a span of fourteen years (2000-2013), there were 502 unintentional drug poisoning (overdose) deaths among New Yorkers aged 15 to 24, making up 5% of all overdose deaths during the same time period.

Overdose Mortality among New Yorkers aged 15-24 year, 2013:

- There were 788 unintentional drug poisoning (overdose) deaths in NYC (11.6 per 100,000 New Yorkers) in 2013.
 - Of the 788 unintentional overdose deaths, 6% (n=45) were among 15-24 year olds, (4.0 per 100,000 residents aged 15-24).
- Of the 788 overdose deaths, 424 (54%) involved heroin (6.2 per 100,000 residents)
 - 8% (n=32) of the heroin-involved overdose deaths were among 15-24 year olds (2.9 per 100,000 residents aged 15-24).
- Of the 788 overdose deaths, 220 (28%) involved opioid analgesics (3.2 per 100,000 residents).
 - 5% (n=11) of the opioid analgesic-involved overdose deaths were among 15-24 year olds (1.0 per 100,000 residents aged 15-24).
- Of the 788 overdose deaths, 364 (46%) involved cocaine (5.5 per 100,000 residents).
 - 5% (n=20) of the cocaine-involved overdose deaths were among 15-24 year olds (1.8 per 100,000 residents aged 15-24).

Overdose mortality among 15-24 year olds in New York City by borough of residence, 2012-2013:

Note: Numbers were collapsed into two-year groupings due to small totals.

*Drugs are not mutually exclusive.

- Bronx, 2012-2013:
 - 12 Bronx residents aged 15-24 died of an unintentional drug overdose
 - 7 out of the 12 deaths involved cocaine (58%)
 - 8 out of the 12 deaths involved heroin (67%)
 - 7 out of the 12 deaths involved benzodiazepines (58%)
 - 6 out of the 12 deaths involved opioid analgesics (50%)

- Brooklyn, 2012-2013
 - 22 residents aged 15-24 died of an unintentional drug overdose
 - 8 out of the 22 deaths involved cocaine (36%)
 - 11 out of the 22 deaths involved heroin (50%)
 - 12 out of the 22 deaths involved opioid analgesics (55%)
 - 18 out of the 22 deaths involved benzodiazepines (82%)
- Manhattan, 2012-2013:
 - 9 residents aged 15-24 died of an unintentional drug overdose
 - 6 out of the 9 deaths involved heroin (67%)
 - Numbers too small to report cocaine, benzodiazepine, or opioid analgesic- involved deaths involved deaths
- Queens, 2012-2013
 - 15 residents aged 15-24 died of an unintentional drug overdose
 - 6 out of the 15 deaths involved cocaine (40%)
 - 11 out of the 15 deaths involved heroin (73%)
 - 11 out of the 15 deaths involved benzodiazepines (73%)
 - Numbers too small to report opioid analgesic-involved deaths
- Staten Island, 2012-2013
 - 11 residents aged 15-24 died of an unintentional drug overdose
 - 9 out of the 11 deaths involved heroin (82%)
 - 8 out of the 11 deaths involved benzodiazepines (73%)
 - Numbers too small to report cocaine and opioid analgesic-involved deaths

B. Hospitalizations:

Source: New York State Department of Health, Statewide Planning and Research Coordination System, 2007-2012

Note: Drug-related hospitalizations exclude detoxification and rehabilitation discharges, self-inflicted injury, injury purposely inflicted by other persons, and injury undetermined whether accidentally or purposely inflicted.

Drug-related hospitalizations among 15-24 year olds in New York City, 2012:

- There were a total of 58,665 drug-related hospitalizations among New York City residents in New York City in 2012; 59,000 (9%) were drug-related admissions.
- Approximately 10% (n=5,736) of all drug-related hospitalizations were among New York City residents aged 15-24.
 - The rate of drug-related hospitalizations among New Yorkers aged 15-24 was 502.2 per 100,000 residents, which is three times less than that of New Yorkers aged 45-54
- In 2012, Brooklyn residents accounted for the greatest proportion (34%) of drug-related hospitalizations among New Yorkers aged 15-24, followed by Bronx residents (25%). Staten Island residents accounted for the lowest proportion (7%) of all drug-related hospitalizations among 15-24 year old New Yorkers.

Drug-related hospitalization rates among 15-24 year olds in New York City by borough of residence, 2012:

- Bronx:
 - Bronx residents aged 15-24 had the highest rate of drug-related hospitalizations among 15-24 year old New Yorkers (637.0 per 100,000 residents).
- Staten Island:
 - Staten Island residents aged 15-24 had the second highest rate of drug-related hospitalizations among 15-24 year old New Yorkers (594.1 per 100,000 residents).
- Brooklyn:
 - The rate of drug-related hospitalizations among 15-24 year old Brooklyn residents was 546.8 per 100,000 residents.
- Manhattan:
 - The rate of drug-related hospitalizations among 15-24 year old Manhattan residents was 538.2 per 100,000 residents.
- Queens:
 - Queens residents aged 15-24 had the lowest rate of drug-related hospitalizations (297.9 per 100,000 residents) among 15-24 year old New Yorkers.

Opioid-related hospitalizations among 15-24 year olds in New York City, 2012

34% (n=20,096) of all drug-related hospitalizations among New York City residents in New York City were opioid-related.

- 3% (n=583) of the approximately 20,000 opioid-related hospitalizations among New York City residents in New York City were among 15-24 year olds.
 - The rate of opioid-related hospitalizations among New Yorkers aged 15-24 was 51.0 per 100,000 residents.

Cocaine-related hospitalizations among 15-24 year olds in New York City, 2012

37% (n=21,637) of all drug-related hospitalizations among New York City residents in New York City were cocaine-related.

- 3% (n=613) of the approximately 22,000 cocaine-related hospitalizations among New York City residents in New York City were among 15-24 year olds.
 - The rate of cocaine-related hospitalizations among New Yorkers aged 15-24 was 53.7 per 100,000 residents.

C. Prevalence of drug use among New York City public high school students:

Source: New York City Department of Health and Mental Hygiene Youth Risk Behavior Survey, 2013.

Note: The Youth Risk Behavior Survey is conducted among New York City public high school students, grades nine to twelve.

Summary: In 2013, 8.0% of NYC public high school students in grades nine to twelve reported lifetime use of an illicit drug (cocaine, heroin, methamphetamines, or ecstasy); 4.7% reported cocaine use and

2.8% reported lifetime heroin use within their lifetimes. Nearly 10% of NYC public high school youth reported prescription drug misuse within the past year; of those, 7.3% reported opioid analgesic misuse in the past year.

Youth who live in Staten Island reported lifetime use of an illicit drug at the highest proportion (12.8%), followed by youth who live in Manhattan (11.0%).

D. Relationship between drug use and risk of dependence.

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies. The NSDUH Report—Substance Use and Dependence Following Initiation of Alcohol or Illicit Drug Use. March 27, 2008.

The 2008 National Survey on Drug Use and Health (NSDUH) found that the majority of people over the age of 12 who reported trying a drug for the first time also reported not using that drug a year later.

Specifically, three-quarters of adolescents and adults who reported first time use of crack and 70% who reported first time use of heroin were not using the drug a year later. Similarly, nearly two-thirds (60%) of respondents were not using cocaine, pain relievers or tranquilizers a year later.

Risk of dependence:

Note: The National Survey on Drug Use and Health defines substance dependence using criteria specified by the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). It includes symptoms such as withdrawal, tolerance, unsuccessful attempts to cut down use, and continued use despite health and emotional problems caused by the problem.

Less than twenty percent of those who reported first time use of heroin or crack reported using heroin (17%) or crack (15%) a year later, without being dependent; 40% reported using powder cocaine or misusing pain relievers or tranquilizers without being dependent.

The proportion of people who initiated illicit drug use or prescription drug misuse that were dependent on these substances one year later is low.

- 13% reported being dependent on heroin a year later.
- 9% reported being dependent on crack a year later.
- Fewer than 5% reported being dependent on powder cocaine (4%), pain relievers (3%), or tranquilizers (1.2%) a year later.

Thus, the majority of people who use drugs for the first time do not continue to use them a year later, and only a small proportion are dependent on drugs within one year of initiating use.

Additional Resources

1. Lopez-Quintero, C., de los Cobos, J. P., Hasin, D. S., Okuda, M., Wang, S., Grant, B. F., & Blanco, C. (2011). Probability and predictors of transition from first use to dependence on nicotine, alcohol, cannabis, and cocaine: Results of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). *Drug and Alcohol Dependence*, 115(1), 120-130.
2. Wagner, F.A., and Anthony, J.C. (2002). From first drug use to drug dependence: developmental periods of risk for dependence upon marijuana, cocaine, and alcohol. *Neuropsychopharmacology*, 26(4), 479-488.
3. Substance Abuse and Mental Health Services Administration, Office of Applied Studies. (March 27, 2008). The NSDUH Report—Substance Use and Dependence Following Initiation of Alcohol or Illicit Drug Use. Rockville, MD.

Further data on the prevalence of drug use and its associated morbidity and mortality in New York City can be found on the Bureau of Alcohol and Drug Use Prevention, Care, and Treatment's webpage on the New York City Department of Health and Mental Hygiene website.

Data publications can be found here:

<http://www.nyc.gov/html/doh/html/pub/pub.shtml?keyword=&topic=Alcohol%20and%20Drug%20Use&title=&type=&language=0>

Data tables can be found here:

<http://www.nyc.gov/html/doh/html/mental/drug-alcohol-data-tables.shtml>