



NYC Vital Signs

Illicit Drug Use in New York City

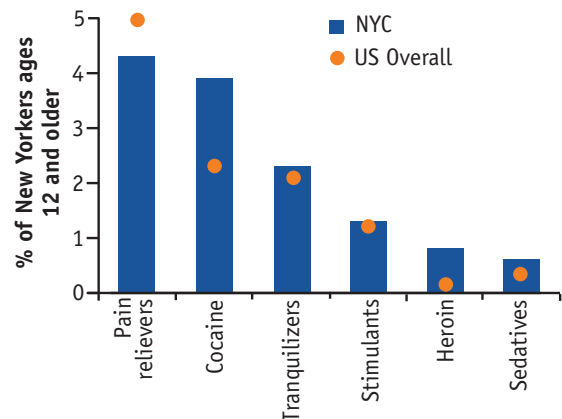
Illicit drug use increases the risk for many health problems, including unintentional death by drug poisoning, injury, sexually transmitted diseases such as HIV, hepatitis B and C, liver disease, hypertension and depression. Cocaine use also is associated with cardiovascular disease. Use of illicit drugs is common throughout the United States and may be more prevalent in urban centers like New York City, resulting in drug-related morbidity and mortality.

This report addresses the health consequences of drug use by describing characteristics and drug use patterns of New Yorkers. The report examines the prevalence of current illicit drug use and the types of drugs associated with drug-related emergency department visits, hospitalizations, and unintentional drug overdose deaths. Policy recommendations on page four list opportunities for health care and service providers, researchers, and public agencies to reduce drug-related morbidity and mortality in New York City.

Among New Yorkers, illicit drug use varies by drug type

- Nearly one million New Yorkers report using illicit drugs in the past year (16%). The national rate is 14%.
- **Marijuana**, the most common illicit drug, is used by nearly 730,000 New Yorkers (12%) annually. Use is highest among 18- to 25-year-olds (30%).
- Excluding marijuana, New Yorkers are more likely to use illicit drugs than Americans overall (9.1% vs. 8.5%).
- Other drugs used in the city include **pain relievers** such as Vicodin®, **cocaine**, **tranquilizers** such as Xanax®, **stimulants** such as amphetamines, heroin, and **sedatives** such as Seconal®.
- Since 2002, **cocaine** and **pain reliever** use has increased among specific groups of New Yorkers. Cocaine use increased most dramatically among men, more than doubling to 5.8% in 2006/07. Pain reliever use also increased among men to 6.5% and doubled among adults ages 35 years and older to 3.7% in 2006/07.

Self-reported illicit drug use in the past year, New York City and U.S. overall



Source: National Survey on Drug Use and Health (NSDUH), 2006-2007 averaged.

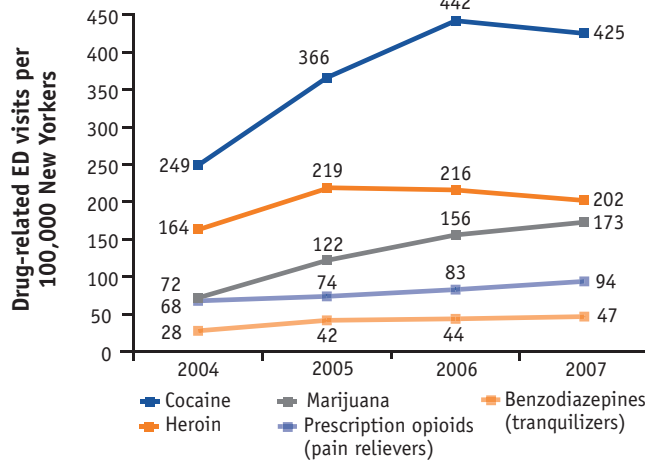
Data in this report are from four different sources: (1) The National Survey on Drug Use and Health (NSDUH), conducted annually by the Substance Abuse and Mental Health Services Administration (SAMHSA), includes a representative sample of NYC residents ages 12 years and older. Two-year averages are presented. (2) The Drug Abuse Warning Network (DAWN), managed by SAMHSA, is a database of drug-related visits to hospital emergency departments (EDs), including 61 NYC EDs. Data were weighted to produce citywide estimates of drug-related ED visits for 2004 through 2007. (3) The New York State Department of Health's Statewide Planning and Research Cooperative System (SPARCS) captures all inpatient hospital discharges. All drug-related principal and secondary diagnoses, as well as those with drug-related injury codes, are included for any NYC resident ages 13 years and older hospitalized in the city (1999 through 2006). (4) Mortality data are from the NYC Department of Health & Mental Hygiene, Bureau of Vital Statistics, 1999-2008, and the Office of the Chief Medical Examiner (OCME) for 2006 through 2008 for a special study. Death rates are age adjusted to the year 2000 Standard Population, unless provided for specific age groups.

Drug-Related Morbidity (Illness)

Cocaine is the most commonly cited drug in NYC emergency department visits

- In 2007, there were nearly 55,000 drug-related emergency department (ED) visits* (662 for every 100,000 New Yorkers).
- **Cocaine** was the most frequently cited drug in ED visits for all age groups, with 425 cocaine-related visits for every 100,000 New Yorkers, representing more than half of all drug-related ED visits.
- Since 2004, the rate of ED visits with reports of **marijuana** more than doubled to 173 marijuana-related visits for every 100,000 New Yorkers in 2007.
- **Benzodiazepine** rates also increased 68% from 2004 to 2007 (47 for every 100,000 New Yorkers).

Drug-related emergency department (ED) visits* per 100,000 New Yorkers by drug type



Source: Drug Abuse Warning Network (DAWN), 2004-2007.

* An ED visit is classified as "drug-related" if the patient was treated in the ED for a condition that was induced by, or related to, recent drug use, such as injury, abdominal pain, or a cardiac problem.

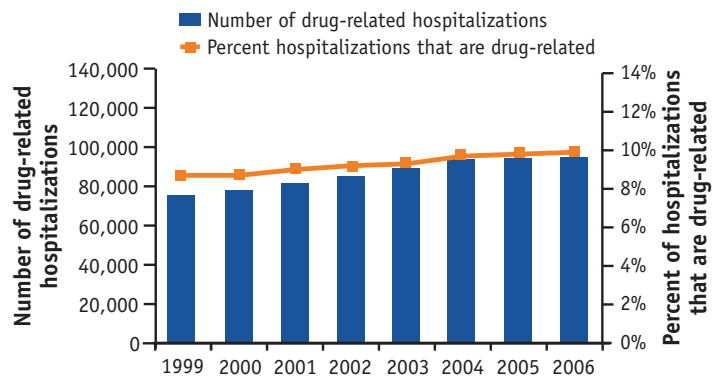
DEFINING DRUG TYPES

- **Opioids** cover the entire family of **opiates and opioids**. **Opiates** are narcotic analgesics derived from "natural" opium, such as morphine, heroin, or codeine. **Opioids** are synthetic drugs, such as methadone, and possess narcotic properties similar to opiates, but are not derived from opium.
- **Psychotherapeutic drugs** are reported in four categories: **pain relievers**, including **prescription opioids**; **tranquilizers**, including **benzodiazepines**, which are prescribed to treat a variety of conditions, including anxiety; **stimulants**, including **amphetamines**; and **sedatives**, including sleeping pills.
- **Cocaine** falls under the class of drugs known as "**stimulants**" but is reported separately in this report.
- Only 'non-medical' use is reported for psychotherapeutic drugs, and is defined as use without a prescription or use with a prescription but in a manner other than prescribed.

One in ten hospitalizations in NYC is related to drug use

- From 1999 to 2006, the proportion of hospitalizations that were drug-related increased by 14%.
- In 2006, **opioids** were specifically identified in 46% and **cocaine** in 47% of all drug-related hospitalizations.
- Nearly two thirds of all drug-related hospitalizations (61%) were of New Yorkers ages 35 to 54 years and half (52%) were of New Yorkers who live in low-income neighborhoods.

Percent and number of drug-related hospitalizations* among New Yorkers ages 13 and older



Source: NYS DOH SPARCS, 1999-2006.

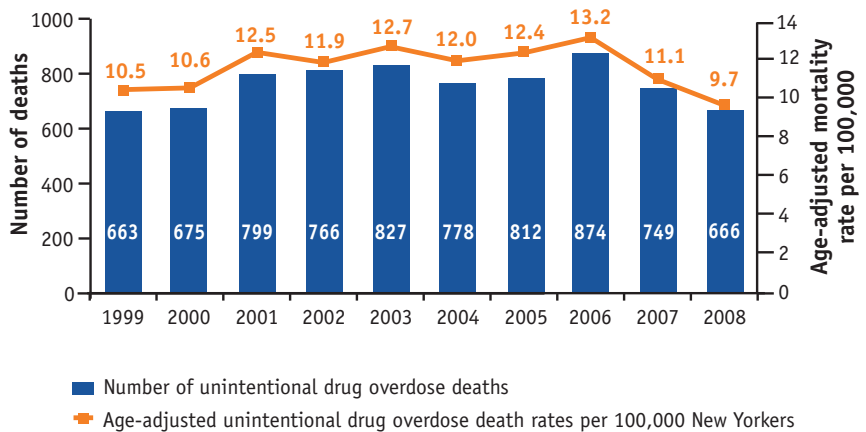
* All principal and secondary drug-related diagnoses, as well as drug-related injury codes, are included in the classification of drug-related, inpatient hospitalizations.

Drug-Related Mortality (Death)

Unintentional drug overdose deaths decreased in 2008, declining to the lowest number and rate of deaths since 1999

- The age-adjusted death rate per 100,000 New Yorkers decreased from 13.2 in 2006 to 9.7 in 2008, representing a 27% decrease.
- An estimated 1.5% of all New York City deaths are caused by unintentional drug overdose.
- Unintentional drug overdose is the fourth leading cause of premature adult death (before age 65) in New York City.
- Among New Yorkers ages 25 to 34 years, unintentional drug overdose is the third leading cause of death.

Number and rate per 100,000 New Yorkers of unintentional drug overdose deaths



Source: Bureau of Vital Statistics NYC DOHMH, 1999-2008; 2008 data are preliminary.

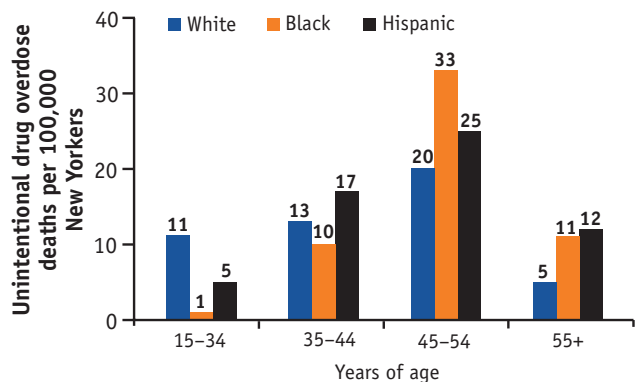
Overdose: The term “overdose death” is often used to refer to all deaths caused by ingesting too much of one or more drugs. Such deaths may occur unintentionally (accidental), intentionally (suicide), as an assault (homicide) or by undetermined means. This report focuses on unintentional drug overdose deaths.

Reporting Drug-Related Deaths: The Health Department has established a new, more sensitive indicator of drug-related mortality called “unintentional drug overdose deaths” that incorporates both the manner of death and the underlying cause of death recorded on death certificates. For more information on drug-related indicators used by the Health Department, please see www.nyc.gov/vitalstats.

Most unintentional drug overdose deaths in New York City involve multiple drugs

- Nearly all unintentional drug overdose deaths (98%) involve more than one substance, including alcohol.
- **Opioids** were the most commonly noted drug type (74%). Types of opioids included **heroin**, **methadone**, and **prescription pain relievers**.
- Other drugs commonly found were: **cocaine** (53%), **benzodiazepines** (35%), **antidepressants** (26%), and **alcohol** (43%).
- New Yorkers who died from unintentional drug overdose were mostly men (74%) and ages 35 to 54 years (60%). Almost half (44%) were white, one quarter (26%) were black, and almost one third (31%) were Hispanic.
- The mortality rate among 45- to 54-year-old New Yorkers was highest overall, particularly for blacks. Among 35- to 44-year-old New Yorkers, the mortality rate was highest for Hispanics, while whites had the highest rate among those ages 15 to 34 years.

Unintentional drug overdose death rate by race/ethnicity and age, New York City



Sources: Bureau of Vital Statistics and Office of Chief Medical Examiner, NYC DOHMH, 2008, analyzed by the Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

An in-depth review of 2006, 2007, and 2008 medical examiner records, including toxicology reports, and death certificates was undertaken to better understand the circumstances surrounding unintentional drug overdose deaths in New York City.

Recommendations

Health care providers should:

Incorporate universal screening for substance abuse problems into medical care settings.

- Provide brief interventions aimed at reducing harmful drug use, particularly cocaine use, as a routine practice component. See "City Health Information: Improving the Health of People Who Use Drugs" (<http://nyc.gov/html/doh/downloads/pdf/chi/chi28-3.pdf>).

Provide buprenorphine treatment for opioid dependence in primary care practice.

- Primary care physicians can initiate and manage opioid dependence treatment in routine patient care. See "City Health Information: Buprenorphine: An Office-Based Treatment for Opioid Dependence" (<http://nyc.gov/html/doh/downloads/pdf/chi/chi27-4.pdf>).

Prescribe psychotherapeutic medication only as necessary and educate patients about drug effects to help avoid non-medical use.

- Advise patients to secure medications in a safe place away from others' reach.
- Direct patients not to share medications with anyone else.
- Visit the National Library of Medicine at <http://www.nlm.nih.gov/medlineplus/druginformation.html> for more information.

Service providers should:

Promote widespread opioid overdose prevention education, including prescribing and dispensing naloxone, an opioid antidote.

- Reach out to individuals who have been recently incarcerated, are homeless, or have recent histories of drug use and explain how to prevent an overdose.
- Offer naloxone services where high-risk populations can be found, including emergency departments, detoxification service centers, methadone maintenance treatment programs and homeless shelters.
- Make information on opioid overdose prevention widely available and accessible in low-income communities, where rates of overdose deaths are highest.

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