

National Drug Early Warning System (NDEWS) Sentinel Community Site (SCS) Drug Use Patterns and Trends: SCE Narrative

The *SCE Narrative* is written by the Sentinel Community Epidemiologist (SCE) and provides their interpretation of important findings and trends based on available national data as well as sources specific to their area, such as data from local medical examiners or poison control centers. As a local expert, the SCE is able to provide context to the national and local data presented.

This *SCE Narrative* contains the following sections:

- ◇ SCS Highlights
- ◇ Changes in Legislation
- ◇ Substance Use Patterns and Trends
- ◇ Local Research Highlights (if available)
- ◇ Infectious Diseases Related to Substance Use (if available)

The *SCE Narratives* for each of the 12 Sentinel Community Sites and detailed information about NDEWS can be found on the NDEWS website at www.ndews.org.

National Drug Early Warning System (NDEWS) New York City Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2016: SCE Narrative

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Highlights

- In 2014, there were 800 **unintentional drug poisoning (overdose) deaths** in New York City (NYC). Preliminary data show a dramatic increase in the number of overdose deaths in NYC, with 925 confirmed deaths to date in 2015. This represents a 15% increase in the number of overdose deaths from 2014.
- Of the 925 drug overdose deaths in 2015, 144 (16%) involved **fentanyl**.
- From 2000 to 2014, there was a 193% increase in **benzodiazepine**-involved overdose deaths.
- Compared with 2013, **cocaine**-involved overdose deaths decreased 13% in 2014.
- In 2015, 1 in 12 drug treatment admissions reported **crack/cocaine** as the primary substance (8.5%).
- In 2015, **marijuana** was the second most common primary drug (excluding alcohol) reported at admission to drug treatment (12.7%, $n = 15,885$).
- Beginning in July 2015, NYC coordinated a multi-agency response focused on controlling availability of **synthetic cannabinoids**. As a result, from July 2015 through March 2016, emergency department visits related to synthetic cannabinoids decreased by 85%.
- **Heroin** was involved in 57% of all overdose deaths in 2014, making it the most common substance involved in overdose deaths.
- In 2015, **heroin** was the most common primary drug (excluding alcohol) reported at admission to drug treatment (32.4%, $n = 40,656$).
- The rate of **opioid-analgesic**-involved overdose deaths stayed the same in both 2013 and 2014 (3.2 per 100,000 New Yorkers).
- In 2014, the rate of **methadone**-involved overdose deaths decreased by 57% decrease compared with 2006, the year in which methadone-involved overdose deaths peaked.

Changes in Legislation

Naloxone in pharmacies

As the demographic of New Yorkers impacted by opioid misuse expands, the City has been exploring mechanisms to expand access to naloxone in innovative settings to reach emerging populations at high risk of opioid overdose. On December 7, 2015, NYC Health Commissioner Mary Bassett issued a standing order to authorize naloxone dispensing in pharmacies. As of June 1, 2016, New Yorkers at risk of opioid overdose, as well as concerned family members and friends, can access this life-saving medication upon request in 693 pharmacies citywide.

More information on naloxone in pharmacies, including a list of participating pharmacies, can be found at the NYC Department of Health and Mental Hygiene (DOHMH) website:

<https://www1.nyc.gov/site/doh/providers/health-topics/naloxone-and-overdose-prevention-in-pharmacies.page>

Suboxone expansion in primary care settings

The NYC DOHMH has developed a new initiative to expand access to buprenorphine in primary care safety net settings. This program supports the implementation of a nurse care manager (NCM) model in federally qualified health centers (FQHCs), FQHC look-alikes, and other safety net settings to increase buprenorphine-prescribing capacity and promote high-quality care. In this model, and consistent with the principles of the patient-centered medical home, a dedicated NCM will work with physicians to deliver team-based care for patients being treated for opioid use disorders. Together, the team will screen and assess patients, perform medication management and motivational counseling, and refer for more intensive treatment as necessary. The model also includes access to local mentors who are experienced in buprenorphine prescribing to provide additional support and case consultation as needed. The NCM model is adapted from a similar successful program in Massachusetts, and it will be piloted in seven NYC settings. The effort to expand access to buprenorphine for treatment of opioid use disorder in NYC is part of DOHMH's multipronged approach to reduce opioid overdose deaths in the City.

Substance Use Patterns and Trends

OVERVIEW

Morbidity

Opioid-related hospitalizations, 2014

In 2014, there were approximately 60,000 drug-related hospitalizations among NYC residents 13–84 years of age, with a rate of 819.9 per 100,000 residents. Opioid-related hospitalizations accounted for approximately a third of drug-related hospitalizations in 2014 ($n = 19,778$), with a rate of 272.1 per 100,000 residents.

In 2014, nearly two thirds of opioid-related hospitalizations ($n = 12,639$) were among males. The rate of opioid-related hospitalizations among male New Yorkers was nearly twice the rate among female New Yorkers in 2014 (371.7 vs. 209.0 per 100,000 residents, respectively).

Black New Yorkers had the highest rate of opioid-related hospitalizations in 2014 (316.5 per 100,000 residents) followed closely by Hispanic New Yorkers (299.3 per 100,000 residents). The rate of opioid-related hospitalizations among Black New Yorkers in 2014 was nearly twice the rate among White New Yorkers (316.5 vs. 185.9 per 100,000 residents, respectively).

Rates of opioid-related hospitalization were highest among New Yorkers 55–64 years of age (644.3 per 100,000 residents), followed by New Yorkers 45–54 years of age (552.0 per 100,000 residents). Rates of opioid-related hospitalizations were also highest in highest poverty neighborhoods (591.4 per 100,000 residents), nearly four times higher than the rate in lowest poverty neighborhoods (152.8 per 100,000 residents).

Cocaine-related hospitalizations, 2014

Cocaine-related hospitalizations accounted for more than a third of the approximately 60,000 drug-related hospitalizations in New York City in 2014 ($n = 19,796$), with a rate of 279.5 per 100,000 residents.

More than two thirds of cocaine-related hospitalizations were among male New Yorkers ($n = 13,335$). The rate of cocaine-related hospitalizations among male New Yorkers was nearly twice the rate among female New Yorkers (397.8 vs. 192.2 per 100,000 residents).

Black New Yorkers had the highest rate of cocaine-related hospitalizations in 2014 (585.8 per 100,000 residents), more than twice the rate among Hispanic New Yorkers (222.3 per 100,000 residents), and nearly six times the rate among White New Yorkers (98.4 per 100,000 residents). Furthermore, Black New Yorkers accounted for almost half of all cocaine-related hospitalizations in 2014 ($n = 9,705$).

Rates of cocaine-related hospitalizations were highest among New Yorkers 45–54 years of age (678.4 per 100,000 residents), followed by residents 55–64 years of age (468.9 per 100,000 residents). Rates of

cocaine-related hospitalizations were highest in the highest poverty neighborhoods (657.8), more than ten times the rate in the lowest poverty neighborhoods (56.1 per 100,000 residents).

Prescription Monitoring Program (PMP)

The DOHMH tracks opioid analgesic and benzodiazepine prescriptions by analyzing data for all New York City residents who fill opioid analgesic and/or benzodiazepine prescriptions. In 2014, 1,727,065 benzodiazepine prescriptions were filled by 441,513 residents and nearly 2-million (1,910,561) schedule II opioid analgesic prescriptions were filled by 645,706 NYC residents. Approximately two thirds of opioid analgesics filled by NYC residents were for oxycodone (total $n = 1,293,062$). Additionally, of the 645,706 NYC residents who filled an opioid analgesic prescription, less than 1% ($n = 4959$, or 0.8%) met the criteria of doctor shopping, which is defined by a history of filling an opioid analgesic prescription from four or more prescribers at four or more pharmacies.

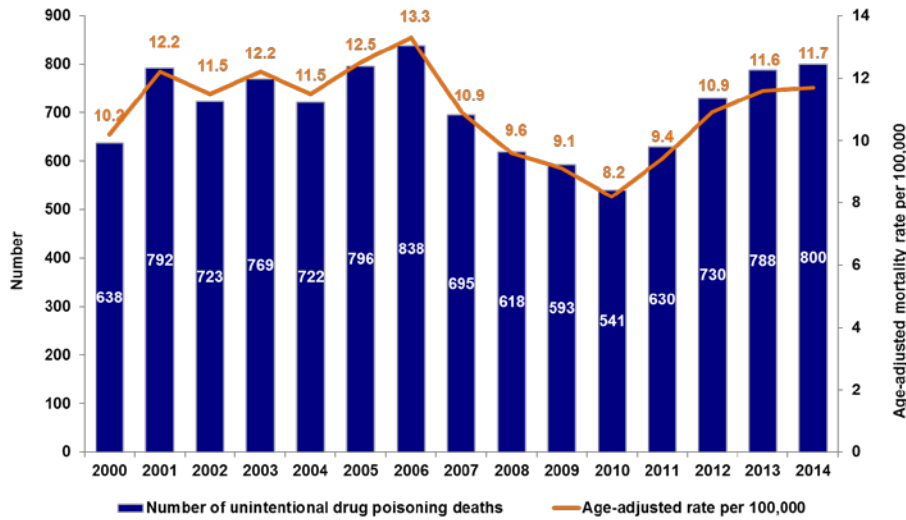
Mortality

In 2014, there were 800 unintentional drug poisoning (overdose) deaths in NYC, with a rate of 11.7 per 100,000 New Yorkers. Drug overdose rates were highest among males, White New Yorkers, 45–54-year-olds, and residents of Staten Island. Residents of the highest poverty neighborhoods had the highest rate of drug poisoning deaths (16.5 per 100,000). The rate was double that of residents from medium-income neighborhoods (8.1 per 100,000). The rate among highest poverty neighborhoods and lowest poverty neighborhoods was 10.7 per 100,000 and 10.3 per 100,000, respectively. In 2014, nearly all (97%) overdose deaths involved more than one substance and 79% of overdose deaths involved an opioid.

In 2015, there were 925 unintentional drug poisoning (overdose) deaths in NYC. Of those, 540 (58%) involved heroin. Based on preliminary data, there have been 125 more confirmed overdose deaths overall and 90 more involving heroin in 2015 compared with 2014.

Drug overdose data in NYC are obtained by linking death certificates from the Bureau of Vital Statistics with medical examiner files and toxicology reports. The NYC DOHMH reports only unintentional drug poisoning deaths (X40-X44, F11-F16, and F19 codes); therefore, DOHMH does not report on suicide or undetermined manners of death. Additionally, because of a large methadone maintenance treatment population in NYC, methadone is reported separately from other opioids.

Exhibit 1. Unintentional Drug Poisoning (overdose) Deaths, New York City, 2000–2014



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

Fentanyl-involved overdoses, 2015

The drug-specific data presented in this section reflects 2014 overdose mortality in NYC. Nevertheless, preliminary data from 2015 necessitate the importance of highlighting an increase in fentanyl-related deaths in the City. Again, there were 925 confirmed overdose deaths in 2015, and 144 (16%) involved fentanyl. Previously, fentanyl was relatively uncommon in NYC, accounting for less than 3% of deaths in the last 10 years. Fentanyl-involved overdose deaths occurred among residents of all New York City boroughs: Bronx ($n = 40$, 3.5 per 100,000); Brooklyn ($n = 37$, 1.8 per 100,000); Queens ($n = 30$, 1.7 per 100,000); Manhattan ($n = 16$, 1.1 per 100,000); and Staten Island ($n = 6$, 1.3 per 100,000). The NYC DOHMH issued a Health Advisory to inform providers about fentanyl in April 2016. As part of its public health investigation, DOHMH also conducted interviews with syringe exchange directors and

participants and will soon initiate interviews with residents from neighborhoods with the highest rates of fentanyl-involved overdose deaths.

Fentanyl is sold illicitly for its heroin-like effects and may be mixed with heroin and/or cocaine as a combination product with or without the user's knowledge. In addition, recent law enforcement seizures in several jurisdictions across the United States, including NYC, have identified fentanyl sold in powder and pill formulations, which may be marked as other substances, including benzodiazepines and opioids analgesics.

BENZODIAZEPINES

- From 2000 to 2014, there was a 193% increase in benzodiazepine-involved overdose deaths.

In 2014, there were 301 benzodiazepine-involved overdose deaths (4.4 per 100,000 New Yorkers). Compared with 2013, this rate stayed the same, although it represents a 193% increase from 2000 to 2014. White New Yorkers, New Yorkers 45–54 years of age, Staten Island residents, and residents of the lowest poverty (wealthiest) neighborhoods had the highest rates of unintentional benzodiazepine-involved deaths in 2014. Benzodiazepines were present in 53% of deaths involving opioid analgesics, 41% of deaths involving heroin, and 55% of deaths involving methadone.

In 2015, benzodiazepines ($n = 2,027$) were the primary drug in less than 2% of all drug treatment admissions. Benzodiazepines were more likely reported as the secondary drug at admission. Benzodiazepines were reported as the secondary drug in 17.2% ($n = 524$) of admissions when prescription opioids were the primary, and 9.5% ($n = 3,877$) of admissions when heroin was the primary.

Of 41,880 total National Forensic Laboratory Information System drug reports (NFLIS) samples in NYC in 2015, 4.0% ($n = 1,660$) tested positive for alprazolam, and alprazolam was the 5th most commonly seized substance. Compared with 2014, there was an 11.7% decrease in law enforcement seizures of alprazolam. Similarly, there were 494 seizures of clonazepam in 2015, representing a 20.3% decrease compared with 2014.

COCAINE/CRACK

- Compared with 2013, cocaine-involved overdose deaths decreased 13% in 2014.
- In 2015, 1 in 12 drug treatment admissions reported crack/cocaine as the primary substance (8.5%).

In 2014, there were 326 cocaine-involved overdose deaths (4.7 per 100,000 New Yorkers). This rate is a 13% decrease compared with 2013 ($n = 364$, 5.7 per 100,000 New Yorkers) and a 42% decrease compared with 2006, the year in which cocaine-related overdose deaths peaked ($n = 508$ deaths; 8.1 per 100,000 New Yorkers).

White New Yorkers had the highest rate of cocaine-related overdose deaths (5.8 per 100,000 New Yorkers), which was a change from prior years, in which Black New Yorkers historically represented the highest rates. In 2014, the rate of cocaine-related overdose death among Black New Yorkers was 5.6 per

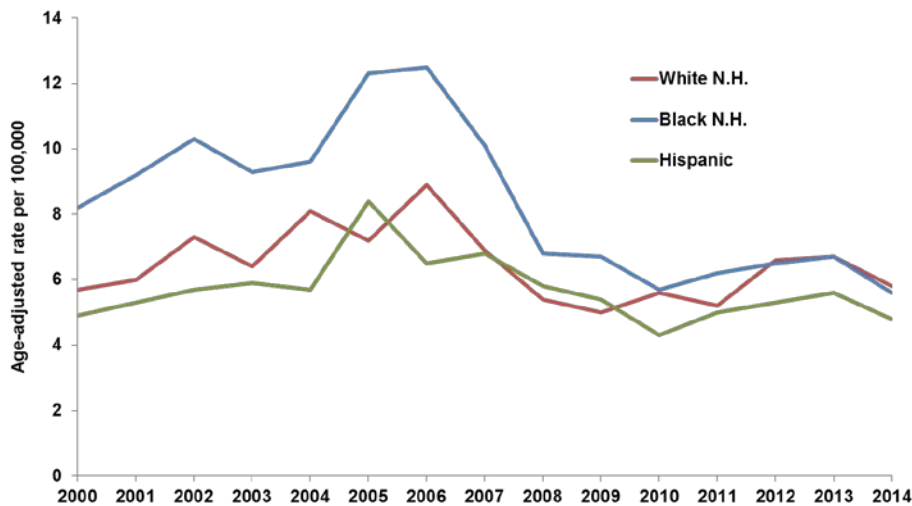
100,000, which was a 16% decrease compared with 2013. Furthermore, New Yorkers 45–54 years of age, Bronx residents, and individuals living in the highest poverty neighborhoods had the highest rates of cocaine-involved overdose deaths. These subgroups are the same high-risk groups as were reported in 2013.

Cocaine was present in 40% of overdoses involving heroin, 37% of overdoses involving methadone, 33% of overdoses involving opioid analgesics, and 31% of overdoses involving benzodiazepines.

In 2015, approximately 1 in 12 treatment admissions reported crack/cocaine as the primary substance (8.5%, $n = 10,634$). When alcohol was the primary substance ($n = 49,708$), crack/cocaine was the secondary in 27.2% ($n = 13,519$) of admissions.

Of 41,880 total NFLIS seizures in NYC in 2015, 33.4% ($n = 13,989$) tested positive for cocaine, and cocaine was the most commonly seized substance. This represents a very small (0.7%) decrease compared with 2014 when there were 14,085 cocaine seizures.

Exhibit 2. Cocaine-involved Overdose Deaths, by Race, New York City, 2000–2014



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

MARIJUANA

- In 2015, marijuana was the second most common primary drug (excluding alcohol) reported at admission to drug treatment (12.7%, $n = 15,885$).

The NYC DOHMH does not report on the presence of marijuana in drug overdose deaths.

In 2015, marijuana was the second most common primary drug (excluding alcohol) reported upon admission to drug treatment (12.7%, $n=15,885$).

Of 41,880 total NFLIS seizures in NYC in 2015, 29.4% ($n = 12,333$) tested positive for cannabis, and cannabis was the 2nd most commonly seized substance. Compared with 2014 ($n = 13,909$), there was an 11.3% decrease in cannabis seizures.

METHAMPHETAMINE

Unlike other regions in the country, in NYC, methamphetamine use remains confined to select populations. Health-related harms of methamphetamine use are not widespread.

Of 41,880 total NFLIS seizures in NYC in 2015, 1.3% ($n = 532$) tested positive for methamphetamine, which represents a 4.7% decrease compared with 2014, when there were 558 seizures of methamphetamine.

NEW PSYCHOACTIVE SUBSTANCES (OTHER THAN OPIOIDS)

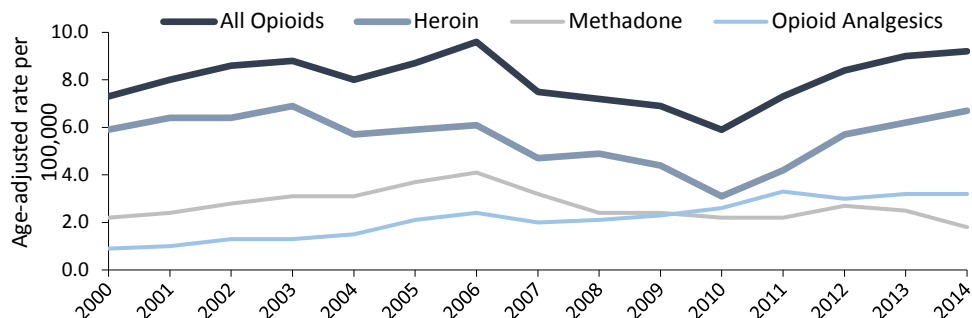
- Beginning in July 2015, NYC coordinated a multi-agency response focused on controlling availability of synthetic cannabinoids. As a result, from July 2015 through March 2016, emergency department visits related to synthetic cannabinoids decreased by 85%.

The NYC DOHMH does not report on the presence of synthetics in drug overdose deaths. However, a separate section of this report outlines the NYC DOHMH's approach toward addressing a synthetic cannabinoid (K2) outbreak.

OPIOIDS

- Heroin was involved in 57% of all overdose deaths in 2014, making it the most common substance involved in overdose deaths.
- In 2015, heroin was the most common primary drug (excluding alcohol) reported at admission to drug treatment (32.4%, $n = 40,656$).
- The rate of opioid-analgesic-involved overdose deaths stayed the same in both 2013 and 2014 (3.2 per 100,000 New Yorkers).
- In 2014, the rate of methadone-involved overdose deaths decreased by 57% decrease compared with 2006, the year in which methadone-involved overdose deaths peaked.

Exhibit 3. Unintentional Overdose Deaths by Opioid Type Involved (Not Mutually Exclusive), New York City, 2000–2014



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

Heroin

In 2014, there were 460 heroin-involved overdose deaths (6.7 per 100,000 New Yorkers). Heroin was involved in 57% of all overdose deaths in 2014, making it the most common substance involved in overdose deaths. The rate has more than doubled since 2010 when it was 3.1 per 100,000 New Yorkers (209 deaths).

Similar to prior years, White New Yorkers, New Yorkers 45–54 years of age, and Bronx and Staten Island residents had the highest rates of heroin-involved overdose deaths in 2014. Residents of the highest poverty neighborhoods had the highest rate of overdose deaths involving heroin (10.4 per 100,000 New Yorkers), the rate was more than double that of Black New Yorkers (4.9 per 100,000). The rate of heroin-involved overdose increased in all NYC boroughs except Queens. By race/ethnicity, the rate increased among White and Black New Yorkers (19% and 26% increases, respectively), but there was a decrease in heroin-involved overdose deaths among Hispanics compared with 2013 (13% decrease).

In 2015, heroin was the most common primary drug (excluding alcohol) reported at admission to drug treatment (32.4%, $n = 40,656$).

Of 41,880 total NFLIS seizures in NYC in 2015, 16.0% ($n = 6,680$) tested positive for heroin, and heroin was the 3rd most commonly seized substance. This is a 7.9% increase in heroin seizures increase compared with 2014.

Prescription Opioids

In 2014, there were 217 opioid-analgesic-involved overdose deaths, and the rate stayed the same in both 2013 and 2014 (3.2 per 100,000 New Yorkers). Rates were highest among White New Yorkers (5.7 per 100,000); the rate was more than double that of Hispanic and Black New Yorkers, 3.0 and 1.8 per 100,000, respectively. Rates were highest among New Yorkers 45–54 years of age, and residents living in the lowest poverty (wealthiest) neighborhoods (4.1 per 100,000).

In 2015, prescription opioids ($n = 3,054$) were the primary drug in less than 3% of all drug treatment admissions. Prescription opioids were reported as the secondary drug in 5.3% ($n = 2,172$) of admissions when heroin was the primary.

Methadone

There were 127 methadone-involved overdose deaths in 2014 (1.8 per 100,000 New Yorkers). This rate is a 57% decrease compared with 2006, the year in which methadone-involved overdose deaths peaked (4.1 per 100,000 New Yorkers).

The methadone maintenance population in NYC is 30,000–33,000 individuals, although it has decreased in recent years. In conjunction with this decrease, there has been a decline in methadone-involved overdose deaths as well.

Of 41,880 total NFLIS samples in NYC in 2015, less than 1% ($n = 369$) tested positive for methadone. Methadone seizures decreased by 33.6% compared with 2014.

Local Research Highlights

Qualitative research on heroin initiates

Between August 2013 and January 2015, the Bureau of Alcohol and Drug Use Prevention, Care, and Treatment (BADUPCT) conducted in-depth interviews ($n = 93$) with individuals 18 years of age and older with a history of opioid analgesic misuse. “Misuse” was defined as using opioid analgesics (OAs) for the experience or feeling they caused; taking more than prescribed; or taking OAs to self-medicate for a different injury/health condition. Participants were recruited through ethnographic street recruitment and community health agencies, including outpatient drug treatment and harm reduction programs, and through snowball sampling.

A subsample of 31 participants initiated heroin use within the past five years directly after OA misuse. These users were primarily younger, more affluent, and more predominately Caucasian than those identified in previous samples of street-based drug users. The median age of first OA misuse was 16 years, and the median length of time between OA misuse and heroin use was 3 years, with nine participants initiating heroin within 1 year. Twenty-six reported they were physically dependent on OAs prior to first using heroin, ascertained through participants’ self-report of physical withdrawal symptoms. After heroin initiation, 24 participants stated that it became their primary drug. At the time of interview, 25 participants had injected heroin and, for 19, injecting became their primary route of administration. For most of these participants, injection initiation followed first heroin use. Among those participants who reported injection drug use, the majority described obtaining syringes from pharmacies; only four noted contact with a syringe exchange program, indicating a disconnection from risk reduction services.

Findings indicated several key points of transition along participants’ trajectories from OA misuse to heroin initiation, and many participants described similar patterns of increasing OA misuse, irrespective of whether they had begun to misuse recreationally or through medical treatment. Typically, initiation into OA misuse began with dual-entity pills ingested orally, followed by transition to higher strength, single-entity OA formulations, often coupled with a change to intranasal route of administration. Participants described the breaking down of heroin-related stigma across social networks throughout as its use permeated social groups. The sum of these experiences seemed to operate as a precursor to heroin initiation.

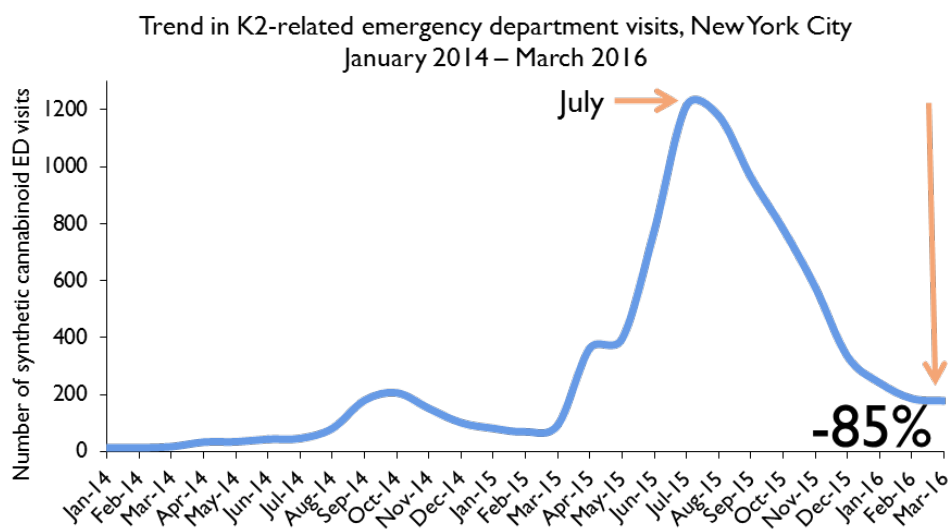
Synthetic cannabinoids

Emergency department visits related to synthetic cannabinoids increased in NYC in 2014. Increases continued through summer 2015, peaking in July 2015, with more than 1,200 synthetic-cannabinoid-related emergency department visits. During this time, the NYC DOHMH conducted two outbreak investigations and identified a subpopulation at high risk, released three Health Advisories, and developed educational materials geared toward individuals at high risk of health consequences of synthetic cannabinoid use.

Beginning in July 2015, NYC coordinated a multi-agency response focused on controlling product availability. From July 2015 through March 2015, emergency department visits related to synthetic cannabinoids decreased by 85%.

Although prevalence data on synthetic cannabinoids is lacking, daily synthetic cannabinoid use did not seem to be widespread among NYC residents. In NYC, daily synthetic cannabinoid use was confined to a subpopulation of individuals subjected to urine screening through either the criminal justice system or drug treatment programs. For these individuals, synthetic cannabinoids provide an inexpensive high that usually goes undetected on standard urine screens.

Exhibit 4. Trend in K2-related emergency department visits, New York City January 2014 – March 2016



Naloxone distribution projects

Rikers Island

NYC DOHMH, in partnership with Correctional Health Services, completed an evaluation of the overdose prevention training (OPT) and naloxone distribution to visitors of Rikers Island. The evaluation enrolled almost 300 people in August 2015 and completed a six-month follow-up survey with 80% of those enrolled. Outcomes of interest included numbers of witnessed overdoses in the six-month period, despite whether naloxone was used and whether the overdose victim was recently incarcerated. Eighteen percent of those reached for follow-up had seen at least one overdose (ranged from one to four), and 12% had used naloxone at least once. Of the 70 witnessed overdose events, 17% of the victims were recently released from jail or prison (within the last year). Correctional Health Services will continue to offer naloxone training and will use this evaluation to inform their program.

Enhanced naloxone distribution in six target neighborhoods

NYC DOHMH sought to ensure appropriate targeting of naloxone to heavily impacted neighborhoods and populations. In mid-2015, it developed a neighborhood-based approach to naloxone distribution to reach populations at highest risk for overdose. DOHMH identified six target NYC neighborhoods using 2013 and preliminary 2014 overdose data. Selected neighborhoods included three with highest 2013 rates: Hunts Point-Mott Haven and Highbridge-Morrisania (Bronx) and South Beach-Tottenville and Willowbrook (Staten Island). Additionally, preliminary 2014 data identified a doubling in the number and rate of opioid-involved overdoses in East Harlem (Manhattan) and Coney Island (Brooklyn) during 2014; therefore, these neighborhoods were also selected. In partnership with community-based opioid overdose prevention programs (OOPPs) located or working in the six selected neighborhoods, we convened workgroups to set naloxone distribution targets and plan targeted distribution. Because several neighborhoods were adjacent, we convened four workgroups to address distribution in the six selected neighborhoods.

Of 30 OOPPs invited to participate in the workgroups, 20 agreed. During initial meetings in the fall of 2015, DOHMH and OOPP staff established goals and discussed project objectives. DOHMH provided technical assistance to all OOPPs, including neighborhood-specific social service maps; letters stating the purpose of the project for community distribution; and assistance for each OOPP with planning upcoming activities. Although all OOPPs in NYC are required to complete an enrollment form for each individual receiving naloxone, participating OOPPs agreed to use revised forms that additionally included location of naloxone training, trainee's ZIP code of residence, and trainee's past-year receipt of naloxone. Implementation began February 2016. DOHMH will collect enrollment forms from participating OOPPs on a monthly basis until December 2017 to evaluate naloxone distribution patterns. Data will be analyzed quarterly; outcomes include the number of people trained, age, race, and gender of trainees, location of training, ZIP code of residence and whether trainee received naloxone in the prior year. Workgroups will be reconvened on a bimonthly basis. This project will expand naloxone distribution in a targeted fashion and assess the impact of naloxone expansion on neighborhood-level overdose mortality.

Naloxone distribution data

Table 1. Naloxone Kits Distributed, by Program Type, 2010–2015

Year	CBOs	DHS	Drug Tx	DOHMH	Healthcare	Rikers	SEPs	TOTAL
2010	357	56	304	0	0	0	1742	2459
2011	541	280	406	0	0	0	1844	3071
2012	667	457	884	0	0	0	1713	3721
2013	392	200	1536	159	0	0	2086	4373
2014	311	433	2720	588	120	1070	2896	8138
2015	219	443	120	439	158	1389	4012	6780
TOTAL	2487	1869	5970	1186	276	2459	14293	28,542

*Since 2014, 17,215 NYPD officers have been trained to use naloxone and 13,263 officers currently carry naloxone.

Table 2. Reported Administrations of Naloxone, by Program Type, 2010–2015

Year	CBOs	DHS	Drug Tx	DOHMH	Healthcare	Rikers	SEPs	TOTAL
2010	0	1	0	0	0	0	44	45
2011	12	1	12	0	0	0	48	73
2012	8	11	4	0	0	0	94	117
2013	10	25	31	3	0	0	90	159
2014	10	41	41	0	3	8	76	179
2015	7	110	0	0	22	4	135	278
TOTAL	47	189	88	3	25	12	487	851

*Since 2014, NYPD officers have reported 73 reversals using naloxone.

Youth and substance use

The 2014–2015 Youth Development Survey (YDS) data reported alcohol and marijuana as the top two most common drugs reported in lifetime use, with the highest rates in Staten Island for alcohol (54.5%)

and marijuana (26.9%). Past 30-day use is less than but proportional to borough-wide lifetime use, with the highest rates for alcohol (30.9%) and marijuana (18.4%) in Staten Island. Across NYC, male students show slightly higher rates than do female students for past 30-day marijuana and prescription drug use, except for alcohol use (males 27.2%, females 30.5%). Lifetime heroin use in Staten Island is low (0.3%), compared with Youth Risk Behavior Survey (YRBS) 2013 data showing lifetime heroin use at 6.3%. Marijuana is reported as the most commonly used drug at first drug use across all grades. Heroin lifetime use prevalence is low across NYC (mean prevalence 0.3%). Alcohol use and binge-drinking reported use almost doubles from 7th grade to 12th grade, except in Manhattan where lifetime alcohol use peaks in 11th grade (64%). Bullying behaviors are reported to occur mainly on school grounds reported mainly by 7th-8th graders.

Infectious Diseases Related to Substance Use

New HIV diagnoses in NYC decreased by 54% from 2001 to 2014, with 5,862 and 2,718 cases reported in each year, respectively. Significant decreases were also reported among subpopulations by sex, race/ethnicity, age at diagnosis, borough of residence at diagnosis, and transmission risk. Among injection drug users (IDUs), there were 845 HIV diagnoses in 2001 and only 54 new diagnoses in 2014. As of December 31, 2014, there were 119,550 people living with HIV/AIDS (PLWHA) in NYC. Of these, 16,191 (13.5%) people reported a history of IDU and 2,635 (2.2%) were men who have sex with men/IDUs.

In 2014, 57 acute hepatitis B cases were reported (0.7 per 100,000 New Yorkers), and there were 7,459 people with chronic hepatitis B (88.7 per 100,000 New Yorkers). Because it is difficult to identify at which time point an individual became acutely infected with hepatitis C, the NYC DOHMH does not report surveillance data of acute hepatitis C. Nevertheless, 7,691 people were reported with chronic hepatitis C (91.5 per 100,000 New Yorkers). Among individuals 0–29 years of age, there were 839 newly reported hepatitis C cases in 2014. Data on the number of hepatitis B and C cases resulting from intravenous drug use are unavailable.

Data Sources

Data for this report were drawn from the following sources:

Prevalence data:

- NYC YRBS: The NYC Youth Risk Behavior Survey (YRBS), conducted by the NYC Departments of Health and Education, is an anonymous, self-administered biennial study of NYC public high school students in grades 9 to 12.
- NYS YDS: The New York State Youth Development Survey (YDS) was conducted during the 2014-2015 school year among 7th-12th graders in public and private schools. Only NYC public school data are reported here.
- NYS PDMP: The Prescription Drug Monitoring Program (PDMP) managed by the New York State Department of Health collects data from drug dispenses on schedule II-IV controlled substances.

Morbidity data were provided by The Statewide Planning and Research Cooperative System (SPARCS), which currently collects patient-level detail for each hospital inpatient stay and outpatient emergency department visits. Data on inpatient hospital stays are presented.

Mortality data were collected through an in-depth review of data and charts from the Health Department's Bureau of Vital Statistics and the Office of the Chief Medical Examiner for 2000-2014. Methadone is reported separately and not included in opioid analgesic analyses.

Treatment admissions data were collected through through the New York State Office of Alcoholism and Substance Abuse Services (OASAS): Client Data System for 2010-2015.

HIV and Hepatitis data:

- 2014 HIV surveillance data were collected from the NYC DOHMH HIV Epidemiology and Field Services Programs' annual report.
- Hepatitis data: 2014 hepatitis data were collected from the NYC DOHMH Bureau of Communicable Diseases' annual report.

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