

# **Epi Data Brief**

June 2017, No. 92

# Drug Use among Youth in New York City Public High Schools, by Sexual Orientation and Gender Identity, 2015

This data brief highlights self-reported drug use among youth in New York City (NYC) public high schools. Previous studies suggest that sexual and gender minority youth — those who do not identify as heterosexual or who identify as transgender — have higher rates of substance use compared with their heterosexual, non-transgender counterparts. 1,2,3

# Characteristics of youth who misuse prescription drugs or use illicit drugs

- In 2015, 14% of NYC public high school students misused prescription drugs within the past year or had lifetime use of illicit drugs.
  - Any prescription drug misuse during the past year was reported by 9% of youth in 2015.
  - There was no change in reported misuse of an opioid analgesic during the past year from 2013 to 2015.
  - There were no changes in lifetime heroin, cocaine, or ecstasy use from 2013 to 2015.
- In 2015, 16% of youth reported using marijuana in the past month.
- Asian youth were less likely to have used marijuana in the past month (5%) compared with White (19%), Black (17%), and Latino (18%) youth.
- Seven percent of NYC youth during 2015 misused prescription opioid analgesics, 5% benzodiazepines, and 4% stimulants.
- Four percent of youth had ever used cocaine, 3% heroin, 5% ecstasy, and 5% synthetic cannabinoids.
- The prevalence of any drug use (prescription drug misuse in the last year or any illicit drug use) was higher among males (15%) compared with females (12%).

#### **Definitions:**

Youth includes NYC public high school students in grades 9 through 12.

Prescription drug misuse is taking prescription drugs (e.g., opioid analgesics, benzodiazepines, or stimulants) without a doctor's prescription one or more times during the past 12 months.

Opioid analgesics are prescription pain medications, such as Oxycontin®, Percocet®, Vicodin®, Hydrocodone, or Oxycodone.

Opioid analgesic (prescription pain medication) misuse was measured in 2011, 2013, and 2015 with one question. Misuse of benzodiazepines and stimulants was measured in 2011 and 2013 with one question, and in 2015, measured with two separate questions about stimulants and benzodiazepines.

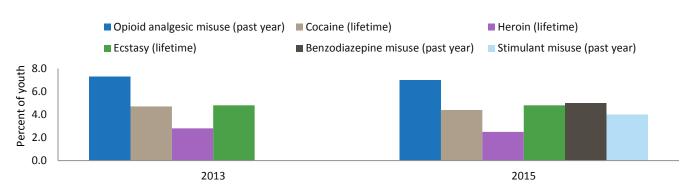
Benzodiazepines include Xanax<sup>®</sup>, Valium<sup>®</sup>, Klonopin<sup>®</sup>, or Ativan<sup>®</sup>.

Stimulants include Adderall®, Ritalin®, Concerta®, or Vyvanse®.

**Illicit drug use** is any lifetime use of cocaine (any form), heroin, ecstasy, or synthetic cannabinoids (K2).

Synthetic cannabinoids are referred to by different names, including K2, Spice, synthetic marijuana, or "legal" marijuana.

## Prescription drug, cocaine, heroin, and ecstasy use among youth, New York City, 2013 and 2015



Source: NYC Youth Risk Behavior Survey, 2013 and 2015

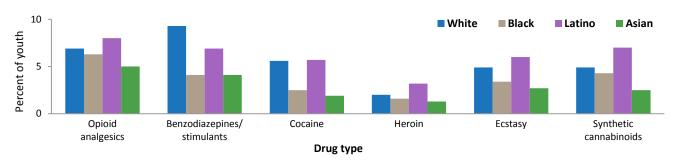
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### Drug use among youth by race/ethnicity

• White (9%) and Latino (7%) youth were more likely to misuse benzodiazepines or stimulants during the past year compared with Black (4%) and Asian (4%) youth.

- Latino (12%) and White (11%) youth had a higher prevalence of illicit drug use than Black (7%) and Asian (4%) youth.
- Latino youth (7%) had a higher prevalence of synthetic cannabinoid use than White (5%), Black (4%), and Asian (3%) youth.
- Heroin use was higher among youth who reside in Staten Island (6%) than among those who lived in the Bronx (3%), Brooklyn (2%), Manhattan (2%), and Queens (2%).
- Heroin use among Staten Island youth did not change from 2013 (6%) to 2015 (6%).

### Drug use among youth by drug type and race/ethnicity, New York City, 2015



\*Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%, the 95% Confidence Interval half-width is greater than 10, or the sample size is less than 50, making the estimate potentially unreliable.

White, Black, Asian race categories exclude Latino ethnicity. Latino includes Hispanic or Latino of any race.

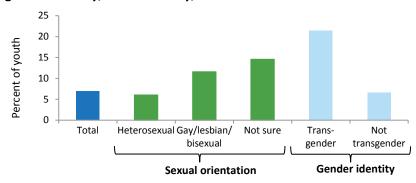
Opioid analgesics and benzodiazepines/stimulants: misuse during the past 12 months; cocaine, heroin, ecstasy, and synthetic cannabinoids: any lifetime use.

Source: NYC Youth Risk Behavior Survey, 2015

# Prescription drug misuse among gay, lesbian, bisexual (GLB), not sure, and trangender youth during the past 12 months

- In 2015, the prevalence of prescription drug misuse in the past 12 months was higher among GLB youth (16%) and not sure youth (19%) compared with heterosexual youth (8%).
- GLB youth (12%) and not sure youth (15%) were more than twice as likely to misuse opioid analgesics compared with heterosexual youth (6%).
- Transgender youth (21%) were three times as likely to misuse opioid analysesics compared with non-transgender youth in 2015 (7%).
- GLB youth (10%) were twice as likely to misuse benzodiazepines or stimulants compared with heterosexual youth (5%), and not sure youth (15%) were three times as likely to misuse benzodiazepines or stimulants.

# Opioid analgesic misuse among youth by sexual orientation and gender identity, New York City, 2015



Opioid analgesics: misuse during the past 12 months Source: NYC Youth Risk Behavior Survey, 2015

**Sexual orientation** refers to youth who identify as heterosexual (straight), gay or lesbian, or bisexual.

Not sure youth are youth who answered "Not Sure" when asked about their sexual orientation.

Transgender refers to youth whose biological sex at birth does not match the way they think or feel about themselves.

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## Prevalence of illicit drug use among gay, lesbian, bisexual (GLB), and not sure youth

- The prevalence of any illicit drug use was twice as high among GLB youth (16%) and not sure youth (17%) compared with their heterosexual counterparts (8%).
- GLB youth and not sure youth were:
  - Twice as likely to have any lifetime use of cocaine compared with heterosexual youth (GLB: 8%; not sure: 10%; heterosexual: 4%).
  - Twice as likely and four times as likely, respectively, as heterosexual youth to have any lifetime use of heroin (GLB: 4%; not sure: 8%; heterosexual: 2%).
  - Nearly three times as likely to have any lifetime use of ecstasy compared with heterosexual youth (GLB: 11%; not sure: 11%; heterosexual: 4%).
  - Twice as likely to have any lifetime use of synthetic cannabinoids compared with heterosexual youth (GLB: 9%; not sure: 10%; heterosexual: 5%).

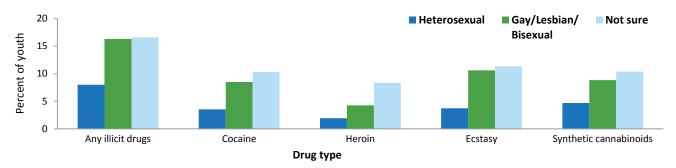
#### **Data Source:**

The NYC Youth Risk Behavior Survey (YRBS), 2013 and 2015: The NYC YRBS is a biennial self-administered, anonymous survey conducted in NYC public high schools by the Health Department and the NYC Department of Education. For more survey details, visit nyc.gov/site/doh/data/data-sets/nyc-youth-risk-behavior-survey.page.

In this survey, 85% of youth identified as heterosexual, 10% as gay, lesbian, or bisexual (GLB), and 5% as not sure. Three percent of youth identified as transgender. Due to small numbers, not all comparisons are presented.

For the purpose of this publication Latino includes persons of Hispanic or Latino origin of any race as identified by the survey question "Are you Hispanic or Latino?" Black, White, and Asian race categories do not include Latino.

#### Illicit drug use among youth by sexual orientation and drug type, New York City, 2015



Illicit drug use is lifetime use of cocaine (any form), heroin, ecstasy, or synthetic cannabinoids. Source: NYC Youth Risk Behavior Survey, 2015

**Authors:** John Capua, Jaclyn Blachman-Forshay, Elizabeth Mello, Michelle L. Nolan, and Denise Paone **Acknowledgements:** Kinjia Hinterland, Sophia Greer, Lauren Murray, and Hillary Kunins **References:** 

1. Kann L, Olsen EO, McManus T, et al. Sexual Identity, Sex of Sexual Contacts, and Health-Related Behaviors Among Students in Grades 9-12 - United States and Selected Sites, 2015. MMWR Surveill Summ. 2016; 65(9): 1-202. doi: 10.15585/mmwr.ss6509a1.

2. Lyons T, Shannon K, Pierre L, Small W, Krüsi A, Kerr T. A qualitative study of transgender individuals' experiences in residential addiction treatment settings: stigma and inclusivity. Subst Abuse Treat Prev Policy. 2015; 10:17. doi: 10.1186/s13011-015-0015-4.

3. Hotton AL, Garofalo R, Kuhns LM, Johnson AK. Substance use as a mediator of the relationship between life stress and sexual risk among young transgender women. AIDS Educ Prev. 2013; 25(1):62–71. doi: 10.1521/aeap.2013.25.1.62.

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New York City Department of Health and Mental Hygiene



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# Drug Use among Youth in New York City Public High Schools, by Sexual Orientation and Gender Identity, 2015

#### **Data Tables**

- **Table 1.** Any self-reported prescription drug misuse or illicit drug use among youth by sex, sexual orientation, gender identity, grade, race/ethnicity, and borough, New York City, 2015
- **Table 2.** Any self-reported prescription drug misuse among youth by drug type, sex, sexual orientation, gender identity, grade, race/ethnicity, borough, and frequency of misuse, New York City, 2015
- **Table 3.** Any self-reported illicit drug use among youth by drug type, sex, sexual orientation, gender identity, grade, race/ethnicity, borough, and frequency of use, New York City, 2015
- **Table 4.** Illicit drug use and prescription drug misuse among youth in the United States, New York State, and New York City, 1999-2015

#### **Data Sources**

The NYC Youth Risk Behavior Survey (YRBS) 1999-2015, conducted in collaboration by the Health Department and the NYC Department of Education, is an anonymous, biennial, self-administered survey of NYC public high school students in grades 9 to 12. Data are weighted to the NYC public high school student population.

The National Youth Risk Behavior Surveillance System (YRBSS) 1999-2015 is a biennial health survey conducted by the Centers for Disease Control and Prevention. Data are representative of 9th through 12th grade students in public and private high schools in the United States . For more survey details, visit https://www.cdc.gov/healthyyouth/data/yrbs/index.htm



Table 1. Any self-reported prescription drug misuse or illicit drug use among youth by sex, sexual orientation, gender identity, grade, race/ethnicity, and borough, New York City, 2015

Source: NYC Youth Risk Behavior Survey, 2015

Data are weighted to the NYC public high school student population.

Data are not age adjusted.

		Overall Total	I I	Any Prescription or Illicit Drug <sup>1</sup>							
	Percent	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Percent	Lower 95% Confidence Interval	Upper 95% Confidence Interval	P value	P value			
Total	100.0	~	~ <sup>l</sup>	13.8	12.2	15.6	~	~			
Sex			ļ								
Female	49.1	45.4	52.9	12.5 D	11.0	14.2	Referent	~			
Male	50.9	47.1	54.6	14.6	12.5	16.8	0.043	~			
Sexual orientation <sup>2</sup>											
Heterosexual (straight)	85.1	83.4	86.7	12.4	10.6	14.4	Referent	~			
Gay/Lesbian/Bisexual	9.9	8.6	11.4	22.3	18.0	27.1	<0.001	~			
Not sure	5.0	4.2	5.8	23.0	18.2	28.6	0.001	~			
Gender identity <sup>3</sup>											
Transgender	2.8	2.2	3.5	39.7 *	24.8	56.8	0.002	~			
Not transgender	97.2	96.5	97.8	13.1	11.5	14.8	Referent	~			
Grade											
9th	29.9	24.3	36.2	11.9	9.4	15.1	Referent	~			
10th	26.6	23.3	30.1	11.9	10.1	13.9	0.972	~			
11th	21.8	17.3	27.0	14.2	11.0	18.2	0.060	~			
12th	21.4	17.0	26.5	16.3	13.5	19.6	0.049	~			
Race/ethnicity			i								
White, non-Latino	13.4	9.9	18.0	14.8	10.4	20.6	Referent	0.523			
Black, non-Latino	29.9	24.5	36.0	11.6	9.3	14.4	0.142	0.001			
Latino	37.8	32.5	43.4	16.5 U	14.3	19.1	0.523	Referent			
Asian, non-Latino	16.8	14.1	19.8	8.6	6.4	11.4	0.020	<0.001			
Other <sup>4</sup>	2.1	1.7	2.5	17.3	13.4	22.1	0.340	0.745			
Borough of residence			l								
Bronx	22.7	18.9	27.0	13.7	10.9	17.0	0.380	0.941			
Brooklyn	31.3	26.8	36.1	13.0	10.4	16.1	0.317	0.703			
Manhattan	11.1	7.7	15.8	13.5 U	11.7	15.6	0.370	Referent			
Queens	28.1	23.8	32.8	13.3	11.3	15.5	0.283	0.886			
Staten Island	6.8	6.0	7.7	16.4	11.3	23.1	Referent	0.370			
Borough of school											
Bronx	18.1	15.2	21.3	11.3	10.1	12.6	0.036	0.065			
Brooklyn	28.8	24.0	34.0	13.3	10.1	17.4	0.520	0.311			
Manhattan	19.9	17.8	22.2	16.8	11.8	23.2	0.559	Referent			
Queens	26.8	22.8	31.2	13.5 U	11.5	15.9	0.484	0.292			
Staten Island	6.5 D	5.7	7.3	14.9	12.0	18.2	Referent	0.559			

<sup>&</sup>lt;sup>1</sup> Use of any prescription drugs (i.e., opioid analgesics, benzodiazepines, or stimulants) without a doctor's prescription during the past 12 months or use of any illicit drugs (i.e., cocaine, heroin, ecstasy, or synthetic cannabinoids, excluding marijuana) during lifetime.

 $\ensuremath{\mathsf{D}}$  Data rounded down to nearest whole number for purposes of reporting in the text.

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95% confidence intervals (CIs) are a measure of estimate precision; the wider the CI, the more imprecise the estimate.

A p-value is a measure of statistical significance. A **bold** p-value less than .05 means there is a significant difference between that group and the referent (comparison) group.

 $<sup>^{2}</sup>$  Sexual orientation refers to how youth best describe themselves in terms of their sexual or romantic attraction.

<sup>&</sup>lt;sup>3</sup> Transgender refers to a person whose biological sex at birth does not match the way they think or feel about themselves.

<sup>&</sup>lt;sup>4</sup> Other category includes non-Latino students who selected American Indian/Alaska Native, Native Hawaiian/other Pacific Islander, or multiple race categories.

<sup>\*</sup> Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%, the 95% Confidence Interval half-width is greater than 10, or the sample size is less than 50, making the estimate potentially unreliable.

Table 2. Any self-reported prescription drug misuse among youth by drug type, sex, sexual orientation, gender identity, grade, race/ethnicity, borough, and frequency of misuse, New York City, 2015

Source: NYC Youth Risk Behavior Survey, 2015

Data are weighted to the NYC public high school student population.

Data are not age adjusted.

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	Percent		rescription Drug 12 month use) Upper 95% Confidence Interval		P value	Percent	•	oid Analgesics 12 month use) Upper 95% Confidence Interval	P value	P value	Percent		zodiazepines 12 month use) Upper 95% Confidence Interval	P value	P value	Percent		12 month use) Upper 95% Confidence Interval	P value	P value
Total	9.5 D	8.2	10.9	~	~	7.0	5.8		~	~	5.3	4.4	6.3	~	~	3.9	3.1	4.9	~	, , ,
Sex	3.3 2	0.2	10.5			7.0	5.0	0.5			3.3	7.7	0.5			3.5	5.1	٦.5		
Female	8.2	7.1	9.5	Referent	~	6.0	5.1	7.1	Referent	~	3.5 U	2.8	4.4	Referent	~	2.8	2.0	4.1	Referent	
Male	10.3	8.6		0.022	~	7.7	6.1		0.021	~	6.6	5.1	8.5	0.002	~	4.7	3.6	6.1	0.022	
Sexual orientation <sup>2</sup>																				
Heterosexual (straight)	8.2	7.0	9.4	Referent	~	6.0	5.0	7.2	Referent	~	4.5 D	3.7	5.5	Referent	~	3.1	2.4	4.0	Referent	
Gay/Lesbian/Bisexual	16.0	11.4		0.003		11.6	7.7		0.015	~	8.5 D		12.2	0.012	~	6.3	4.0	9.9	0.008	
Not sure	19.1	14.8	24.2	<0.001	~	14.6	10.2	20.4	0.001	~	12.2	8.1	18.0	0.003	~	10.7	7.9	14.3	<0.001	
Gender identity <sup>3</sup>																				
Transgender	30.5 D*	17.7	47.2	0.005	~	21.5 D	14.0	31.4	0.001	~	24.3 *	15.1	36.8	<0.001	~	25.0 *	14.1	40.3	0.001	
Not transgender	8.9	7.7	10.2	Referent	~	6.6	5.5	7.9	Referent	~	4.7	4.0	5.6	Referent	~	3.2	2.6	4.0	Referent	
Grade																				
9th	7.7	6.0	9.7	Referent	~	5.6	4.4	7.2	Referent	~	3.9	2.8	5.4	Referent	~	2.9	2.1	4.0	Referent	
10th	7.8	6.5	9.4	0.876	~	6.0	4.9	7.2	0.709	~	4.6	3.3	6.4	0.543	~	3.5 D	2.2	5.4	0.523	
11th	9.8	7.4	12.8	0.152	~	7.8	5.5	11.0	0.104	~	5.5 U	3.7	8.3	0.119	~	3.0	1.9	4.7	0.900	
12th	11.6	9.5	14.1	0.006	~	7.9	6.2	10.0	0.023	~	6.5 U	4.9	8.6	0.026	~	4.9	3.8	6.2	0.013	
Race/ethnicity																				
White, non-Latino	10.6	7.0	15.9	Referent	0.991	6.9	3.8	12.2	Referent	0.584	7.4	4.4	12.1	Referent	0.533	7.4	5.1	10.7	Referent	0.0
Black, non-Latino	7.2	5.0	10.3	0.188	0.032	6.3	4.2	9.2	0.816	0.267	3.5 D	2.4	5.1	0.059	0.017	2.1	1.4	3.1	<0.001	0.0
Latino	10.7	9.2	12.4	0.991	Referent	8.0	6.4	10.0	0.584	Referent	6.1	4.6	8.0	0.533	Referent	3.6	2.8	4.5	0.009	Refere
Asian, non-Latino	7.0	4.7	10.2	0.089	0.025	5.0	2.9	8.7	0.231	0.068	3.2	1.8	5.5	0.050	0.023	2.8 *	1.5	5.0	0.005	0.3
Other <sup>4</sup>	12.3	9.1	16.4	0.404	0.429	7.6	4.8	11.9	0.639	0.844	6.8	4.4	10.4	0.815	0.696	6.0	3.9	8.9	0.393	0.0
Borough of residence																				
Bronx	10.0	8.2	12.1	0.305	0.733	7.5 U	6.0	9.4	0.522	0.769	5.7	3.8	8.3	0.386	0.306	3.5 U	2.6	4.7	0.096	0.5
Brooklyn	8.0	6.2	10.1	0.098	0.058	5.8	4.1	8.2	0.273	0.163	3.8	3.0	4.9	0.103	0.483	3.3	2.1	5.0	0.045	0.3
Manhattan	10.5 D	8.7	12.6	0.405	Referent	8.0	5.7	11.0	0.642	Referent	4.4	3.1	6.1	0.185	Referent	4.4 *	2.3	8.5	0.198	Refere
Queens	8.5 D	6.6	10.9	0.119	0.161	6.2	4.4	8.8	0.259	0.244	5.2	4.1	6.5	0.276	0.465	2.6	1.8	3.7	0.042	0.3
Staten Island	13.0	8.2	20.0	Referent	0.405	9.4	5.1	16.6	Referent	0.642	8.3 *	4.2	15.8	Referent	0.185	8.7 *	4.4	16.7	Referent	0.1
Borough of school																				
Bronx	8.5 U	7.3	9.9	0.063	0.055	6.5 D	5.6	7.5	0.119	0.180	4.5 D	3.7	5.3	0.030	0.181	4.1	3.4	4.9	0.032	0.6
Brooklyn	8.7	6.1	12.1	0.184	0.122	6.3	4.2	9.4	0.225	0.221	4.9	3.1	7.7	0.160	0.379	4.1 *	2.2	7.6	0.120	0.7
Manhattan	12.5 D	9.1	16.9	0.647	Referent	9.3	6.0	14.2	0.712	Referent	6.5 U	4.1	10.2	0.731	Referent	4.6	2.8	7.4	0.172	Refere
Queens	8.3	6.5	10.7	0.082	0.063	6.0	4.2	8.4	0.121	0.154	4.9	4.2	5.8	0.067	0.291	2.3	1.8	2.8	<0.001	0.0
Staten Island	11.4	8.9	14.4	Referent	0.647	8.4	6.4	11.0	Referent	0.712	7.2	5.2	9.9	Referent	0.731	6.9	4.8	9.9	Referent	0.1
Frequency of misuse																				
Only one time	31.2	26.4	36.3	~	~	34.4	28.4	40.9	~	~	33.2	27.8	39.1	~	~	39.5 U	30.2	49.7	~	
Two to nine times	52.3	46.6	58.0	~	~	49.3	43.7	55.0	~	~	52.6	46.3	58.8	~	~	45.6	36.3	55.2	~	
Ten times or more	16.5 D	12.0	22.2	~	~	16.3	11.6	22.3	~	~	14.2	10.5	19.0	~	~	14.9	9.0	23.6	~	

<sup>&</sup>lt;sup>1</sup> Prescription drug misuse is taking prescription drugs (e.g., opioid analgesics, benzodiazepines, or stimulants) without a doctor's prescription one or more times during the past 12 months.

<sup>&</sup>lt;sup>2</sup> Sexual orientation refers to youth who identify as heterosexual (straight), gay or lesbian, or bisexual. Not sure youth are youth who answered "Not Sure" when asked about their sexual orientation.

 $<sup>^3</sup>$  Transgender refers to a person whose biological sex at birth does not match the way they think or feel about themselves.

<sup>&</sup>lt;sup>4</sup> Other category includes non-Latino students who selected American Indian/Alaska Native, Native Hawaiian/other Pacific Islander, or multiple race categories.

<sup>\*</sup> Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%, the 95% Confidence Interval half-width is greater than 10, or the sample size is less than 50, making the estimate potentially unreliable.

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<sup>95%</sup> confidence intervals (CIs) are a measure of estimate precision; the wider the CI, the more imprecise the estimate.

A p-value is a measure of statistical significance. A **bold** p-value less than .05 means there is a significant difference between that group and the referent (comparison) group.

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# Table 3. Any self-reported illicit drug use among youth by drug type, sex, sexual orientation, gender identity, grade, race/ethnicity, borough, and frequency of use, New York City, 2015

Source: NYC Youth Risk Behavior Survey, 2015

Data are weighted to the NYC public high school student population.

Data are not age adjusted.

		Any	Illicit Drug	1					Cocain						Heroin						Ecstasy	•				Synthetic Cannabinoids					Marijuana			
			etime use)						lifetime ι	-					(lifetime use	-					ifetime use)					lifetime use						30 day use)		
			Upper 95% Confidence					Lower 95% Confidence	Upper Confid					Lower 95% Confidence	Upper 95 Confiden					Lower 95% Confidence	Upper 95% Confidence				Lower 95% Confidence	Upper 95 Confiden						Upper 95% Confidence		
	Percent	Interval	Interval	: P val	lue <i>F</i>	P value	Percent	Interval	Inter		P value	P value	Percent	Interval	Interva	_	value	P value	Percent	Interval	Interval	: Pva	alue <i>P</i> value	Percent		Interva	_	lue	P value	Percent	Interval	Interval	P value	e <i>P</i> valu
otal	9.2	8.0	10		~	~	4.4	3.6		5.3	~			J 1	9	3.3	~	~	4.8	4.0	5			~ 5.4	4.6	i	6.3	~	~	15.9	13.9	18.0		~
ex	5.2	0.0						<u> </u>	-	0.0				_		0.0			0					J			0.0				10.0		-	
Female	7.3	6.1	8	3.8 Refe	rent	~	2.7	2.0	)	3.7	Referent	,	~ 1.1	0	.8	1.6 Re	eferent	~	3.4	2.8	4	I.3 Refe	erent	~ 3.9	3.1		4.8 Refe	erent	~	15.8	13.3	18.7	7 Refere	nt
Male	10.5 D	8.8			.003	~	5.7	4.6		6.9	<0.001	,	~ 3.6		.7		<0.001	~	5.6	4.4				~ 6.5				0.006	~	15.7	13.7	18.0		
exual orientation <sup>2</sup>	20.0 2	0.0					J.,		-	0.0	-0.00-		0.0	_		0	10.002		0.0		•			0.0	0		0.0						0.5	Ž
Heterosexual (straight)	8.0	6.7	c	).5 Refe	rent	~	3.5 U	2.7	7	4.6	Referent	,	~ 1.9	1	5	2.6 Re	eferent	~	3.7	3.0	4	l.5 Refe	erent	~ 4.7	3.9	,	5.6 Refe	erent	~	14.7	13.0	16	6 Refere	nt
Gay/Lesbian/Bisexual	16.3	13.0			.001	~	8.5 D	5.5		12.8	0.012		4.3		4		0.040	~	10.6	7.5				~ 8.9				0.001	~	29.0	23.7	35.1		
Not sure	16.6	12.7			.001	~	10.3	6.0		15.8	0.006			5			0.002	~	11.4	8.1				~ 10.4	7.0			0.006	~	13.6	10.7	17.0		
Gender identity <sup>3</sup>	10.0	12.7			.001		10.5	0		13.0	0.000		0.5		-	13. 1	0.002		11.1	0.1	13	.,,		10.1	7.0		13.1	,000		15.0	10.7		,	
Transgender	37.0 *	22.7	5/	l.1 <b>0.</b>	.001	~	25.4 *	13.0	5	42.4	0.003	,	~ 22.6	* 12	4	37.6	0.001	~	27.5 D*	16.5	42	1 <(	0.001	~ 29.2	* 17.5	;	44.6 <b>0</b>	0.001	~	29.4 *	19.1	42.3	3 0.0	26
Not transgender	8.4	7.3		).6 Refe		~	3.7	3.:			Referent	,		1			eferent	~	4.2	3.6		i.9 Refe		~ 4.7	4.0		5.5 Refe		~	15.7	13.7	18.0		
Grade	0.4	7.5		7.0 INCICI	TCTTC		3.7	J	<u>.</u>	7.7	Reference		1.5		.5	2.5 110	Ciciciii		7.2	5.0		r.5 Itel	CICIIC	7.7	4.0		J.J Nere	Tene		15.7	15.7	10.0	, neicie	
9th	8.6	6.2	11	9 Refe	rent	~	4.1	3.0	า	5.7	Referent	,	~ 2.2	1	4	3.4 Re	eferent	~	4.3	3.3	5	5.5 Refe	erent	~ 5.0	3.7	,	6.8 Refe	erent	~	9.1	7.0	11.8	Refere	nt
10th	8.0	6.1			.754	~	3.5 D	2.4		4.9	0.484	,					0.608	~	4.0	2.9			0.800	~ 4.8	3.3			0.900	~	13.7	11.0	17.0		
11th	8.9	6.4	12		.807	~	4.5 U	2.5		7.6	0.714	,		1			0.888	~	4.3	2.8			0.987	~ 5.3	3.9			0.775	~	19.3	15.7	23.6		
12th	10.3	8.2	12		.423	~	4.3	3.:		6.0	0.891	,			.4		0.901	~	5.6	4.3			0.192	~ 5.3	3.7			0.833	~	23.4	19.7	27.5		
Race/ethnicity	10.5	0.2	12	0.	.423		7.5	J	<u>.</u>	0.0	0.031		2.3		. <del>-</del>	3.0	0.501		3.0	7.5	,	.5	J.1J2	5.5	5.7		7.5	.033		25.4	15.7	27.5	, <b>10.0</b> 1	
White, non-Latino	10.7	7.8	1/	I.5 Refe	rant	0.660	5.6	3.7	7	8.6	Referent	0.993	3 2.0	1	.3	3.3 Re	eferent	0.102	4.9	3.3	7	'.4 Refe	erent 0.30	51 4.9	3.5		6.8 Refe	erent	0.049	18.9	14.7	24.0	) Refere	ent 0.8
Black, non-Latino	7.4	5.5			.036	<0.001	2.5 U	1.5		4.3	0.040	<0.001			.1		0.438	0.009	3.4	2.7			0.131 <b>&lt;0.0</b> 0		3.1			0.503	0.022	17.4	13.7	21.9		
Latino	11.6	9.6				Referent	5.7	4.4		7.2	0.993	Referen		2		4.5	0.438	Referent	6.0	5.1			0.361 Refere						Referent	18.3	15.7	22.0		
Asian, non-Latino	4.2	2.8			.002	<0.001	1.9 *	1.0		3.5	0.006	0.001			.6	2.8	0.102	0.016	2.7 *	1.4			0.051 <b>&lt;0.0</b> 0					0.045	<0.001	5.4	4.2	6.8		
Other <sup>4</sup>	12.3	8.6	17		.546	0.778	5.5 U	3.5		8.7	0.942	0.937		2		8.0	0.238	0.304	7.8	4.7			0.164 0.34					0.131	0.753	14.8	11.6	18.5		
Borough of residence	12.5	8.0	17	.2 0.	.540	0.778	3.5 0	J.,	,	6.7	0.942	0.937	4.7		. 7	8.0	0.004	0.304	7.0	4.7	12		0.5	7.0	5.1		11.5	.131	0.755	14.0	11.0	10.5	0.1.	// 0.1
Bronx	9.2	7.0	13	2.0 0.	.328	0.376	4.7	3.2	2	6.9	0.143	0.228	3 2.7	1	.8	4.1	0.019	0.205	4.7	3.2	6	5.8 (	0.224 0.39	3 5.5	D 4.1		7.4 0	0.229	0.503	16.9	12.9	21.9	9 0.60	65 0.6
Brooklyn	8.5 D	6.9	10		.215	0.376	3.3	2.4		4.6	0.143	0.22			.3		0.019	0.203	4.7	3.2			0.123 0.46		4.1			0.229	0.556	15.1	12.4	18.3		
Manhattan	7.2	4.2	12			Referent	3.4	2.0		5.7	0.035	Referen		1		3.0	0.001	Referent	3.5 U	2.4			0.125 0.40 0.116 Refere		2.5				Referent	17.6	14.7	21.1		
Queens	8.9	7.6	10		.254	0.472	4.0	3.3		4.8	0.020	0.600		1			0.002	0.927	4.7	3.7			0.220 0.22		3.7			0.144	0.730	14.6	12.5	17.0		
Staten Island	12.2	7.6		).1 Refe		0.472	7.0				Referent	0.035		3		8.5 Re		0.002	8.2 *	4.1			erent 0.1				16.7 Refe		0.730	18.2	14.6	22.4		
Borough of school	12.2	7.0	13	.1 Kerei	Tent	0.101	7.0	4.9	,	10.1	Referent	0.03	<b>)</b> 3.6	3	.5	0.5 Ne	ererent	0.002	0.2	4.1	13	o.5 Reit	erent 0.1.	.0 9.1	4.7		10.7 Refe	Tent	0.144	10.2	14.0	22.2	+ Refere	10.0
Bronx	7.7	6.5	c	).1 <b>0.</b>	.024	0.372	4.1	2.8	2	5.8	0.015	0.809	9 3.1	า	2	4.3	0.015	0.422	4.0	3.4	1	l.7 <b>(</b>	<b>0.037</b> 0.52	27 4.3	3.6	;	5.3 <b>0</b>	0.009	0.331	13.6	10.6	17.3	3 0.13	37 0.0
Brooklyn										6.4					.2																			
Manhattan	8.9	6.6	12		.213	0.745	3.7	2.:			0.015	0.656			.9		0.004	0.795	4.8	3.1					3.8			0.116	0.885	14.1	12.0	16.5		
	9.8	6.2				Referent	4.4	2.5		7.8	0.064	Referen			.1	4.8	0.008	Referent	4.8	2.8			0.325 Refere		3.6				Referent	21.6	14.3	31.2		
Queens Staten Island	9.4	8.2			.191	0.845	4.4	4.0		4.8	0.011	0.960			.3		0.001	0.835	4.9 6 E II	4.1			0.204 0.92					).048	0.690	14.7	12.7	16.9		
	11.6	8.8	15	5.0 Refe	rent	0.526	7.9	5.0	o 	11.1	Referent	0.064	4 6.0	4	.2	8.6 Re	eferent	0.008	6.5 U	4.6	9	).2 Refe	erent 0.32	25 8.0	5.8		11.1 Refe	rent	0.207	17.5 U	13.9	22.0	) Refere	ent 0.3
Prequency of use	45.5.11	20.4	-4	7	~	~	40.1	42.4	2	FF 4	~	,	207	22	2	47 F	~	~	F2 F 5	42.7	63	. 0	~	~ 50.0	44.4		F0.6	~	~	20.1	24.0	4.4	-	~
One or two times	45.5 U	39.4	51				49.1	43.0		55.1			33.7	32		47.5			52.5 D	42.7				30.0			58.6			39.1	34.0	44.5		
Three to 19 times	33.8	30.4	37	7.3	~	~	27.0	21.	)	33.3	~	•	33.0	26	.2	40.7	~	~	31.2	23.8	39	1.6	~	~ 33.0	26.0		40.7	~	~	38.7	35.2	42.4	4	~

<sup>&</sup>lt;sup>1</sup> Lifetime use of any illicit drugs (i.e., cocaine, heroin, ecstasy, or synthetic cannabinoids), excluding marijuana.

<sup>&</sup>lt;sup>2</sup> Sexual orientation refers to youth who identify as heterosexual (straight), gay or lesbian, or bisexual. Not sure youth are youth who answered "Not Sure" when asked about their sexual orientation.

<sup>&</sup>lt;sup>3</sup> Transgender refers to a person whose biological sex at birth does not match the way they think or feel about themselves.

<sup>&</sup>lt;sup>4</sup> Other category includes non-Latino students who selected American Indian/Alaska Native, Native Hawaiian/other Pacific Islander, or multiple race categories.

<sup>\*</sup> Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%, the 95% Confidence Interval half-width is greater than 10, or the sample size is less than 50, making the estimate potentially unreliable.

D Data rounded down to nearest whole number for purposes of reporting in the text.

<sup>95%</sup> confidence intervals (CIs) are a measure of estimate precision; the wider the CI, the more imprecise the estimate.

A p-value is a measure of statistical significance. A **bold** p-value less than .05 means there is a significant difference between that group and the referent (comparison) group.

## Table 4. Illicit drug use and prescription drug misuse<sup>1</sup> among youth in the United States, New York State, and New York City, 1999-2015

Sources: National Youth Risk Behavior Surveillance System, 1999-2015; New York State Youth Risk Behavior Surveillance System, 1999-2015; NYC Youth Risk Behavior Survey, 1999-2015

 ${\tt Data\ from\ the\ NYC\ Youth\ Risk\ Behavior\ Survey\ are\ weighted\ to\ the\ NYC\ public\ high\ school\ student\ population.}$ 

Data are not age adjusted.

Any Prescript	ion drug misus	se among you	th in New Y	ork City <sup>†</sup> , 20	)11-2015				
Any Prescription months) <sup>2</sup>	on Drug Misuse	**	Opioid Anal	_	Other Prescription Drug Misuse (past 12 months) <sup>2</sup>				
Year	%	95% CI	%	95% CI	%	95% CI			
2011	9.0	(8.3-9.8)	7.3	(6.5-8.2)	4.8	(4.3-5.3)			
2013	9.8	(8.4-11.3)	7.3	(6.2-8.5)	6.4	(5.3-7.8)			
2015	9.5 D	(8.2-10.9)	7.0	(5.8-8.3)	6.4	(5.3-7.6)			

<sup>&</sup>lt;sup>1</sup> Prescription drug misuse is taking prescription drugs (e.g., opioid analgesics, benzodiazepines, or stimulants) without a doctor's prescription one or more times during the past 12 months.

<sup>&</sup>lt;sup>2</sup> Opioid analgesic (prescription pain medication) misuse was measured in 2011, 2013, and 2015 with one question. Misuse of benzodiazepines and stimulants (other prescription drug misuse) was measured in 2011 and 2013 with one question, and in 2015, measured with two separate questions about stimulants and benzodiazepines. Any prescription drug misuse combines the answers to these questions.

	Ne	ew York City <sup>†</sup>		P value	New	· York State <sup>††</sup>	į	United States***			
			% Change			%	Change vs.				
Year	%	95% CI	vs. 2015	Ì	%	95% CI	2015	%	95% CI	vs. 2015	
1999	17.3	(14.0-21.2)	-8.1%	0.459	23.4	(21.0-26.0)	-17.5%	26.7	(24.2-29.4)	-18.7%	
2001	17.8	(14.4-22.0)	-10.7%	0.334	~	~	~	23.9	(22.3-25.5)	-9.2%	
2003	15.3	(13.9-16.9)	3.9%	0.659	20.7	(18.7-22.8)	-6.8%	22.4	(20.2-24.6)	-3.1%	
2005	12.3	(10.9-13.8)	29.3%	0.005	18.3	(16.2-20.7)	5.5%	20.2	(18.6-22.0)	7.4%	
2007	12.4	(11.0-13.9)	28.2%	0.007	18.6	(17.1-20.2)	3.8%	19.7	(17.8-21.8)	10.2%	
2009	15.0	(13.4-16.8)	6.0%	0.524	20.9	(18.4-23.6)	-7.7%	20.8	(19.4-22.3)	4.3%	
2011	17.7	(16.6-19.0)	-10.2%	0.123	20.5 U	(18.5-22.7)	-5.9%	23.1	(21.5-24.7)	-6.1%	
2013	16.2	(14.5-18.0)	-1.9%	0.822	21.4	(19.4-23.5)	-9.8%	23.4	(21.3-25.7)	-7.3%	
2015	15.9	(13.9-18.0)	~	Referent	19.3	(16.9-21.8)	~	21.7	(19.3-24.2)	~	

Cocaine use (li	fetime) among y	outh in the Un	ited States, N	ew York State	, and New York	City, 1999-2015				
	Nev	w York City <sup>†</sup>		P value	Ne	w York State <sup>††</sup>			United States <sup>†††</sup>	
			% Change	!		%	6 Change vs.			% Change
Year	%	95% CI	vs. 2015	ļ	%	95% CI	2015	%	95% CI	vs. 2015
1999	3.3	(2.0-5.4)	33.3%	0.228	6.8	(5.7-8.0)	11.8%	9.5	U (8.2-11.1)	-45.3%
2001	2.6	(1.7-3.9)	69.2%	0.008	~	~	~	9.4	(8.2-10.7)	-44.7%
2003	3.5 D	(2.9-4.2)	25.7%	0.105	6.1	(5.4-6.9)	24.6%	8.7	(7.6-9.9)	-40.2%
2005	3.6	(3.0-4.3)	22.2%	0.152	5.1	(4.2-6.2)	49.0%	7.6	(6.7-8.7)	-31.6%
2007	3.2	(2.5-4.1)	37.5%	0.049	7.0	(5.8-8.5)	8.6%	7.2	(6.2-8.2)	-27.8%
2009	4.2	(3.7-4.9)	4.8%	0.810	7.2	(5.4-9.5)	5.6%	6.4	(5.7-7.1)	-18.8%
2011	4.1	(3.5-4.8)	7.3%	0.599	6.2	(5.4-7.2)	22.6%	6.8	(6.2-7.5)	-23.5%
2013	4.7	(3.8-5.6)	-6.4%	0.624	5.3	(4.2-6.7)	43.4%	5.5	U (4.7-6.6)	-5.5%
2015	4.4	(3.6-5.3)	~	Referent	7.6	(6.0-9.6)	~	5.2	(4.3-6.2)	~

### Table 4. Illicit drug use and prescription drug misuse among youth in the United States, New York State, and New York City, 1999-2015

Sources: National Youth Risk Behavior Surveillance System, 1999-2015; New York State Youth Risk Behavior Surveillance System, 1999-2015; NYC Youth Risk Behavior Survey, 1999-2015

Data from the NYC Youth Risk Behavior Survey are weighted to the NYC public high school student population.

Data are not age adjusted.

Heroin use (lit	fetime) among yo	outh in the Unit	ed States, Ne	w York State	, and New York (	City, 1999-2015							
	Ne	w York City <sup>†</sup>		P value	Ne	w York State <sup>††</sup>	:	United States <sup>†††</sup>					
			% Change	ļ		%	6 Change vs.			% Change			
Year	%	95% C.I.	vs. 2015	ļ	%	95% C.I.	2015	%	95% C.I.	vs. 2015			
1999	1.0	(0.6-1.8)	150.0%	<0.001	2.6	(2.0-3.4)	84.6%	2.4	(1.9-3.0)	-12.5%			
2001	0.9	(0.5-1.7)	177.8%	<0.001	~	~	~	3.1	(2.7-3.6)	-32.3%			
2003	1.6	(1.3-2.0)	56.3%	0.015	1.8	(1.4-2.3)	166.7%	3.3	(2.6-4.1)	-36.4%			
2005	1.8	(1.3-2.4)	38.9%	0.078	1.8	(1.3-2.4)	166.7%	2.4	(2.0-2.8)	-12.5%			
2007	1.3	(0.9-1.9)	92.3%	0.004	3.4	(2.6-4.6)	41.2%	2.3	(1.8-2.8)	-8.7%			
2009	2.6	(2.1-3.2)	-3.8%	0.916	3.9	(2.8-5.4)	23.1%	2.5	D (2.2-2.9)	-16.0%			
2011	2.7	(2.3-3.2)	-7.4%	0.720	4.0	(3.2-5.1)	20.0%	2.9	(2.5-3.3)	-27.6%			
2013	2.8	(2.1-3.6)	-10.7%	0.640	3.7	(2.7-4.8)	29.7%	2.2	(1.7-2.8)	-4.5%			
2015	2.5 U	(1.9-3.3)	~	Referent	4.8	(3.8-6.1)	~	2.1	(1.5-2.8)	~			

Ecstasy use (I	ifetime) among y	outh in the Uni	ted States, N	ew York State	e, and New York	City, 1999-2015					
	Ne	w York City <sup>†</sup>		P value	Ne	ew York State <sup>††</sup>	İ	U	United States <sup>†††</sup>		
			% Change	į			6 Change vs.			% Change	
Year	%	95% C.I.	vs. 2015		%	95% C.I.	2013	%	95% C.I.	vs. 2015	
2003	5.0	(4.3-5.8)	-4.0%	0.719	6.1	(5.3-7.1)	14.8%	11.1	(7.8-15.5)	-55.0%	
2005	3.7	(3.0-4.5)	29.7%	0.050	4.1	(3.3-5.1)	70.7%	6.3	(5.4-7.3)	-20.6%	
2007	2.5 U	(2.0-3.3)	92.0%	<0.001	6.1	(5.1-7.4)	14.8%	5.8	(5.0-6.6)	-13.8%	
2009	4.4	(3.7-5.1)	9.1%	0.437	5.8	(4.4-7.7)	20.7%	6.7	(5.8-7.6)	-25.4%	
2011	4.7	(4.1-5.4)	2.1%	0.908	7.0	(6.0-8.2)	0.0%	8.2	(7.2-9.4)	-39.0%	
2013	4.8	(4.1-5.5)	0.0%	0.958	7.0	(5.7-8.7)	0.0%	6.6	(5.6-7.7)	-24.2%	
2015	4.8	(4.0-5.7)	~	Referent	~	~	~	5.0	(4.3-5.8)	~	

 $<sup>^{\</sup>mbox{\tiny †}}$  NYC YRBS is administered to public schools only.

 $NYC\ YRBS\ results\ 1997-2015:\ NYC\ Health\ Epi\ Query:\ https://a816-healthpsi.nyc.gov/epiquery/YRBS/yrbsIndex.html$ 

NYS YRBS results 1991-2015: https://nccd.cdc.gov/youthonline/app/Results.aspx?LID=NY

 $US\ YRBS\ results\ 1991-2015:\ https://nccd.cdc.gov/youthonline/app/Results.aspx?LID=XX$ 

<sup>&</sup>lt;sup>††</sup>NYS YRBS is administered to public schools only. (MMWR report: http://www.cdc.gov/healthyyouth/data/yrbs/pdf/2015/ss6506\_updated.pdf)

 $<sup>^{\</sup>dagger\dagger\dagger}\text{US}$  YRBS is administered to both public and private schools.

D Data rounded down to the nearest whole number for the purposes of reporting in the text.

 $<sup>\</sup>mbox{\ensuremath{\mathsf{U}}}$  Data rounded up to the nearest whole number for the purposes of reporting in the text.

<sup>95%</sup> confidence intervals (CIs) are a measure of estimate precision; the wider the CI, the more imprecise the estimate.

A p-value is a measure of statistical significance. A **bold** p-value less than .05 means there is a significant difference between that group and the referent (comparison) group.