



## REPORT ON SUBSTANCE ABUSE

SUNY DOWNSTATE MEDICAL CENTER

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## LETTER FROM THE PRESIDENT

More research is needed to better understand the physical and mental roots of substance abuse.

Dear residents and friends of Brooklyn:

Substance abuse is a problem that affects everyone, from the very young to the elderly. It exists in every city, town, and neighborhood and cuts across all racial and social groups. If we hope to reduce the widespread abuse of alcohol, drugs, and tobacco, we have to look at the problem with open eyes and treat it not only as a societal problem but as a public health concern. And above all, we need to provide understanding and treatment to those who need it.

I hope you will find this **Report on Substance Abuse** useful. Substance abuse is a complicated problem that requires multiple solutions. Although doctors are finding better ways to diagnose and treat many forms of substance abuse, important questions remain: Why is substance abuse more common among men than women, and among boys than girls? Why is alcohol the most popular drug in the country, especially among teenagers? What role does peer pressure play in turning teenagers toward drugs?

The information presented in this report is based on the most recent data available, but much of it relies on hospital records and answers people provided to health questionnaires and surveys. Clearly, this does not show the whole picture. More research is needed to better understand the full extent of the problem, as well as the physical and mental roots of substance abuse, but progress is being made. In Brooklyn, the rates of alcohol and drug-related deaths are lower than in the rest of the city and the nation, as is the percentage of adults who smoke. And according to recent 2002 survey results, students in our city's schools reported smoking, drinking, and using drugs less often than adolescents in other parts of the state or country.

But we still have far to go to meet the government's Healthy People 2010 goals to reduce the most serious health risks due to substance abuse. A key element of any successful public health campaign is education. The success of recent anti-smoking campaigns, especially among teenagers, serves as a model for what can be achieved when the government, schools, and grass-roots organizations work in partnership to achieve common goals.

In resolving to address substance abuse and the multiple issues it raises, we must remember to be responsive to community and cultural concerns. We need to develop creative solutions that broaden access to treatment, and we must ensure that prevention efforts address disparities. By working together, we can make our communities stronger and healthier.

John C. LaRosa, M.D.  
President

## SUBSTANCE ABUSE AND ITS DANGERS

Substance abuse is one of America's most common health problems. In Brooklyn, it is one of the top 10 causes of death (though not in the United States as a whole). In 2003, the U.S. Department of Health and Human Services' National Survey on Drug Use and Health estimated that 21.6 million Americans could be classified as having problems with substance abuse or dependence. The same survey found, however, that only 3.3 million—fewer than one out of every six Americans who have this problem—had received some kind of treatment in the past year.

Why do so few people get treatment? Some cannot afford treatment or do not know where to get it. But many others may not be fully aware of the serious health risks associated with illegal drugs, heavy drinking, and smoking. Or they may not realize that they have a problem controlling substance use.

The numbers tell a different story. Each year, 100,000 lives are lost as a result of drunk driving and other alcohol-related causes. Illegal drugs are responsible for an additional 12,000 deaths, including deaths from AIDS and hepatitis contracted by injecting drugs. While smoking is widely recognized as a danger to health, the long-term risks of drinking are just as serious. They can include high blood pressure, heart problems, stroke, certain cancers, and liver diseases.

Along with the human cost of substance abuse, the burden it places on our economy is great. In 1995, the price of health care, lost productivity in the workplace, crime, and other social costs due to drug and alcohol abuse was estimated to be \$276 billion—an amount that can only have increased since then.

The long-term cost of substance abuse among adolescents can be especially high. Researchers have found that 40 percent of teenagers who start drinking at 14 or younger become dependent on alcohol later in life. Other studies have found that early drinking and drug use are often linked to criminal behavior. Once it begins, the cycle of dependence is hard to break; but early intervention and treatment can make a real difference.

Healthy People 2010 is a set of guidelines and goals developed by the U.S. Department of Health and Human Services to prevent or reduce the major threats to health nationwide—and especially to protect the health of children. With regard to substance abuse, these goals include reducing the rates of alcohol-related deaths and traffic accidents; the use of steroids, inhalants, and binge drinking among adolescents; alcohol and drug-related violence; and lost job productivity. The overriding aim is to improve the nation's health and prevent needless deaths by making more people aware of the dangers of substance abuse and the benefits of early treatment.

### **What Is Substance Abuse?**

Substance abuse is a complex problem. For example, it is legal for adults to drink alcohol, but binge drinking and long-term heavy drinking can be harmful. Prescription drugs are legal if used following the doctor's orders. However, certain drugs, such as heroin, are extremely harmful and always illegal.

According to some authorities, a drug or other substance is being abused if its use:

- Results in diminished performance at work, in school, or at home;
- Puts the user or others at risk of physical harm;
- Exposes the user to legal problems; or
- Results in social or interpersonal problems.

Abusing a drug or other substance is not the same as being dependent on it. Dependence is a longer-term condition. Often, people who depend on a drug or alcohol want to stop but are not able to. They may keep on using it to avoid having withdrawal symptoms, and they may spend a lot of time obtaining it or recovering from its use.

Substance abuse can take many forms and affect people in many walks of life. A substance abuser can be an overworked single mom who takes pills to stay awake, a stockbroker who snorts cocaine, a physician with a drinking problem, a teenager hooked on tobacco, or an elderly person who takes more pain-killers than the doctor recommended. No part of society is free from the dangers of substance abuse.

## DRUG ABUSE

No exact information is available on how many people use illegal drugs in Brooklyn and the rest of New York City and New York State. However, we can get an idea of how common the problem is in various areas by comparing certain data collected by state and local health agencies.

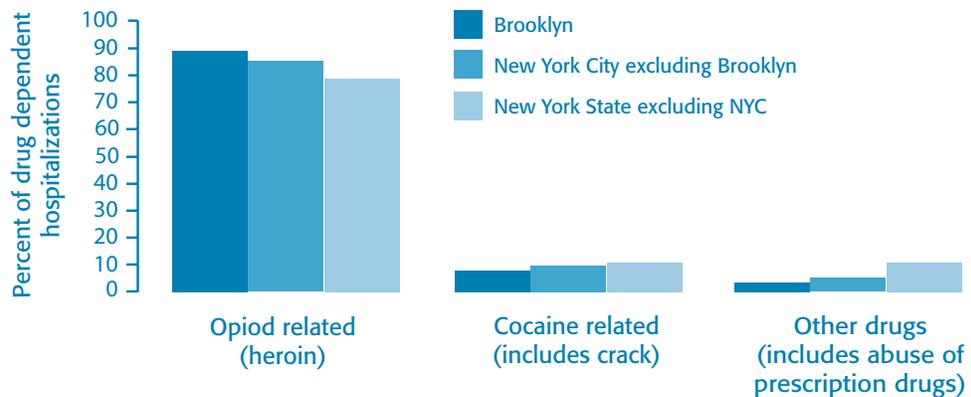
For example, the rate at which people are hospitalized for drug dependence was higher in Brooklyn in 2002 than it was elsewhere in New York City and New York State. By far the greatest number of hospital admissions for drug dependence in Brooklyn involved heroin use.

### Distribution of Hospitalizations by Type of Drug, 2002

Nearly 90 percent of drug-dependent hospitalizations in Brooklyn involved heroin use. Since heroin is commonly injected, users are at greater risk of getting diseases such as hepatitis and HIV/AIDS. In addition, heroin is often mixed with other drugs—a practice called speedballing—to lengthen or intensify the effect. This increases the danger of using these drugs.

As this graph shows, hospitalizations for dependence on other drugs was much less common in 2002. The use of cocaine, especially crack cocaine, has fallen greatly in New York City over the past decade. This has had a major impact on reducing the number of deaths due to substance abuse. However, there are signs that crack use is increasing again.

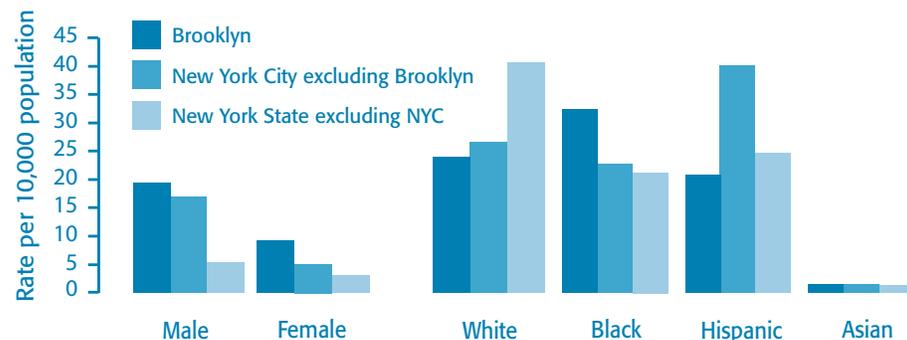
Source:  
HANYS - SPARCS, 2002



### Hospitalizations Due to Drug Dependence by Sex and Race, 2002

Throughout New York, the rate of hospitalization for drug dependence was higher for men than for women. In Brooklyn, Black residents had a higher rate of drug hospitalization than did White, Hispanic, or Asian residents. In the rest of New York City, Hispanics had the highest rate of hospitalization.

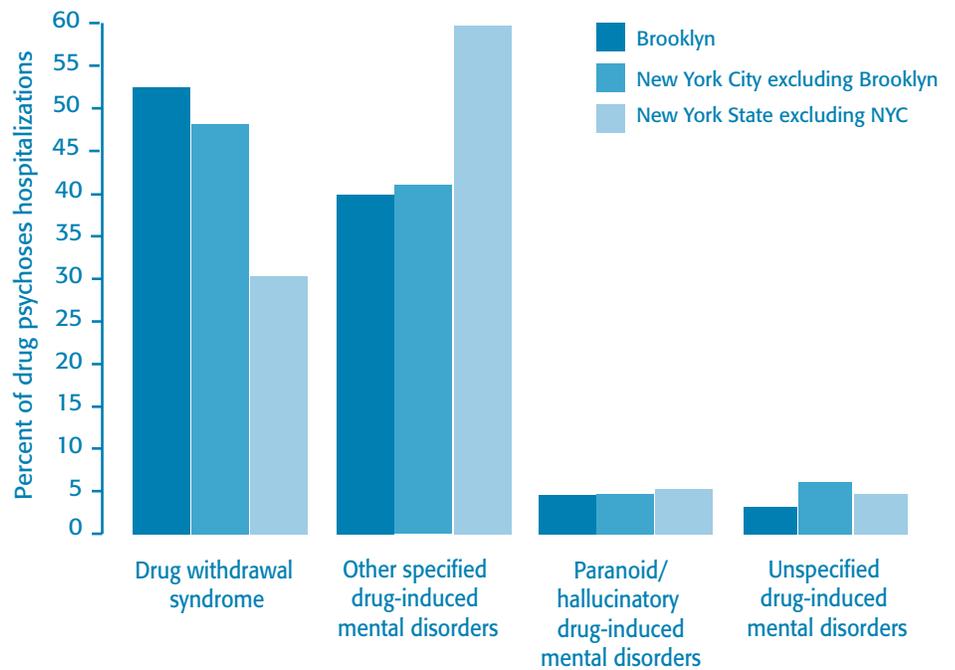
Source:  
HANYS - SPARCS, 2002



### Hospitalizations for Drug Psychoses, 2002

Unlike hospitalizations for drug dependence, hospitalizations for drug psychoses—drug-induced mental conditions that cause a person to lose touch with reality—are not necessarily a result of long-term drug use. They can instead result from a single bad drug experience, or a problem withdrawing from the use of a drug. Problems brought on by withdrawal account for more than half of all hospital admissions in Brooklyn for drug-induced psychoses.

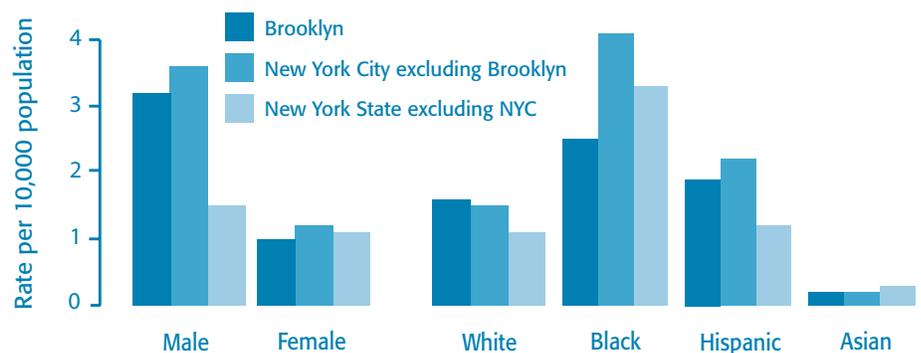
Source:  
HANYS - SPARCS, 2002



### Hospitalizations for Drug Psychoses or Mental Disorders Due to Drug Use, 2002

As shown here, hospitalizations for drug-induced mental problems are much more common among men than among women, both in Brooklyn and elsewhere in New York; and are more common among Blacks and Hispanics than among Whites or Asians.

Source:  
HANYS - SPARCS, 2002



## DRUG ABUSE

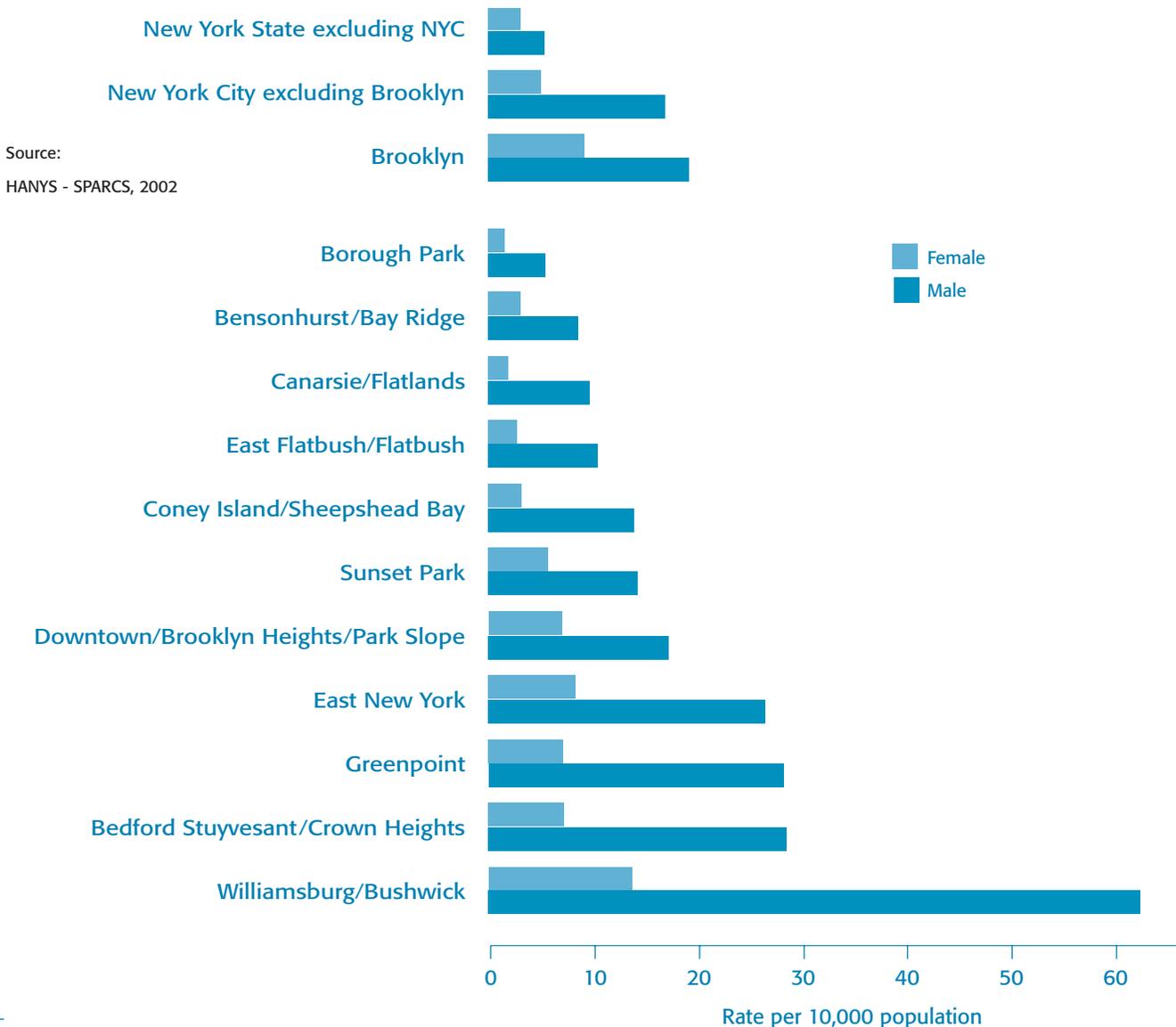
### Variations among Brooklyn Neighborhoods

Just as information on drug-related hospitalizations allows us to compare Brooklyn with New York City and New York State, it also lets us compare neighborhoods within Brooklyn. Five Brooklyn neighborhoods had higher hospitalization rates for drug dependence than the rest of New York City:

- Downtown/Brooklyn Heights/Park Slope
- East New York
- Greenpoint
- Bedford Stuyvesant/Crown Heights
- Williamsburg/Bushwick

In Williamsburg/Bushwick, the rate of hospitalization for men was three times the overall rate for men in Brooklyn; and the rate of hospitalization for women living in Williamsburg/Bushwick was twice the rate for all Brooklyn women.

### Hospitalizations Due to Drug Dependence by Brooklyn Neighborhood, 2002



**Substance Use-Related Deaths**

Although deaths from substance use have declined over the past decade, poisoning from psychoactive substances—that is, those that affect the mind—is still one of the leading causes of death in Brooklyn and throughout New York City. It is the fourth leading cause of death among New Yorkers under 65 years of age. These numbers do not tell the full story, however, since abuse of drugs and alcohol can be a major factor in deaths that are officially listed as having other causes, such as HIV/AIDS, auto accidents, and heart disease.

**10 Leading Causes of Death in Brooklyn and New York City, 2002**

*Summary of Vital Statistics  
2002, The City of New York,  
NYC Department of Health  
and Mental Hygiene*

Note: For definitions of these health conditions, please consult the glossary, page 23.

	Percent of Brooklyn Deaths	Percent of New York City excluding Brooklyn	
Diseases of the Heart	43.1	40.3	Diseases of the Heart
Malignant Neoplasms	21.1	23.9	Malignant Neoplasms
Influenza & Pneumonia	4.4	4.1	Influenza & Pneumonia
HIV/AIDS	3.1	3.2	Cerebrovascular Disease
Diabetes Mellitus	2.9	3.0	Chronic Lower Respiratory Diseases
Cerebrovascular Disease	2.9	2.9	Diabetes Mellitus
Chronic Lower Respiratory Diseases	2.6	2.8	HIV/AIDS
Accidents Except Poisoning by Psychoactive Substance	1.9	2.0	Accidents Except Poisoning by Psychoactive Substance
Essential Hypertension & Renal Disease	1.4	1.6	<b>Use of or Poisoning by Psychoactive Substance</b>
<b>Use of or Poisoning by Psychoactive Substance</b>	1.3	1.1	Essential Hypertension & Renal Disease
All Other Causes	15.5	15.2	All Other Causes

## DRUG ABUSE

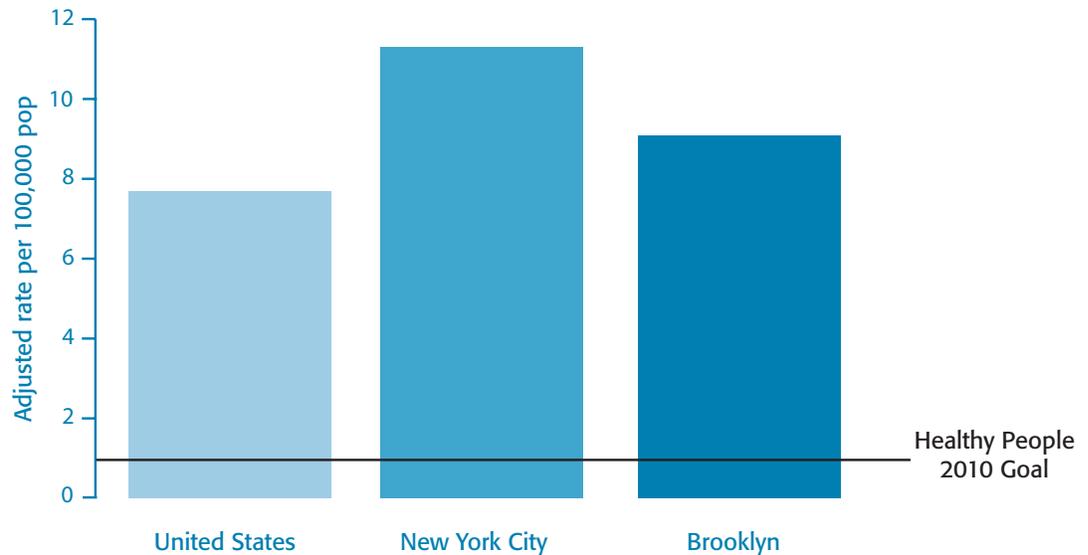
### Deaths from Drug Dependence, 2002

Even though the rate of drug-related deaths is lower in Brooklyn than it is in New York City, it is higher than the national rate. (New York State data are not available at this time.) The Healthy People 2010 objective is to reduce this rate to one drug-related death per 100,000 people. Much will have to be done to reach this goal.

Source:

*Summary of Vital Statistics 2002, The City of New York, NYC Department of Health and Mental Hygiene; Deaths: Preliminary Data for 2002, CDC, 2003*

\* No data available for New York State.



### Deaths from Drug Dependence in New York City by Race/Ethnicity and Sex, 2002

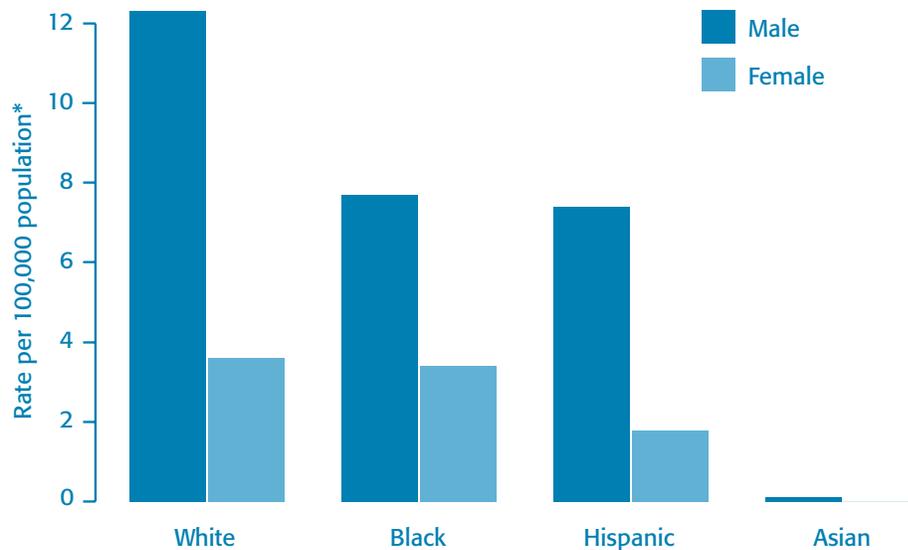
Deaths from drug dependence are more common among men than women. Although not shown in the chart below, they are also more common among younger adults than older people.

Whites in New York City die from substance use at a higher rate than the City's Black, Asian, and Hispanic residents. Deaths due to drug dependence were one of the five leading causes of deaths among Whites, Blacks, and Hispanics under 65 years of age in 2002.

Source:

*Summary of Vital Statistics 2002, The City of New York, NYC Department of Health and Mental Hygiene*

\* Age-specific death rate for population 20 to 64 years. (No deaths reported for Asian females.)



Selected List of Commonly Abused Drugs and Chemicals			
Type of Drug	Drug	Common or Street Names	Method or How Used
Cannabis	Marijuana	pot, grass, dope, weed, ganja	smoked or swallowed
	Hashish	hash	
Stimulants	Cocaine	coke, snow, bump, blow, rock	snorted, melted and injected
		crack	smoked
	Amphetamines	bennies, uppers, speed, black beauty	taken orally
	MDMA	ecstasy, xtc, wonder drug	taken orally
	Methamphetamines	crystal meth, meth, ice, crystal, crank, fire, cristy, glass	taken orally, smoked, snorted
	Methylphenidate	Ritalin®	taken orally (in prescribed form); mixed with water and injected in abuse form
	Nicotine	cigarettes, cigars, snuff, chewing tobacco	smoked or chewed
Depressants/ Narcotics	Heroin (Opioid)	dope, smack, scag, brown sugar, tiger, elephant	smoked, heated and inhaled, injected under skin or in vein
	Opium (Opioid)	big O, hop, gum	taken orally, smoked
	Morphine (Opioid)	M, monkey, miss emma, white stuff	injected, taken orally, smoked
	Oxycodone (Opioid)	OxyContin®, poor man's heroin	taken orally
	Codeine (Opioid)	Capt Cody, Cody, schoolbo,	taken orally, injected
	Barbiturates/ Sleeping Pills	barbs, reds, tooies, yellows, phennies	taken orally or injected
	GHB (gamma hydroxybutyrate)	G, Georgia home boy, liquid ecstasy	taken orally
	Alcohol	booze, sauce, brew	taken orally
Dissociate Anesthetics	PCP (phencyclidine)	angel dust	taken orally, smoked, sniffed, or injected
	Ketamine hydrochloride	special k, vitamin k, super k, new ecstasy psychadelic-heroin	injected, snorted, smoked
Hallucinogens	LSD	acid, dot, beast, blue heaven	taken orally
	Mescaline	mesc, peyote	taken orally, smoked
	Psilocybin	magic mushrooms, shrooms	taken orally
Inhalants	Nitrous Oxide	poppers, whippets, snappers	sniffed/inhaled
	Solvents	glue, gas, thinners	sniffed/inhaled
Other Drugs	Anabolic Steroids	juice, roids	injected, taken orally, applied to skin

## ALCOHOL ABUSE

Even though moderate drinking is not necessarily harmful, heavy drinking can kill. Long-term alcohol abuse increases the risk of liver damage and cirrhosis of the liver, a life-threatening condition that prevents the liver from working normally. Heavy drinking can cause high blood pressure, an irregular heartbeat, heart muscle disorders, stroke, and cancers of the colon, rectum, and breast. In addition, more than a third of all motor vehicle deaths are associated with alcohol use.

### Binge Drinking

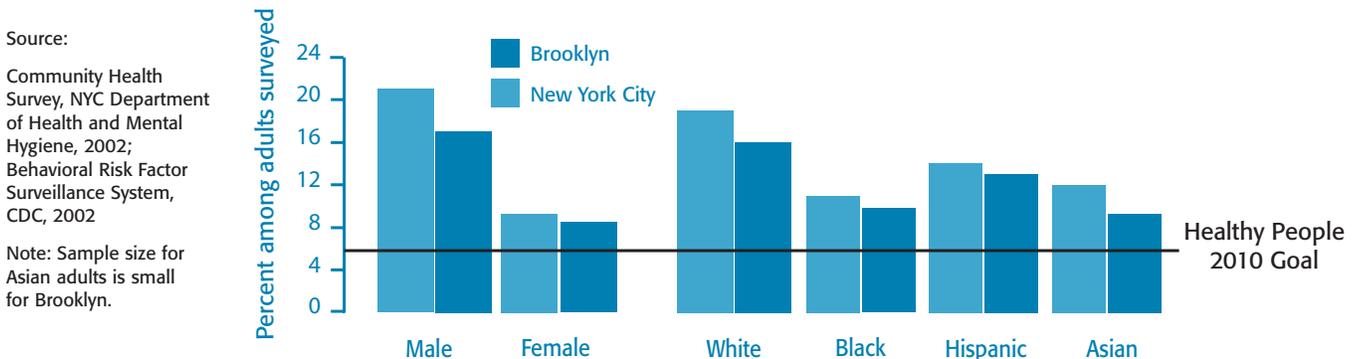
Binge drinking (defined for men as consuming five or more alcoholic drinks in a couple of hours and for women, consuming four or more) is a major indicator of alcohol abuse. According to a survey conducted by the New York City Department of Health and Mental Hygiene, roughly one in six adult New Yorkers is at risk due to heavy or binge drinking.

#### Binge Drinking in Past Month among Adults, 2002



#### Binge Drinking in Past Month among Adults by Race/Ethnicity and Sex, 2002

Compared to the other boroughs, Brooklyn had the lowest percentage of adults who reported binge drinking in the past month. Twice as many Brooklyn males as females reported binge drinking. Whites reported higher levels of binge drinking than Blacks, Hispanics, and Asians. Blacks had the lowest percentage of reported binge drinking in the past month.

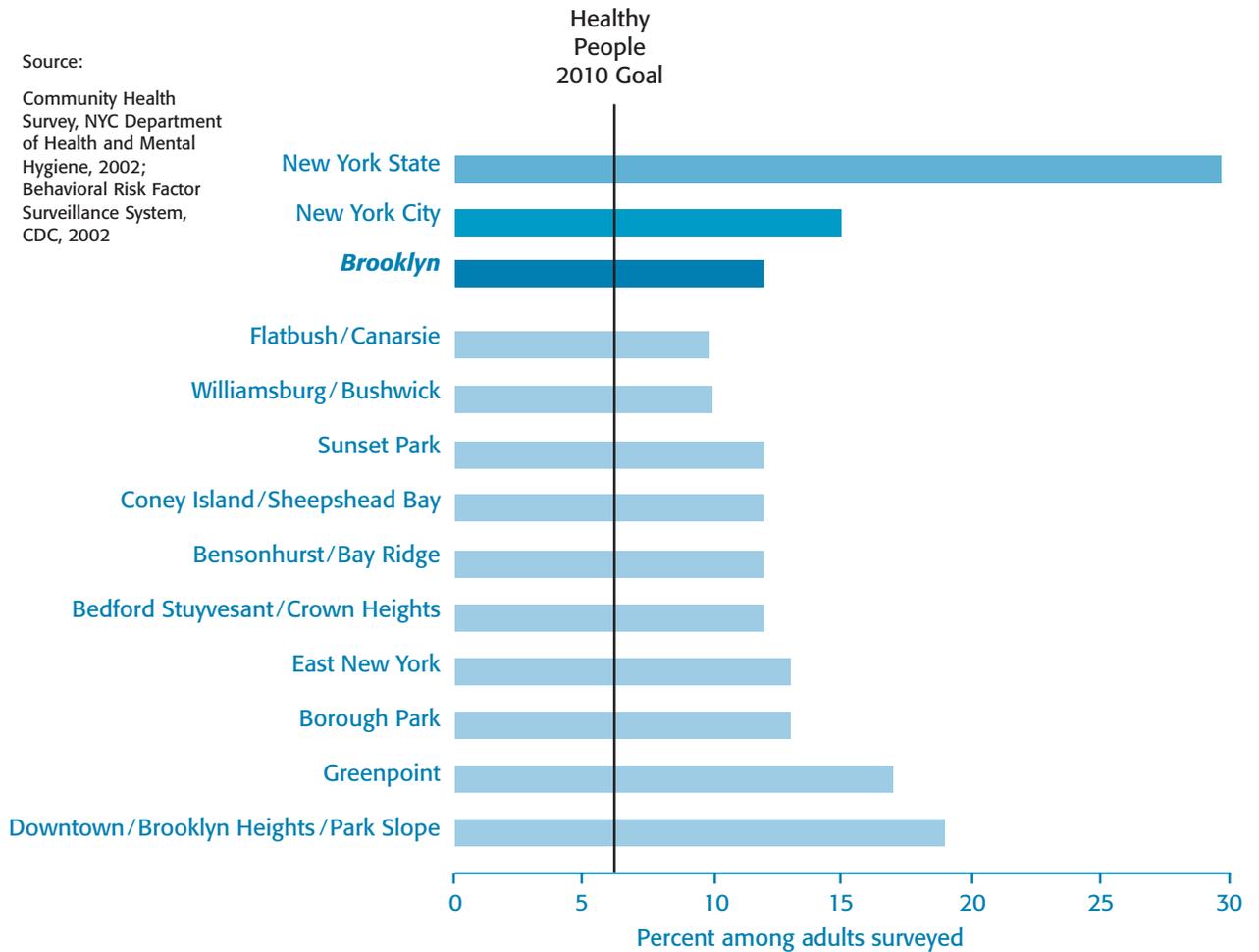


**Binge Drinking in Past Month among Adults in Brooklyn Neighborhoods, 2002**

In eight out of ten Brooklyn neighborhoods, fewer residents reported recent binge drinking than did residents of the City as a whole. (Greenpoint and Downtown/Brooklyn Heights/Park Slope were the only neighborhoods with rates higher than the New York City rate.) And in none of Brooklyn’s neighborhoods was the rate of binge drinking as high as it was in New York State. However, the City, the Borough, and all Brooklyn neighborhoods still fall short of the Healthy People 2010 goal.

Source:

Community Health Survey, NYC Department of Health and Mental Hygiene, 2002; Behavioral Risk Factor Surveillance System, CDC, 2002



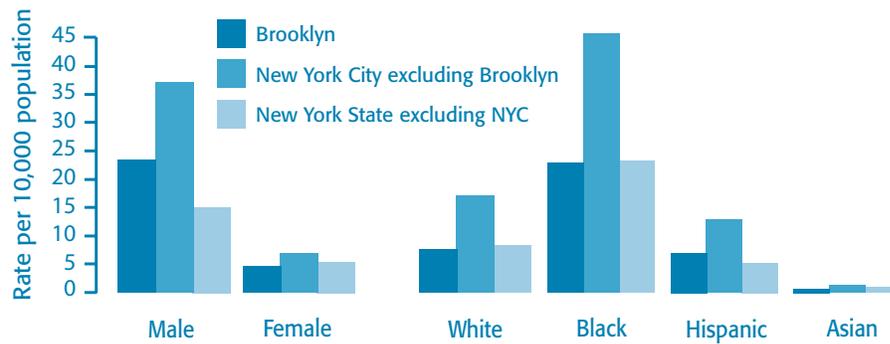
## ALCOHOL ABUSE

### Hospitalizations Due to Alcohol Dependence among Adults, 2002

As with drug dependence, information on hospital admissions tells us which groups of people living in Brooklyn, New York City, and the State have the most health problems due to alcohol abuse. In 2002, more males than females in New York City, and more Blacks than other racial or ethnic groups, were hospitalized for alcohol dependence.

Source:

HANYS-SPARCS, 2002



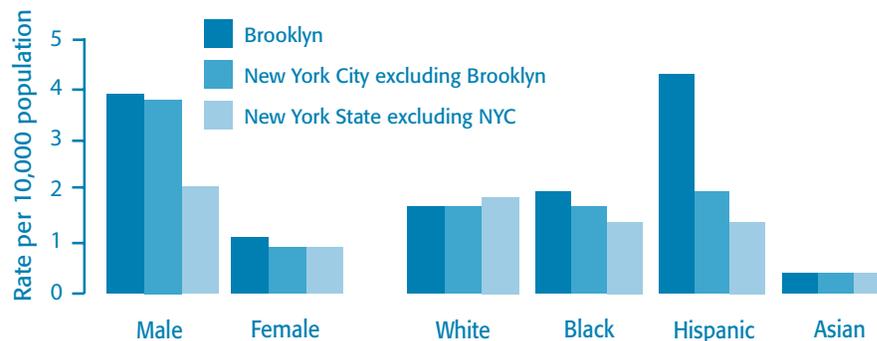
### Hospitalizations for Alcohol-Related Liver Disease and Cirrhosis by Race and Sex, 2002

Left untreated, alcohol dependence is the major cause of liver disease and cirrhosis. The liver is a vital organ that filters and stores toxic substances found in the blood. Long-term drug and alcohol use can overload the liver with these toxic substances, reducing its ability to perform and, eventually, shutting it down completely.

More than 35 percent of all Brooklyn residents hospitalized for alcoholic cirrhosis of the liver and acute alcoholic hepatitis in 2002 were Hispanic. Blacks and Hispanics have a higher rate of alcoholic cirrhosis of the liver than other New Yorkers. While a greater percentage of Blacks are hospitalized for alcohol dependence, Hispanics have a higher rate of hospitalization due to alcohol-related liver disease and cirrhosis.

Source:

HANYS-SPARCS, 2002



**Deaths Due to Cirrhosis of the Liver, 2001**

Heavy drinkers run a high risk of developing liver disease and cirrhosis, life-threatening conditions that prevent the liver from working normally. Once they have these conditions, their health problems become far more serious and often require hospitalization. While most patients who are admitted to a hospital for alcohol dependence are referred by a healthcare provider, almost 90 percent of patients with alcohol-related liver disease and cirrhosis are admitted through the emergency room (data not shown). Such a high rate of emergency admissions tells us that many patients are not getting the kind of ongoing medical care they need to treat their drinking problem or the illnesses that result from it.

Roughly seven out of 100,000 people died due to cirrhosis in New York City and in Brooklyn in 2001, a rate that was less than elsewhere in New York State or the nation but still more than twice as high as the goal set by Healthy People 2010.

Source:

NYS Department of Health, Bureau of Biometrics, 2001; Deaths: Final Data for 2001, CDC, 2003



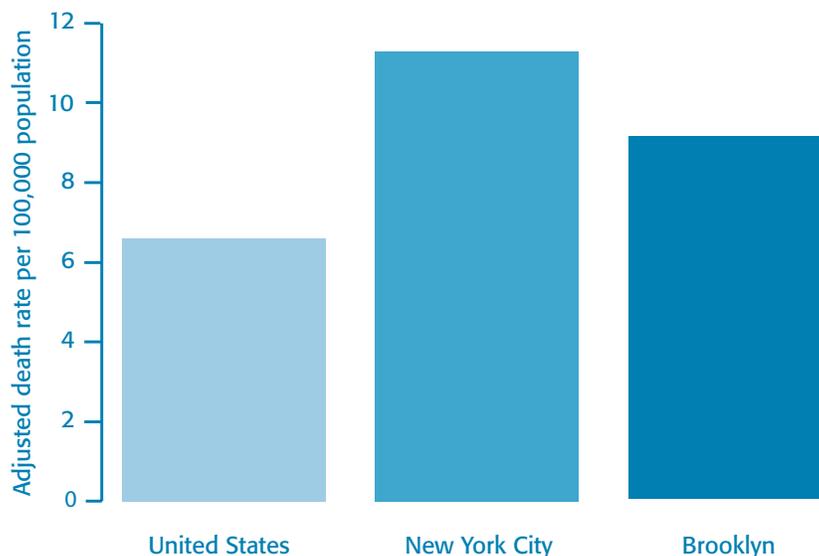
**Alcohol-Related Deaths, 2002**

As shown below, the rate of alcohol-related deaths was lower in Brooklyn than it was for New York City as a whole in 2002—although Brooklyn’s rate was higher than the nationwide rate.

Source:

Summary of Vital Statistics 2002, The City of New York, NYC Department of Health and Mental Hygiene; Deaths: Preliminary Data for 2002, CDC, 2004

\* No data available for New York State for 2002.



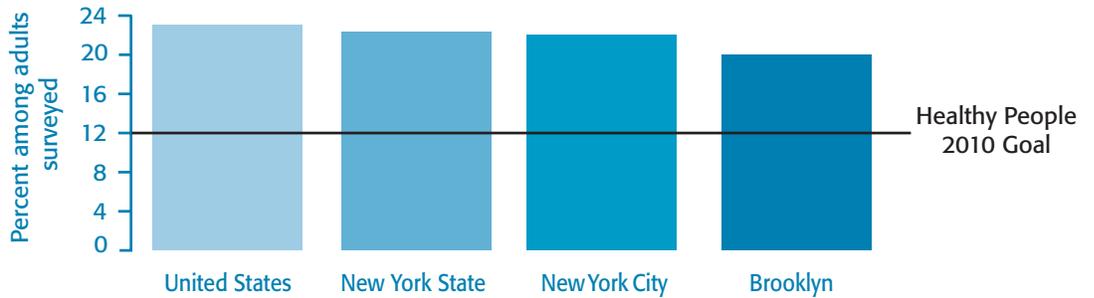
## TOBACCO USE

Each year, smoking and other forms of tobacco-use claim the lives of 440,000 Americans and result in more than \$75 billion in direct medical costs. Tobacco not only puts smokers at risk but also those around them. An estimated 3,000 people die each year from lung cancer, and more than 35,000 from heart disease, as a result of exposure to second-hand smoke. In addition, babies born to women who smoked during pregnancy often have lower birth weights and are more likely to have respiratory (breathing) problems and Sudden Infant Death Syndrome (SIDS).

### Adult Smokers, 2002

Recent surveys have found that the percentage of all adults who smoke is slightly lower in Brooklyn (about 20 percent) than in New York City as a whole, New York State, or the nation. However, the percentage of Brooklyn adults who smoke was still well above the Healthy People 2010 target of 12 percent.

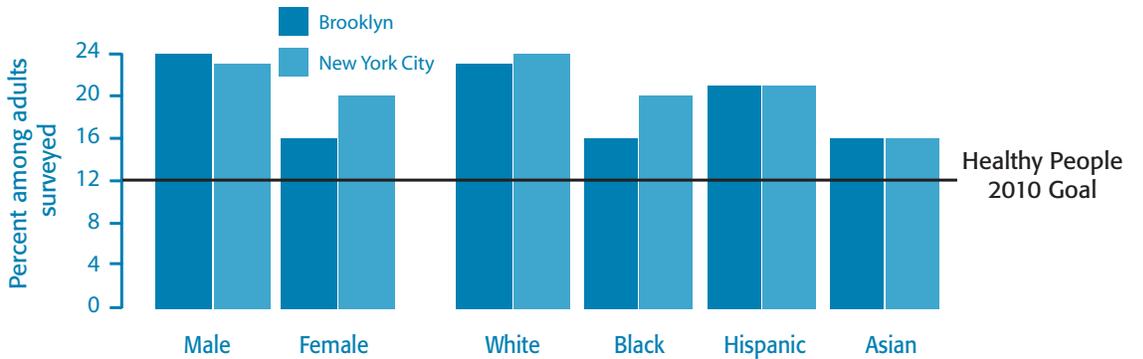
Source: Community Health Survey, NYC Department of Health and Mental Hygiene, 2002; Behavioral Risk Factor Surveillance System, CDC, 2002



### Adult Smokers by Sex and Ethnicity, 2002

Throughout the country, more men than women reported that they smoke, and this was true in Brooklyn as well. At the national level, more Blacks said they smoke than Whites, but in New York City and Brooklyn, this was not so.

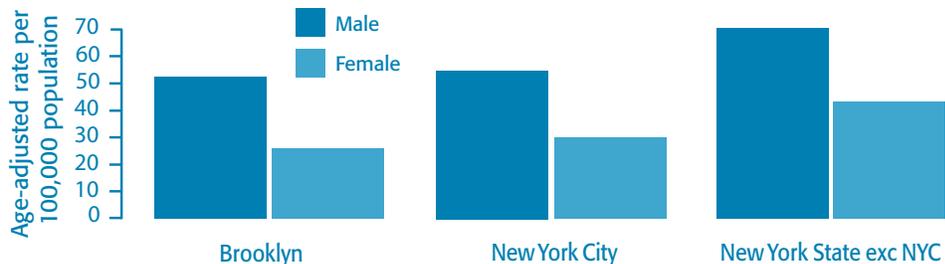
Source: Community Health Survey, NYC Department of Health and Mental Hygiene, 2002



### Lung Cancer Deaths by Sex 2001

The death rate from lung cancer is lower in Brooklyn and New York City than in the rest of New York State.

Source: NYS Cancer Registry, 2004



**Current and Former Adult Smokers by Brooklyn Neighborhood, 2002**

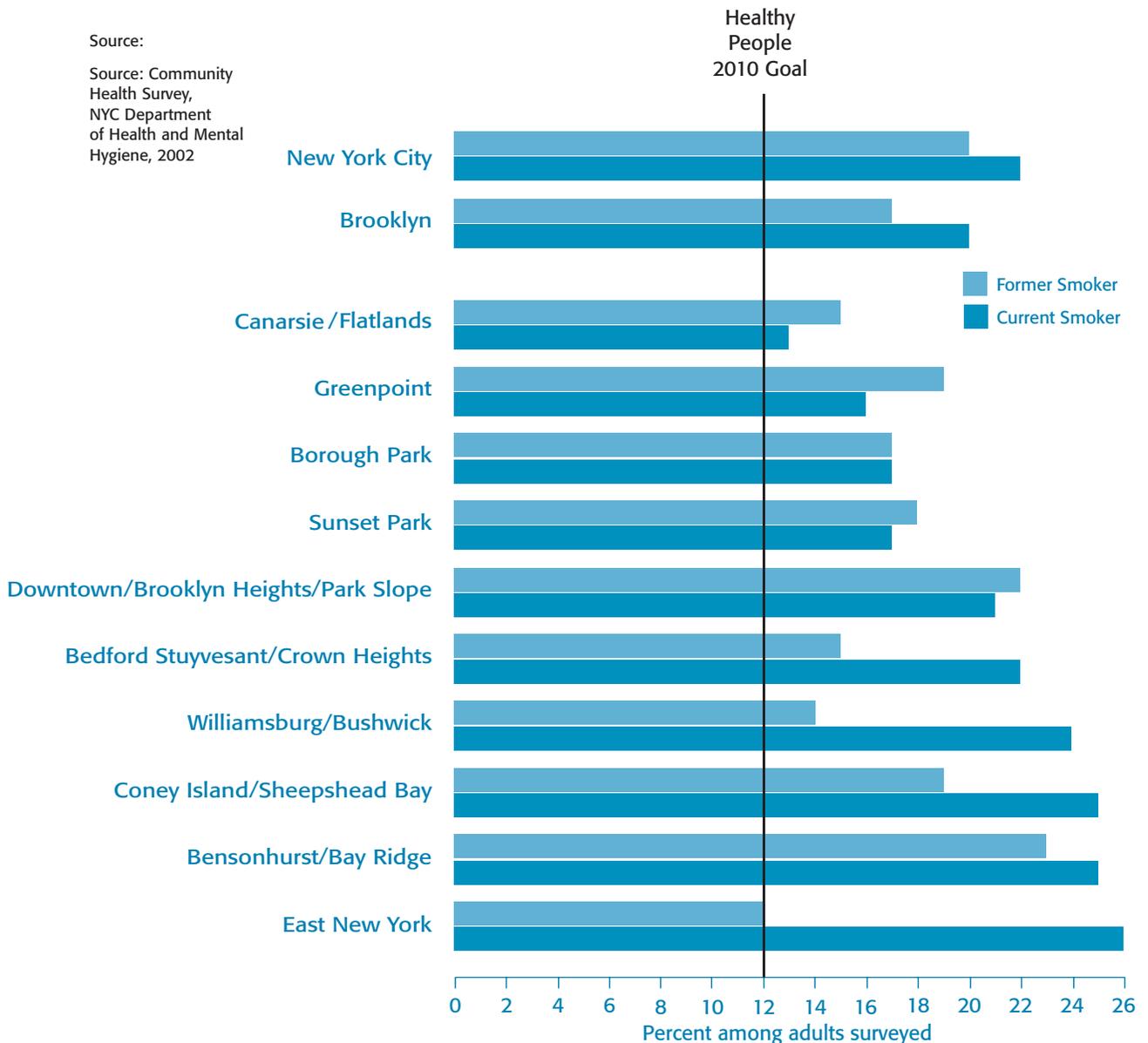
Although the percentage of Brooklyn adults who smoke is lower than the percentage for the City as a whole, in four Brooklyn neighborhoods smoking is more common than it is citywide. In these neighborhoods, roughly one in four adults reported that they still smoke.

- Williamsburg/Bushwick
- Coney Island/Sheepshead Bay
- Bensonhurst/Bay Ridge
- East New York

The neighborhoods of Bensonhurst/Bay Ridge and Downtown/Brooklyn Heights/Park Slope have the largest percentage of former smokers in Brooklyn, 23 and 22 percent, respectively. East New York had both the lowest percentage of former smokers (12 percent) and highest percentage of current smokers (26 percent) of the ten Brooklyn neighborhoods.

Source:

Source: Community Health Survey, NYC Department of Health and Mental Hygiene, 2002



## SUBSTANCE USE AMONG ADOLESCENTS

Early use of drugs and alcohol, as well as smoking, is often a warning sign of substance abuse and related health problems later in life. To find out how common the use of drugs, alcohol, and tobacco is among young people, in 2002 the New York City Department of Health and Mental Hygiene conducted a survey of students in the city's high schools. Students were asked about their level of substance use during the past month and whether they had ever tried certain substances. Since the students may not have been completely honest in the answers they gave, the survey results may understate the extent of the problem.

### Marijuana Use among High School Students, 2002

Marijuana may cause memory loss, odd behavior, bad judgment, and poor performance in school and on the job. It is often a step toward the use of other illegal drugs. In Brooklyn and New York City as a whole, slightly more than 15 percent of students who were surveyed said they had used marijuana during the past month. Students elsewhere in the State and in the nation reported using it more often.

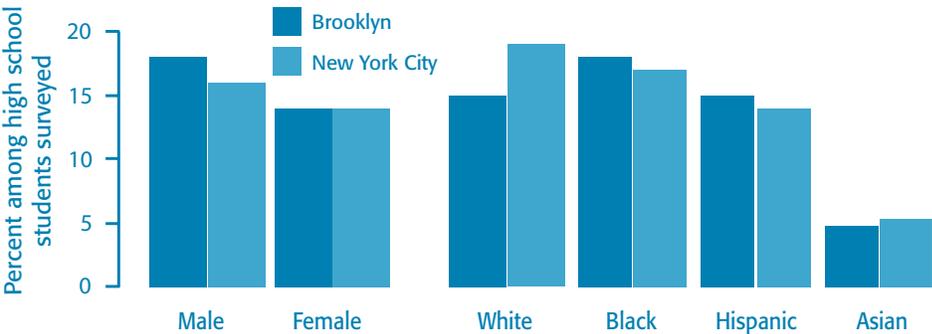
Source:  
 Youth Risk Behavior Survey, NYC Department of Health and Mental Hygiene, 2002;  
 Youth Risk Behavior Surveillance System, CDC, 2002



### Marijuana Use by Sex and Ethnicity, 2002

As this graph shows, more male than female students reported using marijuana. Black adolescents in Brooklyn reported that they smoked marijuana more often in the previous month than White, Hispanic, or Asian teens.

Source:  
 Youth Risk Behavior Survey, NYC Department of Health and Mental Hygiene, 2002



## SUBSTANCE USE AMONG ADOLESCENTS

### Heroin Use among High School Students, 2002

Two percent of all Brooklyn high school students reported having used heroin at some point during their high school years. This was higher than the percentage for New York City students as a whole, but lower than the 3 percent of all students nationwide who say they have used heroin.

Source:

Youth Risk Behavior Survey, NYC Department of Health and Mental Hygiene, 2002; Youth Risk Behavior Surveillance System, CDC, 2002

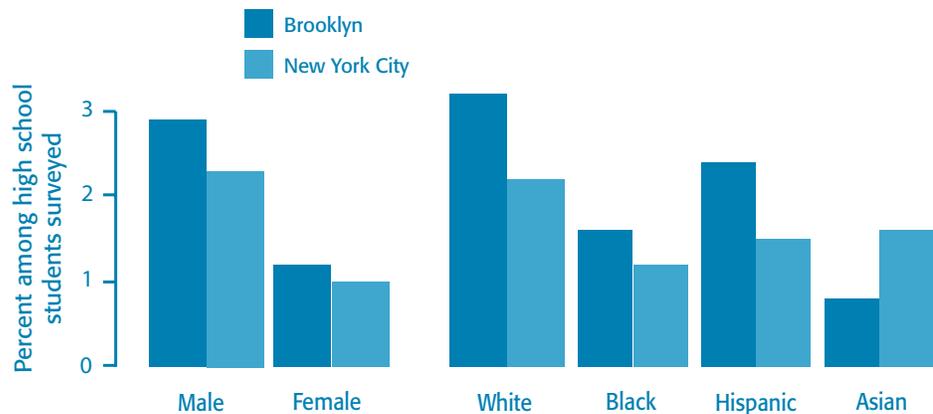


### Heroin Use by Sex and Ethnicity, 2002

In Brooklyn, more White and Hispanic high school students reported using heroin than Black or Asian students. As with marijuana, more male students than female students reported using the drug.

Source:

Youth Risk Behavior Survey, NYC Department of Health and Mental Hygiene, 2002



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## SUBSTANCE USE AMONG ADOLESCENTS

### Cocaine Use among High School Students, 2002

Cocaine use can lead to heart disease and other serious health problems. Because cocaine restricts the flow of blood to the brain, it also increases the risk of stroke and seizures, and can harm memory and learning abilities. Nearly 2 percent of Brooklyn high school students reported using cocaine at some point in their high school years. This is slightly higher than the percentage for New York City but lower than the reported rate of cocaine use among students in New York State and the nation as a whole.

Source:

Youth Risk Behavior Survey, NYC Department of Health and Mental Hygiene, 2002; Youth Risk Behavior Surveillance System, CDC, 2002



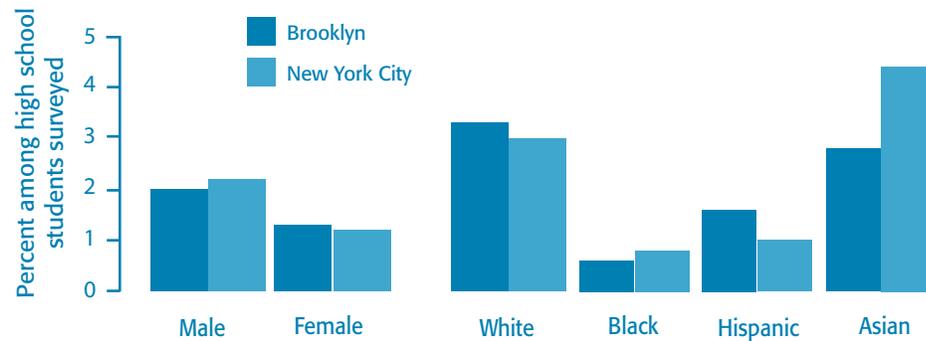
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### Cocaine Use by Sex and Ethnicity, 2002

The percentage of students who reported ever using cocaine was higher among White than among Black and Hispanic students, both in the City and in Brooklyn. While less than 3 percent of Asian high school students in Brooklyn reported having ever used cocaine (slightly less than for White students), this was a higher percentage than among Black or Hispanic students.

Source:

Youth Risk Behavior Survey, NYC Department of Health and Mental Hygiene, 2002



## SUBSTANCE USE AMONG ADOLESCENTS

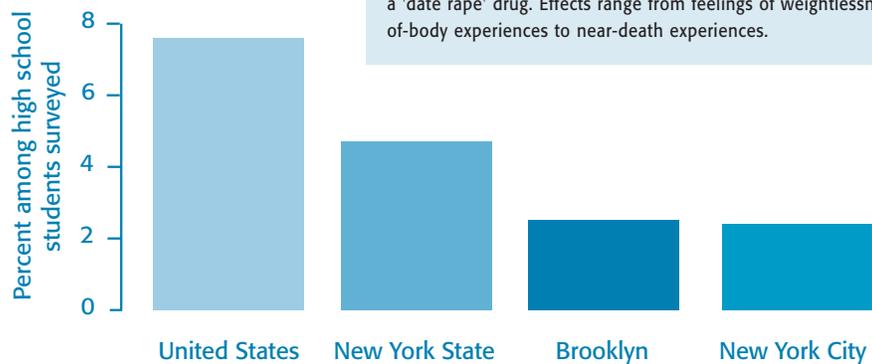
### Methamphetamine (Crystal Meth) Use among High School Students, 2002

Almost 3 percent of Brooklyn's high school students reported that they have used methamphetamine, known in street terms as crystal meth. While these numbers are lower than those for the state or nation, the increasing use of crystal meth among adolescents and young adults over the past few years is a growing concern.

Source:

Youth Risk Behavior Survey, NYC Department of Health and Mental Hygiene, 2002; Youth Risk Behavior Surveillance System, CDC, 2002

**Club Drugs:** Ecstasy, GHB, and Special K are often combined with other drugs and alcohol and used by teens and young adults in night clubs, 'raves,' and 'trance' scenes. These drugs increase the heart rate and blood pressure. Psychological disorders, like confusion, depression, anxiety and paranoia, are associated with their use. Ecstasy has been linked to long-term damage to areas of the brain vital to thinking, memory, and pleasure. GHB is a depressant affecting the central nervous system. It has been linked to the increase in sexual assaults around the country. Special K is also a depressant and has been used as a 'date rape' drug. Effects range from feelings of weightlessness or out-of-body experiences to near-death experiences.



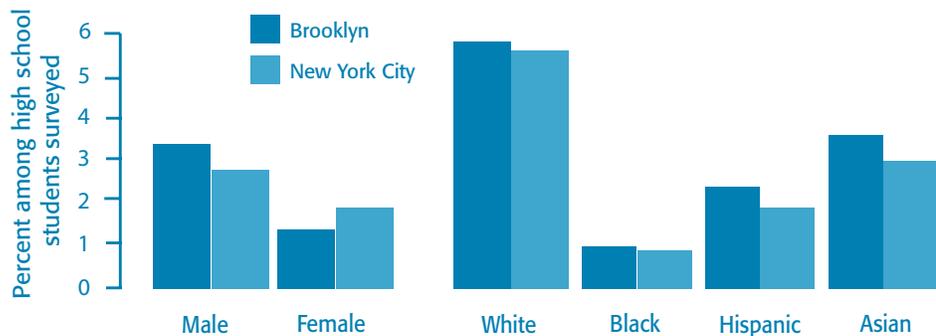
### Crystal Meth Use by Sex and Ethnicity, 2002

Nearly 6 percent of White high school students and 4 percent of Asian students in Brooklyn reported using crystal meth. All Brooklyn high school students, whether White, Black, Hispanic or Asian, reported a higher percentage of methamphetamine use than students elsewhere in the City.

Source:

Youth Risk Behavior Survey, NYC Department of Health and Mental Hygiene, 2002

Note: Sample size for Brooklyn Asian students was small.



## SUBSTANCE USE AMONG ADOLESCENTS

### Binge Drinking among High School Students, 2002

Teenage binge drinking—defined for males as having five or more drinks and for females as having four or more drinks in the space of a couple of hours within the past month—was less common in Brooklyn and the rest of New York City than in New York State or the nation as a whole. However, the percentage of Brooklyn students who reported binge drinking within the past month is still much higher than the 2 percent goal set by Healthy People 2010 as a first step in reducing the problem.

Source:

Youth Risk Behavior Survey, NYC Department of Health and Mental Hygiene, 2002; Youth Risk Behavior Surveillance System, CDC, 2002



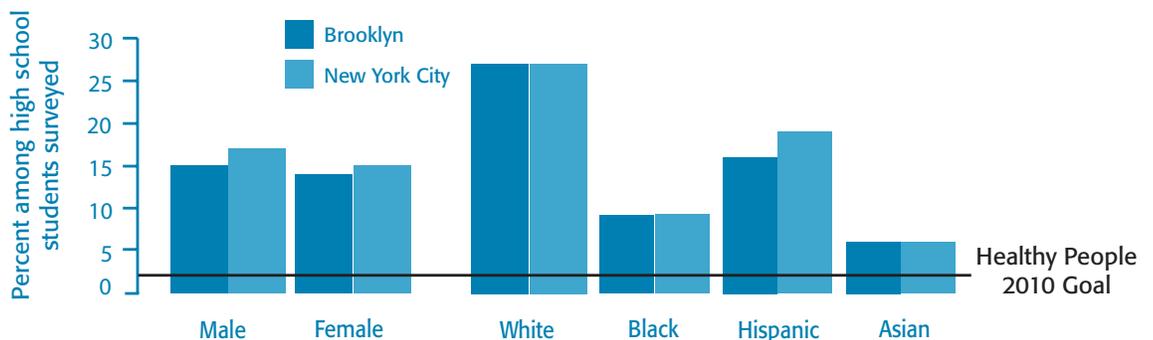
### Binge Drinking by Sex and Ethnicity, 2002

The percentage of male students in Brooklyn who reported binge drinking was just slightly higher than the percentage of female students.

A large percentage of high school students who binge drink are White. Over 25 percent of all White students in Brooklyn reported having binged on alcohol in the past month, compared to 9 percent of Black, 16 percent of Hispanic, and 6 percent of Asian students.

Source:

Youth Risk Behavior Survey, NYC Department of Health and Mental Hygiene, 2002;



## SUBSTANCE USE AMONG ADOLESCENTS

### Smoking Among High School Students, 2002

Most adult smokers started smoking before the age of 18. Fortunately, local efforts to discourage young people from smoking seem to be working. The percentage of Brooklyn high school students who say they smoke cigarettes is lower than the percentage for the City, State, or nation. The percentage of Brooklyn and New York City high school students who smoke is also lower than the percentage of smokers in the local adult population (see chart on page 14). It is even lower than the Healthy People 2010 national goal.

Source:

Youth Risk Behavior Survey, NYC Department of Health and Mental Hygiene, 2002;  
Youth Risk Behavior Surveillance System, CDC, 2002



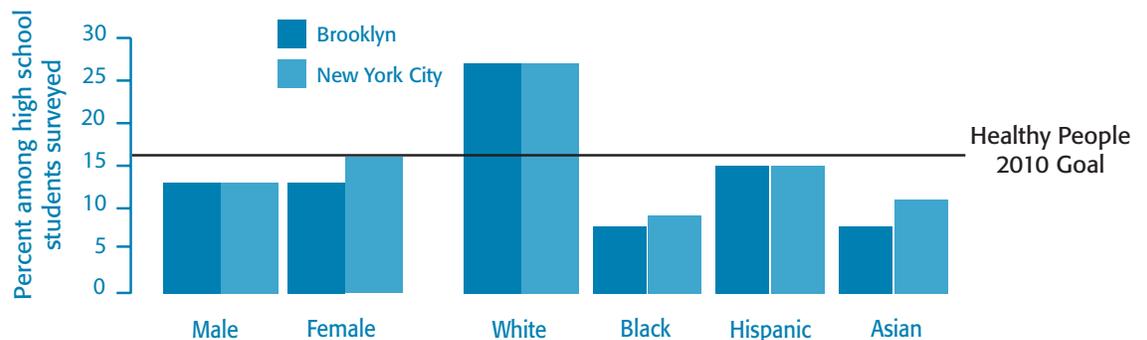
### Smoking by Sex and Ethnicity, 2002

However, more White adolescents said that they had smoked in the past month than did Black, Hispanic, or Asian students (data not shown). And although smoking rates have declined among high school students, less progress has been made among middle school students.

Source:

Youth Risk Behavior Survey, NYC Department of Health and Mental Hygiene, 2002

Note: Sample size for Brooklyn Asian students was small.



## WHERE DO WE GO FROM HERE?

When we consider what we can do to improve the health and well-being of the people of Brooklyn and New York—and indeed all New Yorkers and all Americans—few efforts are as important as stopping the abuse of drugs, alcohol, and tobacco. As this Report shows, substance abuse exists among people of every age, race, sex, and social/economic background. It is a direct cause of sickness and death for thousands of Brooklynites—and it is a contributing factor in the death of many more from liver disease, heart disease, AIDS, accidents, and violence. If we add the cost of lost productivity in the workplace to the cost of treating illnesses rooted in abuse, the social and economic burden of substance abuse is enormous.

Yet there is reason to be hopeful. In the past 20 years, through hard experience and careful study, we have learned a lot about how to deal with the problem of substance abuse.

Whether the issue is drugs, alcohol, or smoking, we know that it is vitally important to reach children and teenagers early, to discourage them from using these substances and becoming dependent on them later in life.

We know that education and prevention programs work. At the national level, the rate of drug use has declined since 1997. And in New York State, the first comprehensive evaluation of the state's anti-smoking programs, published in November 2004, found that the percentage of middle school students who smoke declined by a third between 2000 and 2002.

We know that for first-time offenders involved in drug-related crimes, placing them in treatment programs is usually more effective—and less costly—than putting them in prison. A recent study showed that in New York State, drug courts, which have the authority to shift nonviolent first offenders into treatment, were able to reduce repeat criminal behavior among convicted addicts by as much as 47 percent.

Year by year, we are learning more about why some people are more prone to certain types of substance abuse. At Downstate, for example, Dr. Henri Begleiter is conducting important studies on the genetics of alcoholism, and scientists now have a better understanding of who is most at risk for alcoholism. As a result, we may one day be able to provide more effective treatments. Perhaps even more important, in the future we may be able to identify those who are at greatest risk for developing a dependence on alcohol or drugs and help them prevent the problem before it begins.

We have learned a lot about what works—and we are continuing to learn. What we need to do now is build a broad base of community and political support for these strategies, and provide the resources needed to make them work.

## GLOSSARY

### General Terms

**Healthy People 2010:** A national health agenda developed by the U.S. Department of Health and Human Services that identifies major diseases and health conditions and sets targets to prevent or reduce these threats by the year 2010.

**Rate:** A calculated number that is used to express the number of events within a group of individuals in a given period of time. For example: 150 events per 100,000 people per year.

### Substances

**Anabolic steroids:** Substances related to the male sex hormone testosterone and used by body builders and athletes to develop muscles and improve performance.

**Cannabis:** The Latin name for marijuana but also used to describe the class of drugs that includes marijuana and hashish.

**Club drugs:** Drugs that are popular among teens and young adults at dance clubs and raves.

**Depressants:** Drugs that are used as sedatives, tranquilizers, or anti-anxiety medications.

**Dissociate anesthetic:** Intended as a method of pain control and to reduce anxiety, these drugs produce a trancelike, out-of-body experience.

**Hallucinogens:** Mind-altering drugs that produce a false sense of reality.

**Inhalants:** Substances that are sniffed to give the user an immediate rush or high.

**Narcotics:** A class of powerful pain relievers.

**Opiates:** Drugs used to relieve pain and for anesthesia.

**Psychoactive substance:** Any drug that affects the mind or mental processes.

**Second-hand smoke:** Sometimes called passive smoking, it is involuntarily inhaled whenever tobacco smoke is in the air and carries many of the same health risks as smoking.

**Stimulants:** Several groups of drugs that increase alertness and energy.

### Health Conditions

**Cerebrovascular disease:** A condition that causes the arteries that carry blood to the brain to become clogged or rupture, leading to a stroke (damage to the brain from a lack of blood supply) or severe bleeding in the brain.

**Cirrhosis of the liver:** Scar tissue forms within the liver, preventing it from working properly.

**Diabetes mellitus:** People with diabetes have a shortage of insulin or their bodies cannot use it properly. Insulin is used to change sugar from the foods we eat into energy.

**Drug psychosis:** A drug-induced mental condition that causes a person to lose touch with reality.

**Heart muscle disease:** A weakening of the heart muscle that causes it to lose its pumping strength, sometimes leading to heart failure.

**Hepatitis:** An inflammation of the liver that can cause serious liver damage and death. Hepatitis A and hepatitis B are two forms of the disease.

**Hypertension:** High blood pressure.

**Influenza:** Also known as the flu, this is a respiratory infection caused by a virus.

**Malignant neoplasm:** The medical term for cancer.

**Pneumonia:** An inflammation or infection of the lungs.

**Renal disease:** A condition that prevents the kidneys from doing their job of removing harmful wastes from the blood.

**Respiratory diseases:** Diseases that affect the lungs.

**Seizure:** Abnormal excitability in certain parts of the brain may cause a person to suddenly stiffen and start jerking uncontrollably or to fall down unconscious.

**Stroke:** The sudden reduction of blood flow to a portion of the brain.

**Sudden Infant Death Syndrome (SIDS):** The sudden, unexplained death of an infant less than a year old. Sometimes called crib death.

## RESOURCES

LIFENET: For English, call 1-800-LIFENET (800-543-3638).  
For Spanish, call 877-298-3373 (877-AYUDESE).

Alcoholism Council of New York Help Line: 212-252-7022

New York City Department of Health and Mental Hygiene, Alcoholism and Substance Abuse Services: 212-219-5380

New York State Office of Alcoholism and Substance Abuse Services Hot Line: 1-800-522-5353

### Information on the web

[www.cancer.org](http://www.cancer.org)

[www.cdc.gov/tobacco](http://www.cdc.gov/tobacco)

[www.cdc.gov/alcohol/index.htm](http://www.cdc.gov/alcohol/index.htm)

[www.cdc.gov/nchs/fastats/druguse.htm](http://www.cdc.gov/nchs/fastats/druguse.htm)

[www.nida.nih.gov/DrugPages](http://www.nida.nih.gov/DrugPages)

## TECHNICAL NOTES

Substance use data for the state and, in some cases, city and borough come from *Vital Statistics of New York State*, a compendium of mortality and health-related conditions reported by cities and counties to the Bureau of Biometrics, NYS Department of Health. City and borough data come from *Summary of Vital Statistics of the City of New York*, Office of Vital Statistics, NYC Department of Health and Mental Hygiene. Survey data for adults and high school students are taken from New York City's "Community Health Survey" and "Youth Risk Behavior Survey," respectively. They are available through an online epidemiological data query system from the New York City Department of Health and Mental Hygiene. Hospitalization data is compiled by the Statewide Planning and Research Cooperative System (SPARCS) and provided through the Healthcare Association of New York State (HANYNS).

Every effort has been made to provide as much local data as possible. In some cases, however, efforts to analyze certain local data—for example, drug use among adolescents of Asian descent—were limited by the small number of respondents (in this example, Asian students) reporting in the survey. A too small data sample prevents the researcher from generalizing the results to the general population. Whenever such a situation arose, it was noted next to the chart. Despite their limitations, youth surveys highlight important issues of substance use among adolescents and should promote further research efforts in this target population.