

Welcome to Healthy Brookline Volume IV, the Youth Risk Behavior Survey. This survey has been instrumental in the development of public health programs for youth in Brookline in partnership with Brookline High School. If you would like more information about the programs offered, or would like to participate in Comprehensive School Health Advisory Board, please contact Mary Minott at 617-713-5155.

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ACKNOWLEDGMENTS

This report was prepared by Phil Noyes, MA, under the direction of Alan Balsam, Ph.D., M.P.H., Director of Brookline Public Health and Human Services, in cooperation Bruce Cohen, Ph.D; J. Jacques Carter, MD, MPH; Gloria Rudisch, MD, MPH; Mary Minott, MSW; and Alan Amtzis, MS, SAS. The data was collected by Mary Minott and the Health Education Department at Brookline High School, and entered by Tenine Sentell, Crime Analyst, Brookline Police Department.

Thanks are due to all of the Division Directors and the Brookline Department of Public Health for their support and input:

Patrick Maloney M.P.A.H. Gloria Rudisch, M.D., M.P.H.
Barbara Westley. R.N. Gerry Trombley, M.S.W.
Lynne Karsten, M.P.H. Elizabeth Van Ranst, M.S.S.S.
Mary Minott, L.I.C.S.W. Richard Bargfrede, A.S.
Patricia Norling

A Special thanks to the Advisory Council on Public Health
J. Jacques Carter, M.D., M.P.H., Chair
Milly Krakow, Ph.D.
Joyce Clifford, R.N., M.S.N., Ph.D.

Roberta Gianfortoni, M.A.
Elizabeth Hirshom , R.N.
Bruce Cohen, Ph.D.

FUNDING

Healthy Brookline, Volume 4 represents a partnership with a variety of funding sources, including:

Major Contributors:

Beth Israel Deaconess Medical Center
New England Medical Center

Brigham and Women's Hospital St. Elizabeth's Medical Center Children's Hospital Farnsworth Trust

With Additional Support From:

Blue Cross Blue Shield of Massachusetts
Brookline Community Fund
Harvard Pilgrim Health Care

We thank them all for their generous support.

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Executive Summary

Introduction

Healthy Brookline, Volume IV is part of series of reports developed to present data on the health status and risk factors for Brookline residents. Volume I is a snapshot view of the overall health status of Brookline residents. Volume II presents data on the population of elderly immigrants from the former Soviet Union residing in Brookline. The last report, Volume III is a needs assessment based on telephone interviews.

This report, Volume IV, is focused on youth and utilizes the Massachusetts Youth Risk Behavior Survey (MYRBS, see Appendix B in the Data Book). The survey was designed in conjunction with the United States Centers for Disease Control and Prevention (CDC) as a surveillance tool of youth risk behavior, monitoring behavior related to the leading causes of morbidity and mortality among youth and adults in the United States. Brookline High School 9th and 12th grade students were surveyed using the MYRBS and the results are presented in this report on following seven areas of youth risk: 1) Alcohol use, 2) Illegal drug use, 3) Tobacco use, 4) Vehicle-related risk behaviors, 5) Violence related behaviors, 6) Sexual behavior and 7) Suicidal behavior.

Methodology

The statewide survey of the MYRBS, to which the Brookline sample is compared with, was conducted in the Spring of 1997. Using a multi-stage randomized sample design, there were 1,134 9th grade students and 734 12th grade students surveyed from 58 public high schools across the Commonwealth. The school and student participation was voluntary and anonymous. The Department of Education report on the MYRBS (1998) states that, in general, the estimates of

behavior are accurate within plus or minus 3 percentage points. For the Brookline sample, the selection method was non-randomized. 214 students from the 9th grade class of 451 were surveyed. These 9th grade students were surveyed during a required health class in the spring of 1998. In the fall of 1998, 102 from a class of 411 12th grade students were surveyed. The 12th grade sample was drawn from a non-required gym class (see Appendix A in the Data Book). The results for the Brookline sample were compiled in the spring and fall of 1999.

Summary of Results

Alcohol Usage

The alcohol usage rates of BHS 9th grade students are similar to the state levels.

- ▶ 69% of BHS 9th grade students report having used alcohol, 43% in the last 30 days.

- ▶ 33% of BHS 9th grade students report using alcohol before the age of 13.

- ▶ For BHS 9th grade students the alcohol usage rates for males and females are similar.

The alcohol usage rates for BHS 12th grade students are substantially less than the state usage rates across all measures except the use of alcohol at school.

- ▶ 63% of BHS 12th grade students report having used alcohol, 42% in the last 30 days.

- ▶ 11% of BHS 12th grade students report drinking at school in the last 30 days. This is double the average level reported by other 12th grade students in the state.

- ▶ The use of alcohol by BHS 9th and 12th graders appears to vary by race/ethnicity.

Illegal Drug Use

Drug usage for BHS 9th grade students is substantially less than the state levels.

- ▶ 32% of BHS 9th grade students report having used marijuana, 13% in the last 30 days and 4% have done so at school.

- ▶ 1% of BHS 9th grade students report having used cocaine (any type) and 5% report having used hallucinogenics.

- ▶ The amount of BHS 9th grade students who report drugs being offered or sold to them at school is at the same level as the state average (39% v. 40%).

Drug usage for BHS 12th grade students is substantially less than the state levels.

- ▶ 28% of BHS 12th grade students report having used marijuana, 13% in the last 30 days and 5% have done so at school.

- ▶ 4% of BHS 12th grade students report having used cocaine (any type) and 11% report having used hallucinogenics.

Tobacco Use

Overall BHS 9th and 12th grade students use tobacco at substantially lower levels than the rates for the entire state.

- ▶ One out of two BHS students surveyed report having tried smoking cigarettes, 20% of 9th graders and 28% of 12th graders reported smoking in the last 30 days.

- ▶ One in five BHS students report smoking a whole cigarette for the first time before age 13.

- ▶ A lower percentage of BHS students have tried to quit smoking than those found throughout the state.

- ▶ Tobacco use by BHS 9th and 12th grade students appears to vary by race and ethnicity.

Vehicle-Related Risk Behaviors

BHS 9th grade students had lower rates of vehicle related risk behaviors than the state levels across all measures.

- ▶ 23% of BHS 9th grade students report riding in a vehicle with someone who had been drinking

and 5% report drinking and driving at least once in the last 30 days.

BHS 12th grade students had lower rates of vehicle related risk behaviors than the state averages across all measures except motorcycle helmet usage.

- ▶ The levels of drinking and driving for BHS 12th grade students are substantially lower than the state levels.

- ▶ 16% of BHS 12th grade students report riding with someone who has been drinking and 8% report drinking and driving in the past month.

Violence Related Behaviors

Overall BHS 9th grade students report slightly less violent related behavior than students throughout the state and in urban areas.

- ▶ 18% of BHS 9th grade students report having carried a weapon in the previous month, 2% report having carried a gun. One in ten students (9%) report having carried a weapon to school in the last 30 days.

- ▶ BHS 9th grade students report fighting at school at higher levels (23%) than other 9th graders throughout the state (16%) and in urban areas (17%).

Substantially less BHS 12th grade students report having carried a weapon or being in a physical fight in the previous 30 days, but violence related behaviors at school is, in general, equal to that found throughout the state and in urban areas.

- ▶ 7% of the BHS 9th and 12th grade students report being involved with a gang.

- ▶ For BHS violence related behaviors appear to vary substantially by race/ ethnicity.

Sexual Behavior

BHS 9th grade students report substantially less sexual behavior than the state levels.

- ▶ One in seven (14%) of BHS 9th grade students report being sexually active.

- ▶ 5% of BHS 9th grade students report having had sexual contact against their will.

BHS 12th grade students report substantially less sexual behavior than the state levels although there were some inconsistencies in these reports.

- ▶ Approximately one third (32%) of 12th grade students report being sexually active.

- ▶ Of the BHS students who are sexually active, over half (56%) reported using condoms the last time that they had sexual intercourse.

- ▶ Of the sexually active students, 32% could be categorized as having had no reliable protection from pregnancy and Sexually Transmitted Diseases during their last sexual encounter.

Suicidal Behavior

The reported frequency of suicidal thoughts and behaviors for BHS 9th grade students was approximately equal to that of the state levels.

- ▶ 22% of BHS 9th grade students made a plan about how they would attempt suicide in the twelve months prior to the survey.

- ▶ 10% of BHS 9th grade students report actually attempting suicide.

- ▶ BHS 9th grade females report considering and making a plan for suicide at twice the rate of males. The female rate for attempting suicide is four times the male rate.

- ▶ Among those BHS 9th grade students who did attempt suicide, males were more likely than females to require medical attention for their attempts.

BHS 12th grade findings on suicide differ from the state levels (see Appendix A).

- ▶ 13% of BHS 12th grade students report seriously considering suicide and making a plan for attempting suicide in the twelve months prior to the survey.

Table 1: Summary Comparison of Risk Behaviors

Table 1: Summary Comparison of Risk Behaviors		
	Brookline %	State %
Alcohol Use 9th Grade Students		
Lifetime Alcohol Use	69	71
Alcohol Use Before 13	33	34
Alcohol Use at School	6	7
12th Grade Students		
Lifetime Alcohol Use	63	85
Alcohol Use Before 13	15	25
Alcohol Use at School	11	5

Illegal Drug Use		
	Brookline %	State %
9th Grade Students		
Lifetime Marijuana Use	32	39
Lifetime Cocaine Use	1	5
Drugs Offered or Sold at School	39	40
12th Grade Students		
Lifetime Marijuana Use	28	58
Lifetime Cocaine Use	4	9
Drugs Offered or Sold at School	28	42

Tobacco Use		
	Brookline %	State %
9th Grade Students		
Ever Tried Smoking	51	62
Started Smoking before Age 13	19	27
Smoke at School	8	15
12th Grade Students		
Ever Tried Smoking	55	73
Started Smoking before Age 13	18	22
Smoke at School	18	22

Vehicle-Related Risk Behaviors		
9th Grade Students	Brookline %	State %
Rode with a driver who had been drinking in the past month	23	29
Drove after drinking in the past month	5	8
Rarely, or never wore a seat belt	13	28
12th Grade Students		
Rode with a driver who had been drinking in the past month	16	42
Drove after drinking in the past month	8	25
Rarely, or never wore a seat belt	18	32

Violence Related Behaviors		
9th Grade Students	Brookline %	State %
Carried a weapon, past 30 days	18	21
Physical fight, past 12 months	40	40
Property stolen/damaged at school, past 12 months	33	32
12th Grade Students		
Carried a weapon, past 30 days	6	17
Physical fight, past 12 months	18	32
Property stolen/damaged at school, past 12 months	11	25

Sexual Behavior		
9th Grade Students	Brookline %	State %
Ever had Sexual Intercourse in Lifetime	14	28
Four or More Sexual Partners	2	8
Sexual Contact Against One's Will	5	9
12th Grade Students		
Ever had Sexual Intercourse in Lifetime	32	62
Four or More Sexual Partners	9	20
Sexual Contact Against One's Will	5	14

Suicidal Behavior		
9th Grade Students	Brookline %	State %
Considered Suicide	23	24
Made a Suicide Plan	22	21
Attempted Suicide	10	11
12th Grade Students		
Considered Suicide	13	23
Made a Suicide Plan	13	17
Attempted Suicide	18*	7
* See text and Appendix A		

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Alcohol Use

Alcohol use and abuse is highly prevalent among American high school students. Sell and Blum (1996) report that 87% of high school students have used alcohol and nearly one in three seniors report being intoxicated in the last 30 days. Alcohol is a risk factor not only because of the health risks involved with its consumption, but also for the many risk behaviors with which it is associated. According to research cited in the Massachusetts Department of Education (1998) report, alcohol is considered a major contributing factor in approximately half of all homicides, suicides and motor vehicle accidents.

The 1997 MYRBS Results reported that the lifetime alcohol use among high school students has not changed since 1993, and recent usage, although it rose significantly from 1993 to 1995, has begun to level off.

In this report the following definitions were used:

Lifetime alcohol use: Any consumption of alcohol during one's life, except one or two sips for religious purposes.

Recent alcohol use: One or more alcoholic drinks on at least one of the thirty days prior to the survey.

Binge drinking: Five or more alcoholic drinks in a row, within a couple of hours, in the 30 days prior to the survey.

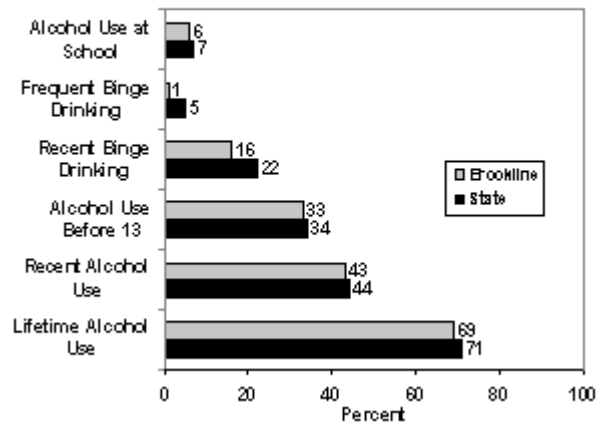
Frequent binge drinking: Six or more episodes of binge drinking in the month prior to the survey. On average, this represents more than one binge drinking episode per week.

This report on Brookline 9th and 12th grade students analyzed patterns of alcohol use including binge drinking, age of first use and alcohol use at school. Patterns of alcohol use were also compared

by race/ethnicity and gender.

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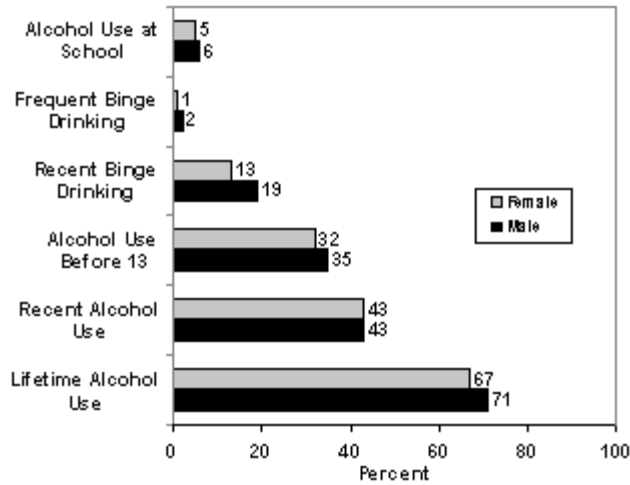
Figure A1: Alcohol Use by Brookline and State 9th Grade Students



Overall Comparison of Alcohol Usage Rates of BHS and State 9th Grade Students

- ▶ The usage rates of BHS and state 9th grade students are similar across most measures.
- ▶ Seven out of ten (69%) BHS 9th grade students report having used alcohol in their lifetime, 43% in the last 30 days.
- ▶ One third (33%) of the BHS 9th grade students' report using alcohol before the age of 13.
- ▶ Brookline students report binge drinking (16%) and frequent binge drinking (1%) at lower levels than other 9th grade students in the state do.
- ▶ More than one in twenty BHS 9th grade students (6%) report having used alcohol at school in the last 30 days.

Figure A2: Alcohol Use by Brookline 9th Grade Students Compared by Gender

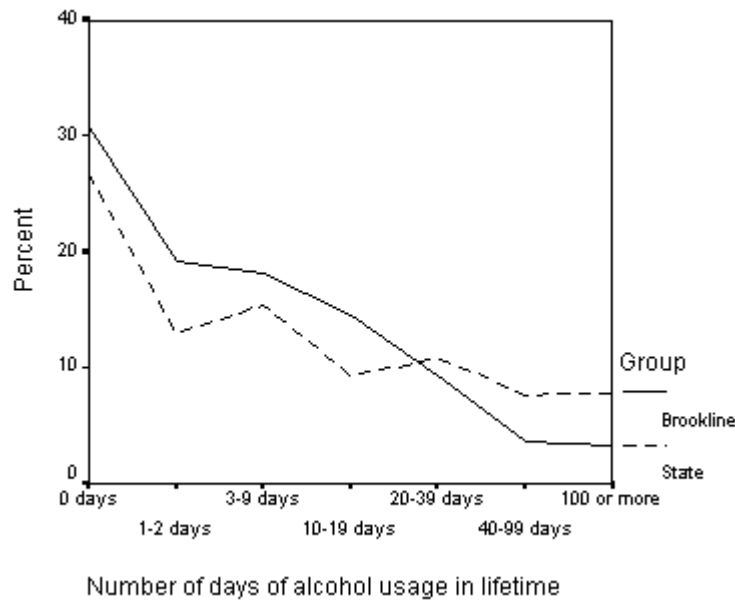


Alcohol Usage Rates of BHS 9th Grade Students Compared by Gender

- ▶ The alcohol usage rates for BHS 9th grade males and females are very similar.
- ▶ The only notable difference is that males report binge drinking more than females do.

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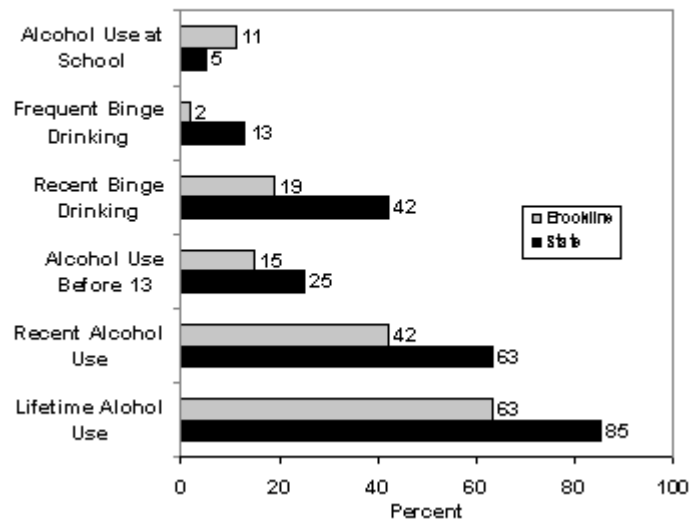
Figure A3: Lifetime Alcohol Usage, BHS 9th Grade Students Compared with the State



Lifetime Alcohol Usage, BHS 9th Grade Students Compared with the State

- ▶ The lifetime alcohol use profile of BHS 9th grade students is similar to the state levels.
- ▶ BHS 9th grade students report slightly less frequent alcohol usage.

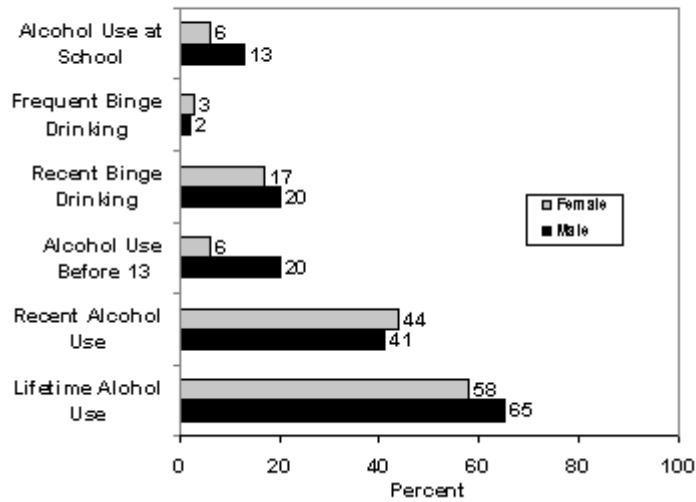
Figure A4: Alcohol Use by Brookline and State 12th Grade Students



Overall Comparisons of Alcohol Use for BHS and State 12th Graders

- ▶ The alcohol usage rates for Brookline 12th grade students are substantially less than the state usage rates across all measures except the use of alcohol at school.
- ▶ 63% of BHS 12th grade students report having had used alcohol in their lifetime, 42% in the last 30 days.
- ▶ Approximately one out of six (15%) BHS 12th grade students' report drinking before the age of 13.
- ▶ Brookline 12th graders report binge drinking (19%) and frequent binge drinking (2%) at a fraction of the average in the state.
- ▶ More than one in ten (11%) of Brookline 12th grade students report drinking at school in the last 30 days. This is double the average level reported by other 12th grade students in the state.

Figure A5: Alcohol Use by Brookline 12th Grade Students Compared by Gender

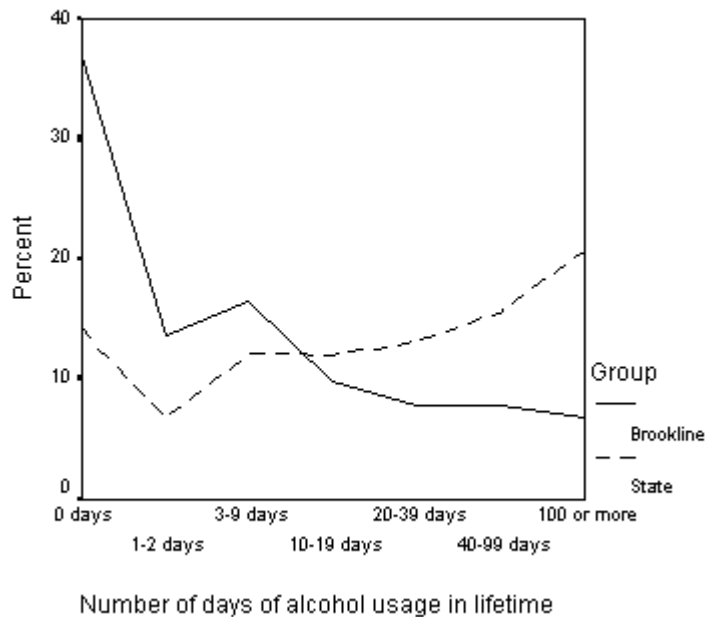


Alcohol Usage Rates of BHS 12th Grade Students Compared by Gender

- ▶ The alcohol usage rates for BHS 12th grade males and females are similar.
- ▶ More BHS 12th grade males report having used alcohol, and males start at a younger age, but the recent alcohol usage rate for males and females is about the same.
- ▶ BHS 12th grade males report drinking at school at twice the rate of females (13% vs. 6%).

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Figure A6: Lifetime Alcohol Usage, BHS 12th Grade Students Compared with the State

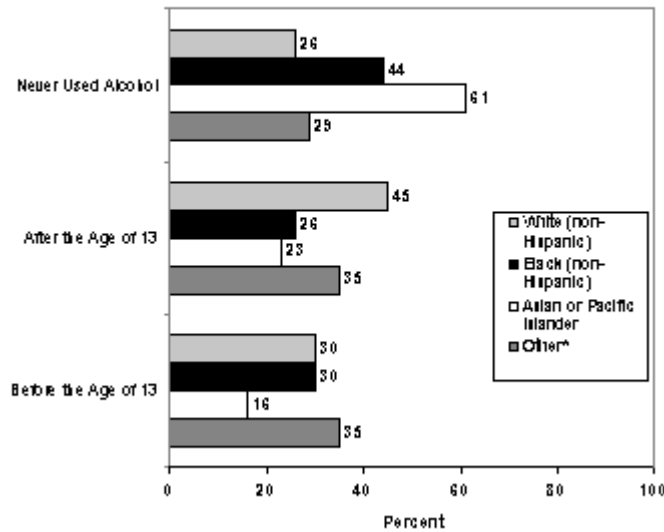


Lifetime Alcohol Usage, BHS 12th Grade Students Compared with the State

- ▶ The lifetime alcohol use profile of BHS 12th grade students differs from the state levels.
- ▶ BHS 12th grade students are less likely to have used alcohol and are less likely to use it frequently.

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Figure A7: BHS 9th and 12th Grade Students Age of First Alcohol Use by Race/Ethnicity



BHS 9th and 12th Grade Students Age of First Alcohol Use by Race/ Ethnicity

- ▶ The use of alcohol by BHS 9th and 12th grade students appears to vary by race/ ethnicity.
- ▶ Six out of ten Asian or Pacific Islanders (61%) and approximately one out of two (44%) of Blacks (non-Hispanic) report having never used alcohol.
- ▶ Approximately one third of all racial/ethnic groups except Asian or Pacific Islanders report using alcohol before the age of 13.
- ▶ *Other is comprised of students who categorized themselves as Other along with Hispanics and American Indians.

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Illegal Drug Use

Drug use according to researchers, since 1992 has been gradually increasing for youth in the United States. Findings from the longitudinal Monitoring the Future Study, indicate that "Over a third of all eighth graders have used some illicit drug, including inhalants, while over 40% of all 10th graders, and nearly 50% of all 12th graders have done so" (Johnson, O'Malley, and Bachman 1994). Many researchers have noted that drug use is likely to continue to rise since survey results indicate that there is both a decline in perceived risk of drug use and a decline in the disapproval of drug use by peers (Johnson et al. 1994, Sells and Blum 1996). Johnson (et al. 1994) also reports that the media image of who is using drugs is inaccurate. For high school seniors, the highest rates of drug use are among European-American youth (31%), followed by Hispanic youth (29%). African-American

youth have the lowest ratings of drug use on nearly all licit and illicit drugs (17%). According to the findings from the 1997 Massachusetts YRBS, almost half of the high school students (45%) have never used any illegal drug and 71% have never used any illegal drug other than marijuana. From 1995 to 1997 the lifetime rates of cocaine use, inhalant use, steroid use and injected drug use has declined slightly, yet from 1993 to 1997 the lifetime and recent use of marijuana has increased significantly. Additionally, in Massachusetts the percentage of students that report being offered, sold or given illegal drugs on school property has increased significantly, from 31% in 1993 to 42% in 1997.

For the purposes of this report, the following definitions in the MYRBS are used.

Lifetime use: Any use during one's life.

Recent (or current) use: Any use within the 30 days prior to the survey.

Marijuana use: Use of marijuana, also called grass, pot, or weed.

Cocaine use: Use of any form of cocaine, including powder, crack or freebase.

Steroid use: Use of steroids without a doctor's prescription.

Hallucinogen use: Use of hallucinogenic substances such as LSD (acid), PCP or mushrooms.

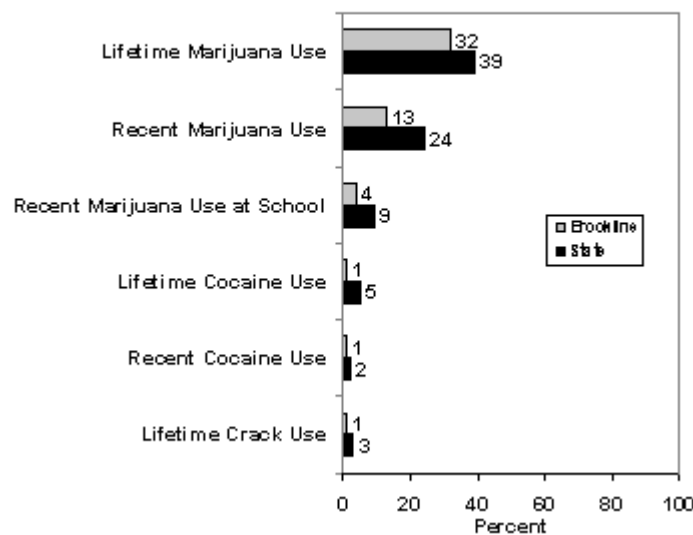
Other illegal drug use: Use of other illegal drugs such as ecstasy, speed, ice, or heroin.

Injected drug use: Use of a needle to inject any illegal drug into the body.

This report on Brookline 9th and 12th grade students analyzed the use of various illegal drugs and the patterns of marijuana usage.

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Figure D1: Marijuana and Cocaine Use by Brookline and State 9th Grade Students



Marijuana and Cocaine Use by Brookline and State 9th Grade Students

► Overall, marijuana and cocaine usage for BHS 9th grade students is substantially less than the state levels.

► One third (32%) of BHS 9th grade students report having tried marijuana.

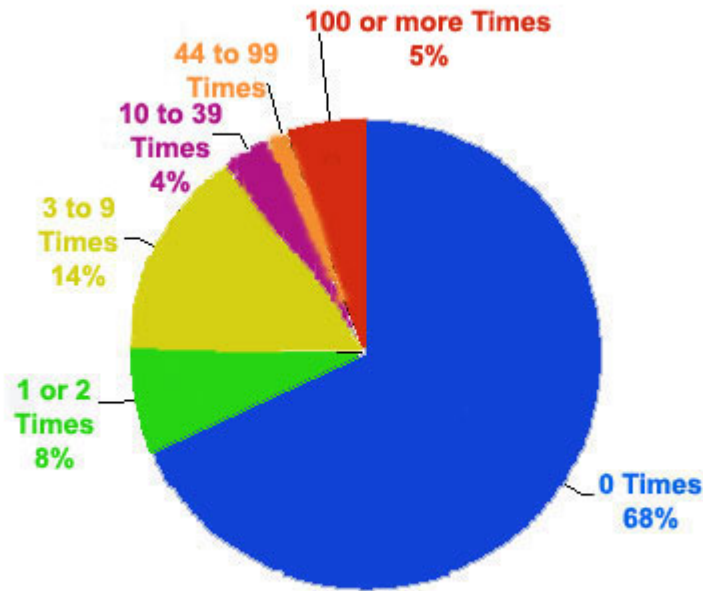
► Approximately one in seven students (13%) have used marijuana in the last 30 days and one in

twenty-five (4%) have done so at school.

▶ Only 1% of BHS 9th grade students report using any form of cocaine in their lifetime or recently.

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Figure D2: Lifetime Marijuana Usage, BHS 9th Grade Students



Lifetime Marijuana Usage, BHS 9th Grade Students

▶ Two out of three (68%) of the BHS 9th Grade students report having never used marijuana.

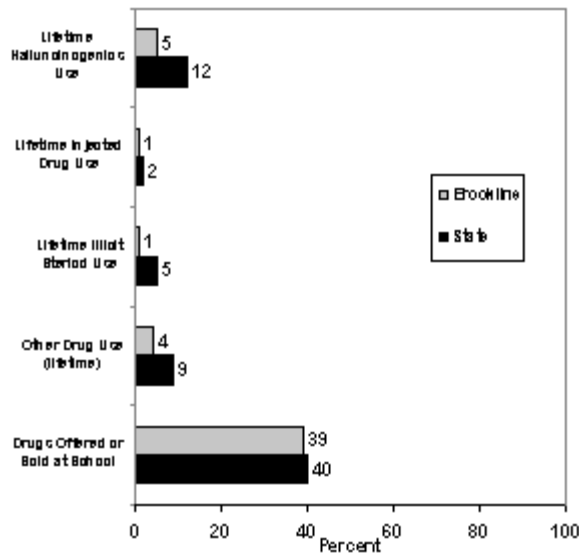
▶ Although not represented in this chart, more BHS 9th grade males report having never used marijuana than females (65% vs. 73%, see appendix).

▶ Of the students that do report having used marijuana, two out of three have used it less than 10 times in their life.

▶ Overall, one in twenty (5%) BHS 9th grade students report having used marijuana 100 or more times.

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Figure D3: Other Drug Use by Brookline and State 9th Grade Students

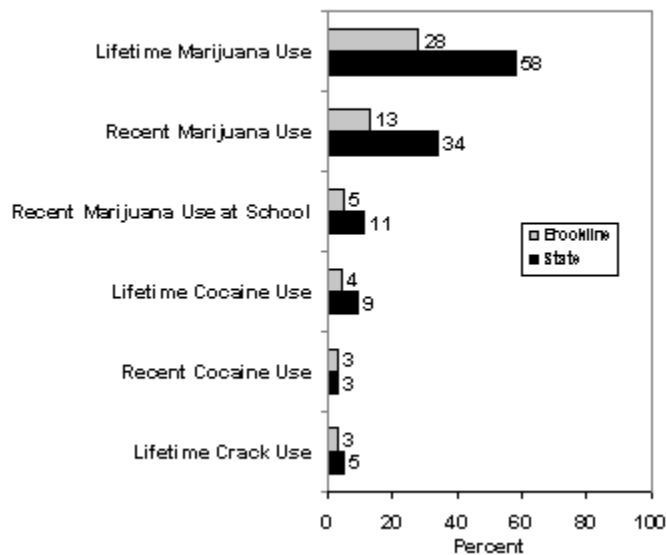


Other Drug Use by Brookline and State 9th Grade Students

- ▶ Brookline 9th grade students use of hallucinogenics, steroids, injected and other drugs is substantially less than the state levels.
- ▶ The numbers of BHS 9th grade students who report drugs being offered or sold to them at school is at the same level as the state average (39% v. 40%).

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Figure D4: Marijuana and Cocaine Use by Brookline and State 12th Grade Students



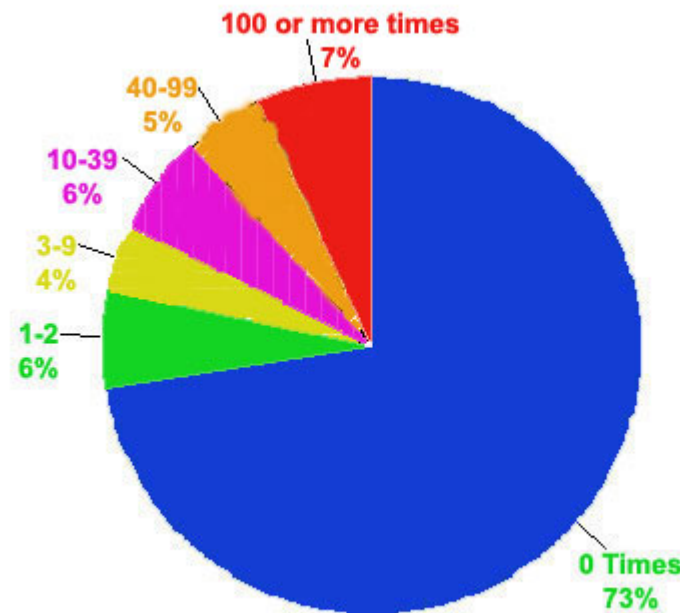
Marijuana and Cocaine Use by Brookline and State 12th Grade Students

- ▶ Overall, marijuana and cocaine usage for BHS 12th grade students is substantially less than the

state levels.

- ▶ BHS 12th grade students report marijuana and cocaine use at approximately half the rate found in the state average (see 12th grade data cautions).
- ▶ Less than one third (28%) of BHS 12th grade students report having tried marijuana.
- ▶ Approximately one in seven (13%) students have used marijuana in the last 30 days and one in twenty (5%) have done so at school.
- ▶ One in twenty BHS 12th grade students (4%) report using any type of cocaine in their lifetime.

Figure D5: Lifetime Marijuana Usage, BHS 12th Grade Students

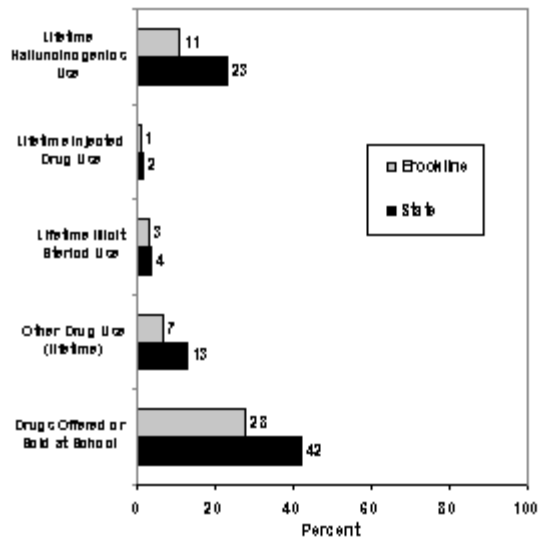


Lifetime Marijuana Usage, BHS 12th Grade Students

- ▶ Approximately three out of four (73%) BHS 12th grade students report having never used marijuana.
- ▶ Of those who have used marijuana, approximately one out of three (35%) have used it less than 10 times in their life.
- ▶ Overall, one in fourteen (7%) of BHS 12th grade students report having used marijuana 100 or more times.

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Figure D6: Other Drug Use by Brookline and State 12th Grade Students



Other Drug Use by Brookline and State 12th Grade Students

- ▶ Brookline 12th grade students use of hallucinogenics, steroids, injected and other drugs is substantially less than the state levels.
- ▶ The number of BHS 12th grade students who report drugs being offered or sold to them at school is also substantially less than the state average (28% v. 42%).

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Tobacco Use

Tobacco use is known as the leading preventable cause of death in the United States. The Center for Disease Control study (1991, cited in the Department of Education 1998) found that tobacco is responsible for one in every five deaths. Yet, since 1990 adolescent smoking is on the rise both within Massachusetts and nation wide. In Massachusetts 69% of high school students have tried smoking and over one third (34%) have smoked cigarettes in the last month (Department of Education, 1998).

In this report the following definitions were used:

Lifetime cigarette use: Any cigarette smoking in one's lifetime, even one or two puff.

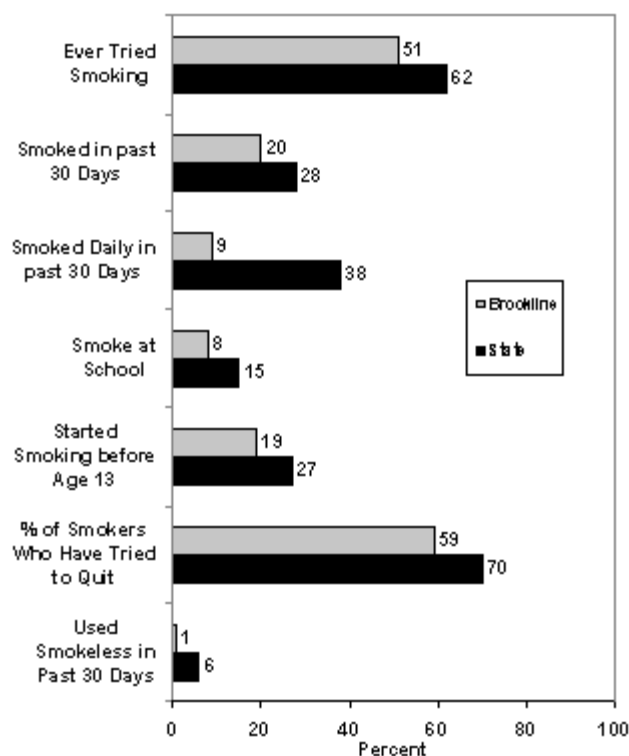
Recent cigarette smoking: Any cigarette smoking in the 30 days before the survey.

Daily smoking: Smoking cigarettes every day in the month prior to the survey.

This report on Brookline 9th and 12th grade students analyzed the patterns of tobacco usage, including lifetime and recent use, age of first cigarette, and attempts to quit. Patterns of tobacco use were also compared by race/ethnicity and gender.

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Figure T1: Tobacco Use by Brookline and State 9th Grade Students

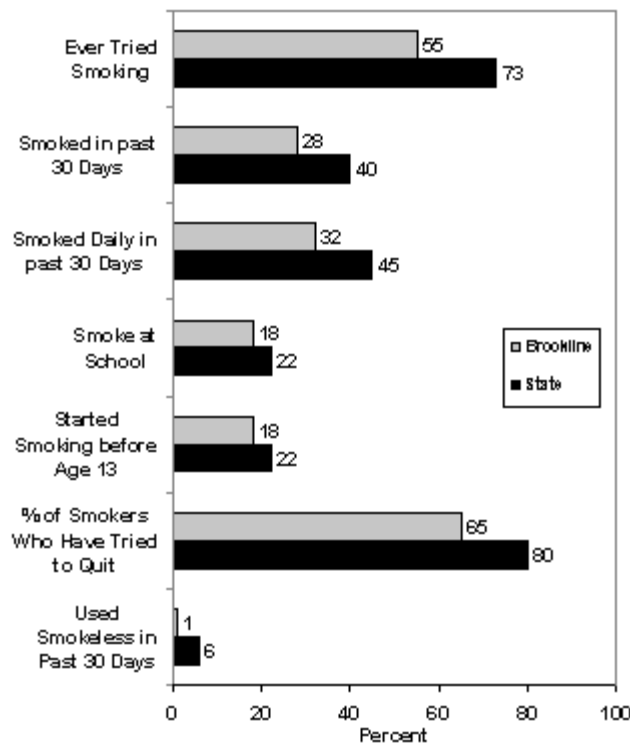


Tobacco Use by Brookline and State 9th Grade Students

- ▶ BHS 9th grade students use tobacco at substantially less than the state rates.
- ▶ One out of two (51%) BHS 9th grade students report having tried smoking cigarettes in their lifetime, one out of five (20%) smoked in the last 30 days.
- ▶ Substantially less BHS 9th grade students in comparison with 9th grade students throughout the state, report smoking on a daily basis (9% vs. 38%).
- ▶ 8% of BHS 9th grade students report smoking at school, which is half the state level.
- ▶ One in five (19%) students report smoking a whole cigarette before age 13.
- ▶ Interestingly, a lower percentage of BHS students have tried to quit smoking than those found throughout the state (59% vs. 70%).
- ▶ Only 1% of BHS 9th grade students report using smokeless tobacco (chew or snuff) in the last 30 days.

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Figure T2: Tobacco Use by Brookline and State 12th Grade Students

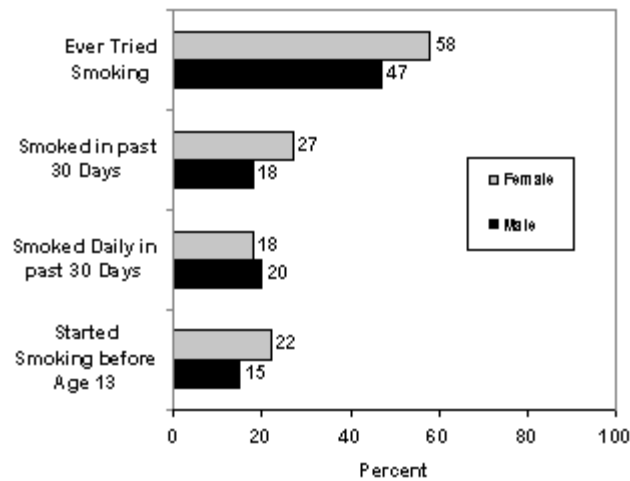


Tobacco Use by BHS and State 12th Grade Students

- ▶ BHS 12th grade students use tobacco at substantially less than the state average.
- ▶ Over half (55%) of BHS 12th grade students report having ever tried smoking cigarettes, this is substantially less than the 73% state level.
- ▶ 28% of BHS 12th grade students have smoked cigarettes in the last 30 days.
- ▶ Of those who do smoke, one out of three report smoking every day for the last month.
- ▶ Approximately one in five BHS 12th grade students report smoking at school and smoking their first cigarette before the age of 13.
- ▶ A lower percentage of BHS students, as compared with the state, report having tried to quit smoking (65% vs. 80%).
- ▶ Only 1% of BHS 12th grade students report using smokeless tobacco (chew or snuff) in the last 30 days.

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Figure T3: Tobacco Use by BHS 9th and 12th Grade Students by Gender



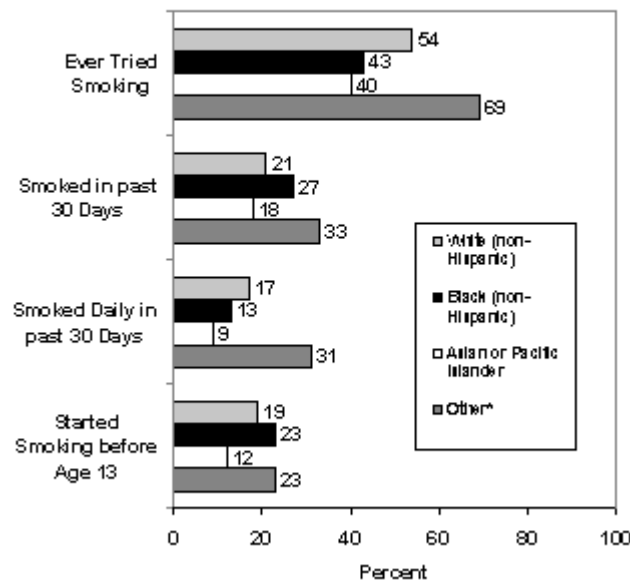
Tobacco Use by BHS 9th and 12th Grade Students by Gender

► Females have higher rates than males for tobacco use across the measures of having tried smoking, smoking recently and having smoked before the age of 13.

► Male and female rates of smoking daily are approximately equal.

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Figure T4: Tobacco Use by BHS 9th and 12th Grade Students by Race/Ethnicity



Tobacco Use by BHS 9th and 12th Grade Students by Race/Ethnicity

► Tobacco use by BHS 9th and 12th grade students appears to vary by race and ethnicity.

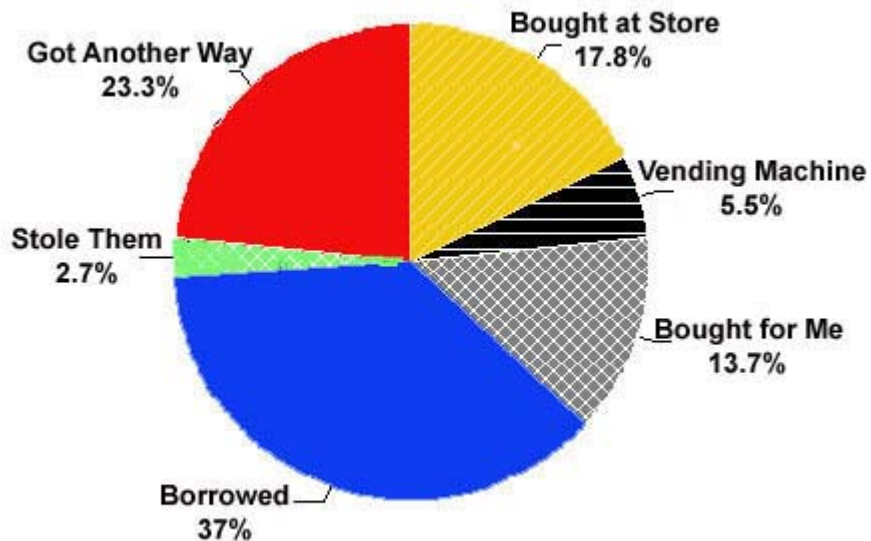
► The group categorized as Other* (which includes Hispanics [4%], Native Americans [1%] and those whom choose "Other"[10%]), had the highest tobacco use across all measures. Most notable

being seven out of ten (69%) have tried smoking in their lifetime and one of three (31%) who have smoked recently, smoke daily.

▶ Asian or Pacific Islanders have the lowest levels of tobacco use.

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Figure T5: Where BHS 9th and 12th Grade Students Usually Get Cigarettes

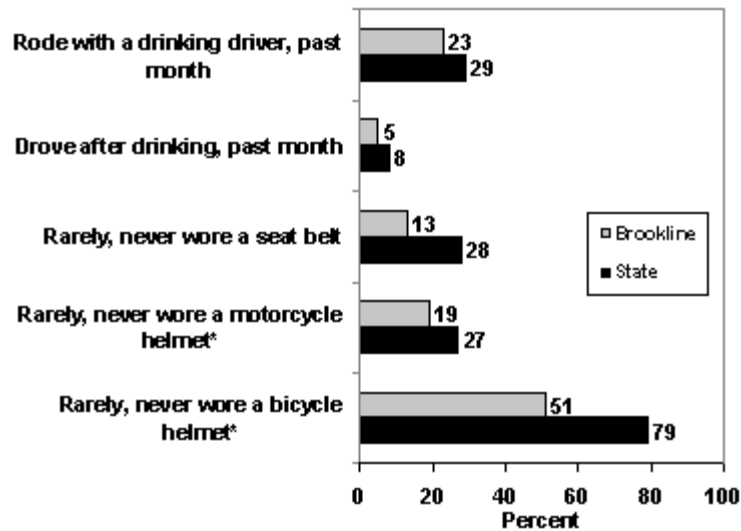


Vehicle-Related Risk Behaviors

Vehicle related accidents are a significant cause of both injuries and fatalities for youth. In fact, according to the Massachusetts Department of Public Health (1997, cited in the Massachusetts Department of Education, 1998), the leading cause of death for youth aged 10-19 in 1996 was motor vehicle accidents. Yet, the Massachusetts Department of Education (1998) reports that from 1993 to 1997 there has been significant improvement in the usage of seat belts and bicycle helmets. This chapter on Brookline 9th and 12th grade students reports on drinking and driving, the use of seat belts and for bicycle and motorcycle usage, the use of helmets. Vehicle related risk behavior was also compared by gender.

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Figure VH1: Vehicle-Related Risk Behaviors, BHS and State 9th Grade Students



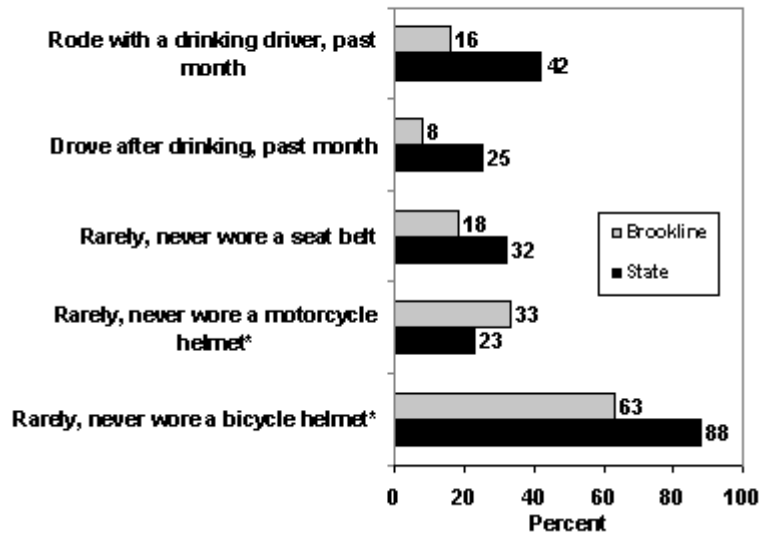
*Among students who had ridden a motorcycle/ bicycle in the last year.

Vehicle-Related Risk Behaviors, BHS and State 9th Grade Students

- ▶ BHS 9th grade students had lower rates of vehicle related risk behaviors than the state levels across all measures.
- ▶ Approximately one out of four BHS 9th grade students (23%) report driving in a vehicle in the last month with someone who had been drinking alcohol.
- ▶ One out of twenty (5%) report drinking and driving at least once in the last 30 days.
- ▶ Substantially more BHS 9th grade students report wearing seat belts than the state average, 13% report rarely or never wearing a seat belt.
- ▶ Of those BHS 9th grade students who have ridden a motorcycle in the last year, one in five (19%) report that they rarely or never wore a helmet.
- ▶ Of those BHS 9th grade students who have ridden a bicycle in the last year, one in two (51%) report that they rarely or never wore a helmet. This is substantially less than the state average.

TO TOP ↑

Figure VH2: Vehicle-Related Risk Behaviors, BHS and State 12th Grade Students



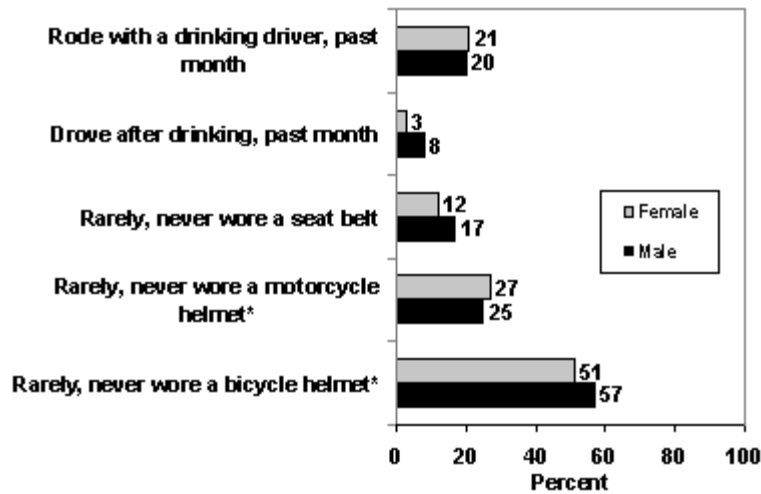
*Among students who had ridden a motorcycle/ bicycle in the last year.

Vehicle-Related Risk Behaviors, BHS and State 12th Grade Students

- ▶ BHS 12th grade students had lower rates of vehicle related risk behaviors than the state averages across most measures.
- ▶ The levels of drinking and driving for BHS 12th grade students are substantially lower than the state levels (see cautions on 12th grade data). 16% report riding with someone who has been drinking and 8% report drinking and driving in the past month.
- ▶ One out of five (18%) BHS 12th grade students report either rarely or never wearing a seat belt.
- ▶ One out of three (33%) BHS 12th grade students who have ridden a motorcycle in the last year report rarely or never wearing a helmet. This is a higher level than the state average.
- ▶ Of those BHS 12th grade students who have ridden a bicycle in the last year, close to two out of three (63%) report that they rarely or never wore a helmet.

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Figure VH3: Vehicle-Related Risk Behaviors of BHS Students Compared by Gender



*Among students who had ridden a motorcycle/ bicycle in the last year.

Vehicle-Related Risk Behaviors of BHS Students, Compared by Gender

- ▶ The level of reported vehicle related risk behaviors is similar for BHS male and female students.
- ▶ At a slightly higher rate males report drinking and driving, and rarely or never wearing a seat belt and bicycle helmet.

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Violence Related Behaviors

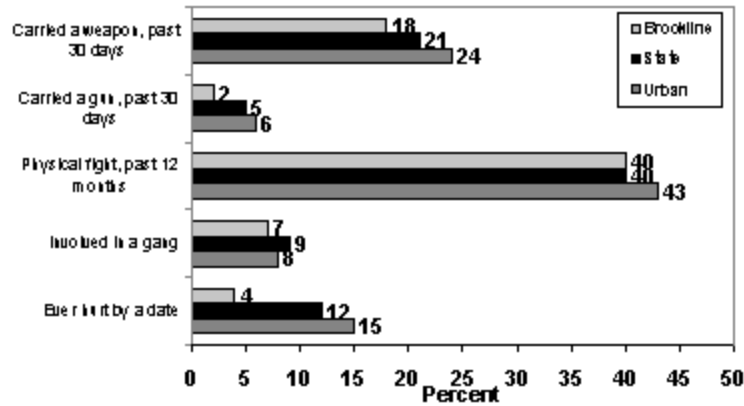
With the many high profile recent tragedies, violence in the schools is increasingly becoming a public health concern. According to a study cited in the Massachusetts Department of Education (1998) report, homicide is the second leading cause of death for 15 to 24 year olds and the leading cause of death for Black and Hispanic youth in the United States.

The 1997 MYRBS Results did find significant decreases in physical fighting and some small differences in other violence related measures from 1993 to 1997. Interestingly, the differences of rates between urban and suburban or rural districts of violent related behavior have decreased in this time period.

This report on Brookline 9th and 12th grade students analyzed violence related behaviors both at school and outside of school. Brookline was compared with schools from throughout the state and with urban schools. Additionally, violence related behaviors in Brookline were compared across race/ethnic groupings.

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Figure V1: Violence Related Behaviors of BHS, State and Urban 9th Grade Students

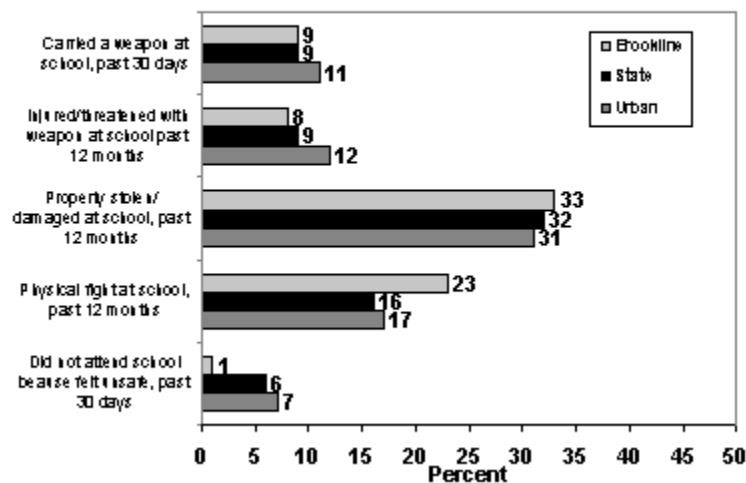


BHS 9th Grade Students Compared with State and Urban Students

- ▶ Overall BHS 9th grade students report less violent related behavior than students throughout the state and in urban areas.
- ▶ Close to one in five BHS 9th grade students (18%) report having carried a weapon in the previous 30 days, 2% report having carried a gun.
- ▶ Four out of ten students report being in a physical fight in the previous 30 days.
- ▶ 7% of the BHS 9th grade student surveyed report being involved with a gang, this represents approximately 31 students.
- ▶ Substantially less BHS 9th grade students (4%) report having ever been hurt by a date.

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Figure V2: Violence Related Behaviors at School of BHS, State and Urban 9th Grade Students

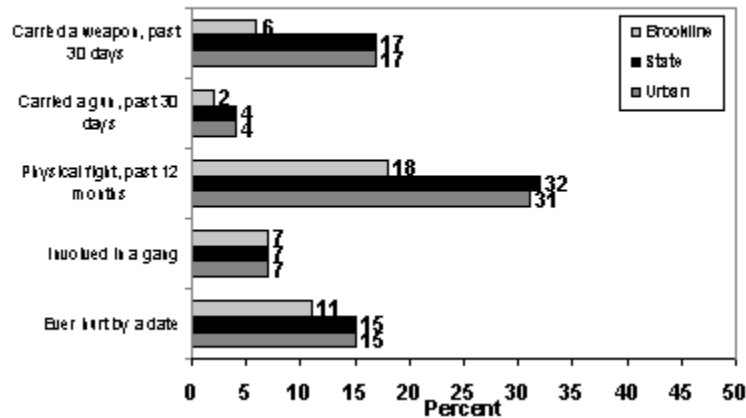


BHS 9th Grade Students Compared with State and Urban Students Violence Related Behaviors at School

- ▶ In general, violence related behaviors at school are at the same level for BHS 9th grade students as they are for state and urban students.
- ▶ Approximately one in ten 9th grade students report having carried a weapon at school in the last 30 days.
- ▶ Approximately one in ten 9th grade students report being injured or threatened with a weapon at school in the last 12 months.
- ▶ Approximately one out of three 9th grade students report their property being stolen or deliberately damaged at school in the last 12 months.
- ▶ BHS 9th grade students report fighting at school at higher levels (23%) then other 9th graders throughout the state (16%) and in urban areas (17%).
- ▶ Interestingly, only 1% of the BHS 9th grade students reported not attending school because they felt unsafe, while 6% of 9th grade students in the state and 7% in urban areas responded in this way.

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Figure V3: Violence Related Behaviors of BHS, State and Urban 12th Grade Students



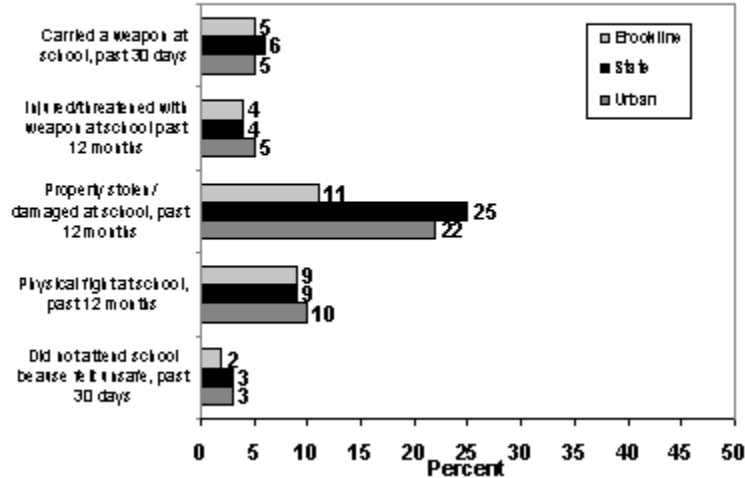
BHS 12th Grade Students Compared with State and Urban Students

- ▶ Overall BHS 12th grade students report less violent related behavior then students throughout the state and in urban areas.
- ▶ Approximately one in twenty (6%) BHS 12th grade students report having carried a weapon in the previous 30 days, 2% report having carried a gun.
- ▶ Substantially fewer BHS 12th grade student's (18%) report being in a physical fight in the previous 30 days.
- ▶ Involvement with a gang for BHS 12th grade students is the same as what is reported throughout the state (7%), this represents approximately 28 students.
- ▶ More than one in ten BHS 12th students (11%) report having been physically or sexually hurt by a

date.

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Figure V4: Violence Related Behaviors at School of BHS, State and Urban 12th Grade Students

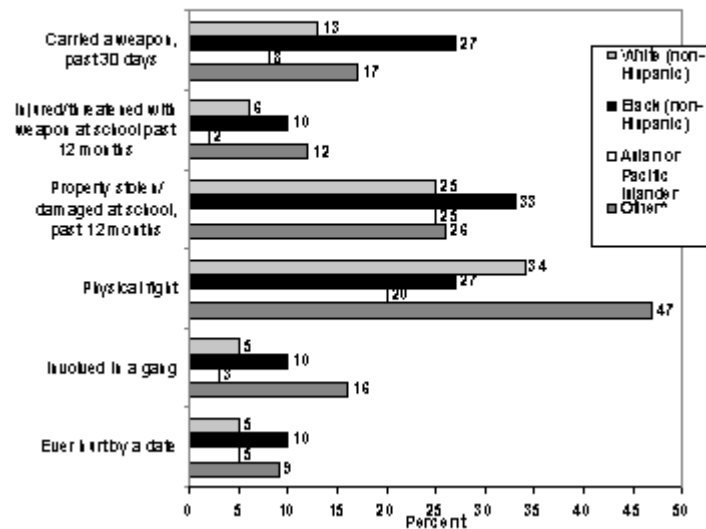


BHS 12th Grade Students Compared with State and Urban Students Violence Related Behaviors at School

- ▶ In general, violence related behaviors at school are at the same level for BHS 12th grade students as they are for state and urban students.
- ▶ Approximately one in twenty 12th grade students report having carried a weapon at school in the last 30 days.
- ▶ Approximately one in twenty five 12th grade students report being injured or threatened with a weapon at school in the last 12 months.
- ▶ One in ten (11%) BHS 12th grade students report their property being stolen or deliberately damaged at school in the last 12 months. This is substantially less than 12th graders throughout the state (25%) and in urban areas (22%).
- ▶ One in ten 12th grade students report fighting at school in the last 12 months.
- ▶ Few 12th grade students reported not attending school because they felt unsafe (BHS 2%).

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Figure V5: Violence Related Behaviors of BHS Students by Race/Ethnicity



Comparison of Race/Ethnicity for Violence Related Behaviors

- ▶ Violence related behaviors vary substantially by race/ ethnicity for BHS students.
- ▶ Asian or Pacific Islanders report the lowest involvement in violence related behavior.
- ▶ Blacks (non-Hispanic) report the highest level of having carried a weapon (27%), while they also report the highest level of having property stolen or damaged (33%) and the second highest level of being injured or threatened with a weapon at school (10%).
- ▶ The Other group (* included in this group are those who categorized themselves as Other, Hispanics and American Indians) report the highest level of fighting (47%) and gang involvement (16%).

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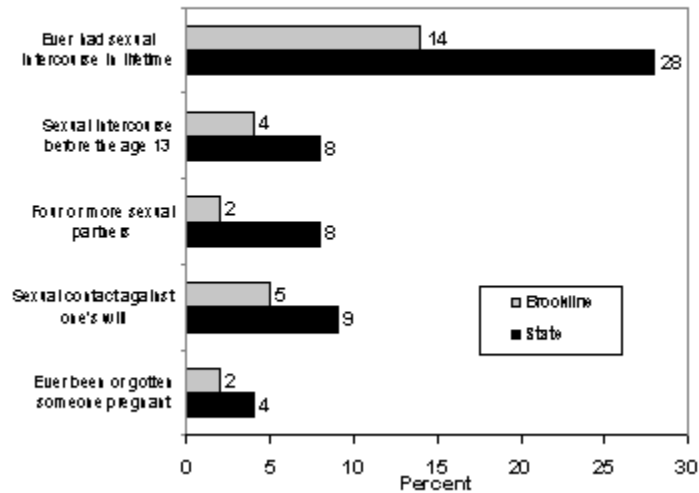
Sexual Behavior

The 1997 MYRBS Results reports that the rates of sexual risk behaviors have declined in recent years. Fewer students in 1997 than in 1993 report lifetime sexual intercourse, recent sexual intercourse, four or more lifetime sexual partners, sexual initiation before age 13, or alcohol/drug use before most recent sexual intercourse.

This chapter on Brookline 9th and 12th grade students reports on sexual behavior, including the age of first intercourse, number of partners, and the use of birth control methods. Comparisons are also made between males and females on their sexual behavior.

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Figure Sx1: Sexual Behavior of BHS and State 9th Grade Students

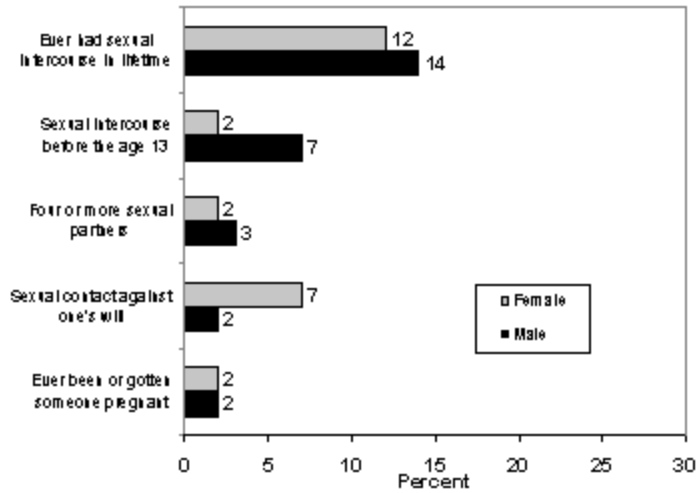


BHS 9th Grade Students Compared with the State

- ▶ Brookline 9th grade students report substantially less sexual behavior than the state levels.
- ▶ One in seven (14%) BHS 9th graders report being sexually active.
- ▶ Less than one third of those BHS 9th grade students who are sexually active (4% of the entire sample) have had sex before the age of 13.
- ▶ Less than one sixth of those BHS 9th grade students who are sexually active (2% of the entire sample) have had four or more sexual partners.
- ▶ 5% of the BHS 9th grade students report having had sexual contact against their will. This represents approximately 22 students.
- ▶ 2% of the BHS 9th grade students report having been pregnant or gotten someone pregnant.

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Figure 6x2: Sexual Behavior of BHS 9th Grade Students Compared by Gender

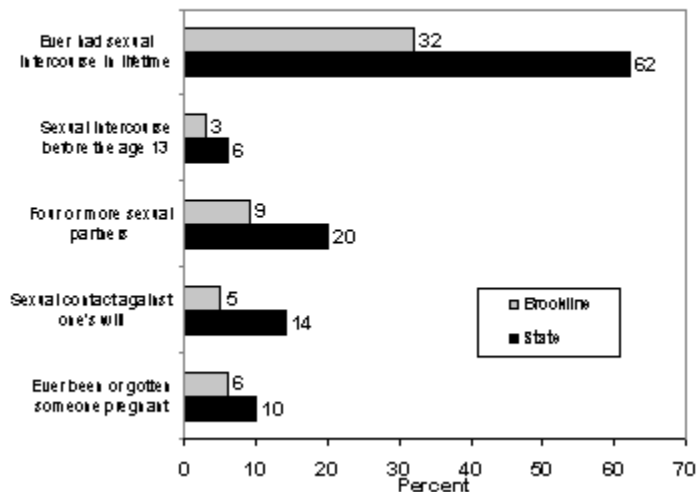


BHS 9th Grade Students Compared by Gender

- ▶ BHS 9th grade males and females have close to the same amount of sexual experience in having had sexual intercourse, the number of partners and experiences with pregnancy. All of these rates are lower than the state levels.
- ▶ Males' report having had sex earlier than females, 7% had sex before the age of 13.
- ▶ Females' report having had sexual contact against their will at a higher rate than males.

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Figure 6x3: Sexual Behavior of BHS and State 12th Grade Students



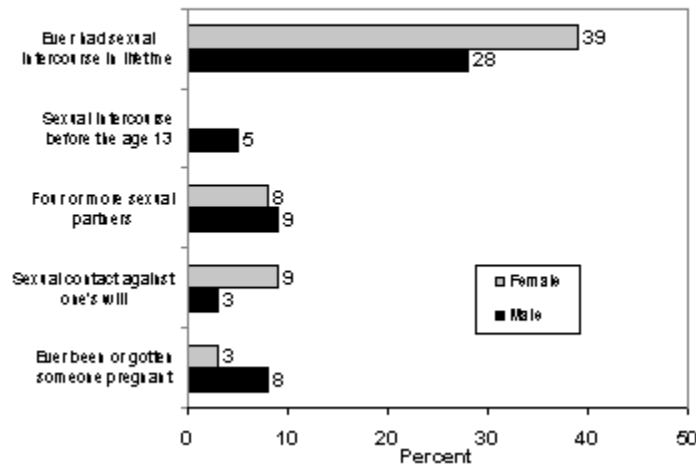
BHS 12th Grade Compared with the State

- ▶ There were some inconsistencies in the reports made by 12th graders on sexual behavior.
- ▶ Brookline 12th grade students report substantially less sexual behavior than the state levels.

- ▶ Approximately one third (32%) of the BHS 12th grades report being sexually active.
- ▶ Less than one tenth of those BHS 12th graders who are sexually active (3% of the entire sample) have had sex before the age of 13.
- ▶ Less than one third of those BHS 12th graders who are sexually active (9% of the entire sample) have had four or more sexual partners.
- ▶ 5% of the BHS 12th grade students report having had sexual contact against their will. This represents approximately 21 students.
- ▶ 6% of the BHS 12th grade students report having been pregnant or gotten someone pregnant.

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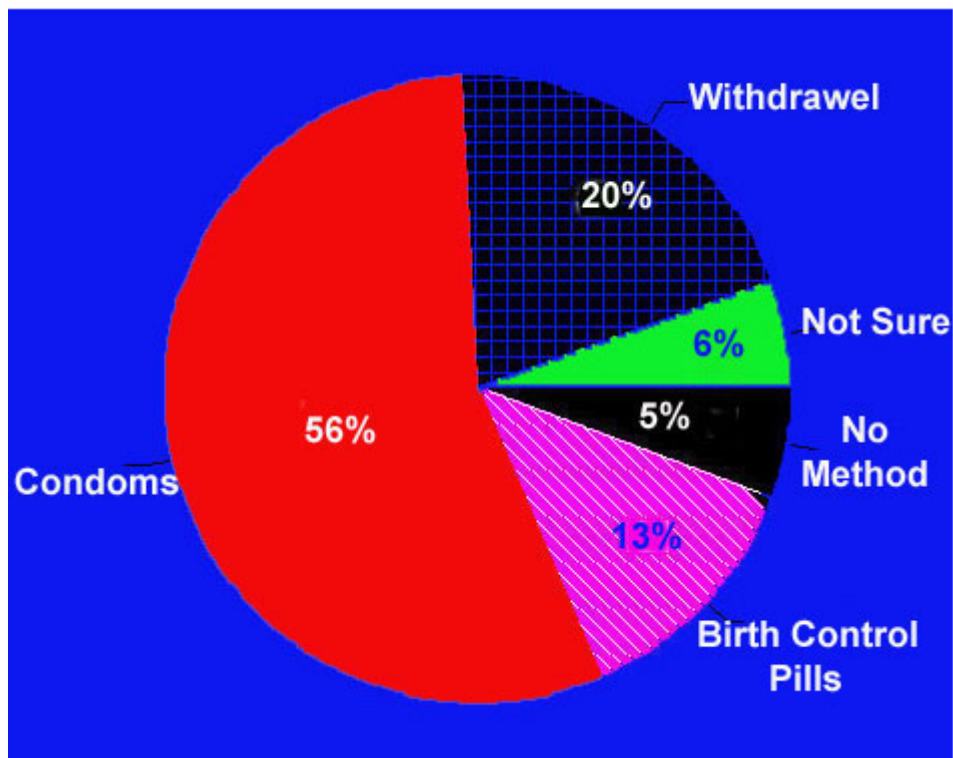
Figure Six4: Sexual Behavior of BHS 12th Grade Students Compared by Gender



BHS 12th Grade Students Compared by Gender

- ▶ More BHS 12th grade females report having had sexual intercourse than males (39% vs. 28%).
- ▶ Males report having had sex earlier age. There were no BHS 12th grade females who reported having sex before the age of 13.
- ▶ Close to one in ten females (9%) report having sexual contact against their will.

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Other Comparisons of Sexual Behavior

- ▶ Over half of the BHS students (56%) who are sexually active reported using condoms the last time that they had sexual intercourse.
- ▶ Approximately one out of three students (32%) of those who are sexually active could be categorized as having had no reliable protection (those who used the withdrawal, not sure or no method) from pregnancy and Sexually Transmitted Diseases during their last sexual encounter.
- ▶ The rate of using alcohol or drugs before having sex for BHS students (28%) who are sexually active was at approximately the same level found in the state.
- ▶ Almost one half of the BHS students (46%) responded that if condoms were available they would feel most conformable getting them at locations in the school.

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Suicidal Behavior

Suicidal behaviors (ideation, attempts and completed suicide) by adolescents present a significant public health challenge. According to the National Center for Health Statistics, suicide was the third leading cause of death for 15 to 24 year olds (Sells and Blum, 1996). In the last 4 decades, the suicide rates have increased dramatically (Farrell, 1994). For males, suicide rates have quadrupled, and for females they have nearly doubled from 1950 to 1987 (Cohen, Spirito and Brown, 1996). Youth that attempt suicide but are unsuccessful are also a significant public health concern. It is estimated that less than one in 50 of the attempts made result in death (Sells and Blum, 1996). Estimates of high school students who attempted suicide but did not receive professional treatment range from 75% (Rubenstein, Heeren, Housman, Rubin, and Stechler, 1988) to 98% (Sells and Blum, 1996). Suicidal ideation, thinking about suicide, is wide spread. Research shows that between 20 - 60% of high school students report suicidal ideation (Friedman, Asnis, Boeck, and DiFiore, 1987;

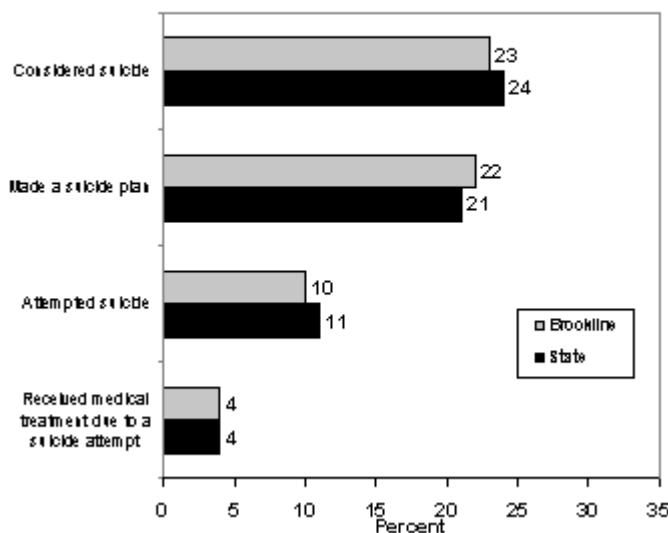
Sells and Blum 1996; Rubenstein et al., 1988). Females report higher levels of suicidal ideation and are hospitalized at higher rates for attempts (Rubenstein et al., 1988). Yet males successfully commit suicide at four times the rate of females (Cohen, Spirito and Brown, 1996).

According to the Department of Education (1998) report, the rates of considering, planning, and attempting suicide among Massachusetts high school students have not changed since 1993. Nearly one in four (24%) Massachusetts high school students seriously considers suicide, one in five (19%) made a plan about how they would attempt suicide and one in ten (10%) made an actual suicide attempt.

This chapter on Brookline 9th and 12th grade students analyzed the rates at which students consider, plan and attempt suicide. Comparisons of suicidal behavior were also made for gender and race/ethnicity.

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Figure S1: Suicidal Thinking and Behavior of BHS and State 9th Grade Students



BHS 9th Grade Compared with the State

▶ The reported frequency of suicidal thoughts and behaviors for Brookline High School 9th grade students was approximately equal to that of the state levels.

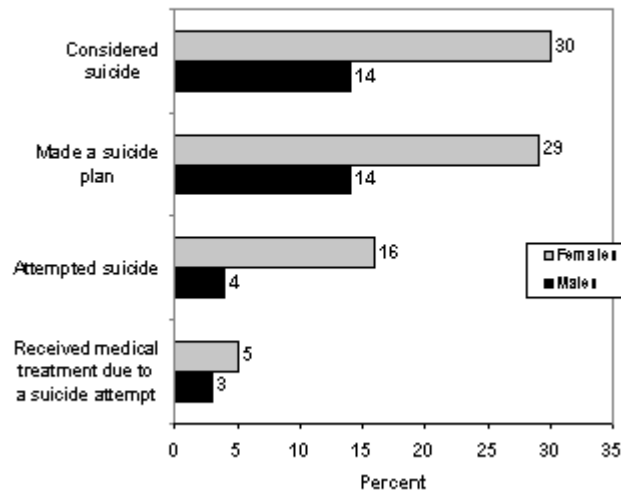
▶ Nearly one in four (23%) of BHS 9th grade students seriously considered suicide in the twelve months prior to the survey.

▶ Approximately the same percentage of BHS 9th grade students (22%) made a plan about how they would attempt suicide in the twelve months prior to the survey.

▶ One in ten (10%) report actually attempting suicide. This represents approximately 46 BHS 9th grade students.

▶ One in twenty five (4%) reported making an attempt to kill themselves that resulted in an injury, poisoning, or overdose serious enough to require treatment by a doctor or nurse.

Figure S2: Suicidal Thinking and Behavior of BHS 9th Grade Students Compared by Gender



BHS 9th Grade Students Compared by Gender

► Brookline 9th grade females report considering (30% vs. 14%) and making a plan for suicide (29% vs. 14%) at twice the rate of males.

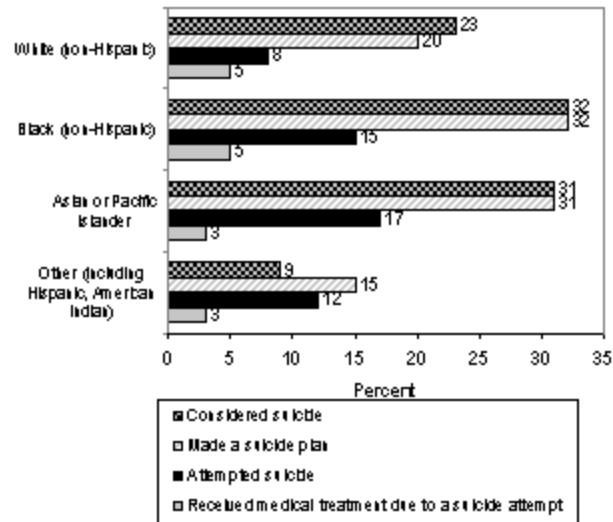
► The female rate for attempting suicide is near to four times that of the rate for males (16% vs. 4%).

► However, it should be noted that among those who did attempt suicide, male students were more likely than females to require medical attention for their attempts (60% vs. 33%).

► In general, the gender differences in suicidal thinking and behavior found in the Brookline sample of 9th grade students was similar to gender differences found in the state levels.

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Figure S3: Suicidal Thinking and Behavior in the Past Year of BHS 9th Graders by Race/Ethnicity



Other Comparisons of BHS 9th Grade Students

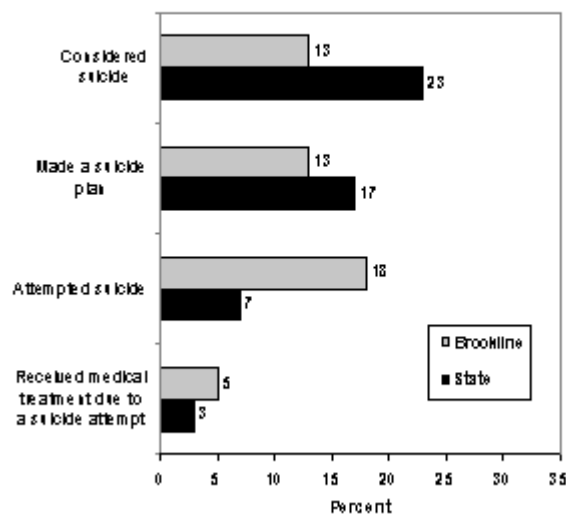
▶ Although there were differences found at the state level, for BHS 9th graders there were no significant differences between students who identified themselves as heterosexual and those who did not, for the rates of considering suicide, attempting suicide or receiving medical treatment for a suicide attempt .

▶ As can be seen in Figure S3, suicidal thoughts and behavior is not consistent across racial/ethnic groupings.

▶ Asians report attempting suicide at over twice the rate of whites.

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Figure S4: Suicidal Thinking and Behavior of BHS and State 12th Grade Students



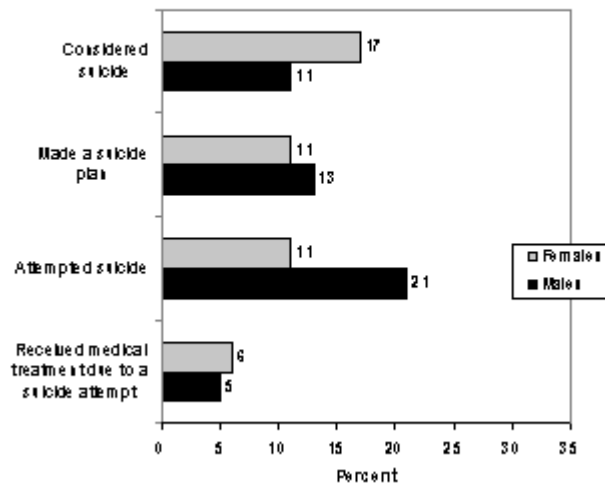
BHS 12 Grade Compared with the State

Due to inconsistencies, these findings in this section should be viewed with caution (see Appendix A).

- ▶ Greater than one in ten (13%) of BHS 12th grade students report seriously considering suicide and making a plan for attempting suicide in the twelve months prior to the survey.
- ▶ More BHS 12th grade students reported actually attempting than considering suicide, this rate is more than double the state level.
- ▶ One in twenty (5%) reported making an attempt to kill themselves that resulted in an injury, poisoning, or overdose serious enough to require treatment by a doctor or nurse.

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Figure S5: Suicidal Thinking and Behavior of BHS 12th Grade Students Compared by Gender



BHS 12th Grade Students Compared by Gender

- ▶ Inconsistent results on the 12th grade surveys do not suggest any clear gender patterns.
- ▶ Females report considering suicide at a higher rate than males, but males reported attempting suicide at almost twice the rate of females.
- ▶ These gender differences were inconsistent with the state sample.

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Appendix A

Readers of this report are cautioned in drawing conclusions based on this data alone. Since the samples were not randomly drawn, there is a possibility of selection bias in which the students surveyed do not accurately represent the class as a whole. This is of greater concern for the sample of 12th grade students since gym is not required for all students in that grade. Additionally, there were problems with item non-response and the integrity of the data. The integrity of the data was questioned and answers were coded as missing when two or more of the following characteristics were present: a) answers were given which were not a possible choice, b) answers directly contradicted previous answers, c) more answers were given than questions asked and d) the answers appeared excessively messy or there was a noticeable repeating pattern. Approximately 5% of the BHS sample included data that was coded as missing which may have compromised the reliability and validity of the results in this report.