

2011 BPS YRBS



Boston Youth Risk Behavior Survey



2011

Boston Public Schools
Health and Wellness
Department

Acknowledgements

The Boston Public Schools Health and Wellness Department would like to thank all the high school students who participated in this survey, the high school faculty who cooperated with our staff, and the survey administrators for completing the Boston 2011 Youth Risk Behavior Surveillance (YRBS) System Survey.

The Boston Public Schools (BPS) would also like to extend its deep gratitude towards *Barbara Huscher Cohen*, Health Education Program Director, who has conducted the district's YRBS for the past 15 years. Without her commitment to BPS, YRBS data used to inform many school and district-level policies and programs would not be available. Ms. Cohen will be retiring from BPS at the end of the 2011-2012 school year and will be missed dearly.

Furthermore, without the leadership and guidance of *Jill Carter*, the Health and Wellness Department Executive Director, this report would not have come to fruition. We also recognize and thank: *Kristen Kamp*, for recruiting schools and coordinating survey administration activities; *Jeanne Lin* for designing the report's layout, performing data analysis, and providing technical assistance; *Patricia Dao-Tran*, Health and Wellness Department Data Coordinator, for data reporting, copy-editing, and additional guidance; and *Caitlin Westfall*, Wellness Policy and Promotions Manager, *Jaime Lederer*, Tobacco Prevention Program & Policy Manager, and *Shannon Wyman*, Physical Activity Policy and Program Specialist from the Health and Wellness Department for contributing to this report.

While the 2011 YRBS report is issued from the Health and Wellness Department, the district health and wellness strategic plan is executed in coordination with the following BPS departments who serve to **actively promote the health and wellness of all BPS students to advance both their healthy development and readiness to learn**: *Athletics, Accountability, Circle of Promise, Early Childhood Education, Food and Nutrition Services, Facilities, Family and Community Engagement, Department of Extended Learning and Services, Health and Wellness, Human Resources, Health Services, Behavioral Health Services.*

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Introduction to Boston Public School's Focus on Student Health and Wellness

Healthy Connections: A Strategic Plan to Promote Student Health and Wellness

The core mission of schools is to educate children. Schools fulfill this mission by striving for all children to acquire the knowledge and skills they need for academic and professional success and personal well-being. Underlying this mission is the precondition that children arrive to school healthy and prepared to learn. What is becoming increasingly clear is that significant numbers of children arrive to school not fully prepared to learn because of physical and mental health issues, such as obesity, asthma, vision problems, physical inactivity, anxiety, and depression. Research strongly suggests that children with these health conditions have higher absenteeism and dropout rates, feel less connected to schools, and perform worse on cognitive and academic assessments than students without these conditions. Thus, addressing student health and wellness is vital if children are to arrive to school ready to learn and schools are to fulfill their core mission.

Understanding that physical and mental health, emotional well-being, and positive development are inextricably linked with academic success, BPS Superintendent Dr. Carol R. Johnson has begun to transform the district's capacity to meet the health needs of Boston children. In September 2010, BPS completed **Healthy Connections**, the district's strategic plan to improve the health and wellness of students. The overarching, district-wide goal of **Healthy Connections** is to **actively promote the health and wellness of all BPS students to advance both their healthy development and readiness to learn.**

In support of this goal, BPS is pursuing the following strategic health and wellness outcome goals:

1. Improve student fitness

- Improved student body weight
- Increased physical activity
- Healthy food and beverage intake

2. Promote healthy student behaviors & engagement

- Increased pro-social activities
- Reduced violence/aggression
- Improved sexual health

3. Improve school-based health care

- Improved vision, hearing, and mental health referral completion rates
- Reduced asthma-related nurse visits and absenteeism

Throughout this report, we will highlight key findings in six health risk behaviors from the 2011 Youth Risk Behavior Surveillance Survey and refer to the district-wide **Healthy Connections** initiatives that address the most pressing risk behaviors among Boston youth.

Coordinated School Health: A Systematic Approach to Executing *Healthy Connections*

To effectively execute the *Healthy Connections* strategic plan, BPS has adopted the Coordinated School Health (CSH) Model. The Centers for Disease Control and Prevention (CDC) recommends this model to reduce gaps and redundancies in services; build collaboration across departments and staff; build partnerships with public health professionals, clinical experts, and other community organizations; and focus efforts on improving school health, academic performance, and social outcomes. The following BPS departments actively partner to promote student health and wellness:

- Athletics
- Accountability
- Circle of Promise
- Early Childhood Education
- Food and Nutrition Services
- Facilities
- Family and Community Engagement
- Department of Extended Learning and Services
- Health and Wellness
- Human Resources
- Health/Medical Services
- Mental Health Services



Report Overview

This report begins with an introduction to the Youth Risk Behavior Surveillance System (YRBSS) Survey and a summary of survey methodology used to administer the Boston YRBS. Demographic information of the surveyed population is presented, followed by a summary of key findings in the six health risk behavior areas from the 2011 YRBS. The report further explores each health risk behavior area in more detail, beginning with an introduction, followed by important health behavior trends, and concluding with district-wide initiatives that align with the *Healthy Connections* strategic plan to address the most pressing risk behaviors among Boston youth.

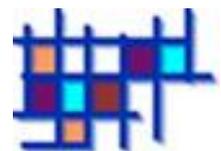
Youth Risk Behavior Surveillance System

Youth across the nation often engage in behaviors that put them at risk for unwanted health outcomes, including substance abuse and tobacco usage, unsafe sex practices, violence, poor dietary habits, and lack of exercise. The Youth Risk Behavior Surveillance (YRBS) System Survey was developed in 1990 by the CDC and has been conducted nationally every other year in most states and major cities. The CDC examines 6 health risk behaviors that are linked to the leading causes of death among adolescents¹. Since 1993, the Boston Public Schools (BPS) has been monitoring these behaviors among our high school students through the YRBS:

Six Health-Risk Behaviors Monitored by the CDC

- Tobacco use
- Unhealthy dietary behaviors
- Physical inactivity
- Alcohol and other drug use
- Sexual risk behaviors
- Unintentional injuries and violence

The BPS conducts the survey every other year, usually with approximately 1,200 - 1,400 high school students randomly selected from grades 9 through 12. In 2011, BPS administered the twelfth YRBS survey and received responses from a total of 1,013 participants. The YRBS Survey results help policy makers, school administrators, social service workers, and health personnel monitor risk behaviors of high school students that are linked with major causes of mortality and morbidity among youth and adults in the United States. The YRBS results are also used in a variety of venues to develop policy; to plan and improve youth-based health programs; to determine existing health needs in order to develop effective intervention programs; to provide the most recent and updated information for grant submissions; and to improve the development of classroom lessons geared towards reducing health risk behaviors among adolescents.



About the Boston YRBS Survey

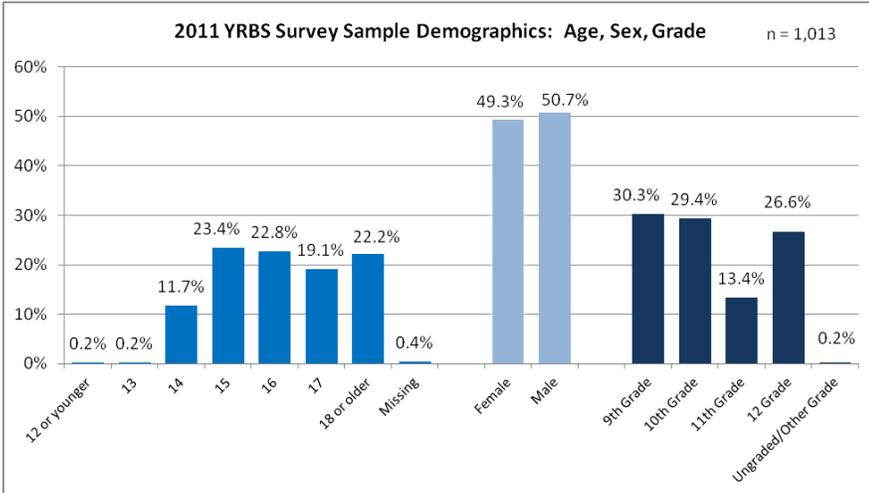
Boston YRBS Survey

1. The survey is anonymous.
2. The survey is voluntary.
3. Students are informed of the importance of the survey.
4. The survey takes about 45 minutes to complete.
5. The survey is minimally disruptive during the school day.



- The survey is conducted by a two-stage sampling method. Five randomly selected Boston Public High Schools with grades 9 through 12 are chosen for the YRBS survey.
- Classrooms of each grade are then randomly selected from each of the five schools.
- Approximately one-seventh of all students in each school complete the survey.
- Trained survey administrators provide assistance to students in survey completion to ensure accurate responses; however, all survey results are self-reported by students and may be subject to error.

Demographic Information

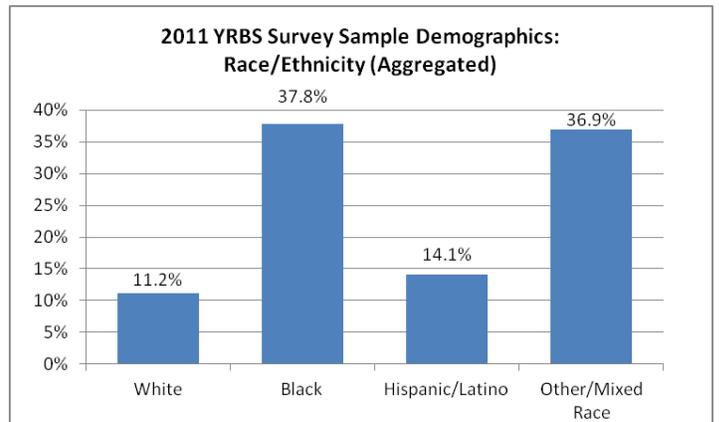
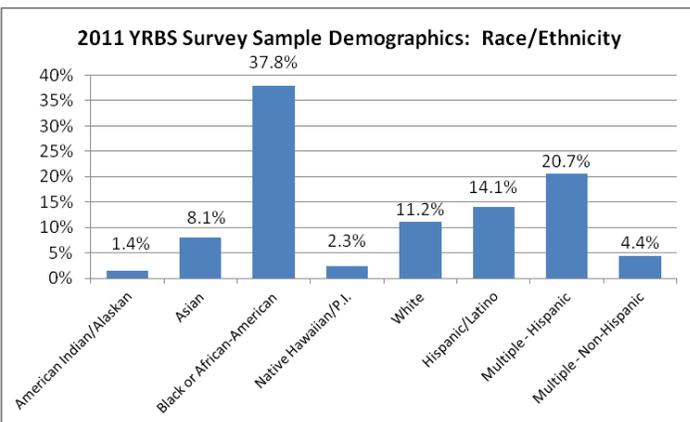
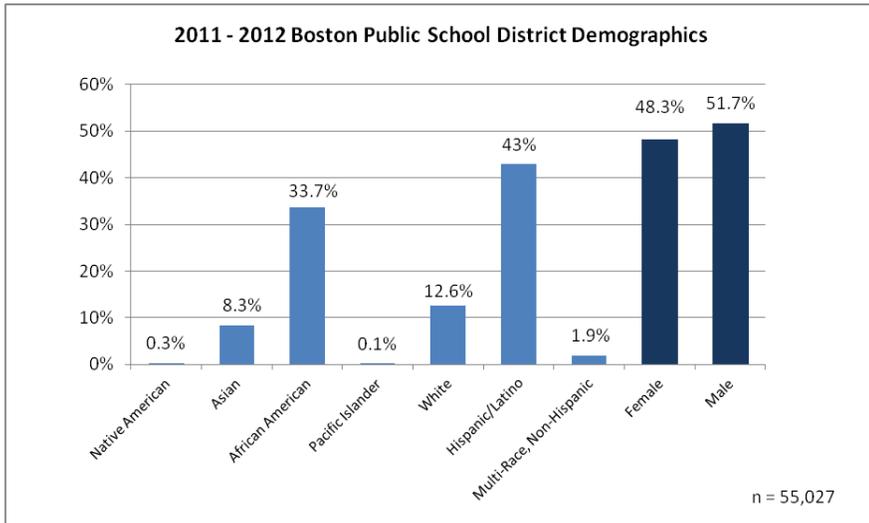


Overview of YRBS Sample

1. Participants who completed the survey were evenly distributed by sex, age, and grade with the exception of students, age 14 years old and younger, and students in the 11th grade.

2. The 2011 YRBS sample of students in Boston who completed the survey is comparable to the percentage of students in the Boston Public School District by race, ethnicity, and sex, indicating that the sample is representative of the total high school population in Boston Public Schools.

3. Comparisons of findings between racial and ethnic groups in the YRBS survey results are predominantly between White, Black, and Hispanic/Latino students.



Summary of Key Findings

TOBACCO USE

Key Findings: The percentage of Boston youth ever trying cigarettes and smoking has seen a steady decline over the past 20 years (64.7% in 1993 to 41% in 2011) which is believed to be related to greater tobacco prevention efforts and increases in the cost of cigarettes. Cigars, little cigars, cigarillos, and flavored tobacco use is becoming more common (10.7% report use one or more times in past 30 days) among BPS students, especially male Black (9.1%) and Latino (14.3%) youth.

DIETARY BEHAVIORS

Key Findings: Students report some significant increases in this behavior through weekly single fruit consumption (80.5% in 2009 and 84.2% in 2011). However, at 19.5%, the majority of students are not consuming the CDC “5-a-Day” program’s recommended 5 or more fruits and vegetables each day, and fewer females are reporting consuming the recommended amount (14.1%) than males (25.4%). Daily consumption of 1 or more servings of sugar-sweetened beverages (24%) is higher than daily consumption of 100% fruit juice (21.6%) and nearly as high as milk (28.2%) consumption; only 10% of students report drinking the recommended 3 or more glasses of milk daily.

PHYSICAL ACTIVITY

Key Findings: In 2011, 29.1% of students participated in Physical Activity (PA) for a total of at least 60 minutes per day on 5 or more days per week; participation rates in physical education classes (PE) remain low with only 31.7% attending PE classes on 1 or more days in an average week. In 2011, 42% of students watched 3 or more hours of TV on an average school day, a significant decline from 50% in 2003, while 38.1% played video or computer games for 3 or more hours per school day, a significant increase from 2007.

Summary of Key Findings

ALCOHOL AND OTHER DRUGS

Key Findings: The percentage of students that used marijuana one or more times in the last 30 days is at an all time high of 27%; males report use at higher rates than females (M 32.7%, F 21.2%) and the increase was only significant in males (from 25% to 32.7%); an increase from 2009 rates was noted for all race/ethnicities (B 28.3%, L 25.4%, W 37.4%), but was significant for Hispanic/Latinos and Whites. Other drug use has remained low with needle injection at 1.8% and steroid use at 2.6%. The first drink of alcohol at age 13, or earlier, has steadily declined from 30% to 21% over 10 years, while alcohol consumption in the past 30 days has shown a slight downward trend in the past decade from 40% to 38.3%.

SEXUAL BEHAVIORS

Key Findings: The percentage of students having sexual intercourse before age 13 dropped slightly over 10 years from 13.7% to 11.4%, however negative trends for condom use during the last intercourse (from 74% in 2005 to 67% in 2011) and an indication that more students are having sexual intercourse over the past 3 months who drank alcohol or used drugs before intercourse (increased from 17 % in 2005 to 24% in 2011) are concerning. These findings, along with a decline in the percent of students reporting ever being taught about AIDS or HIV infection in school (88.8 % in 1999 to 73.3% in 2011), speaks to a need for skills-based health education.

UNINTENTIONAL INJURIES AND VIOLENCE

Key Findings: In 2011, 8% of Boston students did not go to school because they felt they would be unsafe at school or on their way to or from school. 15% of students carried a weapon, such as a gun or a knife, while 6% of students carried a weapon on school property. 14% of student had been bullied on school property, and 11% reported being electronically bullied during the past 12 months. 13% of students seriously considered attempting suicide, a decline from 20% in 1999.

Tobacco Use

The tobacco industry targets young people by making their products appealing. New products that are constantly emerging tend to be attractive, cheap, and easy for young people to access. In Boston, flavored tobacco, little cigars/cigarillos, and blunt-use are on the rise. Some products are made to resemble lip balm, candy, or gum and make it difficult for concerned adults to identify them as a tobacco product. BPS is concerned with the rising trend of other tobacco products (OTPs) being used.

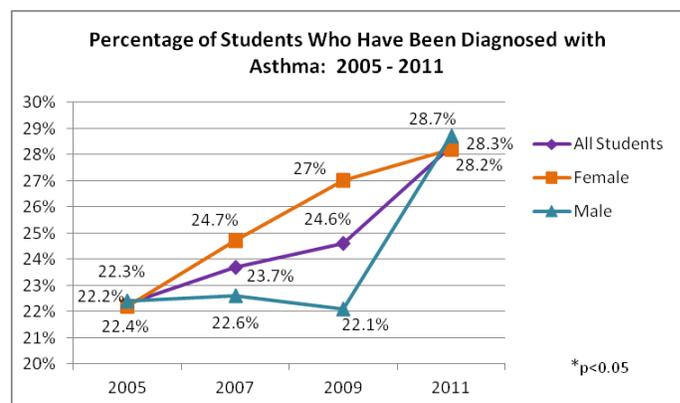
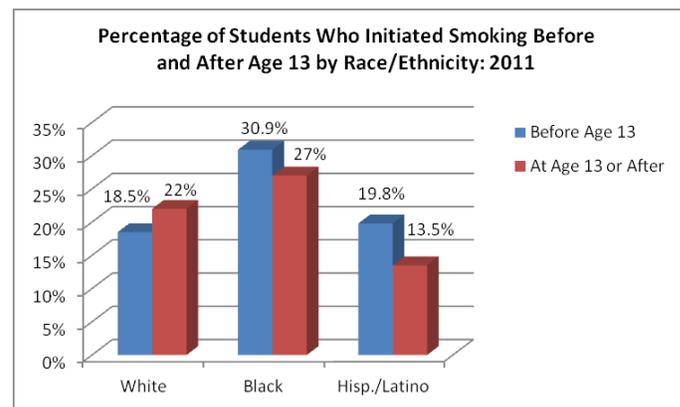
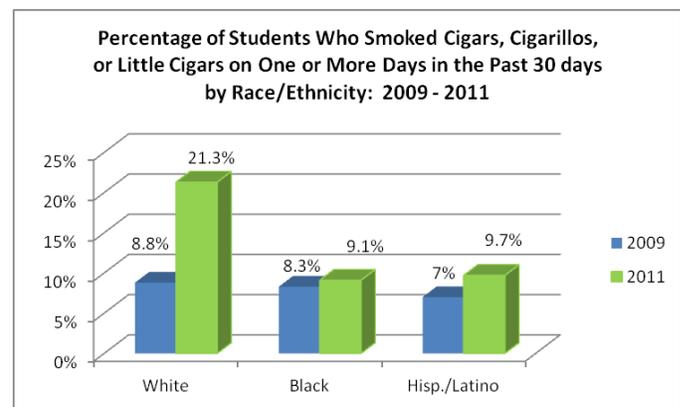
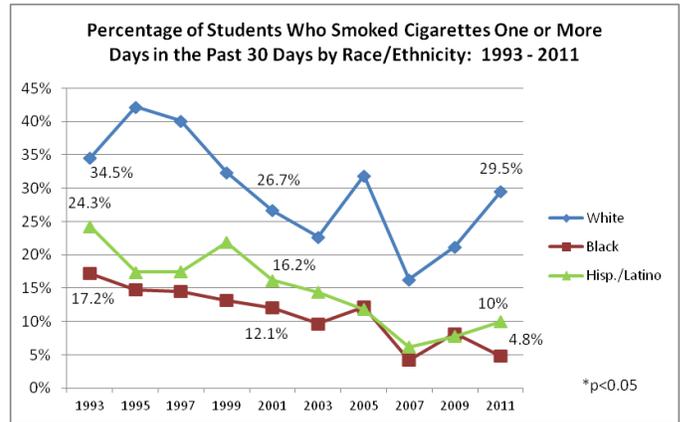
2011 YRBS Key Findings

- The percentage of Boston youth ever trying cigarettes and smoking has seen a steady decline over the past 20 years (64.7% in 1993 to 41% in 2011), which is believed to be related to greater tobacco prevention efforts and increases in the cost of cigarettes.
- Cigars, little cigars/cigarillos and flavored tobacco use are becoming more common (10.7% report using one or more times in past 30 days) among BPS students, especially male Black (9.1%) and Latino (14.3%) youth.

Risk Behavior #1:

Tobacco Consumption

- As a result of effective smoking prevention initiatives targeting youth, smoking initiation has decreased since 1993 (64.7% vs. 41%, $p < 0.05$), as has smoking in the past 30 days (20.9% vs. 10%, $p < 0.05$). Cigarette-smoking in the past 30 days remains highest among White students (29.5%) compared to Black (4.8%) and Hispanic/Latino (10%) students as of 2011.
- From 2009 to 2011, students who reported smoking cigars/cigarillos/little cigars in the past 30 days increased from 8.1% to 10.7%. This was seen among all racial groups: White students (8.8% vs. 21.3%), Black (8.3% vs. 9.1%), and Hispanic/Latino (7% vs. 9.7%) students.
- Although smoking initiation before age 13 has significantly decreased since 1993 (21% vs. 9.3%, $p < 0.05$), it has risen among female students since 2009 (5.1% vs. 9%, $p < 0.05$). Pre-adolescent smoking initiation is most prevalent among Black (30.9%) students, followed by Hispanic/Latino (19.8%) and White (18.5%) students out of the total survey sample.
- Students who were told by a doctor or nurse they had asthma have also shown major increases over the past 6 years, with an increase for both male (22.4% vs. 28.7%, $p < 0.05$) and female (22.2% vs. 28.2%, $p < 0.05$) students from 2005 to 2011.



Tobacco Use

BPS Action Steps: School Year 2010-2011 and Beyond

Tobacco prevention initiatives fall under the **Healthy Connections** Outcome Goal 2: **Promote healthy student behaviors and engagement**. BPS is addressing the tobacco use of students through a policy, systems, and environmental approach that includes:

- *Implementation of a revised and comprehensive Tobacco-Free Environment Policy* - The Tobacco-Free Environment Policy provides a clear and comprehensive definition of what tobacco products are and where tobacco is prohibited from possession and use on school property. It also includes a 50 foot buffer that applies to all students, staff, and visitors. Individuals may report complaints to administrators who may enforce suggested disciplinary actions.
- *Funding supports and technical assistance for tobacco education for Wellness Councils and schools* - Health education, including tobacco education and prevention, is included and shall be provided to all students with the new skills-based *Health Education Frameworks*. Ongoing professional development, moreover, will be provided to staff delivering health education.
- *Linking students and staff with free and/or low-cost tobacco cessation information and providers* – In addition to skills-based tobacco education, the new policy implementation guidelines provide access to cessation supports.
- *Partnering with statewide youth tobacco prevention advocacy organizations* - By collaborating with *The 84*, a statewide youth-led tobacco prevention advocacy program, Boston youth are emerging as leaders in educating their peers and their community about the negative impact of tobacco use on one's health and the tobacco industry's marketing tactics targeting youth, in addition to advocating for policies that reduce and restrict youth access to tobacco products.

Dietary Behaviors

The dietary and physical activity behaviors of children and adolescents are influenced by many sectors of society, including families, communities, schools, child care settings, medical care providers, faith-based institutions, government agencies, the media, and the food and beverage and entertainment industries.

Schools play a particularly critical role by establishing a safe and supportive environment with policies and practices that support healthy behaviors. Schools also provide opportunities for students to learn about and practice healthy eating and physical activity behaviors.¹

The benefits of healthy eating are plentiful, as proper nutrition promotes the optimal growth and development of children.² Healthy eating helps prevent high cholesterol and high blood pressure and helps reduce the risk of developing chronic diseases such as cardiovascular disease, cancer, and diabetes.²

On the other hand, a poor diet has many health consequences, such as increasing one's risk for overweight and obesity, in addition to increasing the risk for lung, esophageal, stomach, colorectal, and prostate cancers.^{2,3,4} In addition, drinking sugar-sweetened beverages can result in weight gain, overweight, and obesity.²

2011 YRBS Key Findings

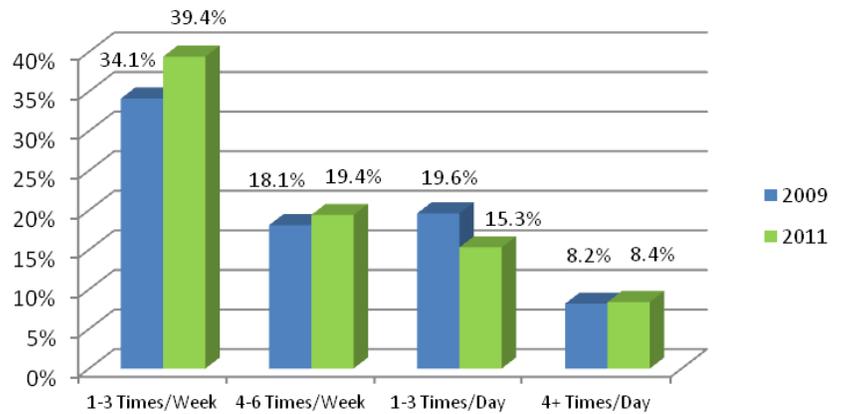
- Daily consumption of one or more servings of sugar-sweetened beverages (24%) is higher than daily consumption of 100% fruit juice (21.6%) and nearly as high as milk (28.2%) consumption; only 10% of students report drinking the recommended three or more glasses of milk daily.
- Students report some significant increases in this behavior through weekly single fruit consumption (80.5% in 2009 and 84.2% in 2011). However, at 19.5%, the majority of students are not consuming the CDC "5-a-Day" program's recommended five or more fruits and vegetables each day, and fewer females are reporting consuming the recommended amount (14.1%) than males (25.4%).

Risk Behavior #2:

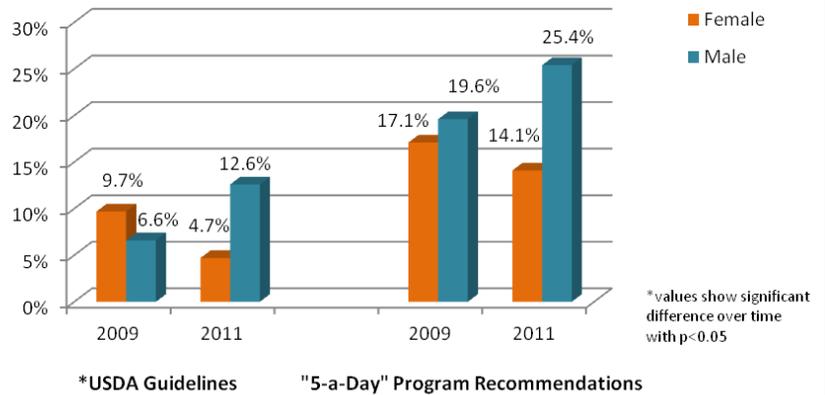
Dietary Behaviors

1. A large percentage of BPS students are drinking soda: 39.4% reported consuming soda 1-3 times/week, while 19.4% consume soda 4-6 times/week. Many also reported drinking more than one can of soda per day. 83% percent of students reported drinking 100% fruit juice at least once in the past week, while only 10% reported drinking 3 or more glasses of milk daily in the past seven days.
2. Since 2009, more males are eating fruits and vegetables compared to females. More males met USDA guidelines of fruit (2+ servings) and vegetable (3+ servings) intake per day (6.6% vs. 12.6%, $p < 0.05$) compared to females (9.7% vs. 4.7%, $p < 0.05$). This trend was also seen between males (19.6% vs. 25.4%) and females (17.1% vs. 14.1%) in the "5-a-Day" program's recommended 5+ servings of daily fruit and vegetable intake since 2009.
3. More than half the students surveyed do not eat breakfast everyday. In 2011, 15.6% of students reported eating no breakfast at all during the past week. 57% percent did not eat breakfast everyday, while only 27.4% reported eating breakfast everyday during the past week, a drop from 2009 (29.8%).

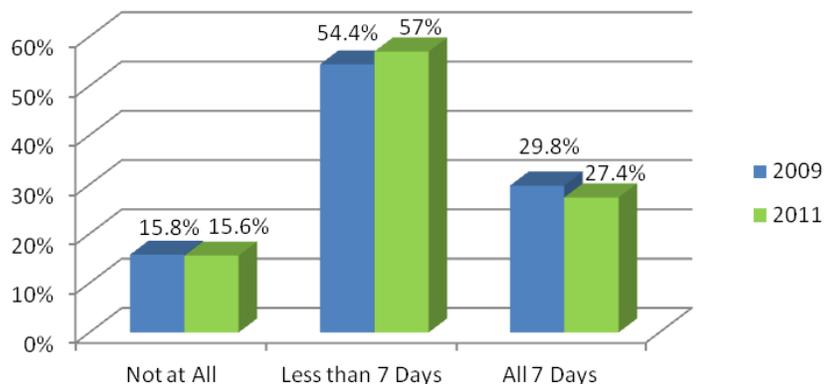
Percentage of Students Who Drank One or More Cans of Soda in the Past Week: 2009 - 2011



Percent Comparison of Fruit and Vegetable Intake Per Day in the Past Week by Sex: 2009 - 2011



Percent Comparison of Student Breakfast Intake in the Past Week: 2009 - 2011



Dietary Behaviors

BPS Action Steps: School Year 2010-2011 and Beyond

In alignment with the **Healthy Connections** Outcome Goal I: **Improve student fitness**, BPS has utilized the Coordinated School Health approach to better align resources and efforts to improve school nutrition and promote healthy dietary behaviors.

- BPS is working to increase systematic drinking water access for students throughout the school day and is currently piloting a number of water delivery devices in school cafeterias.
- Our students live in neighborhoods that lack ready access to fresh fruits and vegetables, yet have abundant choices of unhealthful foods and beverages. The newly revised *Competitive Foods Policy* is meant to promote access to healthful foods at school-sponsored events. Aligned with national guidelines, the BPS Wellness Policy encourages students to consume at least five fruits and vegetables each day.
- BPS is committed to increasing breakfast and school lunch participation through recipe development, culinary training, student-centered promotional campaigns targeted at students, serving more local produce, and contracting with a new satellite school meals vendor.
- BPS food and nutrition offerings meet the bronze-level criteria for the *Alliance for a Healthier Generation*, a national childhood obesity prevention non-profit organization.
- The “Healthy Balance” section of the new *BPS Health Education Frameworks* aims to teach and promote healthy dietary behaviors to students at all grade levels.
- Partnerships with community stakeholders will also increase the district’s capacity to provide nutrition education and staff training on *Planet Health* and *Eat Well, Keep Moving* nutrition curriculum.

Physical Activity

While many sectors of society influence the physical activity behaviors of youths, schools play a crucial role in developing healthy behaviors. To increase physical activity among the youth, the CDC suggests that schools promote physical activity through comprehensive school-based physical activity programs (CSPAP), including physical education, recess, classroom-based physical activity, intramural physical activity clubs, and interscholastic sports. Ensuring that physical education is provided to all students in all grades and is taught by qualified teachers is the cornerstone in a school's CSPAP. It is also important for community organizations to partner with schools to provide out-of-school-time physical activity programs and share physical activity facilities.

According to the CDC, the benefits of regular physical activity for young people have numerous positive effects on their well-being. The physical benefits include helping build healthy bones and muscles and reducing the risk of obesity and the development of chronic disease.⁵ Physical activity can also have a positive impact on young people's emotional well-being by decreasing the feelings of depression and anxiety.⁶ Physical activity may also help improve students' academic performance by increasing concentration and attentiveness in the classroom.⁶ On the flip side, physical inactivity influences overweight and obesity, which can increase one's risk for diabetes, high blood pressure, high cholesterol, asthma, arthritis, and poor health status.^{7,8,9}

2011 YRBS Key Findings

- Participation rates in physical education classes remain low, with only 31.7 % attending PE classes on one or more days in an average week.
- In 2011, 29.1% of students participated in PA for a total of at least 60 minutes per day on 5 or more days per week.
- In 2011, 42% of students watched three or more hours of TV on an average school day, a significant decline from 50% in 2003, while 38.1% played video or computer games for three or more hours per school day, a significant increase from 2007.

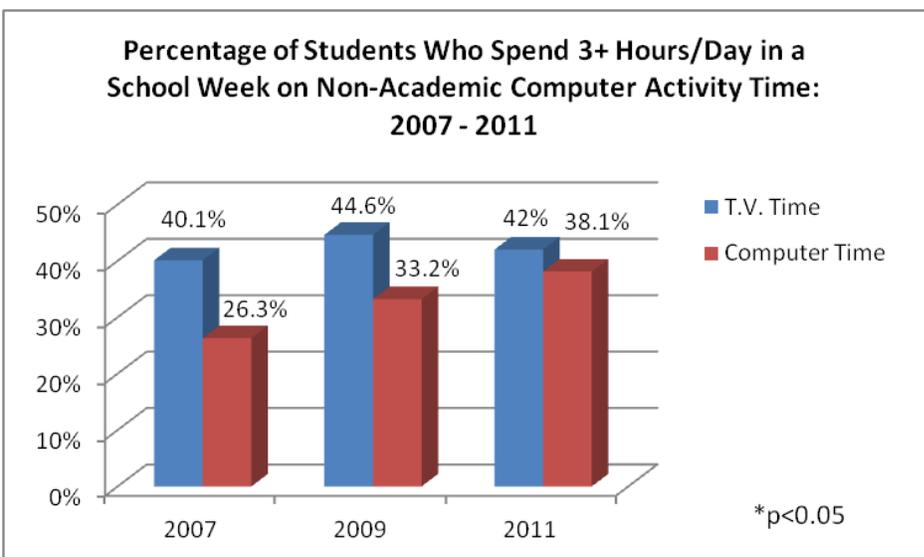
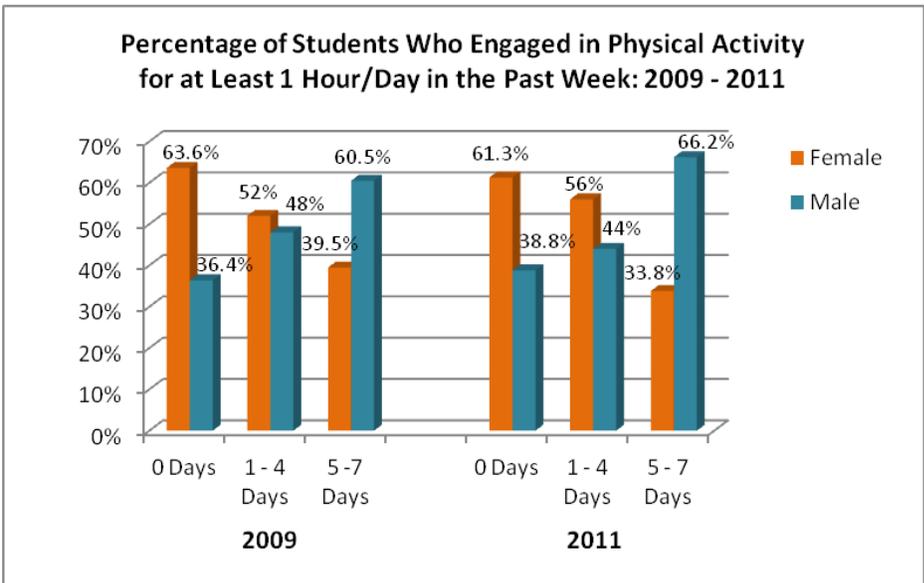
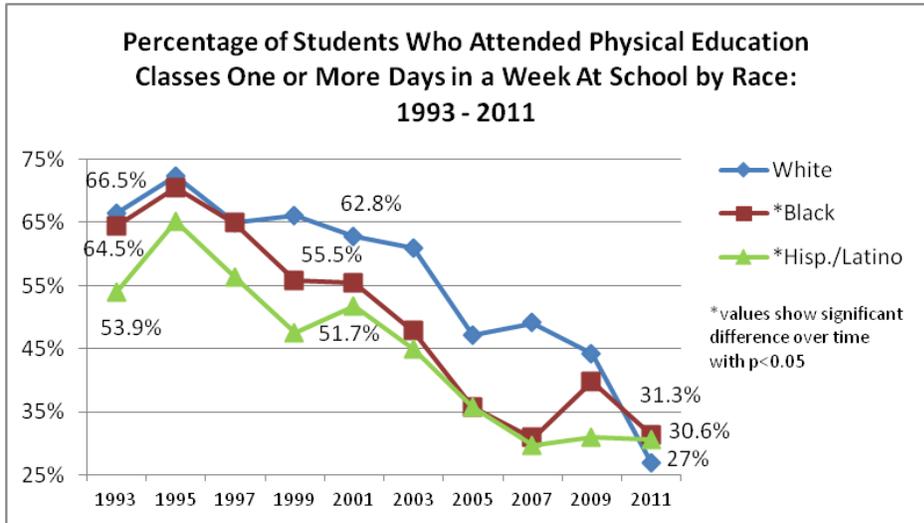
Risk Behavior #3:

Physical Activity

1. Attendance for Physical Education (PE) classes at least once a week has declined over the years since 1993 (62.7% vs. 31.7%, $p < 0.05$). This decrease was seen among Black (64.5% vs. 31.3%, $p < 0.05$), Hispanic/Latino (53.9% vs. 30.6%, $p < 0.05$), and White students (66.5% vs. 27%, $p > 0.05$). Daily PE attendance (PE every day of the school week) also decreased among White (9.7% vs. 3%, $p < 0.05$) and Hispanic/Latino students (13.7% vs. 8.7%, $p > 0.05$).

2. Physical activity trends among students have remained steady over the past two years. In 2011, males engaged in more days of physical activity than females, with 66.2% reporting being physically active for 5-7 days compared to 33.8% of female students. A higher percentage of females reported engaging in 0 days of physical activity (61.3%) compared to males (38.8%).

3. Students are spending large amounts of time in sedentary screen-time activities. Computer time increased from 2007 (26.3%) to 2011 (38.1%, $p < 0.05$). In 2011, a staggering 42% of students reported watching TV for 3 or more hours per day. Although this was a decline from 50.9% ($p < 0.05$) in 1999, students are still spending too much time in screen-time activities. The Institute of Medicine recommends that children should spend no more than 2 hours on screen-time per day.



Physical Activity

BPS Action Steps: School Year 2010-2011 and Beyond

BPS has utilized a Comprehensive School Physical Activity Program (CSPAP) model to achieve the *Healthy Connections* Outcome Goal 1: **Improve student fitness.**

- Using the CSPAP model, BPS is working to improve the quality and quantity of physical education (PE) and to integrate physical activity (PA) across the school day.
- Over the past two school years, BPS improved the quality of PE in 75 schools by training PE teachers in *SPARK*, a standards-based K-8 PE curriculum. BPS also created a standards-based PE curriculum guide and frameworks for 9th - 12th grades and supported 14 high schools to implement standards-based PE aligned with the new frameworks. These efforts have resulted in 80% of schools in 2011 - 2012 now offering PE instruction by a certified PE teacher (up from 65% in 2010).
- BPS is implementing *FITNESSGRAM*, a comprehensive, health-related, physical fitness assessment for all students in grades 4 and higher. Data from *FITNESSGRAM* reports allow PE teachers to tailor instruction to student needs and share individualized reports with families. In 2011, 4,000+ *FITNESSGRAM* assessments on BPS students were completed.
- The Wellness Champions program, the PA component of the CSPAP model, aims to increase PA through movement breaks, cross-curricular lessons, and recess. Over 100 Wellness Champions, active members of a school community who are committed to student health and wellness, have worked to create a healthier school environment and has increased in-school PA levels of 8,000+ BPS students over the past two school years.
- BPS is collaborating with many key community partners to provide both in- and out- of school PA opportunities to students.

Alcohol and Drug Use

The use of alcohol and other drugs among youth has been linked to unintentional injuries, physical fights, academic and occupational problems, and illegal behavior.¹⁰

Alcohol is one of the most widely used drug substances in the world. Alcohol use and binge-drinking among our nation's youth is a major public health problem, and it is used by more young people in the United States than tobacco or illicit drugs.¹¹ Moreover, long-term alcohol misuse is associated with liver disease, cancer, cardiovascular disease, and neurological damage, in addition to psychiatric problems such as depression, anxiety, and antisocial personality disorder.¹²

Marijuana is the most commonly used illicit drug among youth in the United States.¹³ Other illicit drugs commonly used by American youths include cocaine, inhalants, ecstasy, methamphetamines, heroin, and hallucinogenic drugs. Such drugs inhibit mental function and the decision-making capacity of its user and pose dangers to the health and well-being of our youth.

While the rate of national illicit drug-use has declined among the youth, rates of nonmedical use of prescription and over-the-counter (OTC) medication remain high.¹⁴ Prescription medications most commonly abused by youth include pain relievers, tranquilizers, stimulants, and depressants.¹⁴ Examples of such drugs include: Oxycontin, Percocet, Vicodin, Adderall, Ritalin, or Xanax. Teens also misuse OTC cough and cold medications, containing the cough suppressant dextromethorphan (DXM), to get high.¹⁵ Prescription and OTC medications are widely available, free or inexpensive, and falsely believed to be safer than illicit drugs. Misuse of prescription and OTC medications can cause serious health effects, addiction, and death.^{16,17}

2011 YRBS Key Findings

- The percentage of students that used marijuana one or more times in the last 30 days is at an all time high of 27%; males report use at higher rates than females (M 32.7%, F 21.2%) and the increase was only significant in males (from 25% to 32.7%); an increase from 2009 rates was noted for all race/ethnicities (B 28.3%, L 25.4%, W37.4%), but was significant for Latinos and Whites.
- Other drug use has remained low with needle injection at 1.8% and steroid use at 2.6%.
- The first drink of alcohol at age 13 or earlier has steadily declined from 30% to 21% over ten years and alcohol consumption in the past 30 days has shown a slight downward trend in the past decade from 40% to 38.3%.

Risk Behavior #4:

Alcohol and Other Drugs

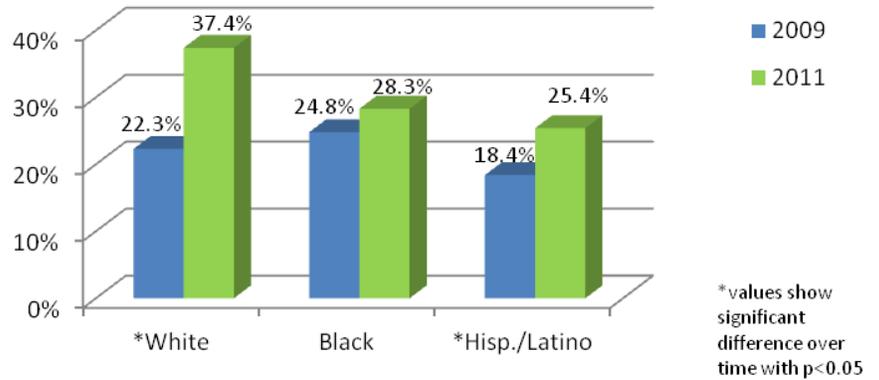
1. Marijuana use in the past 30 days has increased between 2009 (21.7%) and 2011 (27%, $p < 0.05$). This was seen among all racial groups: Whites (22.3% vs. 37.4%, $p < 0.05$), Blacks (24.8% vs. 28.3%), and Hispanic/Latinos (18.4% vs. 25.4%, $p < 0.05$). Both males (25% vs. 32.7%, $p < 0.05$) and females (18.6% vs. 21.2%, $p > 0.05$) also showed an increase in marijuana use within the last 30 days since 2009. A small percentage of students from all racial groups reported ever using other illegal drugs in their life. However, 11.1% of White students reported ever using cocaine in 2011, compared to only 3.5% in 2009 ($p < 0.05$).

2. Alcohol consumption has declined incrementally since 1993: binge-drinking* (20.3%, '93 vs. 17%, '11) and alcohol intake both off (40.1% vs. 38.3%, $p < 0.05$) and on (5.9% vs. 5%, $p < 0.05$) school grounds.

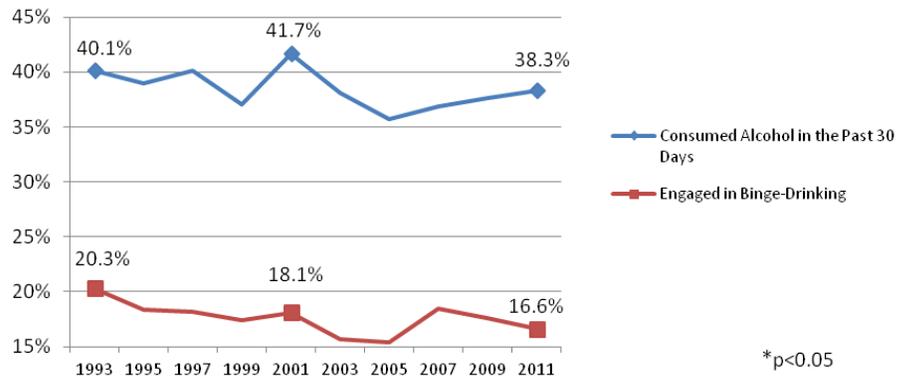
3. Alcohol consumption declined among male students, with 71.1% ('93) reporting ever drinking alcohol compared to 68.4% ('11, $p < 0.05$), and slightly increased among female students (63.9% vs. 67.6%). Drinking initiation before age 13 also declined among male (36.7% vs. 22.9%, $p < 0.05$) and female students (24.6% vs. 18.3%) since 1993.

*consuming 5 or more alcoholic drinks in a row in a few hours in the past 30 days.

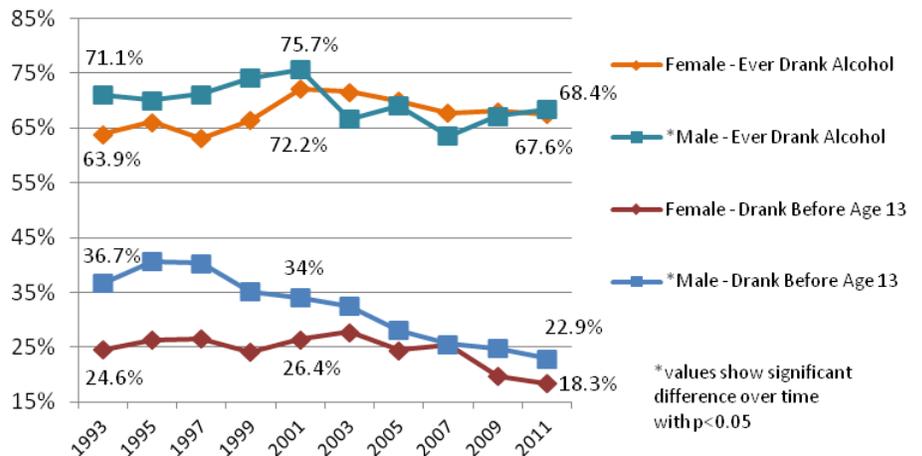
Percentage of Students Who Used Marijuana One or More Times in the Past 30 Days by Race: 2009 - 2011



Percentage of Students Who Consumed Alcohol: 1993 - 2011



Percentage of Students Who Engaged in Alcohol Consumption by Sex: 1993 - 2011



Alcohol and Drug Use

BPS Action Steps: School Year 2010-2011 and Beyond

BPS has embarked on a comprehensive approach to reduce alcohol and other drug use among Boston youth by achieving the **Healthy Connections** Outcome Goal 2: **Promote healthy student behaviors and engagement.**

- BPS will increase students' abilities to make the healthy choice the easy choice through the skills-based *Health Education Frameworks*.
- BPS teachers will be trained on the new *Health Education Frameworks* and curricula that are aligned with *National Frameworks* aimed at teaching important life skills such as decision-making, goal setting and goal management, analyzing influences (including media literacy and family influences), and accessing resources to help students make healthy choices.
- In the spring of 2012, BPS will begin to select health education curricula that meet the standards set forth by the new *BPS Health Education Frameworks*.
- BPS has also worked to improve after-school offerings to keep youth engaged in productive activities. During the school year, more than 80 percent of schools have on-site after-school programs; nearly all schools offer extra tutoring and mentoring opportunities for students. Many of these programs are offered in collaboration with community partners and extend beyond the school year into the summer.

Sexual Behaviors

Unhealthy sexual behaviors can result in unintended health outcomes, such as HIV infection, other sexually transmitted diseases (STDs), and unintended pregnancy. To reduce sexual risk behaviors and related health problems among youth, schools and other youth-serving organizations can help young people adopt lifelong attitudes and behaviors that support their health and well-being—including behaviors that reduce their risk for HIV, other STDs, and unintended pregnancy.¹⁸

BPS students are voicing their concerns on the need for sexuality education. Students should know where to go in their communities for sexual health information and Sexually Transmitted Infections (STI) testing. Many BPS students are faced with unsupervised out-of-school time where they can engage in unhealthy sexual behavior.

2011 YRBS Key Findings

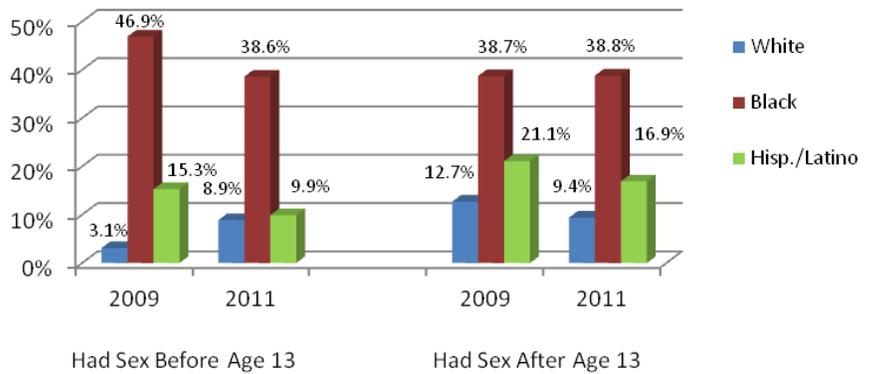
- The percentage of students having sexual intercourse before age 13 dropped slightly over the past 10 years from 13.7% to 11.4%.
- However, negative trends for condom use during the last intercourse (from 74% in 2005 to 67% in 2011) and an indication that more students are having sexual intercourse over the past three months who drank alcohol or used drugs before intercourse (increased from 17% in 2005 to 24% in 2011) are concerning.
- These findings, along with a decline in the percent of students reporting ever being taught about AIDS or HIV infection in school (88.8 % in 1999 to 73.3% in 2011), speaks to a need for skills-based health education.

Risk Behavior #5:

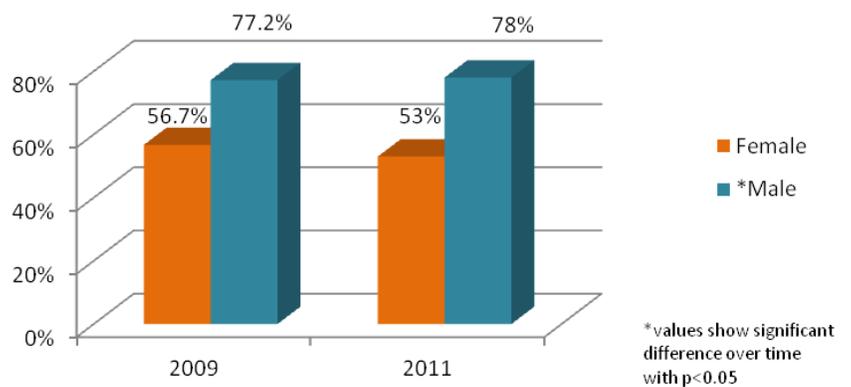
Sexual Behaviors

- Students who reported ever having sexual intercourse decreased from 60.6% ('93) to 55.5% ('11) as did those reporting sexual initiation before age 13, (18.2%, '93 vs. 11.4%, '11). Sexual intercourse before age 13 has declined since 2009 among Black (46.9% vs. 38.6%) and Hispanic/Latino (15.3% vs. 9.9%) students, but increased among White students (3.1% vs. 8.9%).
- In 2011, only 67% of sexually active youth reported condom use during their last sexual intercourse. More males (78%, $p < 0.05$) reported using condoms than females (53%). More males (41.3%) also reported having sexual intercourse in the past 3 months than females (30.4%). However, the percentage of students who had sexual intercourse in the past 3 months decreased from '93 (42%) to '11 (35.8%, $p < 0.05$).
- Reports show a decline in the percentage of students who reported receiving HIV/AIDS education in schools since 1993 (83% vs. 73.3%). This was also found among all racial groups between 1993 and 2011: Whites (86.7% vs. 71.5%, $p < 0.05$), Blacks (82.8% vs. 75.5%, $p < 0.05$), and Hispanic/Latinos (82.9% vs. 74%, $p < 0.05$).

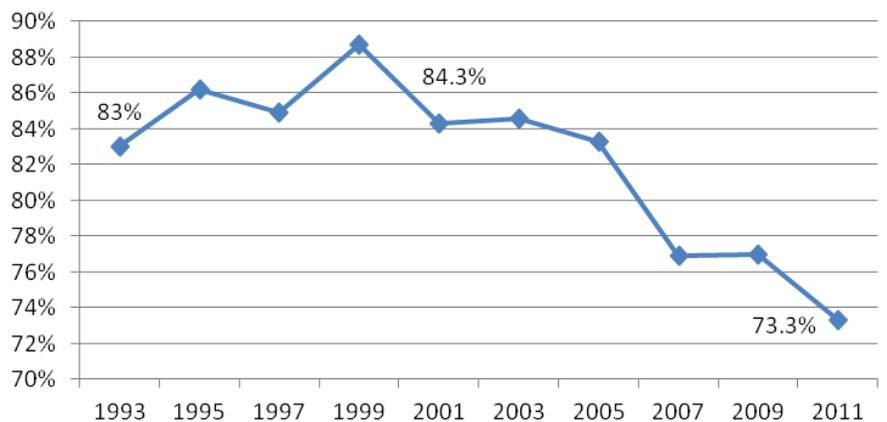
Percentage of Students Who Have Had Sexual Intercourse by Race/Ethnicity: 2009 - 2011



Percentage of Students Who Used a Condom During Sexual Intercourse in the Past 3 Months by Sex: 2009 - 2011



Percentage of Students Who Have Ever Been Taught About HIV/AIDS in School: 1993 - 2011



Sexual Behaviors

BPS Action Steps: School Year 2010-2011 and Beyond

Risky sexual behaviors identified among Boston youth by the YRBS can be addressed through **Healthy Connections** Outcome Goal 2: **Promote healthy student behaviors and engagement** and Outcome Goal 3: **Improve school-based health care**.

- BPS will better provide resources, support, and education to students around healthy relationships, sexuality, and STI prevention. The new *Health Education Frameworks* will be used to select comprehensive sexual health curricula.
- New grant funding will support implementation of a comprehensive sexual health education curriculum in BPS middle schools.
- BPS has engaged community stakeholders, such as the Hyde Square Task Force, to inform sexual health programs.
- In collaboration with the Boston Public Health Commission, BPS opened Health Resource Centers in 6 high schools where students will receive sexual health education and access to condoms.
- BPS is developing more community partnerships for out- of-school programs to increase supervised out-of-school time activities.

Unintentional Injuries and Violence

An injury is defined as "unintentional or intentional damage to the body."¹⁹ Injuries, even unintentional ones, are not accidents. They can be prevented by changing the environment, individual behavior, social norms, legislation, and governmental and institutional policy.

Violence is the "threatened or actual use of physical force or power that either results in or has a high likelihood of resulting in injury, death, or deprivation."²⁰ Bullying, harassment and community violence create unwelcoming and unsafe schools that produce barriers to student success. BPS students face an environment where violence, bullying, and suicide are still evident.

2011 YRBS Key Findings

- In 2011, 8% of Boston students did not go to school because they felt they would be unsafe at school or on their way to or from school. 15% of students carried a weapon, such as a gun or knife, while 6% of students carried a weapon on school property. 14% of student had been bullied on school property, and 11% reported being electronically bullied during the past 12 months.
- 13% of students seriously considered attempting suicide, a decline from 20% in 1999.

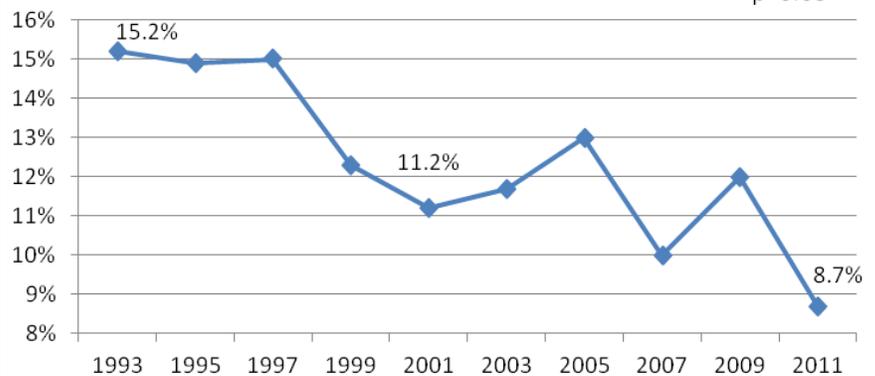
Risk Behavior #6:

Unintentional Injuries and Violence

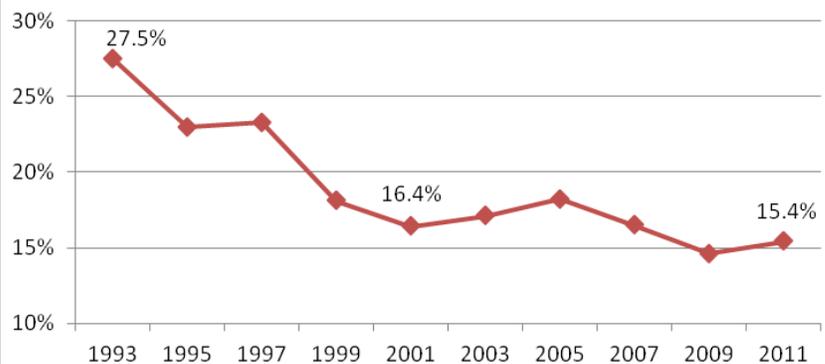
1. Fewer fights are occurring on school property, with 8.7% reporting fighting in 2011 compared to 15.2% in 1993 ($p < 0.05$). This trend is also seen in overall physical fights since 1993 (43%), though the percentage of fights remains high at 28.2% in 2011.
2. Students who carried a weapon (a gun, a knife, or a club) has declined since '93 (27.5% vs. 15.4%) among White (20.8% vs. 15.8%, $p < 0.05$), Black (36.3% vs. 16.2%), and Hispanic/Latino, (31.9% vs. 15.9%, $p < 0.05$) students.
3. From 1993 to 2011, serious consideration of suicide (23.7% vs. 13.2%), planned suicide (19.7% vs. 9.3%, $p < 0.05$), and attempted suicides (13.5% vs. 8.6%) in the past 12 months have declined among students. In addition, students who reported feeling depressed* in the past year has declined since 1999 (32.2% vs. 24.8%, $p < 0.05$).

*Depression is defined in the YRBS as feeling so sad or hopeless almost every day for two or more continuous weeks that students stopped doing some usual activities.

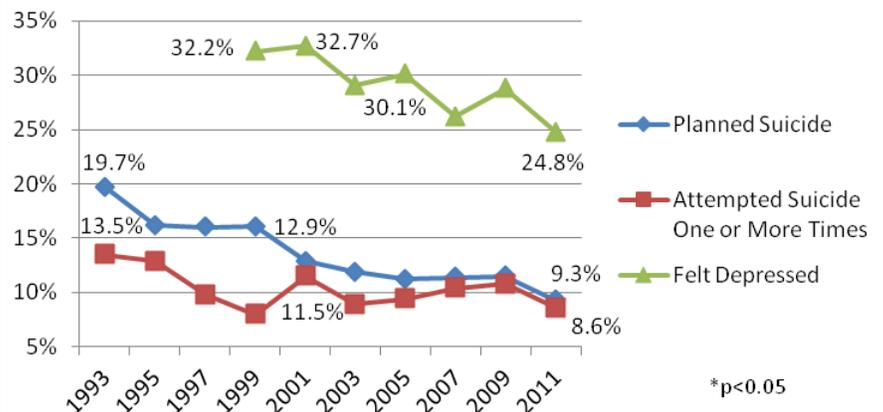
Percentage of Students Who Were in a Physical Fight on School Property One or More Times in the Past Year: 1993 - 2011



Percentage of Students Who Carried a Weapon on One or More of the Past 30 Days: 1993 - 2011



Percentage of Students Who Planned or Attempted Suicide in the Past Year: 1993 - 2011



Unintentional Injuries and Violence

BPS Action Steps: School Year 2010-2011 and Beyond

BPS aims to reduce unintentional injuries and violence risk behaviors by achieving the *Healthy Connections* Outcome Goal 2: **Promote healthy student behaviors and engagement.**

- BPS developed a Comprehensive Behavior Health Services Model for addressing the social and emotional needs of our students and is working with 20 community partners to bring behavioral health services to BPS.
- The new *Health Education Frameworks* includes a skills-based approach to socio-emotional health and includes objectives that will equip students with the skills for resource access, goal management, health advocacy, and effective interpersonal communication.
- Improving quality after-school programming and collaborating with community partners will provide students with opportunities that promote positive behaviors and engagement.
- In 2012, BPS passed a *Concussion Policy* to prevent head injuries and promote safe sport participation. The policy calls for staff training on injury assessment and management protocols.

BOSTON AND MASSACHUSETTS YOUTH RISK BEHAVIOR SURVEY RESULTS: 1999 - 2011

Item Content: Percentage of students who...	Boston							Massachusetts						
	1999	2001	2003	2005	2007	2009	2011	1999	2001	2003	2005	2007	2009	
Behaviors that result in Unintentional Injury and Violence														
Never or rarely wore a seat belt when riding in a car	34	30	24	23	20	21	24	24	21	16	15	15	14	
Rode with someone who had been drinking past 30 days	28	25	24	21	23	25	22	33	30	27	27	26	27	
Drove after drinking alcohol in past 30 days	7	6	6	5	5	6	6	14	12	12	10	11	9	
Seriously considered attempting suicide in past 12 months	20	16	13	13	10	12	13	21	20	16	13	13	7	
Planned about how would attempt suicide in past 12 months	16	13	12	11	11	12	9	17	15	12	12	11	11	
Actually attempted suicide one or more times in past 12 months	8	12	9	9	10	11	9	8	10	8	6	8	7	
Skipped school in past 30 days because felt unsafe	13	10	8	8	8	6	8	6	8	5	4	5	4	
Physical fight in past 12 months	35	33	31	32	33	36	28	37	33	31	29	28	30	
Physical fight on school property during past 12 months	12	11	12	13	10	12	9	14	11	10	10	9	9	
Carried a weapon (gun, knife, club) in past 30 days	18	16	17	18	16	15	15	15	13	14	15	15	13	
Carried a gun on one or more of the past 30 days	5	4	6	5	4	4	3	4	3	3	6	4	4	
Carried a weapon on school property in past 30 days	11	8	8	8	7	7	6	7	5	5	6	5	9	
Threatened/injured with weapon on school property past year	10	9	8	7	6	8	8	7	8	6	5	5	7	
Bullied on school property in past 12 months	*	*	*	*	*	12	14	*	*	*	*	*	19	
Sexual Behaviors														
Ever had sexual intercourse	53	52	54	54	56	54	56	44	44	41	45	44	46	
Had sexual intercourse with 1 or more people last 3 months	37	36	36	38	39	38	36	32	32	30	34	33	35	
Had sexual intercourse with 4 or more people during their life	22	21	21	21	22	21	22	12	12	10	13	12	13	
Drank alcohol or used drugs before last sexual intercourse	18	17	22	17	21	22	24	30	23	25	23	25	23	
Used a condom during last sexual intercourse	67	72	64	74	68	68	67	57	58	57	65	61	67	
Taught in school how to use condoms	57	53	59	55	59	53	*	47	51	*	*	50	*	
Taught about AIDS or HIV infection in school	88	84	85	84	77	77	73	93	94	92	93	93	87	
Talked about AIDS/HIV infection with parents or other family	50	54	53	56	22	*	*	49	47	*	*	49	*	
Tobacco Use														
Ever tried cigarette smoking, even one or two puffs	60	57	53	47	43	42	41	67	62	53	51	46	43	
Smoked a whole cigarette for the first time before age 13	17	14	14	10	9	8	9.3	23	19	15	13	12	9	
Smoked cigarettes on one or more of the past 30 days	18	15	13	15	7	10	10	30	26	21	20	15	16	
Smoked cigarettes on 20 or more of the past 30 days	7	5	4	5	2	3	4	13	10	7	6	6	7	
Smoked cigarettes on school property in past 30 days	10	7	6	6	3	5	5	16	12	9	9	7	7	
Used tobacco, snuff, or dip on one or more of the past 30 days	1	2	2	3	4	3	4.1	5	4	4	4	7	8	

BOSTON AND MASSACHUSETTS YOUTH RISK BEHAVIOR SURVEY RESULTS: 1999 - 2011														
Risk Behaviors and Personal Health Assessments	Boston							Massachusetts						
	Alcohol and Other Drug Use													
At least one drink of alcohol during their life	70	74	69	69	66	68	68	80	81	75	76	73	71	
At least one drink of alcohol in the past 30 days	37	42	38	36	37	38	38	52	53	46	48	46	44	
First drink of alcohol other than a few sips before age 13	30	30	30	26	26	22	21	29	28	25	22	20	17	
Five or more drinks of alcohol in a row in the past 30 days	17	18	16	15	18	18	17	33	33	27	26	28	25	
At least one drink of alcohol on school property in past 30 days	6	6	6	5	5	4	5	6	5	5	4	5	4	
Used marijuana at one or more times during their life	38	40	37	39	34	38	40	50	50	47	45	41	43	
Used marijuana during the past 30 days	20	22	20	21	17	22	27	31	31	28	26	25	27	
Used any form of cocaine one or more times during their life	4	4	3	3	4	3	3	10	8	8	8	9	*	
Weight Management and Dietary Behaviors														
Were at-risk for becoming overweight	15	17	18	19	18	*	*	15	15	14	16	15	14	
Were overweight	12	12	14	15	14	18	18	7	10	10	11	11	11	
Described themselves as slightly or very overweight	28	28	28	29	30	27	28	33	33	31	31	29	29	
Were trying to lost weight	40	41	44	44	44	44	45	44	47	46	47	46	41	
Ate green salad one or more times during the past seven days	59	57	60	57	57	51	57	70	71	70	69	68	65	
Ate potatoes one or more times during the past seven days	59	61	57	57	57	58	63	73	71	73	70	70	70	
Drank three or more glasses per day of milk during past 7 days	11	11	10	9	9	11	*	22	18	18	15	15	13	
Physical Activity														
Engaged in physical activity for a total of at least 60 minutes/day	49	50	50	50	30	27	29	62	63	61	63	41	66	
Watched three or more hours/day of TV on a school day	51	49	50	45	40	45	42	35	30	31	33	28	30	
Attended PE classes one or more days per week	54	56	49	38	34	38	32	61	68	58	59	61	58	
Played on one or more sports teams during the past 12 months	44	45	44	46	50	45	46	54	54	56	54	60	59	

*Data not available at this time

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