

Youth Risk Behaviors

Duval County High School Students 2009

Sexual Behaviors

Key Findings

- *There were 46.1% of high school students that report not having had sexual intercourse
- *Over half of the students used a condom the last time they had sex
- *Students living in Health Zone 6 are more currently sexually active than any other Health Zone
- *Almost half of all students have had oral sex
- *Approximately 12% of students have been forced to have sexual intercourse

Youth Risk Behaviors

The Youth Risk Behavior Survey (YRBS) is a self-administered, school-based, confidential, and anonymous survey that was conducted in Duval County Public Schools during the spring of 2009. This is part of a national effort by the Centers for Disease Control and Prevention (CDC) to obtain information pertaining to youth social behaviors. These behaviors include but are not limited to: violence, safety, sex, nutrition and weight management, suicide, and more. In the 19 public high schools in Duval County, 2,542 students participated.

Why Monitor Sexual Behavior?

Sexual behavior is perhaps the most complicated of behaviors to monitor, especially in a young population, where secrecy of risky sexual behaviors are socially encouraged. According to *Healthy People 2010*, "Perhaps the most important social factor contributing to the spread of STDs in the United States and the factor that most significantly separates the United States from those industrialized countries with low rates of STDs is the stigma associated

with STDs and the general discomfort of people in the United States with discussing intimate aspects of life, especially those related to sex.¹ Sex and sexuality pervade many aspects of the nation's culture, and people in the United States are fascinated with sexual matters. Paradoxically, while sexuality is considered a normal aspect of human functioning, people in the United States nevertheless are secretive and private about their sexual behavior. Talking openly and com-

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Why Monitor Sexual Behaviors? (continued from page 1)

fortably about sex and sexuality is difficult even in the most intimate relationships.”¹ If this is the case for mature, experienced adults, how much more difficult is it for youth? While the YRBS looks at the actual physical behaviors associated with risky sexual behavior, the confounding effect of the psychosocial factor must not be discarded. On this concept, *Healthy People 2010* suggests that, “A new sexual openness needs to become the norm to ensure that all sexual relationships are consensual, non-exploitive, and honest and to protect against disease and unintended pregnancy. This openness would allow parents to talk frankly and comfortably with their children, and teachers and counselors with their students, about responsible behavior and avoiding risks (for example, abstaining from intercourse, delaying initiation of intercourse, reducing the number of sex partners, and increasing the use of effective barrier contraception).”¹



Why Monitor Youth Behaviors?

Monitoring risky behaviors within the high school population is critical for school and public health officials to understand the cause and effect of these behaviors and how they may or may not continue into adulthood. Health behavior patterns are often established in childhood and adolescence, leading to a lifestyle that contributes to many of the chronic diseases that plague our society today, including obesity, diabetes and heart disease. This transition into adolescence also prompts a rise in risky behaviors, which frequently leads to increases in motor vehicle accidents, violence, unprotected sexual activity, and drug and alcohol use.² As part of the National Initiative to Improve Adolescent Health by the Year 2010, the CDC and the Health Resources and Services Administration (HRSA) have identified six critical health behaviors for adolescents including alcohol and drug use, injury and violence (including suicide), tobacco use, nutrition, physical activity, and risky sexual behaviors.³ These measurable indicators are used to assess the status and progress of each of these health behaviors. It is these behaviors that the YRBS is designed to examine in the youth population. By implementing this type of self-reporting surveillance, one can,

with a significant measure of reliability, monitor the behavior of the youth and readily identify those groups that may or may not be at risk. This allows for the development of interventions and programs that directly target those groups that may be at most risk.

Adolescents are influenced by various levels and types of interpersonal relationships, which in turn, contribute to an adolescent's health and well-being.² Because of this complex system of adolescent influences, developing comprehensive approaches and interventions to promote adolescent health is often difficult. In addition, adolescent health is influenced by a wide array of socioeconomic factors, such as education and poverty, which require more primary intervention techniques that can lead to societal and environmental changes, frequently resulting in policy change. Addressing these factors is challenging, costly and time consuming, and requires many levels of decision-making. In order to address adolescent health issues, surveillance of adolescent health indicators is necessary for planning, program implementation, evaluation, and policy change.

Duval County, Florida and U.S. High School Report Card

The Duval County data report card provides a comparison between local, state, and national data for youth risk behaviors for which data was available. U.S. data were not available for 2009 at the time of this report. Confidence Intervals (CIs) of 95% are used to provide statistical markers to gauge real trends versus differences that are more likely to reflect insignificant variation of data. Confidence intervals that do not overlap indicate statistical significance. The terms “significant”, and “statistically significant” are used interchangeably throughout this report. Over half (53.9%) of Duval County high school students have ever had sexual intercourse. This is statistically similar to the rates reported by Florida (50.6%) and nationally (47.8%). The prevalence of sexual experience, for those who had first sexual experience at age 13 or younger, was higher with statistical significance for the county with a rate of 10.1% as compared to 7.1% nationally. Of the 37.7% of the county high school students, who are currently sexually active, over half (58.3%) use condoms, this is significantly lower though than the state (65.1%) yet statistically similar to the national average (61.5%). There was no statistically significant difference among the county (17.6%), state (16.6%), and national (14.9%) data with regards to having had four or more sexual partners in their life. Duval County is significantly lower (84.3%), when it comes to students having had education about HIV and AIDS, as compared to Florida (88.2%) and national (89.5%).

Risk Factors	Duval County Students 2009	Florida Students 2009	U.S. Students 2007
	95% (CI's)	95% (CI's)	95% (CI's)
<i>Sexual Behavior</i>			
Ever had sexual intercourse	53.9% (50.5-57.2)	50.6% (48.1 - 53.1)	47.8% (45.1 - 50.6)
Had sexual intercourse for the first time before age 13 years	10.1% ² (8.5-12.1)	8.3% (7.3 - 9.3)	7.1% (6.2-8.1)
Had sexual intercourse with four (4) or more persons during their life	17.6% (15.4 -20.0)	16.6% (15.4 -17.8)	14.9% (13.4 -16.5)
Currently sexually active (had sexual intercourse with at least one person during the three (3) months before the survey)	37.7% (34.6– 40.8)	37.0% (34.8 - 39.3)	35.0% (32.8 - 37.2)
Current Sexual Safety Practices (that either they or their partner had used a condom during last sexual intercourse)	58.3% ¹ (53.9-62.5)	65.1% (63.0 - 67.1)	61.5% (59.4 - 63.6)
Students who had ever been taught in school about AIDS or HIV infection	84.3% ^{1,2} (82.2 - 86.2)	88.2% (86.4 - 89.7)	89.5% (88.1 - 90.7)

Confidence Intervals (CIs) of 95% are used to provide statistical markers to gauge real trends versus differences that are more likely to reflect insignificant variation of data from year to year. ¹Duval County statistically different from Florida; ²Duval County statistically different from the United States

Duval County High School Report Card by Health Zone

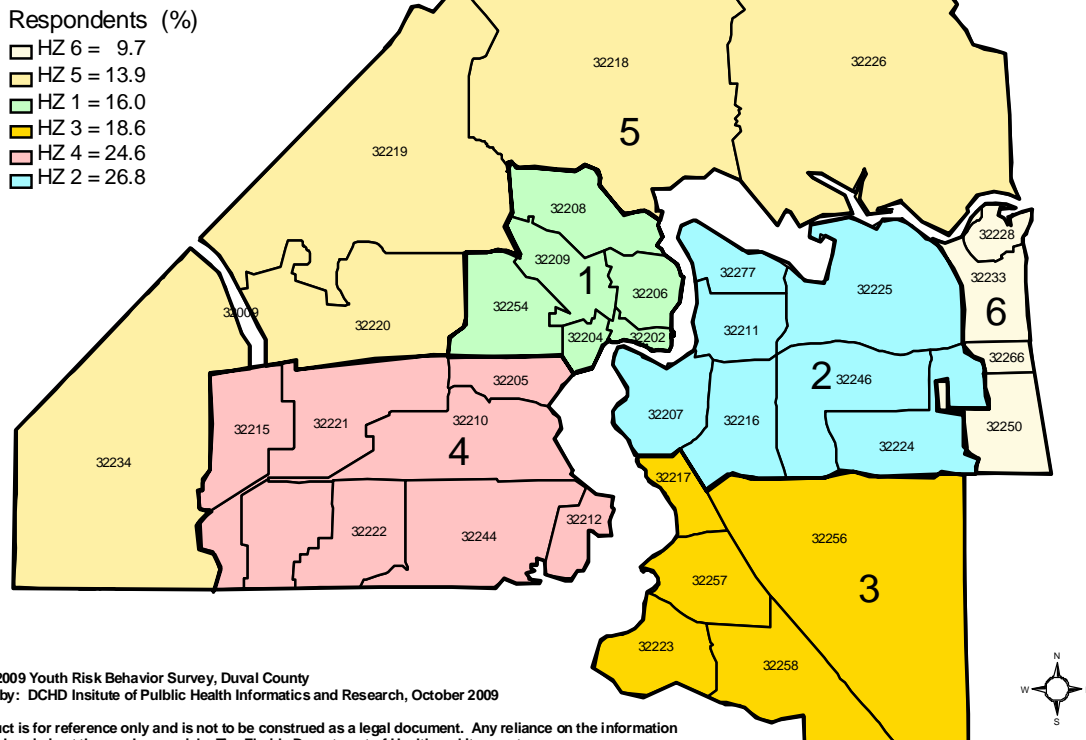
Duval County is located on the northeast coast of Florida. The county is divided into six health zones made up of zip codes. These zones are based on Duval County Public Schools, Jacksonville Sheriff's Office, and Community Planning Action Council's existing geographic boundaries. Health zones, made of mutually exclusive zip codes, were created to increase the statistical reliability of zip code data for more targeted program planning, practical surveillance of health indicators, and to ensure confidentiality of data. Figure 1 shows the distribution of all student respondents, according to where they reside, from the Duval County YRBS by health zone.

While not significant, the highest percentage of students who have ever had sexual intercourse (62.4%) reside in Health Zone 1. Similarly, students residing in Health Zone 1 also were highest for having had sexual intercourse for the first time below the age of 13 with 14.4%. The percentage of students having had first sex before age 13 was significantly lower in Health Zone 6 compared to Health Zones 1 and 4. Health Zone 6 also differed significantly from Duval County. The percentage of students currently sexually active in Health Zone 1 was also statistically higher than for students residing in Health Zone 2. Students living in Health Zone 6 were more likely to practice safe sex while students in Health Zone 1 were least likely to practice safe sex although these differences are

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Figure 1

Distribution of Respondents from 2009 Duval County YRBS



Youth Risk Behaviors

Duval County High School Report Card by Health Zone

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not significant. The percentage of students who have had 4 or more sex partners in Health Zone 1 (27.9%) was more than double that of Health Zone 6 (12.8%), although still not statistically significant. The percentage of students taught about AIDS or HIV infection in school by Health Zone is similar with Health Zone 3 having the highest percent of education although the county is still below state and national averages.

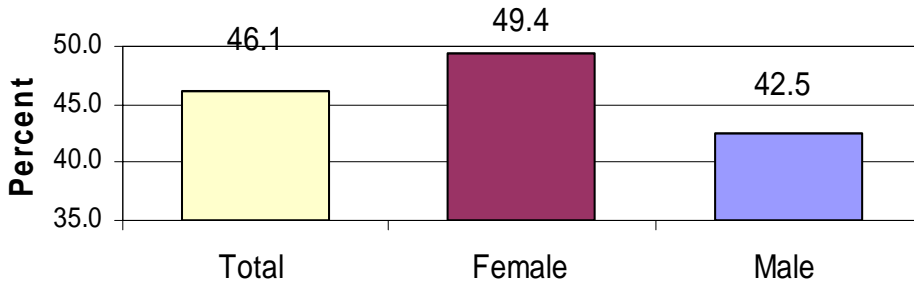
Risk Factors	Health Zone 1 2009 95% (CI's)	Health Zone 2 2009 95% (CI's)	Health Zone 3 2009 95% (CI's)	Health Zone 4 2009 95% (CI's)	Health Zone 5 2009 95% (CI's)	Health Zone 6 2009 95% (CI's)	Duval County Students 2009 95% (CI's)
<i>Sexual Behavior</i>							
Ever had sexual intercourse	62.4% (49.6-73.7)	48.9 (43.1-54.7)	49.5% (41.2 -57.9)	48.4% (42.4 -54.4)	59.5% (51.0 -67.5)	61.8% (41.2 -78.9)	53.9% (50.5-57.2)
Had sexual intercourse for the first time before age 13 years	14.4% (8.7-22.8)	8.1% (5.9 - 11.0)	9.0% (5.4-14.6)	10.6% (7.4 -14.9)	10.3% (6.3 -16.3)	2.3% ^{3,5} (0.8 -6.3)	10.1% ² (8.5-12.1)
Had sexual intercourse with four (4) or more persons during their life	27.9% ⁴ (18.4 -39.8)	13.7% (10.5 -17.6)	15.5% (10.3 -22.7)	14.2% (10.7-18.7)	18.8% (12.2-27.9)	12.8% (6.0-25.2)	17.6% (15.4 -20.0)
Currently sexually active (had sexual intercourse with at least one person during the three (3) months before the survey)	47.8% ⁴ (37.9-57.8)	31.3% (26.3-36.8)	38.1% (30.5- 46.4)	33.9% (28.3-39.9)	38.5% (30.5-47.2)	51.2% (33.8-68.3)	37.7% (34.6-40.8)
Current Sexual Safety Practices (that either they or their partner had used a condom during last sexual intercourse)	57.1% (40.8 -72.0)	59.0% (49.3 -68.0)	56.8% (45.4 -67.6)	59.1% (49.4 -68.1)	61.6% (49.6-72.4)	68.8% (45.2-85.5)	58.3% ¹ (53.9-62.5)
Students who had ever been taught in school about AIDS or HIV infection	85.8% (77.3-91.5)	82.1% (78.2 -85.5)	87.7% (82.6-91.4)	83.6% (79.0-87.3)	85.7% (79.4-90.3)	82.2% (70.4-90.0)	84.3% ^{1,2} (82.2 -86.2)

Confidence Intervals (CIs) of 95% are used to provide statistical markers to gauge real trends verses differences that are more likely to reflect insignificant variation of data from year to year. ¹Duval County statistically different from Florida; ²Duval County statistically different from the United States; ³Health Zone is statistically different from Duval County; ⁴Health Zone 1 is statistically different from Health Zone 2; ⁵Health Zone 6 is statistically different from Health Zones 1 and 4

Sexual Behaviors

Figure 2

Percentage of Students Who Have Never Had Sex



Duval County high school students, 46.2% report never having sexual intercourse, with 49.4% of females and 42.5% of males reporting this behavior (see Figure 2).

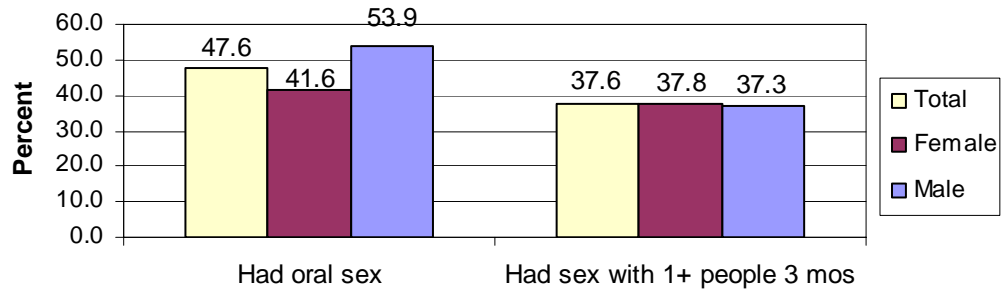
Almost half of students have never had sex

Source: Youth Risk Behavior Survey, Duval County, 2009

Almost half (47.6%) of students reported having engaged in oral sex. Males are significantly more likely to have had oral sex with 54% (95% CI=49.8,57.8) than females with 41.6% (95% CI=37.8,45.5). Current sexual practice was reported by 37.6% of high school students, with females and males both reporting about the same percent, 37.8% and 37.3%, respectively (see Figure 3).

Figure 3

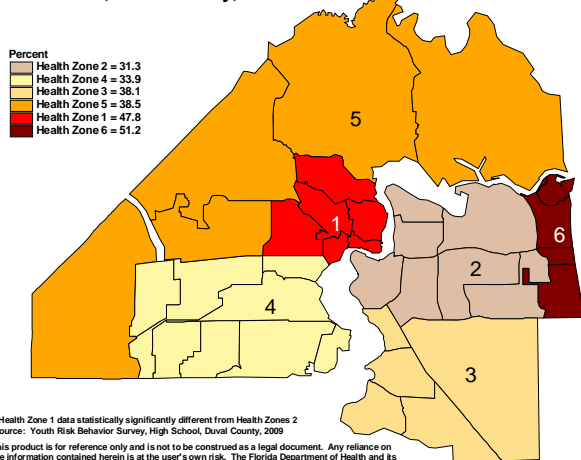
Percentage of Students Who have had Oral Sex or More Than One Sex Partner



Source: Youth Risk Behavior Survey, Duval County, 2009
Data is statistically different gender for *had oral sex*

Figure 4

Percentage of High School Students Currently Sexually Active by Health Zone, Duval County, 2009



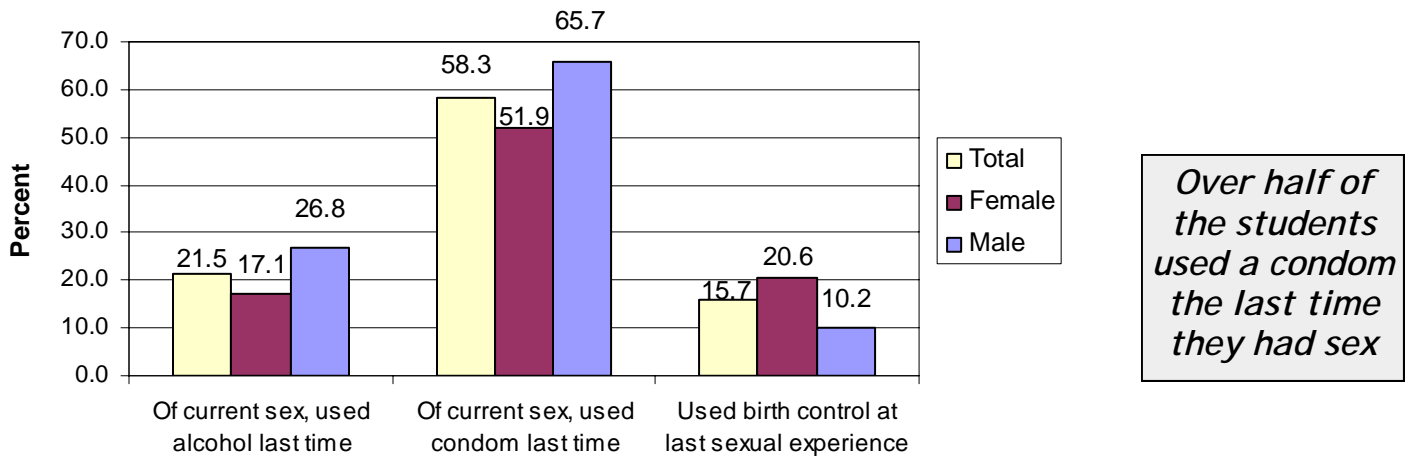
The percentage of students currently sexually active in Health Zone 1 (47.8%) was statistically higher than for students residing in Health Zone 2 (31.3%), although Health Zone 6 had the highest percentage of students currently sexually active with 51.2%. This percentage in Health Zone 6 was also 36% higher than for Duval County and 64% higher than Health Zone 2. (see Figure 4)

More students living in Health Zone 6 are currently sexually active than in any other Health Zone

Sexual Behaviors

The presence of substance abuse and unsafe practices can be influential on a variety of outcomes such as sexually transmitted infections or unwanted pregnancy. Figure 5 shows that condom use among students was over half and even reaching 65.7% (95%CI=58.3,72.4) for males, significantly higher than for females with 51.9% (95%CI=46.6,57.2). On the contrary, females were significantly more likely to use birth control with 20.6% (95%CI=16.3,25.6) than males with 10.2% (95%CI=6.8,15.0). The use of alcohol during sexual experience was also highly prevalent (21.5%), with males having higher use (26.8%) than females (17.1%).

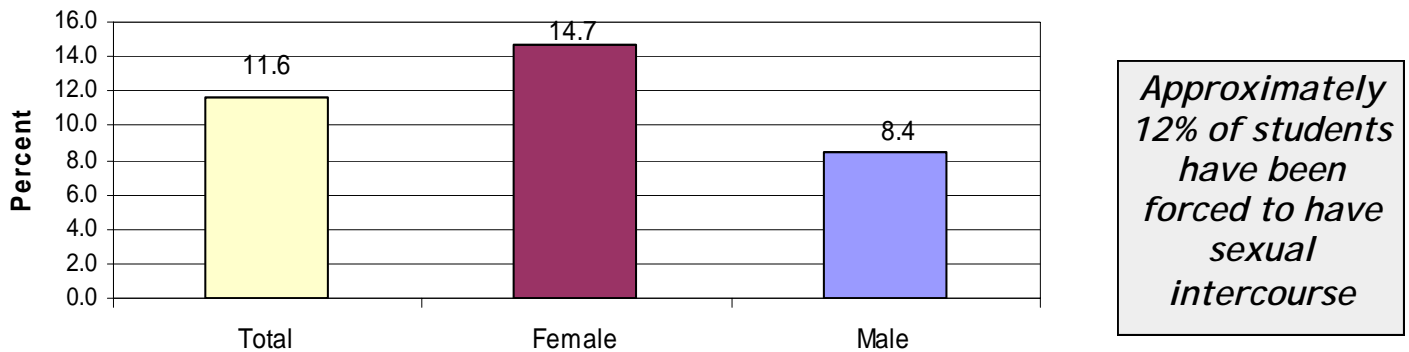
Figure 5 **Current Sexual Behaviors and Safe Sex Practices**



Source: Youth Risk Behavior Survey, Duval County, 2009
 Data was significantly different between gender for *condom use* and *birth control use*

In Duval County, 11.6% of high school students report being forced to have sex against their will. This is a recognized public health issue, according to *Health People 2010*, as forced sexual intercourse poses a greater risk for STD contraction than does willful consent. The incidence of this was reported by 14.7% of females and 8.4% of males (see Figure 6).

Figure 6 **Percentage of High School Students Forced to have Sexual Intercourse**



Source: Youth Risk Behavior Survey, Duval County, 2009
 Data was significantly different between gender

Data Collection Methods

Description of the YRBS

The Youth Risk Behavior Survey (YRBS) is a self-administered, school-based, confidential, and anonymous survey that was conducted in the Duval County Public Schools in the spring of 2009. In Florida, weighted YRBS data has been collected at the state level every two years since 2001. Five Florida counties (Orange, Hillsborough, Palm Beach, Broward, and Miami-Dade) are funded by the CDC to collect county-level data. In the spring of 2009, Duval County, for the first time, received federal funding by the CDC to administer a specific county-level YRBS even though it has been included in the state-level data collection in the past. The YRBS is part of a national effort by the CDC to obtain information pertaining to social behaviors. These behaviors include, but are not limited to: violence, safety, sex, nutrition and weight management, suicide, and more. In the 19 public high schools in Duval County, there were 2,542 students who participated. Initial county-level analysis was performed by Westat, a CDC contractor. Sub-county analysis was conducted through a joint effort by the Duval County Public Schools and the Duval County Health Department. A stratified analysis according to the six defined health zones was conducted to identify the risk for these behaviors at the sub-county level. This sub-county analysis allows Duval County to be unique in its ability to identify geographically, within its community, those groups at risk.

Data Collection Methods

Nationally, schools are selected with probability proportional to the size of student enrollment in grades 9 - 12. Then, required classes are randomly selected to participate within selected schools with equal probability. The questionnaire is administered to all students in sampled classes in sampled schools. However, in Duval County, all schools were included in the study with the classes randomly selected, which resulted in the students being randomly selected. This ensures the reliability and validity of the sample to be a randomly generated one, which is important to the statistical process behind the administration of surveys and their analysis. Within selected classes, students are eligible to participate voluntarily, anonymously, and confidentially. Parental notification was provided. Survey administrators were Duval County Public Schools classroom instructors and were trained as to the appropriate method of administering and collecting the surveys. These precautions were necessary in order to ensure the complete privacy of the students.

The CDC states “Weighted results means that the survey got an overall response rate of at least 60%. Weighted results are representative of all students in grades 9 - 12 attending public schools in each jurisdiction. With weighted data, it is possible to say, for example, ‘X% of students in state Y never or rarely wore a seat belt when riding in a car driven by someone else.’” This means that a weight has been associated with each questionnaire to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of non-response. The objective of the weighting process is to develop sample weights that can be employed during analysis to generate results that accurately represent the entire student population in the county. The weighted results can be used to make important inferences concerning the priority health-risk behaviors of all regular public school students in grades 9 - 12.

References

¹Healthy People 2010, Sexually Transmitted Diseases, <http://www.healthypeople.gov/document/HTML/Volume2/25STDs.htm>

²<http://www.cdc.gov/healthyyouth/adolescenthealth/index.htm>

³Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Improving the Health of Adolescents & Young Adults: A Guide for States and Communities. 2004

For more information, contact:
www.duvalschools.org/yrbs