

## Sexual Behavior and Contraceptive Use among Rhode Island Adolescents

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**Teen pregnancy rates in the United States have declined** substantially since the early 1990s in all states including Rhode Island, mainly due to positive changes in teens' sexual behavior and contraceptive use.<sup>1,2</sup> However, recent data show that the significant progress the nation has made in reducing teen sexual activity, improving contraceptive use, and providing better sex education in school has stagnated.<sup>3,4</sup> Many teenagers engage in behaviors that put them at risk of pregnancy and sexually transmitted diseases (STDs). Nationally, about 750,000 teens become pregnant each year, almost one third of girls become pregnant at least once by age 20, and approximately one in four sexually active young adults ages 15 to 24 contracts an STD annually.<sup>1,5</sup> Teen pregnancy and STDs are an important public health issue since they pose a serious risk to the health and well-being of teens and their babies, and to society as a whole.

This report describes the sexual and contraceptive behaviors that contribute to teen pregnancy and STDs among Rhode Island public high school students.

### METHODS

Data from the 2009 Rhode Island Youth Risk Behavior Survey (YRBS) were analyzed to determine sexual and contraceptive behaviors among high school students. The YRBS, developed by the Centers for Disease Control and Prevention (CDC), monitors health risk behaviors related to the major causes of mortality, morbidity, injury, and social problems among high school students.<sup>4</sup> The Rhode Island Department of Health, sponsored by the CDC, conducts the YRBS every two years from a representative sample of public high school students using self-administering survey. In 2009, a total of 3,213 students 9th through 12th grades participated in the Rhode Island YRBS with a 67% response rate.

Sexual behaviors included in this report were: 1) whether students ever had sex; 2) whether they had sex in the past 3 months; 3) whether they had first sex before age 13; 4) whether they had sex with 4 or more partners in life; 5) whether they were ever forced to have sex; and 6) whether they were ever taught about AIDS/HIV infection in school. The prevalence of each of these indicators for Rhode Island students was compared to national rates. Contraceptive behavior was determined by asking "The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy?" This question was asked only of those reporting they ever had sexual intercourse.

The percentage of students who ever had sexual intercourse and the percentage of student who did not use birth control method at the last time they had sex were examined by race/

ethnicity, gender, grade, primary language used at home, academic performance, sexual orientation, and disability status, and were presented with the p-values from the Chi-square tests. Data analyses were performed using the SUDAAN software, which accounts for the complex sample design of the survey. All percentages presented here were weighted to represent the public high school student population statewide. Unknown and refused responses were excluded from the analyses.

### RESULTS

#### Sexual Behaviors

Overall, 44.2% of RI public high school students reported that they ever had sexual intercourse (U.S.: 46.0%); 32.3% had sex in the past 3 months (U.S.: 34.2%); 5.2% had first sex before age 13 (U.S.: 5.9%); 11.2% had sex with 4 or more people in life (U.S.: 13.8%); 7.1% were ever forced to have sex (U.S.: 7.4%); and 13.3% were never taught about AIDS or HIV infection in school (US: 13.0%). (Figure 1) There were no statistically significant differences between Rhode Island and U.S. students in any of these measures.

The percentage of Rhode Island high school students reporting they ever had sexual intercourse was significantly higher among non-Hispanic Blacks (53.2%), Hispanics (52.4%), 11<sup>th</sup>-12<sup>th</sup> graders (57.5%), students with mostly D's and F's (71.4%), students identifying themselves as lesbian, gay, bisexual, or unsure sexual orientation (LGBU: 59.3%), and students with disabilities (50.7%), compared to their counterparts. (Table 1)

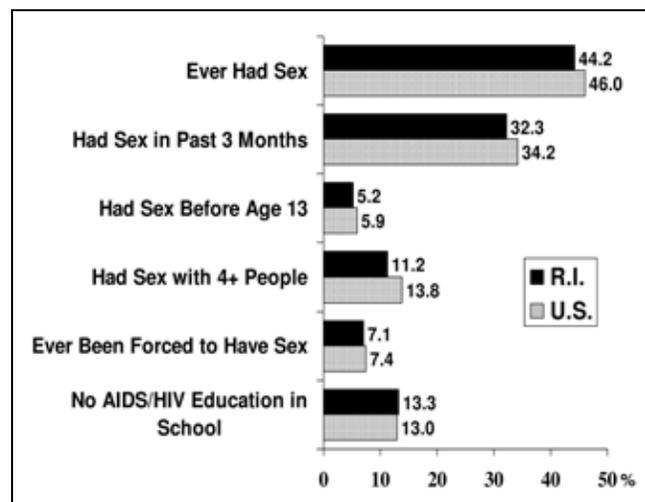


Figure 1. Sexual Behaviors among High School Students, Rhode Island vs. United States.

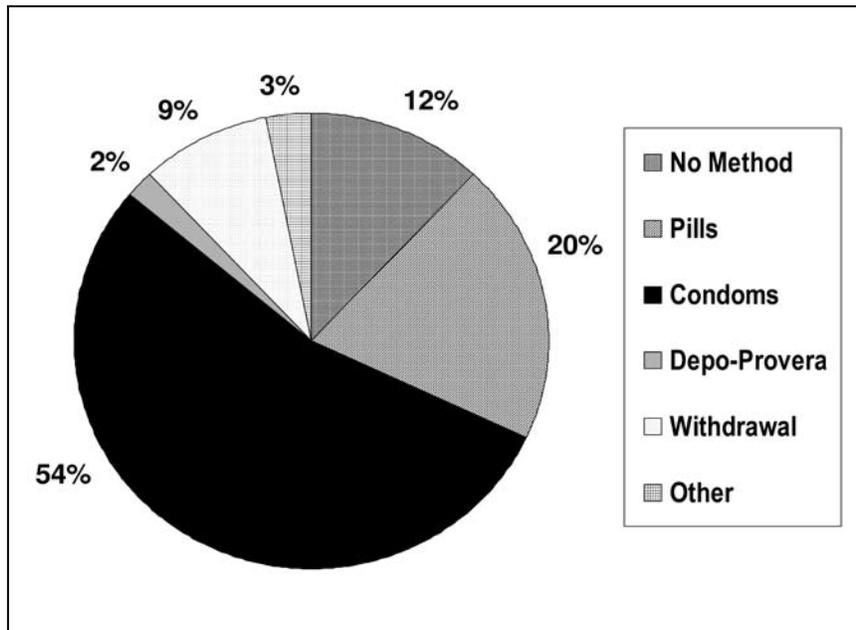


Figure 2. Birth Control Methods Used at Last Sex Among High School Students Who Ever Had Sexual Intercourse.

**Table 1. Percentages of high school students who ever had sexual intercourse and who did not use contraceptive method at the last time they had sex by selected characteristics, Rhode Island, 2009**

	Ever Had Sexual Intercourse		Not Used Contraceptive Method at Last Sex <sup>1</sup>	
	%	P-Value	%	P-Value
<b>Overall</b>	<b>44.2</b>		<b>12.3</b>	
<b>Race/Ethnicity</b>				
White, non-Hispanic	41.2	0.0324	8.7	0.0002
Black, non-Hispanic	53.2		17.9	
Hispanic	52.4		21.3	
Other <sup>2</sup>	41.1		16.6	
<b>Sex</b>				
Male	45.6	0.0567	11.0	0.1170
Female	42.8		13.6	
<b>Grade</b>				
9 <sup>th</sup> -10 <sup>th</sup>	33.4	<0.0001	14.4	0.1308
11 <sup>th</sup> -12 <sup>th</sup>	57.5		10.7	
<b>Language used at home</b>				
English	43.5	0.1240	10.8	0.0052
Non-English	48.1		20.6	
<b>Academic performance</b>				
Mostly A's & B's	35.3	<0.0001	9.3	0.0219
Mostly C's	57.5		14.0	
Mostly D's & F's	71.4		17.5	
<b>Sexual orientation</b>				
Strictly hetero-sexual	42.9	0.0028	11.4	0.0446
LGBU <sup>3</sup>	59.3		20.3	
<b>Disability status</b>				
No disability	42.6	0.0491	11.6	0.2186
Have disability	50.7		15.1	

Data Source: Rhode Island Youth Risk Behavior Survey, 2009

<sup>1</sup> Among students who have ever had sex

<sup>2</sup> Other category includes American Indian/Alaska Native, Asian, Native Hawaiian/other Pacific Islander and multiple race, non-Hispanic

<sup>3</sup> LGBU includes lesbian, gay, bisexual, and unsure sexual orientation

## Contraceptive Behaviors

Among Rhode Island high school students reporting they ever had sexual intercourse, 12% did not use any contraceptive method at the last time they had sex; 20% used birth control pills; 54% used condoms; 2% Depo-Provera (injectable birth control); 9% withdrawal; and 3% other method. (Figure 2) It should be noted that about 20% of students refused to respond to this question, and they were excluded in the analysis.

The percentage of Rhode Island high school students who did not use contraceptive method at the last time they had sexual intercourse was significantly higher among non-Hispanic Blacks (17.9%), Hispanics (21.3%), students whose primary language used at home is not English (20.6%), students with mostly D's and F's (17.5%), and students identifying themselves as LGBU (20.3%), compared to their counterparts. (Table 1)

## DISCUSSIONS

Our findings indicate that many Rhode Island high school students are engaging in sexual risk-taking behaviors and in unprotected sex that can lead to pregnancy and STDs. Early onset of sexual activity, involuntary sexual activity and having multiple sex partners all increase the risk of becoming pregnant and contracting an STD. Contraceptive methods used by teens should be carefully reviewed. Latex condoms are the only form of birth control that reduce the risk of STD transmission and pregnancy, and must be used every time. Other contraceptive methods, such as birth control pills and Depo-Provera (injectable birth control) may help prevent pregnancy, but they don't protect against STDs.

One important limitation of this report is that the YRBS did not include adolescents who dropped out of high schools, and these adolescents may be much more likely to engage in behaviors that put them at risk of pregnancy and STDs. Further study is needed to understand the risk behaviors of these adolescents as well as those who refused to answer the contraceptive method question on the YRBS.

Access to comprehensive and confidential health services is the key to preventing unintended pregnancies and STDs among adolescents. Medical

homes, where teens are known well by their primary care provider, can offer a safe environment to promote healthy behaviors and reduce risk-taking behaviors especially as it relates to sexual behavior and birth control methods. Primary care providers can familiarize themselves with community based resources such as Title X providers and mental health providers, along with support for school and community based efforts around comprehensive sex and family life education and community service programs, all of which can contribute to optimal health outcomes for teens.<sup>6</sup>

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## Disclosure of Financial Interests

The authors and/or their spouses/significant others have no financial interests to disclose.

