One in five high school students (19%) in Rhode Island (RI) is bullied in school. This Brief examines if these students are in greater jeopardy from health risks than their peers who are not bullied (Chart 1), and whether those risks have improved or worsened over time (Chart 2). Twenty one measures are evaluated, comprising seven areas of vulnerability (drugs and alcohol, injury, mental health, sex, tobacco, violence, and weight). The findings are intended to inform interested parties and stimulate further research.

In this analysis, the relationship between being a bully victim and risk factors is one of association, not causation (e.g., bullied students are three times more likely to be rape victims, but being bullied does not cause one to be sexually assaulted). In the text, only those differences in values (over time or between bullied and not-bullied students) that are statistically ‘significant’ at the 95% confidence level are noted. Lastly, with the exception of the ‘lesbian, gay or bisexual’ measure, all others are unfavorable indicators, so lower/declining values are preferred.

**Drugs & Alcohol:** Bullied students are much more likely to abuse legal (prescription and ‘over-the-counter’) drugs (23% vs. 14%). However, drinking and marijuana use rates are not significantly different for bullied and not-bullied students.

**Injury:** There are no significant differences in the rates for drinking and driving, seat belt and bike helmet use.

**Mental Health:** Emotional disability is twice as prevalent among bullied high schoolers (25% vs. 12%), as are the rates of acute depression (43% vs. 20%), and attempted suicide (14% vs. 6%).

**Sex:** Lesbian, gay, and bisexual students are more common among high schoolers who are bullied (11% vs. 6%). Sexual activity and unprotected sex rates, however, are not significantly different for bullied versus non-bullied students.

**Tobacco:** Bullied students are more likely to smoke (16% vs. 10%), to be heavy smokers (2% vs. 1%), or to use any kind of tobacco product (22% vs. 17%).

**Violence:** Physical fighting is more prevalent among students who are bullied (37% vs. 20%). This group is almost three times more likely to experience dating violence (16% vs. 6%), and over three times more likely to be victims of rape (16% vs. 5%).

**Weight:** Obesity, lack of exercise, and poor nutrition rates are not significantly for bullied and not-bullied students.

One in five RI high schoolers is bullied, and this is moderately correlated with higher overall health risks. Students who were ‘different,’ either physically, sexually, or emotionally, were most at-risk to be victimized from bullies. As educators, health professionals and parents become more aware of the negative consequences of bullying, ‘zero tolerance’ for this behavior should become a shared goal.

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1. Students self-reported if they had been bullied at school in the past year.
2. Data are from RI’s Youth Risk Behavior Survey, part of a biennial national survey of high school students on the major causes of disease and injury morbidity and mortality. For more information contact Bruce Cryan, 401-222-5111, www.health.ri.gov/data/youthriskbehaviorsurvey/.
3. As the RI-YRBS is a sample survey, if the 95% Confidence Intervals of two values do not overlap, one may conclude (with 95% certainty) there was a ‘real’ difference between the two values (i.e., the difference was not likely due to sampling bias).
4. The Phi Coefficient ($\phi$) measuring the correlation of bullying and higher health risks is 0.577 (‘0’ is no correlation & ‘1’ is perfect correlation).
Chart 1: RI 2011 H.S. Health Risks by Bullied Status

(* statistically significant differences)

Chart 2: RI 2009 & 2011 Health Risks for Bullied Students

(* statistically significant changes)

DRUGS & ALCOHOL MEASURES: Use Marijuana (1+ times, past mo.); Abused Legal Drugs (abused prescription and/or 'over-the-counter' drugs 1+ times, ever); Drink Alcohol (1+ days, past mo.); INJURY MEASURES: No Bike Helmet (never or rarely wore, past yr.); No Seat Belt (never or rarely wore, past yr.); Drinking & Driving (1+ times, past mo.); MENTAL HEALTH MEASURES: Emotional Disability (for 6+ mos.); Acute Depression (for 2+ weeks, past yr.); Attempted Suicide (1+ times, past yr.); LESBIAN, GAY OR BISEXUAL (sexual self-identity); SEXUALLY ACTIVE (1+ partner, past 3 mos.); Unprotected Sex (no protection, last encounter); TOBACCO MEASURES: Smoke Cigarettes (on 1+ days, past mo.); Heavy Smoking (over 10 cigarettes per day, past mo.); Use Any Tobacco (used chewing tobacco, snuff, dip, or smoked cigars or cigarettes on 1+ days, past mo.); VIOLENCE MEASURES: Physical Fighting (1+ times, past yr.); Dating Violence (physically abused by partner in the past yr.); Rape Victim (forced into sexual intercourse, ever); WEIGHT MEASURES: Obesity (over the 95th percentile for body mass index); No Exercise (60+ min. of exercise on 0 days, past wk.); Poor Nutrition (no fruit or vegetables, past wk.)