

Smoking & Other High School Health Risks (2011)

One in ten (11%) RI high school students smokes cigarettes.¹ This Brief examines if these students are in greater jeopardy from other health risks than their non-smoking peers (Chart 1), and whether those risks have improved or worsened over time (Chart 2). Eighteen measures are evaluated,² comprising six areas of vulnerability (drugs and alcohol, injury, mental health, sex, violence, and weight). The findings are intended to inform interested parties and stimulate further research.

In this Brief, the relationship between smoking and other risk factors is one of association, not causation (e.g., smokers are three times more likely to attempt suicide, but smoking does not cause one to try to kill oneself). In the text, only those differences in values (over time or between smokers and non-smokers) that are statistically 'significant' at the 95% confidence level are noted.³ Lastly, with the exception of the 'lesbian, gay, or bisexual' measure, all others are unfavorable indicators, so lower/declining values are preferred.

Drugs & Alcohol: Students who smoke are four times more likely to use marijuana (76% vs. 18%), and six times more likely to abuse legal (prescription and 'over-the-counter') drugs (52% vs. 9%). Drinking alcohol is also three times more prevalent in this group (78% vs. 27%).

Injury: Smokers are more likely to not wear bike helmets (94% vs. 75%) or seat belts (22% vs. 7%). Drinking and driving is seven times higher for students who smoke (22% vs. 3%).

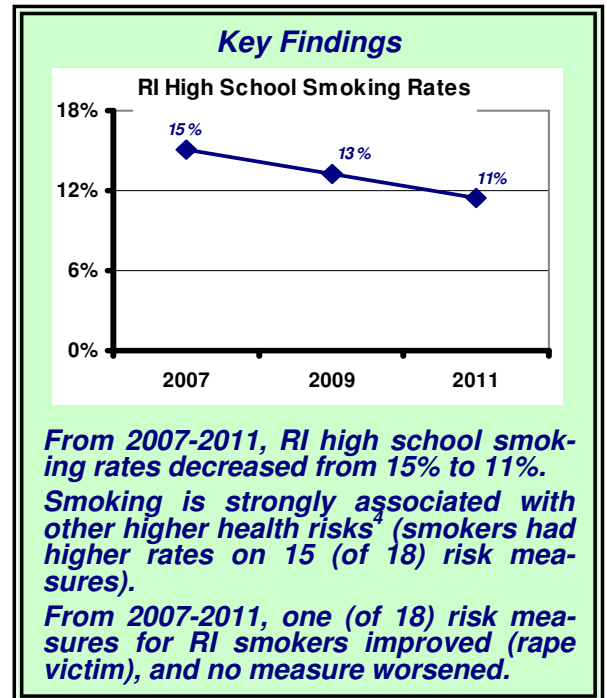
Mental Health: Long-term emotional disability is twice as prevalent among smokers (26% vs. 13%), and they are much more likely to suffer from depression (42% vs. 22%). The attempted suicide rate is three times higher for high schoolers who smoke (18% vs. 6%).

Sex: Smokers are twice as likely to identify as lesbian, gay or bisexual (18% vs. 8%). A greater percentage of smokers are sexually active (49% vs. 19%), and they are twice as likely to have unprotected sex (9% vs. 4%).

Violence: Physical fighting is 2½ times more common among students who smoke (49% vs. 19%), and they are three times more likely to experience dating violence (19% vs. 6%). In addition, the incidence of rape is 2½ times higher for this group (13% vs. 5%).

Weight: Obesity rates are not significantly different for smoking and non-smoking students, nor do they have significant differences for inadequate exercise or poor nutrition.

One in ten RI high schoolers smokes cigarettes, and smoking is strongly correlated with other higher health risks.⁴ The relationship between smoking and disease is clearly documented, but many are unaware of the association between smoking and other health risks, and these disparities need to be addressed.



¹ Students self-reported smoking cigarettes one or more days in the past month.

² Data are from RI's Youth Risk Behavior Survey, part of a biennial national survey of public 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 (r_ϕ) measuring the correlation of smoking and other health risks is 0.837 ('0' is no correlation and '1' is perfect correlation).

Chart 1: RI 2011 High School Health Risks by Smoking Status

* statistically significant differences

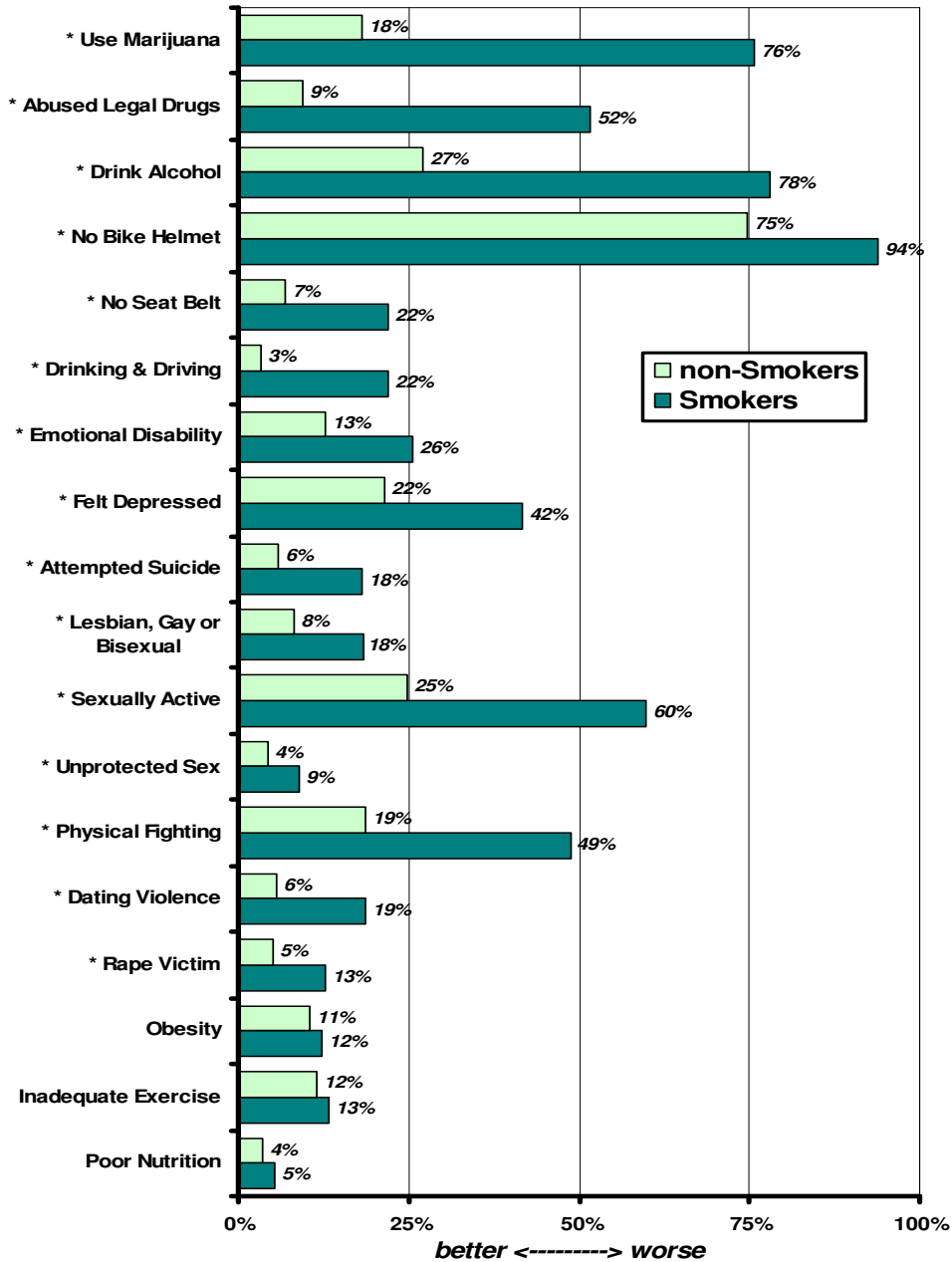
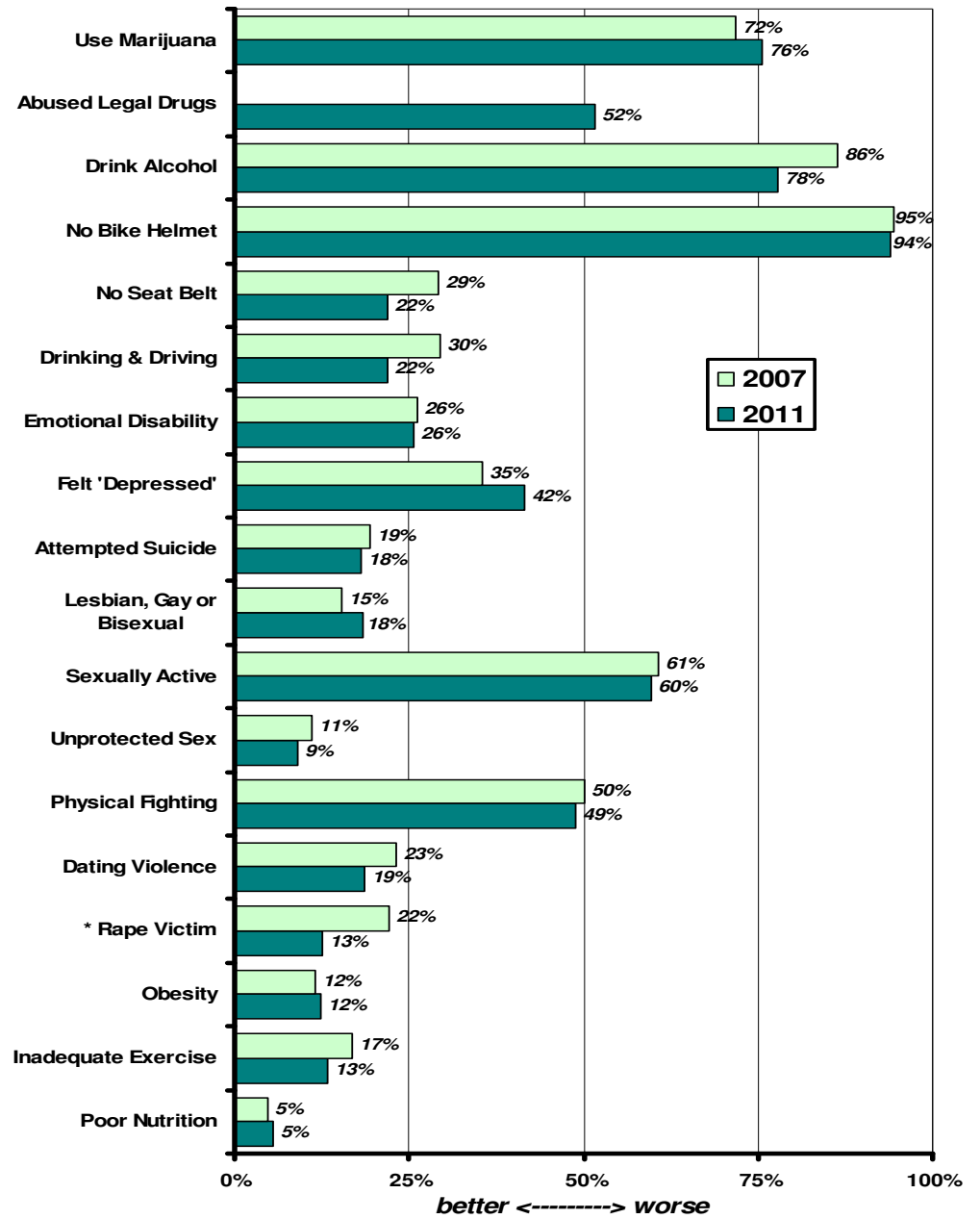


Chart 2: 2007 & 2011 RI Health Risks for Students who Smoke

* statistically significant changes



DRUG 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.); Felt 'Depressed' (for 2+ weeks, past yr.); Attempted Suicide (1+ times, past yr.); **SEX MEASURES:** Lesbian, Gay or Bisexual (sexual self-identity); Sexually Active (1+ partner, past 3 mos.); Unprotected Sex (no protection, last encounter); **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); Inadequate Exercise (60+ min. of exercise on 0 days, past wk.); Poor Nutrition (no fruit or vegetables, past wk.)