'Youth-at-Risk' –2009 Minority Status & Health-Risk Behaviors

RI Public High School Students

RI Departments of Health and Elementary & Secondary Education

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Introduction: This report examines differences in health-risk behaviors between Minority and White high school students in Rhode Island (RI). It evaluates 26 risk-measures from RI's Youth Risk Behavior Survey (YRBS).

The RI YRBS: The RI YRBS is part of a system of biennial surveys involving random samples of public high school students in 60+ states and municipalities nationwide. The Centers for Disease Control and Prevention developed the YRBS to monitor risk behaviors related to the major causes of injury, disease, and mortality. In the spring of 2009, 3,213 RI 9th to 12th grade students participated in the YRBS. The findings here are representative of public high school students statewide and may be used to inform policy and programs alike.

'Minority Status': Students were asked two questions to self-identify race and ethnicity. Their responses were parsed into two mutually exclusive categories: 'White' (non-Hispanic), and 'Minority,' including Hispanic and all other non-White races.

Using the data: The relationship between Minority status and health-risk behaviors may be 1) 'correlated' and/or 2) 'significant.' 1) 'Correlation' refers to association, not causation (e.g., Minority students attempted suicide twice as often as Whites, but being a Minority doesn't cause one to try to kill themselves). The correlation co-efficient (*r*) is used to evaluate the association between Minority status and overall risk behaviors. An *r*-value of '0.00' is no correlation, and '1.00' is perfect correlation (i.e., the two variables change in tandem). 2) 'Significance' refers to how likely it is that there is an actual or 'real' difference in the reported rates between two groups. This is important because sample surveys produce estimates, which may vary from true population values. Lastly, the 26 risk-measures are all negative indicators, so lower values are desired.

2009 Highlights

Approximately 16,500 RI public high school students (32%) were in a Minority group in 2009. RI high school students' minority status was only modestly correlated with their overall health-risk factors ($r = 0.233$). For the 26 measures in this report, nine were not statistically different for Whites or Minorities, 11 measures were statistically better for Whites, and six were better for Minorities.

Violence was more common to Minority than White students (Chart 1). Not only were they more likely to get in physical fights (30%), they were more than twice as likely to 'cut' school because they felt unsafe (11%).

Minority students had greater **mental health** risks than Whites. Feelings of 'sadness' and 'hopelessness' were higher for Minority students (29%), and the attempted suicide rate (11%) was almost twice as high.

Tobacco use was significantly lower among Minority than White students. The current smoking rate for Minorities was less than half that of White students (7%), as was their rate for any tobacco use (10%).

Current **alcohol** drinking rates were not significantly different for Minority and White students, but binge drinking was significantly lower (15%) for Minorities.

Drug use among Minority and White students was mixed. Significantly fewer Minority students currently used marijuana (22%), but the rates of students ever using cocaine, inhalants or painkillers were not significantly different.

Minorities were more **sexually active** than White students (36%), and they were more likely to have ever had sexual intercourse (52%).

Minorities were at greater risk of **injury** than Whites. Not only were they less likely to wear a bike helmet (92%), and seat belt (19%), they were more likely to ride with a driver that had been drinking alcohol (26%).

Lastly, **physical activity** measures were generally worse for Minority students. They were more likely to be obese (14%), which may be partially explained by their significantly higher rate of inadequate physical activity (65%).

Small sample sizes make it problematic to draw conclusions regarding differences in risk-behaviors among **specific minority groups** (Chart 2). Nonetheless, the data suggest that Hispanic students had the highest rates for feeling 'sad' or 'hopeless' (30%), not wearing a bike helmet (95%), obesity (16%), and inadequate physical activity (68%, tied with Asians). Black students reported the highest rates for having had sexual intercourse (53%), and not wearing a seat belt (19%). Asian students tied Hispanics for the highest rate for inadequate physical activity (68%), and Native American students reported the highest rates for physical fighting (34%), 'cutting' school (16%), attempted suicide (14%), and riding with an impaired driver (34%).

While students' Minority status and overall health-risks were only moderately correlated, there were some significant, categorical differences between the groups (i.e., violence, mental health and injury issues for Minorities, and tobacco and marijuana use for Whites). Reducing health disparities in the general population may well start by addressing some of the student health-risks that lead to those differences. However, more research is needed to evaluate significant differences in the prevalence of risk-behaviors across specific minority groups.

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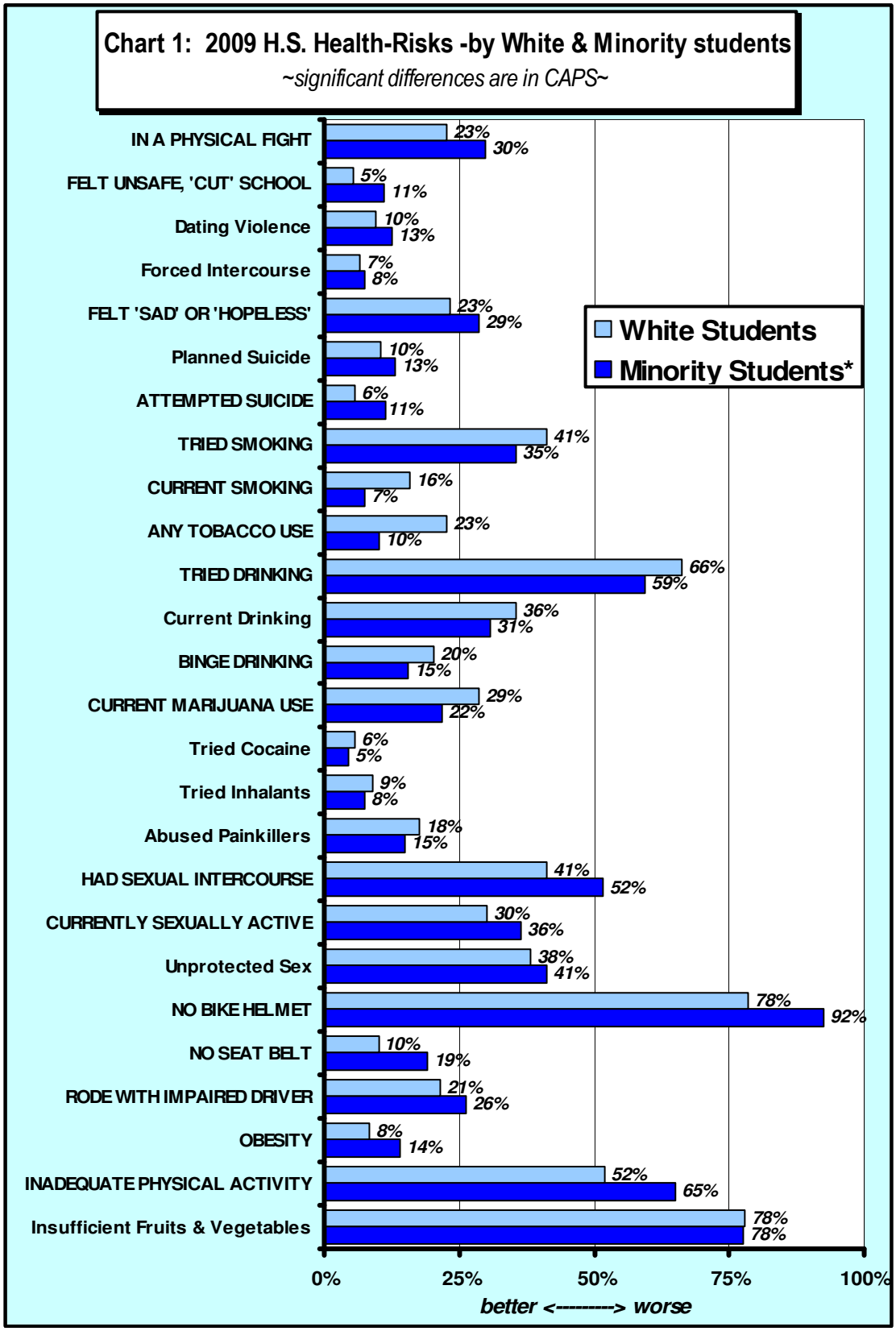
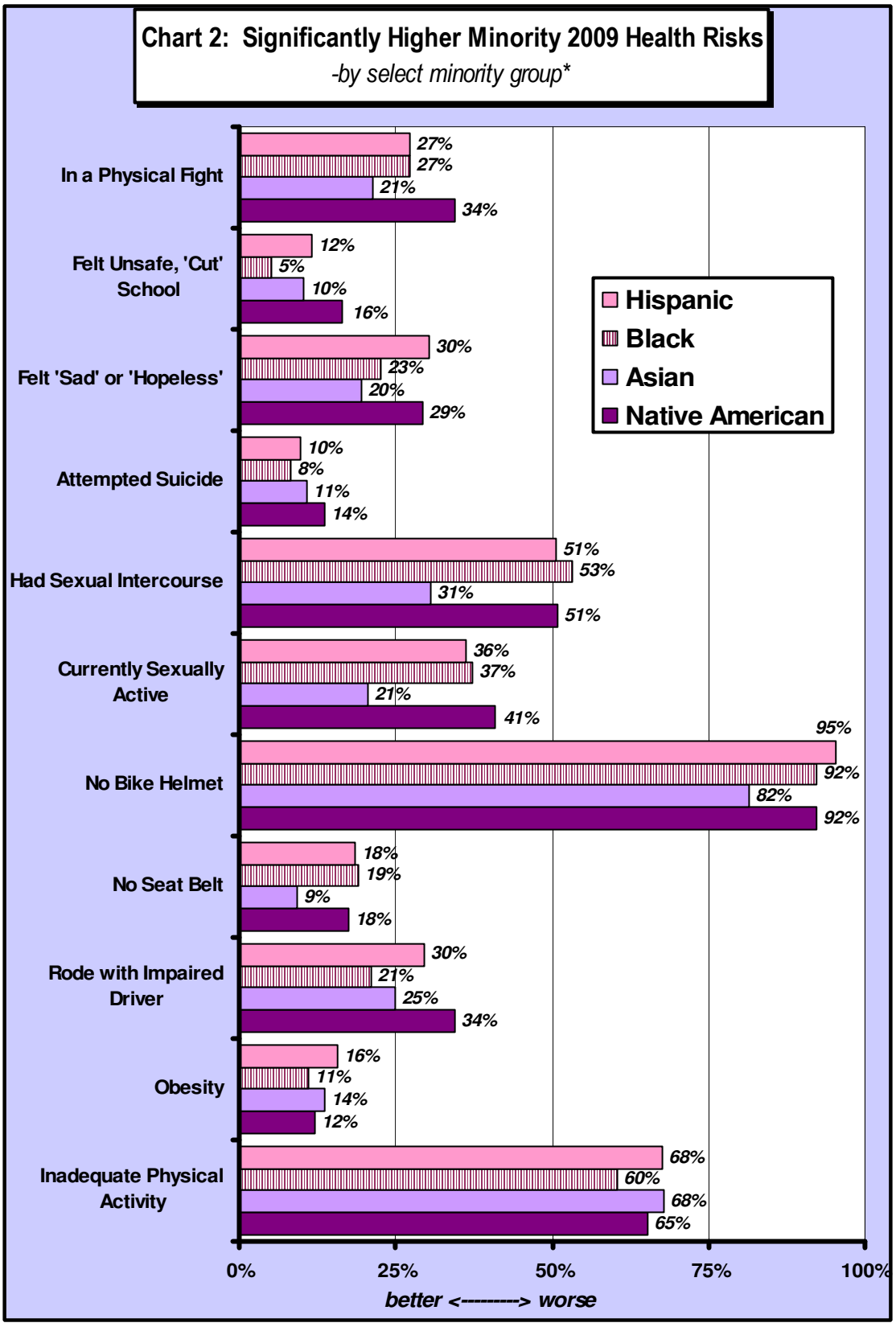


* *Minority students include Hispanics, and all non-White racial groups (i.e., Native American, Asian, Black, and Native Hawaiian/Pacific Islander)*
Source: 2009 RI high school YRBS (n=3,213); raw data and definitions are in Table 1 (p4)



* *Omitted are Native Hawaiian/Pacific Islanders because of their very small representation in RI's high school population*
Source: 2009 RI high school YRBS (n=3,213)

Table 1: H.S. Health-Risks Data by Minority Status

	Measure	Description	RI 2009 DATA[1] White	RI 2009 DATA[1] Minority[2]	Whites' 95% CIs[3]		Minorities' 95% CIs[3]	
VIOLENCE	In a Physical Fight	*1+ times, past yr.*	22.7%	29.7%	*20.6%*	*24.9%*	*27.0%*	*32.5%*
	Felt Unsafe, 'Cut' School	*1+ days, past mo.*	5.3%	11.1%	*4.2%*	*6.5%*	*9.4%*	*12.9%*
	Dating Violence	*hit by boy/girlfriend, past yr.*	9.7%	12.6%	*8.2%*	*11.2%*	*10.6%*	*14.6%*
	Forced Intercourse	*ever*	6.7%	7.6%	*5.4%*	*7.9%*	*6.1%*	*9.1%*
MENTAL HEALTH	Felt 'Sad' or 'Hopeless'	*for 2+ wks., past yr.*	23.2%	28.6%	*21.1%*	*25.3%*	*25.9%*	*31.2%*
	Planned Suicide	*past yr.*	10.4%	13.2%	*8.8%*	*11.9%*	*11.3%*	*15.2%*
	Attempted Suicide	*1+ times, past yr.*	5.7%	11.4%	*4.5%*	*7.0%*	*9.4%*	*13.4%*
TOBACCO	Tried Smoking	*ever*	41.2%	35.4%	*38.6%*	*43.7%*	*32.4%*	*38.4%*
	Current Smoking	*smoked 1+ days, past mo.*	15.8%	7.4%	*13.9%*	*17.7%*	*5.7%*	*9.1%*
	Any Tobacco Use	*cigs, cigars, smokeless tobac. past mo.*	22.6%	10.2%	*20.4%*	*24.8%*	*8.3%*	*12.2%*
ALCOHOL	Tried Drinking	*1+ drink on 1+ days, ever*	66.1%	59.5%	*63.7%*	*68.6%*	*56.4%*	*62.5%*
	Current Drinking	*1+ days, past mo.*	35.6%	30.7%	*33.1%*	*38.1%*	*27.8%*	*33.5%*
	Binge Drinking	*5+ drinks 1+ days past mo.*	20.3%	15.5%	*18.2%*	*22.4%*	*13.3%*	*17.6%*
DRUGS	Current Marijuana Use	*1+ times, past mo.*	28.5%	21.8%	*26.2%*	*30.9%*	*19.2%*	*24.4%*
	Tried Cocaine	*1+ times, ever*	5.7%	4.5%	*4.5%*	*6.9%*	*3.2%*	*5.8%*
	Tried Inhalants	*1+ times, ever*	9.0%	7.5%	*7.5%*	*10.4%*	*6.0%*	*9.0%*
	Abused Painkillers	*1+ times, ever*	17.6%	14.8%	*15.6%*	*19.5%*	*12.7%*	*16.8%*
SEX	Had Sexual Intercourse	*1+ times, ever*	41.3%	51.6%	*38.7%*	*43.8%*	*48.4%*	*54.8%*
	Currently Sexually Active	*1+ partner, past 3 mos.*	30.2%	36.5%	*27.8%*	*32.6%*	*33.4%*	*39.6%*
	Unprotected Sex	*no condom last time for sexually active*	38.2%	41.1%	*33.4%*	*43.0%*	*35.8%*	*46.5%*
INJURY	No Bike Helmet	*'never/rarely' wore in past yr.*	78.4%	92.4%	*75.9%*	*81.0%*	*90.4%*	*94.4%*
	No Seat Belt	*'never/rarely' wore in past yr.*	10.2%	19.0%	*8.6%*	*11.8%*	*16.7%*	*21.4%*
	Rode with Impaired Driver	*rode w/alcohol drinker 1+ times, past mo.*	21.4%	26.3%	*19.3%*	*23.5%*	*23.7%*	*28.9%*
PHYSICAL ACTIVITY	Obesity	*> =95th percentile for BMI*	8.5%	14.1%	*7.1%*	*9.9%*	*12.0%*	*16.2%*
	Inadequate Physical Activity	*<1hr, 5 days, past wk.*	51.9%	65.2%	*49.3%*	*54.5%*	*62.3%*	*68.1%*
	Insufficient Fruits & Veg.	*<5 servings/day, past wk.*	77.8%	77.6%	*75.6%*	*79.9%*	*75.1%*	*80.1%*

[1] *Source: 2009 & 2007 RI high school YRBS (n=3,213 in 2009 and 2,210 in 2007)*

[2] *includes Hispanics, and all non-White racial groups (i.e., Native American, Asian, Black, and Native Hawaiian/Pacific Islander)*

[3] *95% Confidence Intervals (CIs) are used to determine statistical significance (e.g., if the CIs of two values overlap, one may not conclude that there is a 'real' difference between the two values as the difference may be due to sampling error)*