

Protective Factors are characteristics, conditions, or behaviors that ease the effects of stressful events in adolescents' lives. These factors improve their capacity to avoid risk-taking and encourage healthy behaviors.¹ Adolescents who report more protective factors can, in fact, experience more positive outcomes. Consequently, those who have low protective factors are more likely to engage in risk behaviors or experience negative health outcomes.²

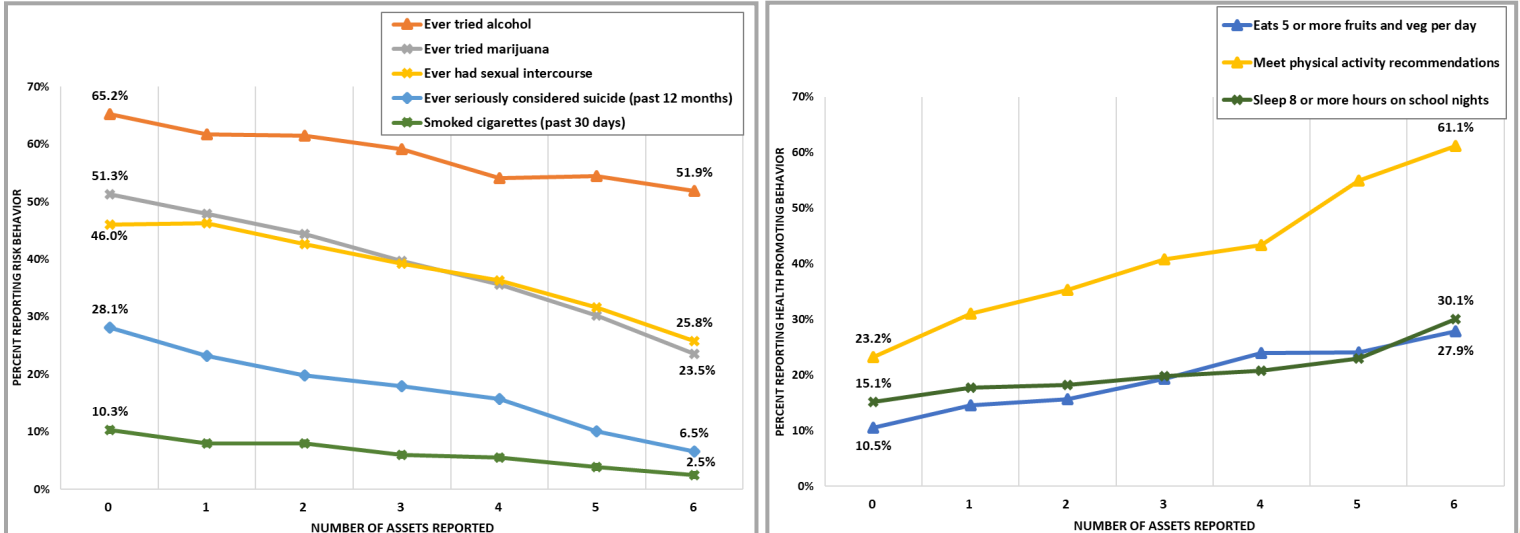
This data brief describes the prevalence of protective factors related to priority risk and health promoting behaviors among high school students in Cuyahoga County. The priority risk behaviors were identified through input from community stakeholders as violence and substance use, while a priority health outcome was depressive symptoms.

Six items from the Cuyahoga County YRBS comprise the Brief Assets Scale (see Fig. 1) which has been found to be comparable in validity to the Search Institute's 40 Assets scale. The 6-item youth assets scale is measured on a scale of 0 (no assets) to 6 (reporting all of the assets).²

Figure 1. The Brief Assets Scale - 6 Items Which Assess Protective Factors

<p>Participation in Youth Programs Students with opportunities to engage in positive activities during non-school hours have improved relationship-building and leadership skills</p>	<p>Feeling Valued by the Community Students who feel like they matter to their community are less likely to engage in risk behaviors and more likely to engage in community activities</p>	<p>Talking with Parents About School Communication with parents about school is connected to students' academic achievement, overall health, and avoidance of risk behaviors</p>
<p>School Connectedness Students who feel that they play a meaningful role in decision-making at school are more likely to feel positively connected with school</p>	<p>Volunteering in the Community Students who give back to their communities gain access to character-building benefits that decrease their likelihood of engaging in risk behaviors</p>	<p>Academic Achievement Students with A's and B's in school are likely to be more engaged with school and at lower risk of participating in unhealthy behaviors</p>

Figure 2. Risk behaviors Decline and Healthy Behaviors Increase with Additional Assets



* Additional risk taking and health promoting behaviors included on the YRBS were not found to have a clear linear relationship to protective factors.

The presence of any one asset, and each additional asset, decreased the likelihood that a student engaged in risk-taking behaviors such as trying alcohol or marijuana, currently smoking cigarettes, seriously considering suicide, or ever having sexual intercourse. For example, ever tried marijuana decreased from 51.3% when students reported 0 assets compared to 23.5% when all 6 assets were present. In contrast, as the presence of protective factors increased, health promoting behaviors such as eating fruits and vegetables, getting 60 minutes of physical activity per day, and good sleep habits also increased. To highlight this, the presence of all protective factors increased adolescents' prevalence of getting 60 minutes of physical activity from 23.2% (0 assets) to 61.1% (6 assets) (see Fig. 2).

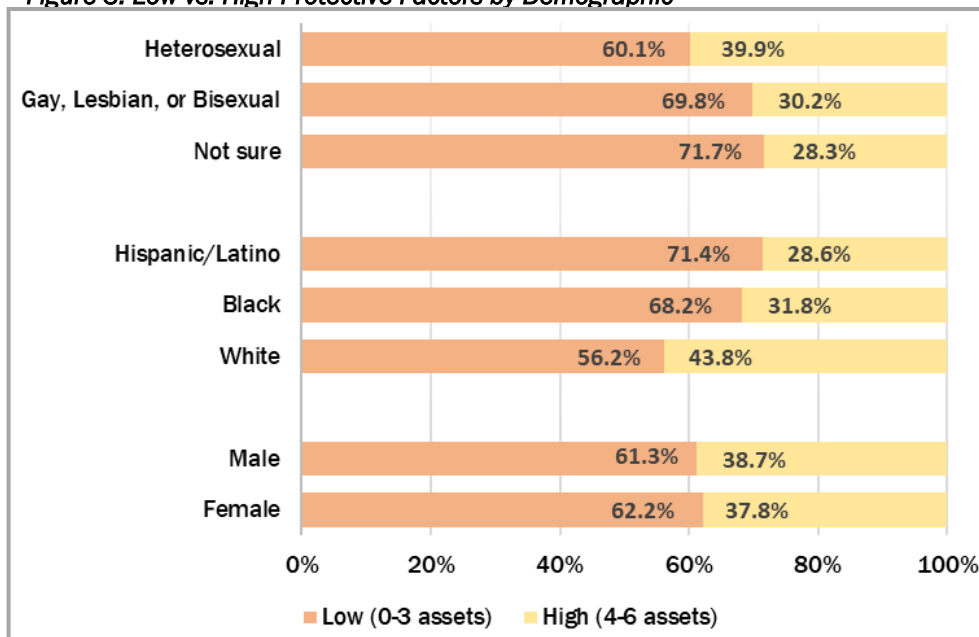
Who is more likely to experience more protective factors?

Overall, 38% of Cuyahoga County high school students report a high number of assets (4-6) compared to 62% with low assets (0-3). Protective factors indicated by high assets did not vary significantly by grade level (9th to 12th grade) or among male and female adolescents.

Hispanic/Latino and Black students are significantly more likely than White students to have few protective factors indicated by low assets (see Fig. 3). Specifically, 71.4% of Hispanic/Latino students and 68.2% of Black students reported low assets compared to 56.2% of White students.

Additionally, gay, lesbian, and bisexual high school students are significantly more likely to report few assets (69.8%) compared to heterosexual students (60.1%). Also of interest, students who were not sure of how they identified more frequently reported a low number of assets (71.7%).

Figure 3. Low vs. High Protective Factors by Demographic



Does behavior differ when students experience more protective factors?

As shown in Figure 2, with the presence of any additional asset, likelihood of engaging in certain risk-taking behaviors decreases. Overall, students who possessed high assets were significantly less likely to engage in risk behaviors related to violence or substance use or experience depressive symptoms (see Fig. 4).

Students with high assets were less likely to carry a weapon, feel unsafe at school, be in a physical fight, and be threatened or injured with a weapon on school property. There were no significant differences around experiencing bullying and electronic bullying between students with low or high assets. When it pertains to substance use, students who possess low protective factors were significantly more likely to have ever used cigarettes, electronic vapor products, alcohol, marijuana, unauthorized prescription drugs, and illicit drugs. For depressive symptoms, students with low protective factors were more likely to experience depressive symptoms, seriously consider and attempt suicide.

Figure 4. Low vs. High Protective Factors by Priority Behavior

Risk Behavior and Health Outcomes	Low Assets (0-3)	High Assets (4-6)
VIOLENCE		
Carried a weapon (past 30 days)	14.1%	11.3%
Felt unsafe at school (past 30 days)	11.5%	8.2%
In a physical fight (past 12 months)	26.7%	22.5%
Threatened or injured with a weapon on school property (past 12 months)	9.5%	7.5%
SUBSTANCE USE		
Ever smoked a cigarette	24.0%	14.6%
Ever tried an electronic vapor product	38.0%	31.6%
Ever tried alcohol	60.9%	54.0%
Ever tried marijuana	43.7%	32.5%
Ever used unauthorized prescription drugs	14.9%	10.7%
Ever used illicit drugs	7.7%	5.2%
DEPRESSIVE SYMPTOMS		
Felt so sad and hopeless stopped normal activities for 2 weeks (past 12 months)	35.2%	23.9%
Seriously considered suicide (past 12 months)	20.3%	12.9%
Attempted suicide (past 12 months)	12.4%	9.5%

Full data modules from the YRBS are available online:
<http://www.prchn.org/YRBSResults.aspx>

Methods: The Prevention Research Center for Healthy Neighborhoods (PRCHN) regularly uses a two-stage cluster sample design that mimics the sampling method of the Centers for Disease Control and Prevention (CDC) and its national Youth Risk Behavior Survey (YRBS). In 2017, 45 of 58 high schools (77.6%) and 13,907 of 18,098 students (76.8%) participated in the survey. An overall response rate of 60% (77.6 x 76.8) allowed the data to be weighted to the entire population of 9th-12th grade students in Cuyahoga County. Analyses were conducted using SPSS statistical software survey procedures to account for the sampling design. Unless otherwise noted, all differences in behavior are significant at the $p < .05$ level.

Contributors: The information in this report was obtained from the 2017 Youth Risk Behavior Survey project. This survey was modeled after the CDC state-based system of health surveys administered at the high school level every other year by each state department of health. This data brief was prepared by the PRCHN and authored by Briana McIntosh, MPH; Audrey Kinsella, MPH; Jean Frank, MPH; Marisa Hollinshead; Catherine Osborn, MA; Sarah Koopman Gonzalez, Ph.D.; Susan Petrone, MA; and Erika Trapl, Ph.D. For more information contact Jean Frank (jean.frank@case.edu).

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