

The Role of Select Protective Factors in Curbing Youth Alcohol Use

Drinking among students in 8th, 9th, and 11th, grade

Binge drinking is defined as four or more drinks for females, or five or more drinks for males, within about two to three hours. Although past-month drinking and binge drinking rates have slightly declined in recent years among Minnesota students, 13.4% of students reported past-month drinking, and 5.2% reported past-month binge drinking (Figure 1).

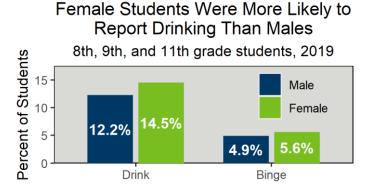


Figure 1: Drinking and binge drinking rates among male and female students in 2019 show that females drink and binge drink at a higher rate than males.

Adult role models can protect against Adverse Childhood Experiences (ACEs)

ACEs are traumatic childhood experiences that put individuals at risk for a number of negative outcomes, including youth drinking and binge drinking. ACEs assessed on the 2019 Minnesota Student Survey include:

- Physical abuse
- Mental/emotional abuse
- Sexual abuse
- Living with someone with mental health problems

- Living with someone who abuses alcohol
- Living with someone who abuses drugs
- Witnessing domestic violence in the home
- Having a parent or guardian who has been to or is currently in jail

Accounting for demographic characteristics, and compared to the average student, students with four or more ACEs were:

Almost 10 times as likely to report drinking any alcohol in the past 30 days, and

Almost 10 times as likely to binge drink in the past 30 days.

Among students with four or more ACEs, having a parent, adult community member, or teacher who cares about them quite a bit or very much; and having a parent that thinks it is wrong or very wrong for their child to regularly drink, were less likely to drink or binge drink. Having adult role models is important to youth, especially for those who have had four or more ACEs [1, 2].

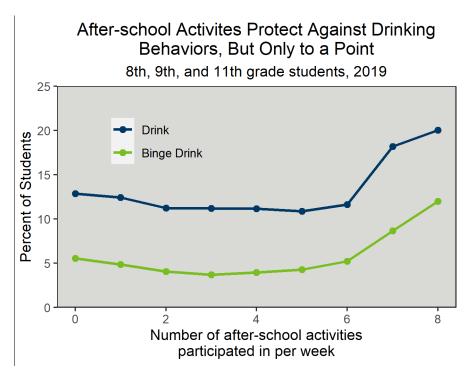
Participating in too many activities can be a risk factor for drinking

Students were asked how many of the following after-school activities they participated in per week:

- Sports teams
- School-sponsored clubs, such as music, drama, or chess club
- Tutoring or academic programs
- Leadership activities such as student government

- Artistic lessons
- Physical activity lessons like tennis or karate
- Other community clubs and programs like Scouts or Y-clubs
- Religious activities and/or services

Data from the 2019 Minnesota Student Survey show that while a moderate amount of participation in different types of after-school activities (one to five types of activities) can protect against drinking behaviors, adding more types of activities during a typical week stops being protective and can increase the risk of drinking (Figure 2). These data align with current literature that suggests that a healthy amount of participation in after-school activities exists, but that students can potentially become over-worked and stressed by having too many activities [3].



Effective alcohol policies can reduce student alcohol use

Population-level strategies to reduce excessive alcohol use can also effectively reduce drinking by students in Minnesota, as studies have shown that alcohol policies and adult drinking behaviors influence alcohol use by youth [4-6]. Some strategies, such as those recommended by the Community Preventive Services Task Force, include For more information, see The Community Guide Excessive Alcohol Consumption (https://www.thecommunityguide.org/topic/excessive-alcohol-consumption).

- Increasing alcohol taxes
- Regulating alcohol outlet density
- Enforcement of laws supporting the minimum legal drinking age of 21 years

Conclusions

Drinking among Minnesota students can potentially be mitigated by implementing and enforcing effective alcohol policies; having positive adult role models who students can talk to and seek advice from, including parents, teachers, or community leaders; and encouraging students to avoid being involved in too many afterschool activities.

Methods

The Minnesota Student Survey (MSS) is administered every three years to students across Minnesota to create a comprehensive data set about the health and well-being of Minnesotan students. Students in grades five, eight, nine, and 11 are included, and all types of school districts are invited to participate. For more information see Minnesota Student Survey (https://education.mn.gov/MDE/dse/health/mss/). All data presented comes from the 2019 MSS, and students in grades eight, nine, and 11 were considered. Missing or NA data was assigned a value of 0 or 'False'. Odds ratios were determined by performing logistic regression on the presented explanatory variables' influence on drinking or binge drinking, while accounting for demographic factors including sex, race, grade, and age.

References

- 1. Chartier KG, Hesselbrock MN, Hesselbrock VM. Development and Vulnerability Factors in Adolescent Alcohol Use. *Child Adolesc Psychiatr Clin N Am*. 2010; 19(3):493-504.
- 2. Brown SA, McGue M, Maggs J, et al. A developmental perspective on alcohol and youths 16 to 20 years of age. *Pediatrics*. 2008; 121 Suppl 4:S290-310.
- 3. Darling N, Caldwell LL, Smith R. Participation in school-based extracurricular activities and adolescent adjustment. *J Leisure Research*. 2005; 37(1): 51-76.
- 4. Xuan Z, Blanchette JG, Nelson TF, et al. Youth drinking in the United States: Relationships with alcohol policies and adult drinking. *Pediatrics*. 2015;136(1):18-27. doi:10.1542/peds.2015-0537.
- 5. Xuan Z, Nelson TF, Heeren T, et al. Tax policy, adult binge drinking, and youth alcohol consumption in the United States. Alcohol Clin Exp Res. 2013;37(10):1713-9. doi:10.1111/acer.12152.

6. Nelson DE, Naimi TS, Brewer RD, Nelson HA. State alcohol-use estimates among youth and adults, 1993–2005. Am J Prev Med 2009;36(3):218–224

This fact sheet was supported by Cooperative Agreement Number NU58DP001006 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention.

Suggested Citation

Braun N, Gloppen K, Roesler J. The Role of Select Protective Factors in Curbing Youth Alcohol Use—Data Brief. Saint Paul, MN: Minnesota Department of Health, July 2020.