

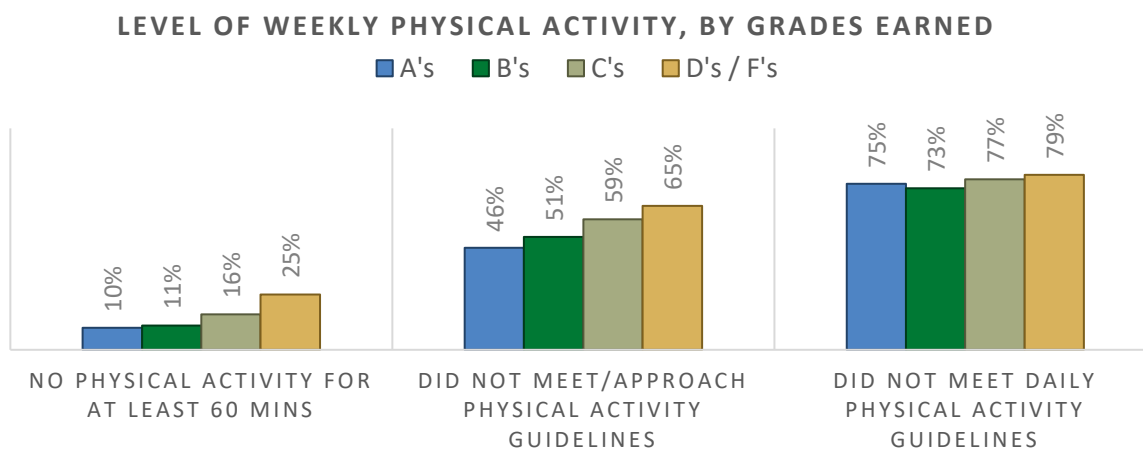
# Making the Connection: Physical Activity and Academic Grades Among Vermont High School Students

## Vermont Youth Risk Behavior Survey 2017

Research shows there is a strong relationship between health-related behaviors and educational outcomes.<sup>1</sup> Students who are physically active tend to have better school attendance and cognitive performance as well as higher academic performance. Similarly, students who spend more time in physical education tend to have higher academic performance, higher standardized test scores, and better classroom behavior.<sup>2</sup> This brief examines the relationship between physical activity and academic performance among Vermont high school students.

**High school students earning lower grades were significantly associated with not participating in at least 60-minutes of physical activity on any day and not meeting or approaching meeting recommended physical activity guidelines.<sup>3</sup>**

*Physical Activity.* Students who earned mostly D's and F's were more likely to not participate in at least 60-minutes of physical activity on at least 1 day of the week than those with higher grades. All differences by grades earned were statistically significant for students who did not meet recommended physical activity guidelines and those who did not meet/approach meeting them. Students who earned mostly C's and D's and F's were more likely to not meet physical activity guidelines than their peers who earned mostly B's.



**Students with lower grades are more likely engage in screen time more often than their peers with higher grades.**

*Screen Time.* Students who earned mostly D's and F's were more likely to watch TV, use a computer/handheld device, or play virtual games for three or more hours a day than those who earned mostly A's. Similarly, those who earned mostly D's and F's were three times as likely to watch TV, use a computer/handheld device, or play virtual games for five or more hours a day than those who earned A's. All differences in hours of engagement in screen time by grades earned were statistically significant.

<sup>1</sup> Rasberry CN, Tiu GF, Kann L, et al. Health-Related Behaviors and Academic Achievement Among High School Students — United States, 2015. MMWR Morb Mortal Wkly Rep 2017;66:921–927. DOI: <http://dx.doi.org/10.15585/mmwr.mm6635a1>.

<sup>2</sup> CDC. Health and Academic Achievement. [https://www.cdc.gov/healthyyouth/health\\_and\\_academics/pdf/health-academic-achievement.pdf](https://www.cdc.gov/healthyyouth/health_and_academics/pdf/health-academic-achievement.pdf).

<sup>3</sup> U.S. Department of Health and Human Services. *Physical Activity Guidelines for Americans*. <https://health.gov/paguidelines/guidelines/chapter2.aspx>; 2008

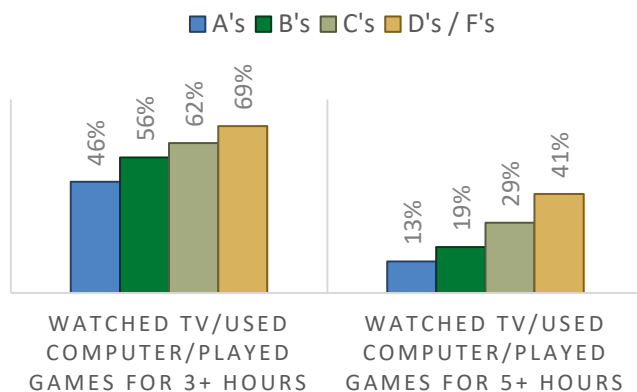
<sup>4</sup> American Academy of Pediatrics. Media Use in School-Aged Children and Adolescents. *Pediatrics*. 2016; 138(5):e20162592.

<sup>5</sup> VDH. Screen Time & Activity – Educators. [http://www.healthvermont.gov/sites/default/files/documents/2016/11/HPDP\\_PA%26NutritionSchoolIEC%20Screen%20Time%20teachers%20icons%20-FINAL.pdf](http://www.healthvermont.gov/sites/default/files/documents/2016/11/HPDP_PA%26NutritionSchoolIEC%20Screen%20Time%20teachers%20icons%20-FINAL.pdf), 2016.

### Limits to Inactive Screen Time

As technology rapidly enters the classroom, educators may guide students to engage in appropriate, positive, and safe ways to utilize these helpful digital resources by setting limits to inactive media use.<sup>4,5</sup>

DAILY SCREEN TIME, BY GRADES EARNED



Access to and engagement in regular physical activity provides for higher academic potential, a reality supported by the results of the 2017 Vermont YRBS. Vermont high school students showed a negative correlation among high school students between physical inactivity and high academic performance.

The following evidence-based strategies and expert recommendations provide examples of policies and practices that could be implemented locally. These are just some of the examples of strategies schools can employ to strengthen the nutrition environment.

#### Strategies/Recommendations for Schools to Strengthen Local Physical Activity Policies

- Offer before, during, or after school opportunities for students and staff to be active through development of a Comprehensive School Physical Activity Program (<https://www.shapeamerica.org/cspap/>)
- Develop strong Local School Wellness Policies highlighting the school physical activity environment
- Require students in grades K–12 to participate in daily physical education
- Provide ongoing professional development for PE teachers, as well as for other teachers, to incorporate PA as part of non-PE classroom exercises
- Work with local public works, zoning boards, and police departments to ensure that students have safe routes to walk and bike to and from school
- Form agreements with local governments (e.g., Parks and Recreation) and community agencies for shared use of property, when school is not in session, to enhance physical activity opportunities for students and their families

Visit the VDH School Physical Activity & Nutrition Website for resources and information to support your school <http://www.healthvermont.gov/wellness/physical-activity-nutrition/school-and-early-child-care>

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**For past data briefs, statewide and local reports:** please see the YRBS website at: <http://healthvermont.gov/research/yrbs.aspx>