

# THINK ABOUT THE LINK

WHOLE CHILD



ACADEMIC • SOCIAL • EMOTIONAL • PHYSICAL • BEHAVIORAL



Version 3. Updated August 2021

## HEALTH EDUCATION: Evidence-Informed Practice Brief

### WHAT DO WE MEAN?

*Health Education* refers to planned learning opportunities during which students acquire knowledge and skills to engage in health-informed decision making and adopt lasting healthy behaviors.<sup>1</sup> Health education curricula should be based on assessment of student and community health needs, planned in collaboration with the community, and include an assortment of topics that address relevant health needs. Instruction should be offered for students in grades pre-kindergarten through 12 and provided by qualified and trained teachers.<sup>1</sup> In addition to classroom lessons or activities, students may obtain health information during visits to the school nurse or related providers, through posters or public service announcements, and through general conversations with teachers, peers, and family.

As health education is wide-ranging and extensive, it is essential that qualified professionals establish and deliver curricula that effectively and efficiently guide student learning. In addition, health education instructors are encouraged to participate in relevant and continued professional development.<sup>1</sup> Effective curricula focus on well-defined health goals and outcomes using a research-based and theory-driven approach.<sup>1</sup> To work towards reducing educationally-relevant health disparities,<sup>2</sup> health education instruction must be age-appropriate and developed using culturally relevant materials, learning strategies, and teaching methods. More specifically, an appropriate school-based health education program will address the *National Health Education Standards* (NHES).<sup>4</sup> These standards can support teachers, administrators, and policymakers in promoting healthy behaviors and health-based decision-making through curriculum development, teaching strategies, and student assessment. Further, NHES promotes a shared understanding of what comprises health education across students, families, and communities. The standards support school personnel, families, and community members in fostering student understanding of health promotion and disease prevention, analyzing the effect of social influences on health behaviors, and accessing reliable health-promoting information and services.<sup>4</sup> Students should also be taught to apply health-promoting knowledge to interpersonal communication, decision-making, and goal-setting to enhance and advocate for their health.<sup>4</sup> Together, this work can contribute to reducing intergenerational health disparities and risks.



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# WHY IS IT RELEVANT TO CHILD OUTCOMES?

## Physical Health Outcomes

School-based health education positively impacts students' physical health, extending beyond physical activity in gym classes. For instance, education around nutrition and healthy eating habits is associated with increased student fruit and vegetable consumption,<sup>10,21</sup> reduced fat consumption,<sup>21</sup> and increased physical activity.<sup>14</sup> Further, health education seeks to promote prevention of chronic diseases such as cardiovascular disease and cancer through education on topics such as healthy eating.<sup>14</sup> In addition, sexual health education has been found to reduce the likelihood of teen pregnancy and successfully prevent sexually transmitted infections.<sup>12,17</sup> Several review studies suggest that substance use education can reduce and delay use of substances such as alcohol, marijuana, and other drugs.<sup>18,20,32</sup> However, schools should consider appropriate developmental timing and packaging of this content as the effectiveness of programs can vary depending on student age.<sup>25</sup> Specific education about medication (e.g., medication adherence, side effects) can improve student knowledge, confidence, and appropriate use of medication.<sup>13</sup> Overall, effective health education can promote healthy behaviors and prevent and reduce the negative, long-lasting, and sometimes life-threatening physical effects associated with unhealthy behaviors.

## Social, Emotional, and Behavioral Outcomes

Health education is associated with positive social, emotional, and behavioral outcomes. For example, prevention and health promotion programs surrounding alcohol and substance use can reduce symptoms of depression, anxiety, and antisocial behavior.<sup>30</sup> Additionally, students have reported feeling less inclined to engage in substance use and unsafe sexual activity as a result of health education programs.<sup>3,19,27</sup> Students who are exposed to gender-inclusive language (e.g., in classroom discussions, in written materials) report feeling more comfortable talking to adults about a variety of concerns.<sup>8,9</sup> Programs targeting healthy eating behavior have also been effective in improving students' attitudes toward healthy foods and preferences, which can lead to healthy food choices.<sup>10</sup> However, it is important to tailor education and intervention on health behaviors to meet the social, emotional, and behavioral needs of all students. For example, interventions targeting sexual health may be more successful with students of Latinx backgrounds when focused on delaying sexual intercourse, whereas interventions focused on contraceptive use may be more successful with White adolescents.<sup>27</sup> Not only does health education have the capacity to influence student behavior and physical health, it plays a role in students' emotions and attitudes.

## Academic Outcomes

Research demonstrates a strong connection between healthy behaviors and academic achievement, including improved grades, standardized test scores, graduation rates, and attendance.<sup>2,23,29</sup> For example, healthy nutrition, physical activity, and adequate sleep are associated with academic success.<sup>16,25</sup> Additionally, academically successful students are less likely to smoke cigarettes, use vaping products, or drink alcohol before the age of 13.<sup>5,29</sup> Since unhealthy behaviors such as poor eating habits, physical inactivity, and substance use are commonly associated with lower academic achievement,<sup>29</sup> teaching and practicing healthy lifestyle behaviors is a component of effective health education curricula that promotes positive academic outcomes. Overall, health education is a critical means for intervening on any negative effects such behavior may have on student success.



## HEALTH EDUCATION: EVIDENCE IN ACTION

The strategies provided here summarize a review of available evidence and best practice recommendations in this domain.\* Strategies are grouped by anticipated resource demand (e.g., funding, time, space, training, materials).

### Level 1 Strategies: Low resource demand

#### Use the Health Education Curriculum Analysis Tool (HECAT)

- HECAT can help schools select and/or develop appropriate and effective health education curricula, as well as improve the delivery of health education for student and community needs.<sup>6</sup>
- Schools can use this tool to review curriculum, score the accuracy, acceptability, and feasibility of curriculum content, and track scores over time.<sup>6</sup>

#### Align health education curricula with community needs and student interests

- Health education focused on cultural fit and the integration of multiple community systems is associated with improved outcomes<sup>7,27</sup> – that is, two different school districts may need education surrounding the same health topic, but the information may be delivered in different ways.<sup>27</sup>
- Gender-inclusive language increases student comfort with discussing a variety of concerns with adults.<sup>8,9</sup>
- Schools should deliver up-to-date and inclusive health education curriculum in a developmentally tailored, culturally relevant, and community-focused manner that prioritizes student interests.<sup>18,27</sup>

### Level 2 Strategies: Moderate resource demand

#### Promote family involvement in health education

- Family involvement can play a pivotal role in delaying the onset and use of alcohol and other drugs among children and can improve healthy student behaviors (e.g., consumption of fruits and vegetables).<sup>7,21,31</sup>
- Health education can promote family involvement by providing families with newsletters and information sheets, including family-student homework assignments, and offering family-student and family information sessions as part of the health education curriculum.<sup>21</sup>

#### Use multiple active-learning components in teaching health education

- Instructional programs that provide opportunities for active engagement are associated with reduced risk-taking behaviors, including decreased drunk driving and delayed initiation of sexual activity.<sup>11,27</sup>
- Health education lessons should include active-learning components<sup>21</sup> that can be delivered in person or virtually, such as role-playing, opportunities to practice healthy lifestyle skills, practice interpreting nutrition and medication labels, and meal planning and preparation.<sup>10,13,15,18</sup>

### Level 3 Strategies: High resource demand

#### Incorporate social learning approaches into health education activities

- Approaches that use social learning theory – the idea that people learn by observing others' behavior/attitudes and the outcomes of those behaviors – are associated with positive impacts on student attitudes and reductions in risk-taking behavior.<sup>10,18,21,27</sup>
- Prevention curricula should incorporate aspects of social learning theory into lessons, such as through opportunities to practice unpacking positive and negative media messages (e.g., whether a commercial is promoting health or unhealthy eating) and identifying ways in which social media and other influences can encourage healthy and unhealthy behaviors.<sup>18,25,27</sup>

#### Integrate health education across grade levels and subject areas

- Comprehensive and inclusive health education is recommended across pre-K through 12<sup>th</sup> grade. To best promote equitable outcomes, health education should cover multiple years<sup>24</sup> (thus increasing student access), be developmentally appropriate, and be tailored to meet the diverse needs of the community.<sup>18,26,27</sup> For example, the effectiveness of substance use prevention programs has shown to vary depending on developmental timing; this should be considered when selecting appropriate health education curricula.<sup>25,26</sup>
- Health education should also be integrated into other academic subjects.<sup>10,21,22,28</sup> For example, teachers can assign and discuss age-appropriate books that discuss health-related topics during language arts or have students interpret nutrition labels as part of a math exercise.

\*For more information about the systematic review process we used to identify evidence-based practices, please refer to our overview brief which can be found [here](#).



## ADDITIONAL RESOURCES

Note: The [WellSAT WSCC](#) allows users to evaluate district policy alignment with ‘best practices’ in policy associated with Health Education and other WSCC model domains.

### **Alliance for a Healthier Generation** [Health Education](#)

This webpage includes health education assessment tools for evaluating health education in your school, suggestions for improvement, and resources covering essential topics such as healthy eating, physical activity, and more.

### [Resources](#)

This webpage offers a list of links to tools and resources to help schools take action in health education.

### **American Cancer Society, American Diabetes Association, American Heart Association** [Health Education in Schools: The Importance of Establishing Healthy Behaviors in our Nation’s Youth](#)

This statement from the American Cancer Society, American Diabetes Association, and American Heart Association outlines why health education is important in the schools, what quality school health education should look like, and suggested strategies to support implementation.

### **American Public Health Association** [Center for School, Health and Education](#)

Become a member here to join discussions, debates, and receive up-to-date news and research findings related to school health education.

### **CDC**

### [Characteristics of an Effective Health Education Curriculum](#)

This website, reviewed in 2019, provides a detailed list and description of important health education curriculum characteristics developed by experts in the field.

### **Connecticut State Department of Education**

### [Comprehensive School Health Education](#)

This website includes an overview of health education, health education teacher evaluation resources, guidelines to curriculum development, and other related resources.

### **Society of Health and Physical Educators (SHAPE)**

### [Appropriate Practices in School-Based Health Education](#)

This 2015 guide of best practices was created to assist teachers and administrators in developing and delivering health education that meets local, state, and national standards.



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