Should Our Nation’s Schools Teach Health?¹

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National Academies of Sciences, Engineering, & Medicine
Roundtable on Health Literacy
Developing Health Literacy Skills in Youth: A Workshop
Washington, DC; November 19, 2019
SHOULD OUR NATION’S SCHOOLS TEACH HEALTH?

• Brief Background
• Four Structuring Sub-Questions
  • (1) What is school health education?
  • (2) What is student health literacy?
  • (3) Are our nation’s schools teaching health?
  • (4) How might we help schools teach health?
• References
The Nation’s PK-12 School System and Its Students

• 140,000 public and private schools
• 13,000 school districts
• 6 million teachers and staff
• 57 million students
• 95% of all 7- to 17-year olds
• Every school day for 13 of their most formative years

• 27% live in mother-only household, 20% live in poverty, 13% receive special education services for disabilities

• In a given year, 13-20% will experience a mental disorder

• 40% of HS students had engaged intercourse, 39% text/email driving, 31% overweight/obese, 30% use alcohol, 28% use e-cigarettes, 23% had asthma, 20% use marijuana, 7% attempted suicide
School Health Programs Could Improve Both Public Health Outcomes & Education Outcomes


14. CDC, 2019. Health and Academics Website


17. Kolbe, 2019. School health as a strategy to improve public health and
CDC/ASCD Whole School, Whole Child, Whole Community Framework (WSCC)—Ten Components

WHOLE SCHOOL, WHOLE COMMUNITY, WHOLE CHILD
A collaborative approach to learning and health

COORDINATING POLICY, PROCESS, & PRACTICE
HEALTHY SAFE ENGAGED
HEALTHY SUPPORTED

COMMUNITY

SUPPORT

COMMUNITY

3. Community Involvement
4. Community Education
5. Physical Education & Physical Activity
6. Nutrition Environment & Services
7. Health Services
8. Employee Wellness
9. Family Engagement
10. Social & Emotional Climate
11. Physical Environment
12. Counseling, Psychological, & Social Services
CDC/ASCD Whole School, Whole Child, Whole Community Framework (WSCC)—Ten Components

- Health Education
- Physical Education & Physical Activity
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- Health Services
- Counseling, Psychological, & Social Services
- Social & Emotional Climate
- Physical Environment
- Employee Wellness
- Community Involvement
- Family Engagement
(1) WHAT IS SCHOOL HEALTH EDUCATION?
School Health Education: Categorical & **Comprehensive**

- A *process* to teach health
- Either through
- Categorical Health Education about a Specific Topic and/or
- Comprehensive Health Education
Some Important Categorical Topics: CDC Youth Risk Behavior Surveillance System

- Behaviors that contribute to unintentional injuries and violence
- Alcohol and other drug use
- Sexual behaviors that result in unintended pregnancies and STIs, including HIV infection
- Tobacco use
- Unhealthy dietary behaviors
- Inadequate physical activity
Some Other Important “New” Categorical Topics?

- Healthy Mental, Emotional, and Behavioral Development
- Participating in One’s Own Healthcare
- Online and Media Health Literacy
- Genomics
- Human Microbiome
- Sleep
- Vaccinations
- Antibiotic Resistance
- Emerging and Reemerging Infectious Diseases
- Environmental Health
- Climate Change
- Bioethics
Some Efforts to Address “New” Categorical Topics

• NIH Curriculum Supplements\textsuperscript{20}
  • The Science of Healthy Behaviors
  • Emerging and Reemerging Infectious Diseases
  • Exploring Bioethics

• NIH K-12 STEM Education to Improve Scientific Training & Public Health Literacy\textsuperscript{21}

• NIEHS Environmental Health Literacy\textsuperscript{22} and Education\textsuperscript{23}

• NASEM, 2012, \textit{Climate Change Education in Formal Settings, K-14} [Workshop Report]\textsuperscript{24,25}

• NASEM, September 2019, \textit{Fostering Healthy Mental, Emotional, and Behavioral Development in Children and Youth: A National Agenda [Consensus Report]}\textsuperscript{26}
  • Chapter 4: Strategies for Educational Settings
Comprehensive School Health Education\textsuperscript{27,17}

- A planned and sequential PK-12 curriculum
- Taught by teachers specifically trained to help students
- Progressively acquire the knowledge, attitudes, and skills they will need to make decisions throughout their lifetimes
- Across multiple categorical health topic areas
- To acquire health literacy
- To adopt healthy behaviors
- And to promote the health of others
The eight NHES are written expectations for what students should know and be able to do by grades 2, 5, 8, and 12 to promote personal, family and community health.

- Focus on skills, not categorical topics

**Examples:**
- Standard 3– Students will demonstrate the ability to access valid information, products, and services to enhance health
- Standard 8– Students will demonstrate the ability to advocate for personal, family, and community health
(2) WHAT IS STUDENT HEALTH LITERACY?
• Health Literacy: “The degree to which individuals have the capacity to obtain, process, and understand basic health information needed to make appropriate health decisions (Ratzan & Parker, 2000).”

• “Arguably the most effective means to improve health literacy is to ensure that education about health is a part of the curriculum at all levels of education . . . . (p. 148).”

• While school health education is a process, student health literacy is a critical health and education outcome
U.S. National Action Plan to Improve Health Literacy (DHHS, 2010)\textsuperscript{31}

• **Goal 3:**
  
  “Incorporate accurate, standards-based and developmentally appropriate health and science information and curricula in child care and education through the university level”
Theory & Measurement of Student Health Literacy: What Should Students Know & Be Able to Do?

- Depends on designated:
  - Definition of health literacy
  - Developmental level
  - Number and scope of categorical topics
  - Critical knowledge, attitudes, beliefs
  - Required cognitive, emotional, social, physical skills
  - Whether students need to engage in a healthy behavior in order to be considered literate about that behavior?
(3) ARE OUR NATION’S SCHOOLS TEACHING HEALTH?
Education Priorities\textsuperscript{17}

• No Child Left Behind Act (2001) Core Academic Subjects\textsuperscript{36}
  • English, Reading or Language Arts, Math, Science, Foreign Languages, Civics and Government, Economics, Arts, History, Geography

• Every Student Succeeds Act (2015)\textsuperscript{37}
  • Included “health” among 17 other subject areas that could be supported as part of a “Well-Rounded Education”

• Schools must assure students proficient in tested subjects

• School health education is not a priority for colleges of education and for PK-12 schools\textsuperscript{38-40}

• Most who teach health in secondary schools principally trained to teach physical education\textsuperscript{41}
Analysis of Each State’s School Health Policies by WSCC Component—2017 (NASBE\textsuperscript{42}/Child Trends\textsuperscript{43})

- **Health Education Component**
  - 25 states address the NHES
  - Among the many health education topics that states address
    - 40 states support nutrition education
    - 37 states support social/emotional learning
CDC School Health Policies and Practices Study [of School Districts]– 2016

• Health Education Component
  • 63% of districts follow the NHES
  • Among the many health education topics that districts address
    • 85% require HS teach nutrition
    • 82% require HS teach emotional/mental health
• **Health Education Component**
  • Percentage of schools that required students take 2 or more health education courses: Range = 11% (of schools in lowest state) to 89% (of schools in highest state)
  • Examples of skills across states
    • Accessing valid information, products, and services to enhance health: Range = 69% to 96%
    • Using interpersonal skills to avoid risk behaviors: Range = 76% to 98%
Barriers & Challenges

• School health education has not been a priority for public health and medicine
• School health education has not been a priority for education
• Numerous categorical topic area programs compete for scarce time and resources
• Most who teach health in secondary schools are principally trained to teach physical education
• Little support for school health education research
• Academic school health education professional preparation, research, and service programs are waning
• Has been no plan to improve school health education and health literacy
Hope & Opportunities

• Possible HP 2030 Objective: Increase % secondary schools require students take at least 2 health education courses in grades 6-12
• >100 national organizations working to improve school health

Three Examples:
  • HRSA
    • National Coordinating Committee School Health & Safety
  • CDC
    • Funds surveillance and state and NGO efforts
    • Health Literacy Website – Schools
    • Characteristics of Effective Health Education Curriculum
    • Health Education Curriculum Analysis Tool
    • Teacher Training & Parent Engagement
  • SOPHE
    • 11 Challenges and Related Recommendations
    • Health Education Teacher Accreditation & Certification
(4) HOW MIGHT WE HELP SCHOOLS TEACH HEALTH?
Schools and Health: Our Nation’s Investment (IOM, 1997)—Recommendations

• All students should receive sequential health education every year from elementary through junior high school

• Secondary school students should receive at minimum a one-semester health education course as a requirement for high school graduation
  • Based on NSHE Standards
  • Emphasizing the six priority behavioral categories
  • Taught by qualified health education teachers

• Colleges of education should prepare all elementary school teachers to teach health education
Health Literacy: A Prescription to End Confusion (IOM, 2004)

• ED/DHHS should convene task forces to identify actions relevant agencies could take to improve health literacy in schools

• HRSA, CDC, and ED collaboratively should fund demonstration projects in each state

• NSF, ED, NICHD should fund research to improve health literacy
National Academy of Sciences, Engineering, & Medicine Education Initiatives

• NASEM Board on Science Education

• NASEM, 2013, *Next Generation Science Standards: For States, By States*

• NASEM, 2019, *Fostering Healthy Mental, Emotional, and Behavioral Development in Children and Youth: A National Agenda*

• ? NASEM, 20??, *A National Agenda for School Health Education to Improve Health Literacy [Consensus Report]*
  • Conceptual Framework
  • Measurement
  • Implementation
  • Research
Other Possible Actions to Consider?
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22. Finn S, O’Fallon L. The emergence of environmental health literacy—From its roots to its future potential. *Environ Health Perspect* 2017;125(4):495-501
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