

# Should Our Nation's Schools Teach Health?<sup>1</sup>

*Lloyd J. Kolbe, PhD*

*Professor Emeritus, Indiana University School of Public Health*

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<sup>2</sup>
- 13,000 school districts<sup>3</sup>
- 6 million teachers and staff<sup>4</sup>
- 57 million students<sup>5</sup>
- 95% of all 7- to 17-year olds<sup>6</sup>
- 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<sup>7</sup>
- In a given year, 13-20% will experience a mental disorder<sup>8</sup>
- 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<sup>9,10</sup>

# School Health Programs Could Improve Both Public Health Outcomes & Education Outcomes<sup>11-17</sup>

11. IOM, 1997. *Schools and Health: Our Nation's Investment [Consensus Report]*
12. IOM, 2014. *Exploring Collaboration Between Health and Education to Improve Population Health [Workshop Report]*
13. McDaid, 2016. *Investing in Health Literacy: What Do We Know about Co-Benefits to the Education Sector [World Health Organization Report]*
14. CDC, 2019. Health and Academics Website
15. NASEM, 2019. *School Success— An Opportunity for Population Health Action [Workshop Report]*
16. NASEM, 2019. *Applying Lessons of Optimal Adolescent Health to Improve Behavioral Outcomes for Youth [Workshop Report]*
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# CDC/ASCD Whole School, Whole Child, Whole Community Framework (WSCC)– Ten Components<sup>18,19</sup>

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



# CDC/ASCD Whole School, Whole Child, Whole Community Framework (WSCC)– Ten Components<sup>18,19</sup>

- Health Education
- Physical Education & Physical Activity
- Nutrition Environment & Services
- 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<sup>9</sup>

- 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<sup>20</sup>
  - The Science of Healthy Behaviors
  - Emerging and Reemerging Infectious Diseases
  - Exploring Bioethics
- NIH K-12 STEM Education to Improve Scientific Training & Public Health Literacy<sup>21</sup>
- NIEHS Environmental Health Literacy<sup>22</sup> and Education<sup>23</sup>
- NASEM, 2012, *Climate Change Education in Formal Settings, K-14* [Workshop Report]<sup>24,25</sup>
- NASEM, September 2019, *Fostering Healthy Mental, Emotional, and Behavioral Development in Children and Youth: A National Agenda* [Consensus Report]<sup>26</sup>
  - Chapter 4: Strategies for Educational Settings

# Comprehensive School Health Education<sup>27,17</sup>

- 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

# National Health Education Standards: Achieving Health Literacy (2007)<sup>28,29</sup>

- 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: A Prescription to End Confusion* (IOM, 2004)<sup>30</sup>

- 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)<sup>31</sup>

- 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:<sup>32-35</sup>

## 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<sup>17</sup>

- No Child Left Behind Act (2001) Core Academic Subjects<sup>36</sup>
  - English, Reading or Language Arts, Math, Science, Foreign Languages, Civics and Government, Economics, Arts, History, Geography
- Every Student Succeeds Act (2015)<sup>37</sup>
  - 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<sup>38-40</sup>
- Most who teach health in secondary schools principally trained to teach physical education<sup>41</sup>

# Analysis of Each State's School Health Policies by WSCC Component– 2017 (NASBE<sup>42</sup>/Child Trends<sup>43</sup>)

- 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<sup>44</sup>

- 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

# CDC School Health Profiles [of Secondary Schools, Grades 6-12]– 2018<sup>45</sup>

- 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<sup>46</sup>
- Three Examples:
  - HRSA
    - National Coordinating Committee School Health & Safety<sup>47</sup>
  - CDC
    - Funds surveillance and state and NGO efforts<sup>48,49</sup>
    - Health Literacy Website– Schools<sup>50</sup>
    - Characteristics of Effective Health Education Curriculum<sup>51</sup>
    - Health Education Curriculum Analysis Tool<sup>52</sup>
    - Teacher Training<sup>52,53</sup> & Parent Engagement<sup>54,55</sup>
  - SOPHE
    - 11 Challenges and Related Recommendations<sup>38-40</sup>
    - Health Education Teacher Accreditation & Certification<sup>41</sup><sub>24</sub>



## **(4) HOW MIGHT WE HELP SCHOOLS TEACH HEALTH?**

## *Schools and Health: Our Nation's Investment* (IOM, 1997)– Recommendations<sup>11</sup>

- 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)<sup>30</sup>

- 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<sup>56</sup>

- NASEM Board on Science Education<sup>57</sup>
- NASEM, 2013, *Next Generation Science Standards: For States, By States*<sup>58</sup>
- NASEM, 2019, *Fostering Healthy Mental, Emotional, and Behavioral Development in Children and Youth: A National Agenda*<sup>26</sup>
- ? NASEM, 20??, *A National Agenda for School Health Education to Improve Health Literacy [Consensus Report]*<sup>???</sup>
  - Conceptual Framework
  - Measurement
  - Implementation
  - Research

Other Possible Actions to Consider?

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