Public Health and School Health Education: Aligning Forces for Change

David A. Birch, PhD, MCHES[1]
M. Elaine Auld, MPH, MCHES[2]

The interdependent relationship between health and education has long been documented by leading health and education scholars. Children who are not physically, mentally, socially, or emotionally healthy will not be ready to learn and thus hampered to achieve their full potential as productive members of society. Despite this evidence, the United States has yet to bridge the divide between the health and education systems. This perspective introduces three manuscripts in this Special School Health Education Collection on the future of school health education in the United States, and provides a context for the challenges and recommendations each article outlines to improve the quantity and quality of school health education for preK-12 youth. Although some of the challenges and recommendations are not novel, what is exciting is the opportunity to move the agenda forward given the Whole School, Whole Community, Whole Child model and the Every Student Succeeds Act of 2015. Aligning the forces of public health and school health educators is essential to make school health education a societal imperative.

Keywords: *coordinated school health programs; school health; curriculum; school health; career development/professional preparation; child/adolescent health; health literacy; continuing education; health education; quality assurance / quality improvement; social determinants of health*

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Leading educators and health professionals have long documented the interdependent relationship between health and education (Basch, 2011; Institute of Medicine, 1997; Kolbe, 2019). School-age children and adolescents experiencing health issues such as stress, physical and emotional abuse, hunger, safety concerns, vision, hearing or dental problems, asthma, or other chronic illnesses have unique challenges often impeding their school success (Allensworth, Lewallen, Stevenson, & Katz, 2011; Basch, 2011; Kolbe, 2019; Robert Wood Johnson Foundation, 2016). Research shows that high school students who engage more often in sexual activity, physical fights, and tobacco or alcohol use have lower grades than those who engage less in these behaviors (CDC, 2015c).

Long-standing research also clearly indicates that individuals who attain higher levels of education experience better adult health outcomes resulting in both longer life expectancy and quality-adjusted life years (Brown et al., 2012; Institute of Medicine, 2015; Karas Montez, Hummer, & Hayward, 2012; Virginia Commonwealth University

[1]*The University of Alabama, Tuscaloosa, AL, USA*
[2]*Society for Public Health Education, Washington, DC, USA*

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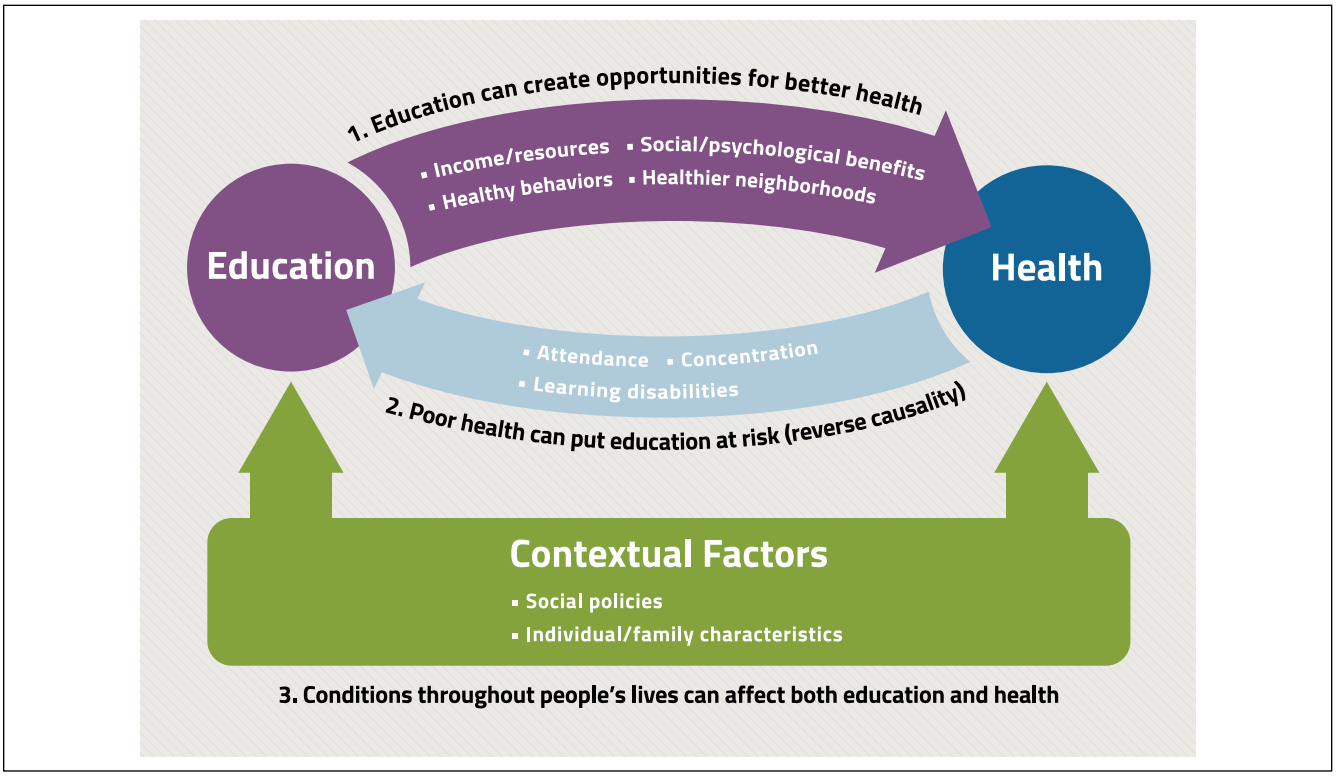

FIGURE 1 Linkages Between Health and Education
SOURCE: Virginia Commonwealth University Center on Society and Health (2014).

[VCU], 2014). Adults with higher levels of education are more likely to rate their health as good in comparison with adults with lower levels of education (Egerter, Braveman, Sadegh-Nobari, Grossman-Kahn, & Dekker, 2011). Those who graduate from high school are more likely to have healthier children and be gainfully employed than those who do not complete high school (VCU, 2014). Zimmerman and Woolf (2014) note that of all the social determinants affecting health disparities, regardless of geography or demographic characteristics, education has been cited as a major factor (see Figure 1).

Despite this evidence, and the obvious need to address the complex issues faced by today's youth, the United States has yet to bridge the large-scale chasm between the health and education sectors (Vatterott, 2019). Is it, as one recent educational expert argued, due to "excessive workloads, crammed schedules, and 'perfectionism'" (Vatterott, 2019, p. 12), or due to more complex, multifactorial issues, some of which have been identified by teens themselves and are health-related? (Farah et. al, 2019; VCU, 2014). For the first time in two centuries, life expectancy of the current generation of youth is expected to be lower than that of their parents due to the rise in childhood obesity, which is linked to cardiovascular disease, diabetes, renal failure, and other fatal conditions (Olshansky et al., 2005). Between 2017 and 2018, e-cigarette use rose 78% among high school students and 48% among middle school students, portending a new cohort of tobacco addicts (Cullen et al., 2018). In 2016, 3.6% of adolescents ages 12-17 years reported misusing opioids over the past year, primarily related to prescription opioids (Substance Abuse and Mental Health Admin-istration, 2017). Despite ongoing prevention efforts, young people aged 13 to 24 years accounted for 22% of the approximately 44,000 new HIV infections in the United States (Centers for Disease Control and Prevention [CDC], 2019). More than one out of every five (20.8%) students report being bullied, primarily related to physical appearance, race/ethnicity, gender, disability, religion, or sexual orientation (Musu-Gillette, Zhang, Wang, Zhang, & Oudekerk, 2016). Students who experience bullying are at increased risk for poor school adjustment, sleep difficulties, headaches, stomach aches, anxiety, and depression as well as other mental health and behavior problems (CDC, 2018; Gini & Pozzoli, 2013). Suicide among teens and young adults has nearly tripled since the 1940s and now is the third leading cause of death for youth between the ages of 10 and 24 years. Among high school students, 16% reported

seriously considering suicide, 13% reported creating a plan, and 8% reporting trying to take their own life in the 12 months preceding the survey (CDC, 2017).

What is the best avenue for preparing youth to enter the workforce as productive members of society? The public and private sectors are demanding a healthy generation of workers equipped with 21st century knowledge and skills, particularly technology. Although some 95% of teachers report using technology in the classroom (e.g., YouTube, SchoolTube, Netflix, Google G Suite for Education, Microsoft Office), health and well-being tools such as GoNoodle, Mind Yeti, and Amaze are used by only one-fourth of classroom teachers (Vega & Robb, 2019). With the aging population, businesses and health departments are looking to recruit young educated healthy employees who can contribute to the bottom line, especially to succeed in a global economy (Sellers et al., 2019). Companies are investing in employee health/wellness programs to assist with workforce satisfaction and retention and to address infectious and biologic threats that have no borders (CDC, 2014; Orchard, 2015).

To help address these pressing health issues, the CDC identified characteristics of a quality school health education program (CDC, 2015a). However, many schools in the United States still fail to offer school health education programs of sufficient quantity or quality (Videto & Dake, 2019).

Thus, efforts for better integration between the health and education sectors must be a societal priority. Healthy People 2020 (n.d.) includes the objective "to increase the proportion of elementary, middle, and senior high schools that have health education goals or objectives which address the comprehension of concepts related to health promotion and disease prevention (knowledge)." Ruglis and Freudenberg (2010) have called for the education and health sectors to engage in a movement to improve school achievement, improve graduation rates, and promote individual, family, and community health. Recently, two Society for Public Health Education (SOPHE) presidents (Allensworth, 2011; Birch, 2017) called on public health educators to step up their roles in improving school health education.

The CDC is to be commended for its long history in recognizing the interconnection between learning and health and efforts to promote not only healthy students but also healthy and effective schools. The agency worked with ASCD (Association for Supervision and Curriculum Development) to produce the Whole School, Whole Community, Whole Child (WSCC) model in 2014, along with diverse educational, health, and public health leaders, as a new framework for

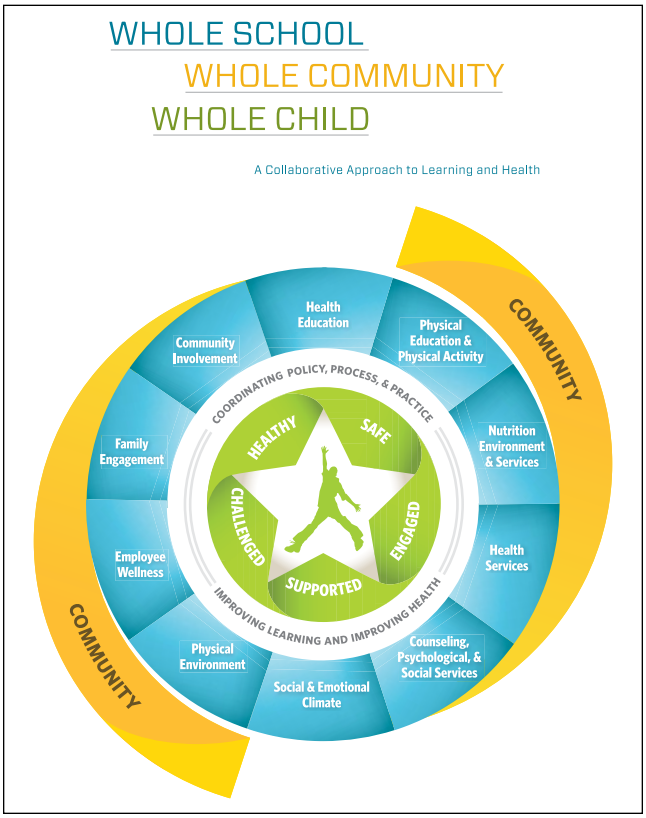

FIGURE 2 The Whole School, Whole Community, Whole Child Model
SOURCE: Centers for Disease Control and Prevention (2019).

achieving this vision (CDC, 2015b; see Figure 2). WSCC includes 10 components that collectively aim to ensure that each student is healthy, safe, engaged, supported, and challenged and learns about and practices a healthy lifestyle and achieves academic success.

Quality school health education taught by qualified teachers is among the WSCC's 10 components. The needs of a "highly connected" new generation of learners must be addressed through engaging, authentic teaching and learning approaches. Instructional approaches must stimulate and underscore health and numeracy literacy skills that provide the foundation for lifelong learning, as knowledge is created at a more rapid pace than ever (Birch, Goekler, Auld, Lohrmann, & Lyde, 2019).

Recognizing the need to expand and improve the quality of school health education, in 2016 SOPHE convened the National Committee on the Future of School Health Education (Birch, 2017). This committee includes a diverse roster of school administrators, public school health education teachers, state department of education

and health education directors, university faculty members, and other school health education leaders and stakeholders. The charge of the committee is threefold:

- Assess the status of school health education in the United States
- Identify assets and barriers related to the implementation of quality school health education
- Identify strategies designed to enhance the perceived value of school health education and maintain and improve programs.

One of the first work products of the committee was the identification of challenges and related recommendations for improving school health education, including issues related to the preparation and certification of school health education teachers. These challenges and recommendations are presented in three articles in this focus issue of *Health Promotion Practice*. Although some of the challenges and recommendations are not novel, what is new is the opportunity to move the agenda forward given the WSCC and The Every Student Succeeds Act of 2015, which recognized health education as a well-rounded subject on par with reading, math, and science (SOPHE, 2017).

In the first article in the series, "Promoting Health Literacy Through Defining and Measuring Quality School Health Education," Videto and Dake (2019) discuss how education initiatives implemented in the turn of this century have fallen short in advancing school health education. The authors present three challenges and recommendations to move toward the development and implementation of quality school health education programs. These recommendations are intended to address the 21st-century academic and health needs of students and provide specific direction for all sectors in the WSCC.

Building on these perspectives, the second article "Addressing Challenges to the Reliable, Large-Scale Implementation of Effective School Health Education," by Mann and Lohrmann (2019), presents two challenges and recommendations specific to program priority, capacity, policy, and practice. In addition, the authors recommend pathways to coordinated leadership for school health education on behalf of governmental and nongovernmental agencies. Finally, they argue for increased multidisciplinary research focused on implementation issues related to school health education and present four "next generation skills" for school health education professionals.

For school health education to reach its maximum potential, it must be taught by passionate, well-prepared teachers who are certified in health education and participate in continuing education (Birch, 2017). The third article, "Quality Assurance in Teaching K–12 Health Education: Paving a New Path Forward," outlines the current context of health education pedagogy in K-12 schools in which health education is often relegated to teachers who are not professionally prepared in the discipline (Birch et al., 2019). The authors present four challenges and recommendations that address certification and professional preparation and ongoing professional development for teachers at both the elementary and secondary levels. They also call for curricular improvements in preservice public health programs so that community health educators better understand state and local educational bureaucracies, advocate for educational reforms in support of school health, and are knowledgeable about the WSCC framework in support of the whole child. Faculty in schools and programs of public health have many opportuni-ties to address these challenges in their curriculum to ensure that public health educators in health departments, nonprofit organizations, health care, and businesses can better work with schools for positive educational and health outcomes. Moreover, a new generation of leadership is needed in our health education doctoral preparation programs to keep pace with rapid changes in society.

We are grateful for CDC's support of this Special Collection to call attention to both the current challenges in providing quality school health education to all students, and the essential role of community health educators in supporting health and learning for school-age children and youth. We hope that the content and recommendations will catalyze collaborative policy and programmatic efforts among educators, public health professionals, and other key stakeholders. Needed reforms will not happen without partnership, buy-in, and programmatic efforts from both the public health and education sectors.

Access to high-quality school health education should be viewed as a determinant of health. Healthy students are essential to academic success. Although deficiencies in school health education are not new, the serious health issues of today's youth call for urgent public health intervention. The WSCC and ESSA provide new opportunities for strategic and purposeful collaboration aligning public and school health education specialists. With this united front, we can then reach the goals of equity and health for all with the foundation of a strong education and health partnership. Eugene Carter, ASCD Emeritus Executive Director, emphasized the importance of this reciprocal imperative by stating,

> Health and education are related. They are interrelated. They are symbiotic. There is a connection between the two sectors. When one fails, so does

> the other. When one succeeds, that success feeds the other. We do not just have an isolated duty to want the child to be healthy and educated—we have a moral imperative. (Carter, 2014)

Hopefully, this journal Special Collection will be a valuable resource in this collaborative movement and pave the pathway for healthy, well-prepared, and profitable future generations.

ORCID iD

M. Elaine Auld https://orcid.org/0000-0001-9318-0917

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