

A Systems Approach to Integrating Health in Education

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Prepared by Cairn Guidance, Inc.



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Introduction

Education is consistently cited as the most important issue facing our country today. Policymakers, elected officials, researchers, business and community leaders, parents, and young people themselves identify education as foundational to a vibrant society, economy, and citizenry. But more and more people are losing confidence in the education system, and recent years have shown a growing concern among United States employers that the U.S. educational system is not equipping students with life skills, including problem solving, critical thinking, and skilled communication.¹ A 2013 Gallup Poll of 5th-through-12th-graders across the U.S. found that only one in three students are “success-ready.” This is based on three dimensions found to be strongly associated with student performance: hope, engagement, and well-being. And the combined measure of these factors is predictive of student outcomes that parents and educators care about, such as grades, credits earned, achievement scores, likelihood to stay in school, and future employment.² However, education policies over the past decade have shifted the focus of the mission of schools on strictly remedial outcomes, largely obscuring the relevance of “non-academic” factors such as health and well-being, engagement, and hope.

In order to cultivate the essential skills needed for young people in the U.S. to succeed economically and as citizens, a child’s entire set of needs must be considered. Health—inclusive of physical, mental, social, emotional, and cognitive—is foundational to learning and achievement, and student, staff, school, and community factors all influence a student’s ability to exceed

academically. Decades of research continue to reinforce what many teachers, administrators, parents, and youth have always known: students who are healthy, present, and engaged, learn better. At the same time, those with more education tend to live longer, healthier, and more productive lives.³ Gaps in educational achievement fall along similar lines as disparate outcomes in health, with students of color and students from economically disadvantaged homes more likely to have negative health outcomes and lower academic outcomes.⁴

Historically, efforts to reduce the disparities in education outcomes have largely focused on increasing the amount of instructional time, teacher preparation practices, and educational standards. While gains have been documented among all student populations, youth of color, English language learners, and students from low SES homes are less likely to graduate high school (see Figure 1 below).⁵

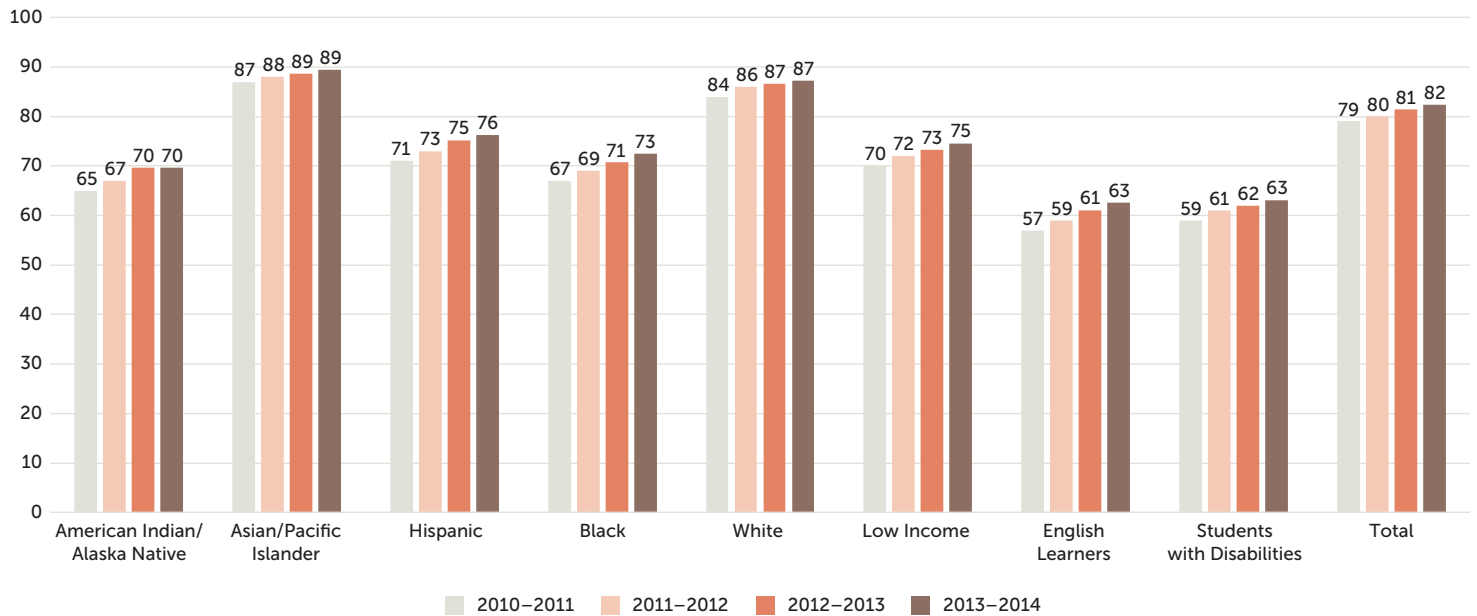
Many researchers in health and education indicate that one reason for this may be that these education-specific approaches do not address healthy school environments as a support necessary to facilitate the best possible learning.⁶

Educational outcomes are vital to lifelong health and well-being. There is now evidence that there is a causal link between educational attainment and life expectancy. Minimizing dropout rates and maximizing graduation rates is critical to creating better outcomes for adult health.

“School health is currently not a central part of the fundamental mission of schools in America nor has it been well integrated into the broader national strategy to reduce the gaps in educational opportunity and outcomes.”

– Basch, Healthier Students Are Better Learners

U.S. four-year cohort graduation rates, 2010/2011–2013/2014



The relationship between health and education is reciprocal: higher education has been found to improve life expectancy,⁷ and better health supports gains in learning.

In fact, one analysis found that mortality attributable to low education is comparable in magnitude to mortality attributable to individuals being current smokers, rather than former smokers.⁸ Increases in educational attainment impact health through multiple pathways, including higher income and social status, healthier behaviors, and improved social and psychological well-being.

Research documenting the impact of health on learning has focused on indicators of learning vis-à-vis academic

achievement, including grades and test scores, attendance, graduation, dropout, classroom behavior, and cognitive ability (such as mood, attention, and memory).

Over two decades of research on the link between health and education have found that health behaviors, such as nutrition, physical activity, sexual behavior, alcohol, tobacco and substance use, and violence have an inverse relationship with indicators of academic achievement.⁹ A recent publication by Michael and colleagues⁶ provides an excellent review of the scientific literature connecting health and learning. A high-level summary of key findings from decades of academic research is provided below, with many findings showing the reciprocal relationship between health and education.

Health Topic	Educational Outcomes	Key Learning From Research
Physical Activity	Grades, Test Scores	The majority of research conducted in the past 25 years shows a positive association between school-based physical activity (PE, recess, in-class, extracurricular) and academic achievement. ¹⁰ Reassigning instructional time for physical activity has not shown negative impact on achievement. ¹¹
Nutrition	Grades, Test Scores, Attendance, Classroom Behavior	Students with low nutrient intake were more likely to be absent, experience behavioral problems in school, and get poorer grades. These improved after implementing a universal breakfast program. ¹² Improving diet quality is associated with students being on task more often, increases in math test scores, and attendance. ¹³
Bullying and Violence	Grades, Test Scores, Attendance	Victimization has been associated with lower grades, GPA, standardized test scores and attendance. ^{14,15} Perceived prevalence of bullying was predictive of schoolwide passing rates on achievement tests, even when student race/ethnicity, poverty, school size, and personal victimization were controlled for. ¹⁶
Social and Emotional Health	School Engagement, Connection, Attendance, Test Scores, Graduation	Connection to school is a powerful factor in promoting student motivation, attendance, performance, and graduation. School connectedness also has been shown to mitigate or protect against emotional distress, including symptoms of depression and anxiety, and to be associated with less disruptive behavior and involvement in violence, substance abuse, and delinquency. ¹⁷
Behavioral Health	Attendance, High School Graduation	Students with diagnosed behavioral health issues miss three times as many school days as those without behavioral health challenges. ¹⁸ Students who used drugs or alcohol were found nearly three times more likely to drop out of school. ¹⁹
Unintended Pregnancy	High School Graduation	Thirty percent of teen girls who drop out of high school cite parenthood as a key reason, with teen pregnancy rates higher among African-American and Latino girls. ²⁰

Despite the strong and well-established connection between health and learning, the health and education sectors have, for the most part, grown, developed, and established their influence independent of each other. Yet, they are often serving the same child, in the same location, frequently attending separately to similar issues.²¹ Even health programs alone are serving children one issue at a time. Many reasons have been cited for this disconnect. Federal and state policies are one mechanism that can either facilitate or challenge schools to address health as a learning support. Below is a brief overview of key federal laws impacting the integration of health into education, as well as examples of state policies.

Elementary and Secondary Education Act (ESEA) of 2001 (No Child Left Behind) and Every Student Succeeds Act (ESSA) of 2015

An increased focus on academic achievement as measured by standardized test scores came with the 2001 reauthorization of the Elementary and Secondary Education Act (ESEA), also referred to as No Child Left Behind (NCLB). The federal law was intended to promote student academic achievement nationally by introducing accountability for states, school districts, and most importantly, schools.²² The fear of sanctions and potential job loss placed an intense pressure on

education professionals and leaders to achieve state-set benchmarks without resources commensurate with needs of the school. This focus resulted in an increased emphasis on instruction, while efforts to improve health-related learning supports were left to be implemented in piecemeal and ad hoc fashion. As budgets tightened, the trend is always for such “auxiliary” supports to be among the first cut.

School Improvement Plans (SIPs) were formally introduced within the federal law to improve the quality of teaching and learning so that a greater number of students achieve proficiency in core academic subjects. It established specific and measurable annual goals for academic improvement to meet state proficiency levels measured by standardized testing. Requirements and accountability structures for SIPs vary between, and even within, states, though many plans are required to have components such as preparation (development of a mission and vision statement, and an establishment of learning criteria), family and community involvement, data collection and use of data to drive academic decisions, professional development for staff, effective instructional practices, after-/before- school programs, school climate/safety, and action planning and implementation.

The SIP has been one avenue for many states, districts, or schools to address health within an education accountability system. For educators, SIPs are considered one of the most important planning documents in schools, driving school- and district-level priorities. For this reason, SIPs serve as a vehicle to incorporate health and wellness into what gets measured, tracked, and focused on. There are a variety of ways in which health has been integrated into the school improvement process. For example, Arkansas has state legislation that requires a Health and Wellness Priority to be included in the Arkansas Comprehensive School Improvement Plan (ACSIP) developed by every school and district.²³

For more information on SIPs, and examples of states that have utilized SIPs to prioritize health as a part of accountability measures in schools, refer to the National Association of Chronic Disease Directors document “*A Guide for Incorporating Health & Wellness into School Improvement Plans*”.²⁴

The Every Student Succeeds Act (ESSA) of 2015 provides states with more control in determining what accountability measures will be used to mark the success of schools. One indicator must be a “non-academic” indicator, which provides an opportunity for schools to see a more nuanced view of student success and equity. The data must be able to be disaggregated, allow for “meaningful differentiation in school performance, and is valid, reliable, comparable and statewide.” Indicators such as school climate, student engagement or even health and physical education have been identified as possible indicators.²⁵

Title II of ESSA offers professional development indicators including opportunities for health and physical education teachers to attend conferences, training events, develop their teaching and leadership skills, and focus on implementation of evidence-based programs.

Additionally, within Title IV: Part A of ESSA, health and physical education are now included in the definition of “well-rounded education.” There are changes in funding for health-related programs in schools, which will be wrapped up into a block grant that states will distribute to local school districts. In the requirements of the block grant, districts will be required to spend a portion of the funds on “Activities to support Safe and Healthy Students.” Specifically, the law states that each local education agency shall use a portion of funds to develop, implement, and evaluate programs that:

- Are coordinated with other schools and community-based services and programs;
- Foster safe, healthy, supportive, and drug-free environments that support student academic achievement (e.g., school mental health, drug and violence prevention, training on trauma-informed practices, health and physical education);
- Promote the involvement of parents in the activity or program; and
- May be conducted in partnership with an institution of higher education, business, nonprofit organization, community-based organization, or other public or private entity with a demonstrated record of success in implementing activities described in this section.

A broad array of health programs is provided, including school-based mental health services; programs that support a healthy, active lifestyle and relationship building, and that prevent bullying and harassment; mentoring and school counseling; dropout prevention and re-entry programs; suicide prevention; drug abuse prevention; and designing and implementing a locally tailored approach to reduce exclusionary discipline practices.²⁶

Child Nutrition and WIC Reauthorization Act of 2004

The Child Nutrition and WIC Reauthorization Act of 2004 required local education agencies that participate in the National School Lunch Program or other Federal Child Nutrition Program to establish a local school wellness policy for all schools under its jurisdiction. The effort was put in place to address childhood obesity, and required schools to address both nutrition and physical activity, involve stakeholders, and have a comprehensive school wellness policy in place beginning in the 2006-2007 school year.

The federal requirement did have a marked effect on the policy environment in schools. A study of wellness policies across the U.S. between 2004 and 2007 showed that nutrition policy components were the most frequently implemented. There were also marked increases in staff wellness policies, including nutrition education in curriculum, and policies specifying minutes required for physical education. The top barrier cited to policy development and implementation was needing to use food for fundraising, followed by the demand of teacher and principal time due to No Child Left Behind.²⁷

Health Services in Schools: School Nurses and School-Based Health Centers

School nurses and school-based health centers (SBHCs) form the framework of health services provided in most schools. There are no federal policies requiring the presence of school nurses, or school nurse-to-

student ratios. However, several federal policies protect the rights for all students to attend public school, including those with significant health needs. Those laws included the Rehabilitation Act of 1973, Section 504 (2000) and Public Law 94-142, the Education for all Handicapped Children Act (1975), reauthorized in 2004 as the Individuals with Disabilities Education Improvement Act [IDEIA], (2004). Although evidence to support ratios was limited, some states and the National Association of School Nurses (NASN) recommended one school nurse to 750 students in the healthy student population; 1:225 for student populations requiring daily professional nursing services; 1:125 for student populations with complex healthcare needs; and 1:1 for individual students requiring daily, continuous professional nursing services.²⁸ However, the American Academy of Pediatrics recently released a position paper recommending there be one school nurse in every school, with medical oversight from a school physician in every district.²⁹

Without federal policies as a guide, states are required to design and implement their own policies. According to the 2009 NASN "ruler," only 13 states met the nationally recognized objective of a student-to-school nurse ratio of 1:750 well students.

Similar to school nursing, there is no federal policy requiring that students have access to medical care on school grounds like they receive in a school based health center (SBHC). SBHCs are medical clinics located on or near school grounds and are typically staffed by a primary care provider (such as an MD, PA, or LPN) and some provide mental and/or dental health, as well. In the 2010-2011 school year, there were nearly 2,000 SBHCs across the country.³⁰ The number, funding, and organizational structure of SBHC models vary from state to state, but most funding is allocated from state legislatures via general fund dollars, making them susceptible to the fluctuations of state budgets and political will. Having access to an SBHC supports student learning by providing care where youth are to keep them healthy, in the classroom, and engaged, and helps parents by reducing time off from work to take a student to the doctor.

School nurses and SBHC play a vital role in supporting student learning. Findings from one review found that school nurses can have an influence on student absenteeism by targeting students with a history of high rates of absenteeism. In addition, schools with smaller school nurse-to-student ratios were associated with

lower absenteeism rates and higher graduation rates.³¹ Similarly, the use of school-based and school-linked health centers that ensure access to needed physical, mental, and oral health care have been shown to improve attendance, behavior, and achievement.³²

State Policies Integrating Health in Education

More states are beginning to build accountability measures that integrate health and education. In Tennessee, the Coordinated School Health Improvement Act of 1999 put school health as a priority and a means to assist in meeting education performance indicators. The law was revised in 2006 to secure financial resources to fund positions for school health coordinators. Each district school health coordinator is responsible to coordinate and oversee the implementation of coordinated school health programs within the LEA and provides continuing support for coordinated school health programs. In 2009, the Kentucky legislature adopted Senate

Bill 1, which established Program Review as a part of a new assessment and accountability model.³³ This ensured district and school accountability for student achievement. The annual audits by the Kentucky Department of Education provide feedback and recommendations to improve local programs. Included in the submissions are curriculum and instruction measures for health and physical education, and administrative support and monitoring of a broader school health initiative, including, a Coordinated School Health committee, wellness policy implementation and alignment of school health measures into their local school improvement plan.

A Brief Look Back: Coordinated School Health and the Whole Child Initiative

Since 1987, the coordinated school health (CSH) approach has served as the foundation for addressing health promotion among youth in our nation's schools. The Coordinated School Health Improvement Act of 1999 gave school health a priority as a means to assist in meeting education performance indicators. The CSH model was based on 8-components:

- Health education
- Physical education
- Health services
- Nutrition services
- Counseling, and psychological and social services
- Healthy and safe school environment
- Health promotion for staff
- Family/community involvement

Many states adopted the CSH approach, which was facilitated by the Centers for Disease Control and Prevention's Division of Adolescent and School Health's endorsement of the model, as well as deployment of cooperative agreements to national organizations and state education agencies to develop and disseminate policies in support of the model. While the CSH approach showed effectiveness in increasing healthy behaviors and indicators of academic achievement, it was not widely adopted by the education sector as a strategy to improve learning. Rather, it was viewed as a public health strategy to improve health. Once CDC ended its funding for CSH implementation, many states were not able to continue to focus on the model. Some states, however, continued to implement components of CSH.

As CDC funded states to implement CSH programs, ASCD, formerly known as Association for Supervision and Curriculum Development, launched the Commission on the Whole Child. This commission was composed of leading thinkers, researchers, and practitioners, all drawn from a wide variety of sectors. It was charged with

recasting the definition of a successful learner from one whose achievement is measured solely by academic tests, to one who is knowledgeable, emotionally and physically healthy, civically inspired, engaged in the arts, prepared for work and economic self-sufficiency, and ready for the world beyond formal schooling. The commission was convened to start a dialogue to change what is meant by a successful school, a successful education, and ultimately a successful student. It was a discussion directly aimed at the educational landscape of 2007—dominated by the No Child Left Behind Act of 2001—which was moving the nation toward an ever greater focus on an academics-above-all-else educational system.³⁴

What emerged was the Whole Child approach, which placed the student at the center, surrounded by five tenants:

- Each student enters school healthy and learns about and practices a **healthy** lifestyle.
- Each student learns in an environment that is physically and emotionally **safe** for students and adults.
- Each student is actively **engaged** in learning and is connected to the school and broader community.
- Each student has access to personalized learning and is **supported** by qualified, caring adults.
- Each student is **challenged** academically, and prepared for success in college or further study, and for employment and participation in a global environment.

The Whole Child approach created a change in how we think about student learning. While the Whole Child approach resonated more with the education sector, it was not readily adopted by the health community.

Both CSH and the Whole Child approach are models that address the physical and emotional needs of the student, but neither have resulted in a unified approach supported by both health and education sectors.³⁵

Where We Are Today: The Whole School, Whole Community, Whole Child

During the spring of 2013, ASCD and CDC convened a group of experts from education, public health, and academia to discuss lessons learned from implementation of both models. The Whole School, Whole Community, Whole Child (WSCC) approach was born from this initiative.³⁶ “WSCC incorporates the five tenets of the Whole Child model by putting the student at the center and making her/him the focal point. Surrounding the child/student is a ring that stresses the need for coordination among policy, process, and practice. While much focus has been given to coordination among components, the previous approaches did not explicitly describe the critical role of day-to-day practices and processes or the essential role of policy in sustaining a school environment that supports both health and learning.”³⁷

The WSCC model was released in 2014, and provides a holistic view of students, schools, and communities. It provides:

- a shared framework to begin to build a mental model for a systems approach between health and education;
- a framework that encourages collaboration among many stakeholders (decreases focus on one staff member);
- a structure to begin to break down traditional silos that exist within education and health systems; and
- Informs development of new policies that advance health and learning.

Framing of CSH and a whole child approach to reflect more of a general school-improvement focus, one that can meet the needs of the whole child and resonate with both educators and community members outside of the health profession, may enable health professionals to better achieve the goal of healthy students.

“The purpose of the WSCC is to align policy, practices and resources to support each student’s academic learning and provide experiences that encourage the development of the whole child—one who is knowledgeable, healthy, motivated and engaged.”³⁸

Looking Forward: Applying a Systems Approach to WSCC

Inherent in the WSCC model is a holistic view of students, schools, and communities. Each segment and layer of the WSCC model is interdependent on the others; the model is designed to emphasize the whole, rather than the parts. The focus of the WSCC model is a socioecological approach that is directed at the whole school, with the school, in turn, drawing its resources and influences from the whole community and serving to address the needs of the whole child.³⁹ It provides a pragmatic visual representation of the different aspects of health that can be addressed through comprehensive approaches. However, the model is not designed to provide insight on how to implement the work. This is a framework, not an intervention. The WSCC model identifies stakeholders, partners, contexts, and elements that need to be taken into consideration when implementing a holistic model integrating health and education. Each component of the model has evidence-based practices, and implementation should be adaptable and customized for every local context.

Raspberry and colleagues suggest using a systems change approach to translate the model to action: “To the extent that WSCC model functions as a system connecting students, families, schools and communities, the literature on systems change may offer insight into ways school health professionals can better articulate how the ‘coordinated’ aspect of the model can be accomplished and strengthened.”⁴⁰ Thus, systems theory will be applied to the WSCC model to identify challenges, opportunities, and optimal levers for embedding health as a learning support in schools and communities.

Systems theory is a concept that originated from biology, economics, and engineering that explores principles and laws that can be generalized across various systems. A system is a configuration of interacting, interdependent parts that are connected through a web of relationships, forming a whole that is greater than the sum of its parts. Systems are overlapping, nested, and networked; they have subsystems and operate within broader systems.⁴¹ For example, a team of educators is located in a school within a district that receives funds from, and is held accountable to, state and federal governments.

System mapping is an approach to identifying and presenting components of a system in a structured way. It can identify gaps, duplication, strengths, and opportunities, and can inform decision-making such as resource allocation (or reallocation), set goals and track change.⁴² Mapping every component and relationship of the education system that supports or inhibits the integration of health is beyond the scope of this document. However, we utilize a system mapping process outlined by the Canadian Centre on Substance Abuse⁴³ to begin building a framework that examines education system components through the lens of the WSCC model.

The challenges and opportunities outlined below are drawn from the Systems Analysis Framework in Figure 1. The list of challenges and opportunities is not exhaustive, and each will vary across states and communities. However, the challenges and opportunities identified here represent key levers that are consistently identified in the literature and working in the field.

Challenges and Opportunities

Creating a culture that understands, values, and prioritizes health as a vital learning support is the overall goal of system improvement, and can also be viewed as an overarching challenge. Shifting the culture of a system is a multicomponent, multisector endeavor. Each challenge and opportunity can be viewed as a symptom of the current culture, and also as potential outcomes for measuring shifts in culture to one that embraces health as vital to learning. Using a systems perspective also emphasizes the interrelation and connection between components. As such, each challenge and opportunity is connected, in some form, to one another. There are some challenges/opportunities that are connected to several components of the system, and represent strong levers for creating system change.

System Operations

Policies

Federal, state, and district policies are a strong avenue to push system change. However, policymakers miss opportunities to integrate health into state and local education policy and practice, and vice versa, as health and education have distinct accountability measures, and pressures to achieve short-term gains can make it challenging to take a more integrated, long-term approach.⁴⁴ Lack of policies to support integration of health in learning creates a reciprocal cascade of challenges, from lack of resources (time, will, leadership), siloed funding, and implementation of piecemeal strategies that may only focus on one health outcome, or one aspect of health. Historically, our approach to addressing the health and well-being of students has both been implemented by the role of one staff champion and added to the long list of things they are expected to do. Due to the academic pressures mentioned above, there is an overwhelming lack of administrative support or buy-in for addressing students' health and safety. An example of a health-focused activity that is not connected to a larger system change

is "walk and bike to school day." Typically, it is the role of a single teacher or small group of teachers to organize the "walk and bike to school day," which can occur with little to no engagement from parents, partners or the community. Rather than being anchored to a broader policy to increase active transportation to and from school, walking and biking to school are only encouraged on that day in October. Or, a teacher will organize a one-off assembly on the consequences of driving under the influence, but a comprehensive plan to address alcohol use, using a research-based curriculum in health education supported by strong policies to prevent alcohol use, is rarely present.

CHALLENGES:

1. Indicators of health are not systematically integrated into school accountability measures at the federal, state, or local levels.
2. Lack of an overarching policy framework/standards leads to variation across states, districts, and even schools. This inhibits engagement with the community and stakeholders as there is no broad backbone strategy or direction to anchor the work.
3. Education professionals do not have the time or financial/human resources to dedicate to developing system-wide policies to infuse health-promoting processes into the work of education. This includes engaging members of the community, coordination, strategic planning, and research/evaluation.
4. Policies that dedicate funding to education and health entities create silos of investment (or dis-investment). For example, grants to health entities may focus on decreasing chronic disease, while another focuses on reducing teen pregnancy—all of which require a school component. However, these efforts are rarely integrated or even coordinated, let alone tied to important indicators of an active and engaged learner or education accountability measures.

OPPORTUNITIES:

1. In order to address the needs of the whole child and to have this focus fully imbedded in the educational mission of schools, learning supports must be fully included in federal and state education policy. The School Improvement Plan (SIP) within ESEA is well-positioned to be a vehicle for integrating learning supports that boost achievement into the accountability structure that drives what schools measure and focus on. Increased collaboration between multidisciplinary stakeholders from education, public health, research, and institutions of higher education, at the federal, state, and local levels, is necessary to identify health indicators most appropriate for inclusion as an education accountability measure.
2. Develop evidence-informed model policies that support health and academic achievement as templates, provide technical assistance and funding to support policy development, implementation, and evaluation in schools. Lessons learned can be drawn from model local wellness policies and other gold standard policies.
3. Support inclusion of health indicators in education accountability measures, as well as appropriate funding and resources needed for implementation and evaluation.
4. Identify opportunities at the federal and/or state levels to braid or merge funding sources that focus on health in the school setting.

Processes

COORDINATION

Academic pressures, and lack of coordination and supportive policies lead to a confusing stew of mixed messages from the education system to the broader community. For example, a student learns in health class about the importance of healthy eating, but then sells cookie dough as a fundraiser for the school band. Or, the school will adjust to later start times and ensure all students have breakfast, acknowledging the value of sleep and nutrition for cognitive performance, but only during standardized testing week. Students hear about

the importance of being physically active, but are only offered physical education once per week. The list goes on and on.

CHALLENGES:

1. Lack of coordination, communication understanding, and time result in less collaboration between educators even within a school or district, as well as the larger community. Local school districts often do not have a working relationship with their local health districts, rarely share information and data, and develop interventions without cross-sector collaboration and partnerships. At the state level, health and education departments struggle to reach beyond their respective agencies, successfully leverage funding streams, and navigate organizational structures to actively collaborate and align initiatives.⁴⁵
2. The WSCC model places the student in the middle of the framework, suggesting they can be the agents of change for school improvement processes.⁴⁶ Oftentimes student voice is the last to be solicited or heard.
3. Due to siloed funding streams, data is oftentimes collected by health behavior or by one person within a school system. Sharing of health data results, as well as effective analysis by a school or district to guide decisions, rarely occurs.
4. Lack of consistent health and safety messages, behaviors, policies, and practices are common among schools and districts.
5. Lack of funding to provide professional development to all staff in a school community hinders the opportunity for consistent messaging and communication. Without foundational knowledge of the link between health and learning, or the WSCC model, resistance or lack of buy-in can occur.
6. Nationally, the role of a district or school health coordinator has not been defined with core competencies and expectations. No training has been developed to universally train a coordinator or school-/district-level champion on how to do this work using a systems approach.

OPPORTUNITIES:

1. Encourage, support, improve, and sustain the implementation, effectiveness, and interaction of national, state, and local collaborative partnerships.
2. Engage colleges of education, public health, nursing, medicine, dentistry, social work, and others to work more collaboratively to help schools in their own regions conduct multidisciplinary research and development, to provide cross-discipline in-service and pre-service training.⁴⁷
3. Use mass media communication strategies to make more information available about the presence, practice, and promise of such partnerships, especially information appealing to education professionals.⁴⁸
4. Engage youth as collaborators and stakeholders through a variety of authentic opportunities. For example, include youth on governance bodies related to school improvement strategies and school wellness councils.
5. Train education leadership to communicate effectively and provide quality professional development on systems thinking and systems change.
6. Develop a district/school health coordinator training that offers an opportunity for a local champion to demonstrate how to move the needle within their school community to implement systems change.

Quality Review

Evidence Base

Any targeted policy, process, or practice must be grounded in evidence in order for broader system change efforts to be successful. Additionally, adequate evaluation should be in place to ensure that impact is tracked and the findings contribute to the evidence base.

Equity

Several metrics indicate the education system is not equitable, including the disproportionate suspension and expulsion of youth of color; overrepresentation of youth of color in special education; and racial/ethnic disparities in high school graduation rates— just to name a few. Further, broader social factors such as housing, employment, violence, and institutionalized racism disproportionately impact youth of color, immigrant youth, and youth from lower SES households. The impact of a student's lived experience does not get hung up in their locker when at school. Rather, it impacts their ability to learn, as well as their health and overall well-being. While broader strategies to address the root causes of educational inequities (such as poverty) will require multiple sectors to work together, there are strategies schools can take on to make a critical impact.

CHALLENGES:

1. Schools and staff are not adequately equipped with the tools and skills needed to address and deal with the vast needs of all of their students.
2. Schools serving students from low SES homes lack resources, even compared to other schools. A Department of Education study found that 45 percent of high-poverty schools received state and local funds below what was typical for other schools in their district.⁴⁹
3. Recruiting and retaining high-quality teachers and administrators that are representative of the school community.
4. Lack of communication and marketing on the evidence base to education leaders. Further, pressures to focus solely on academic achievement via enhanced classroom practices inhibit the possibility of non-academic approaches.

OPPORTUNITIES:

1. At the district/school level, use available data to examine if policies (such as suspension/expulsion, enrollment in special education, enrollment in talented and gifted programs, attendance) disproportionately impact a certain group of students.
2. Develop and/or disseminate tools and resources to implement evidence-based or informed strategies. For example, model policies related to restorative justice, classroom curricula that teaches students about structural inequities (i.e., teaching tolerance), supporting parental involvement and universal school climate interventions (i.e., Positive Behavior Intervention and Support).
3. Cultivate partnerships locally and nationally with before- and after- school programs to enrich and expand on student learning. High-quality program content could include cultural, athletic, academic, civic, community service, and other enrichment activities.

Implementation

Resources

In order to fully implement the policies, processes, and practices to support the WSCC model, sufficient resources must be deployed. Resources include financial, human and political will, and community support. Again, if outcomes of any health-related effort are not directly tied to accountability metrics for schools and with strong partnership from the community, finding dedicated funding will continue to be challenging and done in a piecemeal fashion.

Leadership

School health research consistently cites supportive school leadership (i.e., principal) as one of the most important levers for success. However, successful integration of health into the entire fabric and culture of education, and implementation of the policies, processes, and practices necessary to implement the WSCC model, will require leadership on multiple fronts: federal health and education entities, state and local officials, school personnel, community and business leaders, families, and students.

Workforce Development

The former regime of school accountability (No Child Left Behind) stymied the ability of schools to recruit and retain gifted educators, and many teachers feel actively disengaged from their work.⁵⁰ Schools of education do not systematically integrate the critical health and learning connection in their training for future educators and administrators. Further, skills in systems change strategies, policy development, implementation, and evaluation are lacking in schools of education, as well as in professional development opportunities for current education staff.

Evaluation and Research

Because school health efforts are largely driven by siloed funding streams (i.e., chronic disease prevention, violence, teen pregnancy prevention), there is a dearth of evaluation and research that adequately captures the impact of a whole school approach to health and learning. As stated by Raspberry and colleagues, "What continues to remain largely missing from the scientific literature is a holistic examination of the full CSH model that assesses a broad range of outcomes in 1 comprehensive evaluation. In theory, the value of the CSH model comes from the synergistic effect gained from coordinated interventions to address multiple aspects of co-occurring needs. Examining the new WSCC model, inclusive of foundational CSH concepts, through research that is longitudinal in nature and, ideally, designed to represent schools and communities of various sizes may provide researchers with the best opportunity to capture the full impact of the model's value for improving the health and well-being of youth."⁵¹

Sustainability

At its core, likelihood of sustainability is dependent on the successful implementation of policies, processes, and practices with dedicated resources. Additionally, across the CSH literature, infrastructure for supporting health in schools is key. A few standard infrastructure supports include: a school health coordinator, district-level school health advisory group, and school-level health teams or committees. The major components of sustainability laid out in the Program Sustainability Assessment Tool (PSAT)⁵² have been applied here, building upon an already existing and evidence-informed framework.

CHALLENGES:

1. Adequate resources (financial, human) are not dedicated to supporting health in schools. There are currently no dollars allocated to local education agencies to support health in schools, as current CDC dollars to support chronic disease prevention in schools are funded through departments of health.
2. The CSH model has greatly been viewed as supporting health “for health’s sake” and not to support the academic achievement of students, which has prevented a strong and sustainable uptake of the model by the education sector.
3. Evaluation and research is typically conducted based on siloed funding streams and does not capture the synergistic impact of implementation of a multicomponent approach to health and learning (such as the CSH model).
4. Data systems do not easily allow for tracking the impact of school health interventions on indicators such as attendance, discipline, behavior, truancy, school connectedness, and graduation rates.
5. The critical connection between health and learning are not systematically integrated into the training curricula of educators and administrators. Targeted professional development related to system change and policy development, implementation, and evaluation are lacking.
6. Infrastructure, resources, and policies are not in place to support sustainability of most initiatives related to school health. Lack of focus on sustainability can also be connected to lack of inclusion of health within the larger accountability framework or prioritization by federal, state, and community leaders.

OPPORTUNITIES:

1. Identify funding streams to support and sustain a school health coordinator position at district and school levels. This position will play an integral role in coordinating and aligning policies, processes, and practices to ensure each student is healthy, safe, engaged, and motivated to learn.⁵³
2. Work with schools of education to ensure new teachers and administrators understand the critical connection between health and learning, and the social determinants of both health and education. Infuse curricula with opportunities for multidisciplinary collaboration with public health, psychology, social work, economics, public policy, and other areas.
3. Set a nationwide/global health and education research agenda. Convene research entities (i.e., National Institutes of Health, the Institute of Educational Sciences) and other organizations to support research that better articulates (1) priority education and health outcomes that such collaborative partnerships reasonably could be expected to achieve; (2) means to monitor those outcomes; and (3) means such partnerships might employ to measurably improve both education and health outcomes.⁵⁴
4. Develop a menu of school accountability metrics based on the WSCC framework. New accountability strategies may be developed that address health, safety, and the extent that students are engaged, challenged, and supported. Metrics based on these tenets can be built into teacher and administrator evaluations to provide a more holistic view of the school culture and student experience and inform the implementation of policies, programs, and practices.⁵⁵
5. Provide high-quality professional development to educators and administrators around systems change, policy development, implementation and evaluation, and sustainability planning.

Concluding Thoughts

Examining the root causes of poor academic achievement and disproportionate educational outcomes reveals a web of interconnected systems that spans across families and communities, to district, state, and federal institutions. Infusing a culture of health into the education system that is supportive of the whole child will require both the broad view of the systems involved, paired with a strategic focus on important paths

forward. The history of Coordinated School Health and the Whole Child Initiative have paved the way, and the WSCC model shows promise for bringing the two worlds together. However, the WSCC model does not direct the way forward. A systems perspective allows us to better understand the larger context in which specific policies, processes, and practices are seeded, and identify the supports needed to ensure the seeds flourish.

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