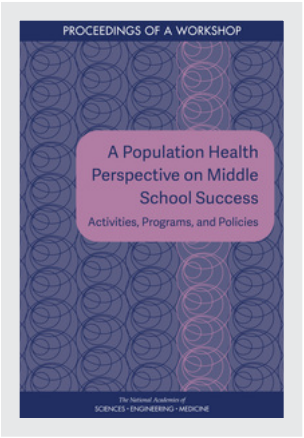

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A Population Health Perspective on Middle School Success

Activities, Programs, and Policies

PROCEEDINGS OF A WORKSHOP

Carla Alvarado and Lauren Savaglio, *Rapporteurs*

Roundtable on Population Health Improvement

Board on Population Health and Public Health Practice

Health and Medicine Division

The National Academies of
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This Proceedings of a Workshop was reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise. The purpose of this independent review is to provide candid and critical comments that will assist the National Academies of Sciences, Engineering, and Medicine in making each published proceedings as sound as possible and to ensure that it meets the institutional standards for quality, objectivity, evidence, and responsiveness to the charge. The review comments and draft manuscript remain confidential to protect the integrity of the process.

We thank the following individuals for their review of this proceedings:

MARICE ASHE, ChangeLab Solutions
JOHANNA ROSENTHAL, Cardea

Although the reviewers listed above provided many constructive comments and suggestions, they were not asked to endorse the content of the proceedings nor did they see the final draft before its release. The review of this proceedings was overseen by **NANCY FUGATE WOODS,** University of Washington. She was responsible for making certain that an independent examination of this proceedings was carried out in accordance with standards of the National Academies and that all review comments were carefully considered. Responsibility for the final content rests entirely with the rapporteurs and the National Academies.

Contents

Acronyms and Abbreviations

ACE	adverse childhood experience
ADHD	attention-deficit/hyperactivity disorder
AMLE	Association for Middle Level Education
BCPS	Broward County Public Schools
CHSC	Center for Healthy Schools and Communities
DCPS	Washington DC Public Schools
GSA	Gay–Straight Alliance
LA	Los Angeles
LESD	Lawndale Elementary School District
MCPS	Montgomery County Public Schools
PBL	project-based learning
RJOY	Restorative Justice for Oakland Youth
SAAF	Strong African American Families program
SEL	social-emotional learning
UWNCA	United Way of the National Capital Area

1

Introduction

On December 5, 2019, the Roundtable on Population Health Improvement of the National Academies of Sciences, Engineering, and Medicine (the National Academies) convened a 1-day workshop at Preservation Park in Oakland, California, to explore the relationships between health and education. This workshop was organized by an independent planning committee composed of members from the Roundtable on Population Health Improvement and outside experts.

WORKSHOP OBJECTIVES

The workshop objectives were drawn from the Statement of Task (see Box 1-1):

1. Facilitating a population health orientation and perspective among public health practitioners, health care leaders, and educators;
2. Exploring the interface between health and education, particularly for young adolescents; and
3. Leveraging the resources of public health, health care, and education workforces to promote health and well-being in middle school.

OPENING REMARKS

Josh Sharfstein, vice dean and professor of the Johns Hopkins Bloomberg School of Public Health and co-chair of the Roundtable on

BOX 1-1
Workshop Statement of Task

An ad hoc planning committee organized and convened a 1-day, interactive public workshop to explore the factors that affect the health and well-being of middle-school-aged adolescents. The workshop included presentations on the risk factors of poor (physical, social, and emotional) outcomes and their prevalence; the identification of resilience factors; current policies and programs designed to support middle school success and address issues of equity and financing as they apply to these; and how the health and human (social) services sectors can support and align with the education sector to promote health and well-being in middle school. A proceedings of the presentations and discussion at the workshop will be prepared by a designated rapporteur in accordance with institutional guidelines.

Population Health Improvement, opened the workshop by describing the roundtable's purpose and vision and the workshop's goals. He explained that since 2013, the roundtable has provided a trusted venue for leaders from various sectors to meet and discuss opportunities for achieving better population health, including increasing life expectancy, improving quality of life, and reducing health disparities. The roundtable's vision of a healthy and productive society that cultivates human capital and equal opportunity rests on a recognition that the positive outcomes in such a society are "shaped by interdependent social, economic, environmental, genetic, behavioral, and health care factors and will require robust national and community-level policy change and dependable resources to achieve it."

There have been three previous roundtable workshops dedicated to exploring the relationship between health and education, as well as a recent National Academies consensus study, resulting in the report *The Promise of Adolescence: Realizing Opportunity for All Youth* (NASEM, 2019) that described adolescence as a critical period of development and change. The December 5 workshop was distinguished by building on these concepts and narrowing the focus to middle school and population health.

ORGANIZATION OF THE WORKSHOP AND PROCEEDINGS

The proceedings summarizes the presentations and discussions that took place during the public workshop. The first presentation was a keynote address that focused on the characteristics of middle school students and the research gaps specifically pertaining to middle schoolers (Chap-

ter 2). Two presentations followed the keynote. The first gave an overview of the core developmental processes of middle schoolers, health risks, and protective factors, as well as opportunities for achieving equity within the educational system. The next presentation, by Oakland Mayor Libby Schaaf, described two programs addressing health in Oakland and the need for collaboration within and outside government to effect change. A panel of presentations, discussions, and question-and-answer sessions with members of the audience immediately followed Mayor Schaaf's presentation (Chapter 3). This panel explored several activities, programs, and strategies that are variations on the traditional approach being used to support middle school students. A short video was then shown of the first-place winner of the Education Equality for All competition in which she described her position on education advocacy (Chapter 4). Two additional panels made up the afternoon session; one touched on the major sectors involved in health and education (Chapter 4), while the other defined large-scale issues surrounding middle school success (Chapter 5). The workshop concluded with reflections from roundtable members and participants on key takeaways from the day's presentations and discussions (Chapter 6).

2

To Thrive in Middle School and Beyond, and the Middle School Years, a 360 View

The first of three panel sessions focused on an overview of the developmental needs, considerations, and issues related to middle schoolers. The session was moderated by Michelle Larkin of the Robert Wood Johnson Foundation and featured presentations by Phyllis Fagell of the Sheridan School, Joanna Williams of the University of Virginia, and Joaquin Tamayo of EducationCounsel. A question-and-answer session with the audience followed.

TO THRIVE IN MIDDLE SCHOOL AND BEYOND

Phyllis Fagell, certified professional school counselor at the Sheridan School in Washington, DC, psychotherapist with The Chrysalis Group, and journalist, delivered the keynote address. She opened by discussing the lack of research focused specifically on middle schoolers. She explained that middle school is a "distinct developmental phase" with specific needs and that research should not classify this group of adolescents with high school students and older teenagers. After researchers initially focused on middle schools in the 1980s and 1990s, interest in middle schools waned. The focus shifted to early childhood development and literacy and the college-to-career transition. Fagell found a lack of information on innovation in school settings within the education and counseling fields and limited resources on how to create effective communication channels between parents, administrators, teachers, and middle school age children. As a counselor and a psychotherapist, she has heard from parents voicing their uncertainty over what roles they

should play in their child's life at school, what level of independence to give their child, and how they should handle expectations from school administrators. Teachers expressed their frustration at the lack of boundaries demonstrated by parents, while students wanted autonomy. Fagell added that there is no system consistently in place within middle schools to navigate these concerns.

Fagell continued to a discussion on the pertinent characteristics of middle school students. They need strong and appropriate role models to solidify their values and develop academic and life skills (see Box 2-1). One area of concern was mental health: middle schoolers reported increased rates of mental illness. For example, Fagell said that suicide rates have doubled from 2007 to 2014 among students between the ages of 10 and 14. Fagell saw the opportunity to guide students on how to self-regulate emotions and use various tools to navigate such emotions as a prevention strategy. Fagell also asserted that middle schoolers experienced drops in confidence, performance, and academic self-identity. Fagell mentioned a 1968 study (Ainsworth-Land and Jarman, 2000) that disputed the idea that only some people have the trait of creativity. The researchers tested 1,600 5-year-olds on their creativity and retested at 10 and 15 years of age. They also tested almost 300,000 adults. The study found that 98 percent of the 5-year-olds were rated as highly creative, which dropped to 30 and 12 percent when the children reached the ages of 10 and 15, respectively. Two percent of the adults were rated as highly creative. Fagell stated that adults, including parents and school professionals, need to encourage creative behavior in middle schoolers by promoting their ability to be innovative.

BOX 2-1
Top 10 Skills for Middle School and Beyond

1. Make good friend choices.
2. Negotiate conflict.
3. Manage student–teacher mismatch.
4. Create homework and organization systems.
5. Consider others' perspectives.
6. Self-advocate.
7. Self-regulate emotions.
8. Cultivate passions and recognize limitations.
9. Make responsible, healthy, and ethical choices.
10. Create and innovate.

SOURCE: Fagell presentation, December 5, 2019.

As Fagell shared, the middle school stage is one of rapid change and transition. She stated that middle schoolers are establishing their identity as their empathy is developing and bullying is increasing. Factors that influence identity include being exposed to situations that trigger anxiety, emotional contagion, the Internet, negative news, and a divisive political climate. Fagell referenced a study that found that more than 30 percent of adolescent students have been victims of electronic dating aggression and that 45 percent are online "almost constantly" (Cutbush et al., 2010). Fagell noted that adults should listen to middle schoolers about what constitutes salient aspects of their identities instead of imposing ideas on them. She cited another study on creating a secure place to help middle schoolers safely explore their identities (Anderson and Jiang, 2018) and said that one example is the Gay–Straight Alliance (GSA). Over the past several years, Fagell has seen the growth of GSAs in her school system, adding that those involved in GSAs have experienced 20 percent fewer homophobic remarks and are 48 percent less likely to be bullied.

Fagell also mentioned that the school structure and setting may not support children in this developmental stage. She stated that children go from elementary school with one main teacher and the same group of peers to middle school, where they often change classes and teachers.

Fagell shared that general messages surrounding middle school and middle schoolers have often been negative. Many of the false messages that plague middle schoolers are often given to them by adults and popular culture, such as that they are mean or "looking for drama," closed off and not wanting to share or talk to adults, and trying to be difficult and obstructive. Additionally, Fagell suggested that adults may be projecting their own negative views on this developmental stage, which children may then internalize. Fagell believes that it should be established that although middle schoolers tend to be well meaning, they are lacking in life skills and understanding of others' intent and meaning, which may lead to anxiety and miscommunication. She believes that adults, including health practitioners, educators, parents, and researchers, can mitigate these challenges by self-identifying as helpers and focusing on the children's strengths. Fagell said that messages directed to and about middle schoolers may be framed in a more positive light and suggested that adults approach middle schoolers "on their terms." This includes asking more questions rather than making assumptions about their motivations. Fagell noted that middle schoolers may lack the necessary skills and tools to address their lack of confidence or need for academic support and thus may appear to be difficult or obstructive.

Fagell concluded her address by discussing some of the life skills to develop in middle school to help students succeed both academically and personally (see Box 2-1). She believes that the skill of considering others'

perspectives is important in creating empathy for others and oneself. Middle school students also have less ability to interpret feedback, making learning how to self-regulate emotions a necessity to respond more appropriately to conflict. Fagell mentioned the example of a school principal who used shame to address a situation when a group of students played a practical joke on another student. Fagell pointed out that the manner in which the principal approached the situation was not helpful given that the students did not understand why they had acted that way. To better understand the students, the principal reframed his approach and asked "were you your best selves?" The question then helped the students reconsider their actions and the principal could see that the students had a desire to be good and kind.

THE MIDDLE SCHOOL YEARS, A 360 VIEW[1]

Joanna Williams and Joaquin Tamayo followed the keynote speaker, with Williams speaking first. Williams aimed to give a holistic view of early adolescent development by defining early adolescence, discussing the core physical, neurobiological, and psychosocial processes, and exploring the factors that can compromise and promote development. Williams defined early adolescence as a time between childhood and adulthood in which developmental changes impact growth. She explained that although an exact age range is not available, the agreement is that adolescence begins with the onset of puberty and ends in the mid-20s (see Figure 2-1). Williams's presentation focused on early adolescence, which lasts through approximately 14 years of age, and added that about 21 million people in the United States are in this age group. The onset of puberty not only acts as a catalyst for physical processes but also promotes interest in intimate relationships and awareness of sexuality. Williams discussed that, as with all developmental stages, biological processes have individual variations, so children are not developing at the same rate. Puberty begins in the limbic regions of the brain, which is associated with sensitivity to reward, social information, threats, and novelty. In early adolescence, these neural connections are particularly strong. Other parts of the brain, such as outer areas and the cortical areas that are responsible for planning, decision making, cognitive control, and self-efficacy, take longer to develop these connections. She noted that early adolescence is associated with increased sensitivity to rewards, risk taking, and an awareness of social relationships and status.

[1] This section summarizes information presented by Joanna Williams of the University of Virginia and Joaquin Tamayo of EducationCounsel. The statements made are not endorsed or verified by the National Academies of Sciences, Engineering, and Medicine.

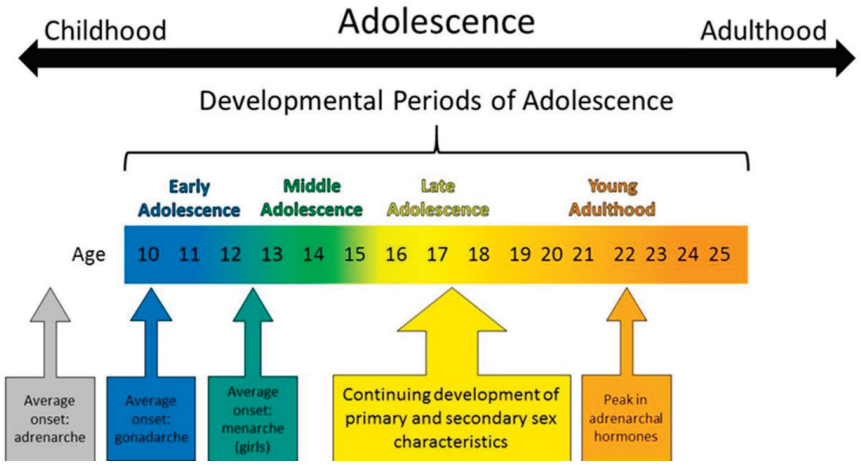

FIGURE 2-1 Defining adolescence. Developmental periods of adolescence range from approximately ages 10 through 25 and include early, middle, and late adolescence and young adulthood.
SOURCE: Williams presentation, December 5, 2019.

Williams then went on to discuss identity within the context of early adolescence. She said that identity includes questions such as "Who am I?" "How do I see myself?" "Who do I want to be?" and "Where do I fit in?" She found these to be challenging questions because societal and familial expectations might vary from how children want to self-identify. Furthermore, children have distress "when there are contradictions between their ideal versions of themselves versus how they are actually experiencing reality." Children may demonstrate characteristics that they have identified as being ideal, such as being positive and socially engaged, but may be struggling with other traits, including anxiety or distress.

Williams continued by exploring the factors that compromise and are protective of development. She noted that while early adolescence is a time of vulnerability and risk, it is also a time of opportunity. While adolescents tend to be resilient and responsive to change, they seem to struggle with getting enough sleep. She first stressed the importance of sleep by stating that young adolescents require about 8.5–9.5 hours of sleep per night; however, due to biological and social factors, this often does not occur. She gave the example of puberty delaying sleep onset and making it more difficult to fall asleep. She also mentioned that the "slow-to-rise phenomenon," where the delay in falling asleep also makes it difficult for adolescents to wake up early. Adolescent students are more likely to have more freedom over when they go to bed. She described the potential desire

to continue socializing with their friends through the evening and into the night. Additionally, academic work may keep them up longer at night. Lastly, most secondary schools start before 8:30 a.m., the earliest recommended start time per the American Academy of Pediatrics (AAP, 2014). These factors all lead to sleep deficit, which impairs cognitive functioning.

Williams described a study that found that other developmental risk factors were tobacco, e-cigarettes, and vaping. The study showed that while tobacco use has held constant, e-cigarette and vaping use have risen. Specifically, e-cigarette use has increased from 0.5 percent in 2011 to about 5 percent in 2018. A cross-sectional survey conducted in 2019 reported the prevalence of self-reported current e-cigarette use at 10.5 percent among middle school students (Cullen et al., 2019).

Williams described developmental changes as making adolescents vulnerable to mental health concerns, particularly suicide. She illustrated this point using data from the National Institute of Mental Health. Overall, adolescents aged 10–14 have a low suicide rate, though boys and men across all ages have an increased rate compared to girls and women. Figure 2-2 shows the crude 2017 suicide rates by sex and age categories, with an upward trend for those children aged 12 to 14 (NIMH, 2019).

The last risk factor mentioned by Williams was the lack of equity in education and educational systems. Systematic discrimination and bias especially target those from historically marginalized groups. As Williams alluded to previously, children "are developing their identities," making them "more aware of stereotypes." This new awareness also applies to bias from school staff, including teachers, which may "undermine trust and a sense of belonging and performance in middle school."

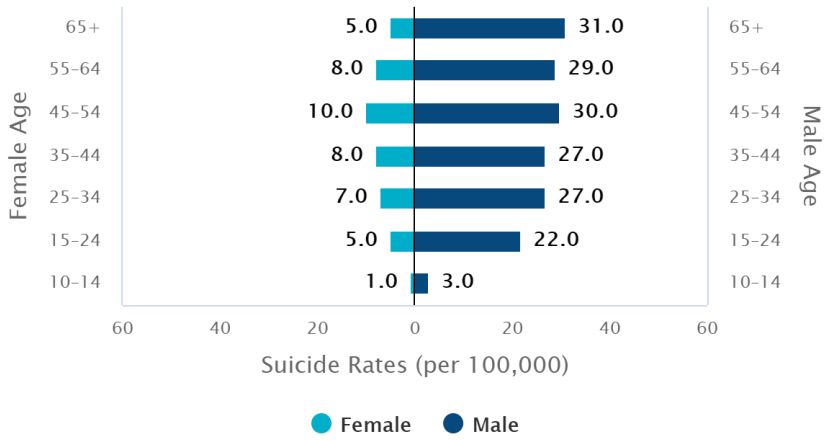

FIGURE 2-2 Suicide rates by age (per 100,000).
SOURCES: Williams presentation, December 5, 2019; NIMH, 2019.

Williams discussed three protective factors for positive adolescent development. First was the need to focus on families, cultural identity, and parent–youth relationships. Williams gave the example of the Strong African American Families (SAAF) program (see Figure 2-3) (CFR, 2010). She stated that SAAF focuses on African American parents and adolescents in low-income rural areas and includes various caregiver, youth, and family topics that promoted positive identity, self-esteem, and parenting tools. Its outcomes were positive racial identity, increased ability to deal with racial discrimination, and increased self-esteem. It also had positive physical health impacts; a reduction in insulin levels was found 19 years after participation (CFR, 2010).

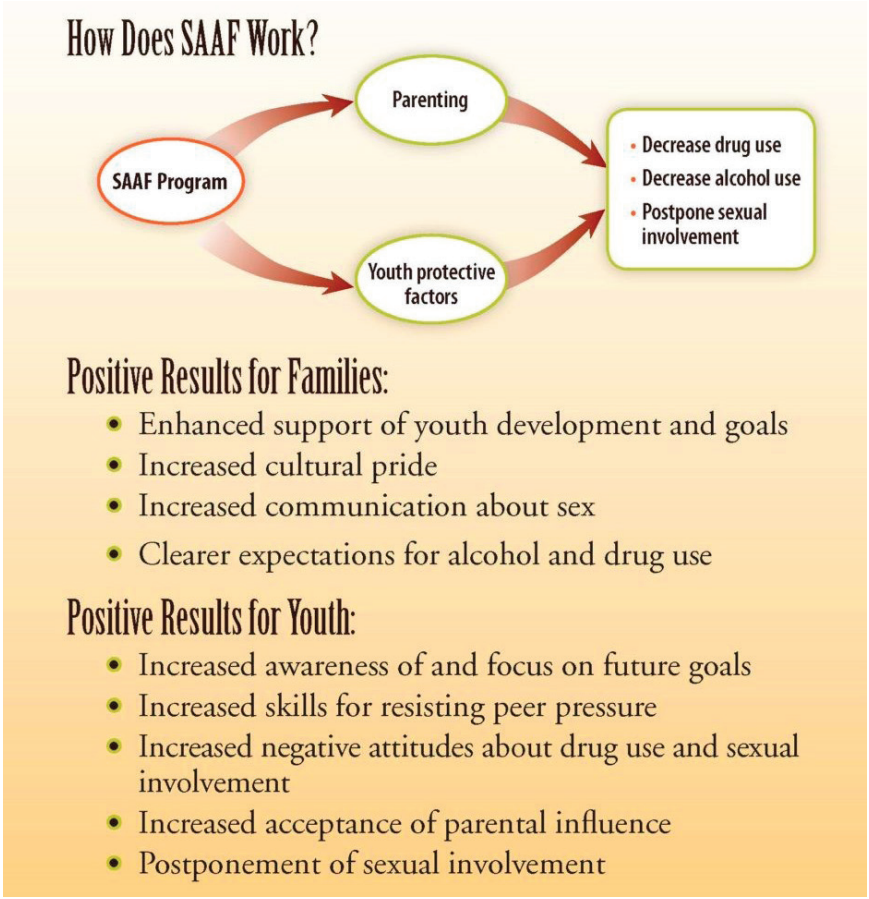

FIGURE 2-3 How the Strong African American Families (SAAF) program works. SOURCES: Williams presentation, December 5, 2019; CFR, 2010.

The next protective factor that Williams described was developmentally responsive practices. Interventions need to be responsive to early adolescents' awareness of and sensitivity to social status and respect. Williams listed three approaches for this. The first and second approaches are to harness the desire for status and respect, while lessening the influence of status and respect threats. An example is to stress their sense of agency and power while resisting risks. The third approach is to make interactions with adults more respectful. This develops relationships by focusing on an empathetic approach to discipline.

The last protective factor is to promote sleep by monitoring bedtime, restricting nighttime screen usage, providing a comfortable pillow, and instituting later school start times. A 2018 study of 421 Mexican American adolescents found that consistent sleep was associated with the highest levels of academic achievement and mental health outcomes and that having a comfortable pillow helped with their quality of sleep (Fuligni et al., 2018).

Next, Tamayo began his presentation by asking how we can "effectively enable [educators] to promote the conditions that are going to allow for whole child education and support that unleash the potential of all of our kids?" He approached this question by exploring three main ideas: initial findings on learning and development, barriers that educators face, and supportive practices and policies within educational systems to promote success.

Before diving into these topics, Tamayo led an audience participation activity. He conducted a guided reflection on middle school, asking the audience to think and feel about how they learn best, how they felt about their own middle school experience, in what ways those experiences were positive or negative, and how they have been long lasting. After internal reflection, audience members were directed to discuss their responses with those sitting next to them and then with the larger group. Audience members shared positive experiences, such as strong friendships and a sense of belonging. One negative experience that an audience member described was being taller than others in middle school and hitting his head on a speed limit sign. He was embarrassed, and his friends laughed at him; he still blamed himself for causing himself embarrassment. Another mixed experience shared by an audience member was completing a mathematical formula on the board in front of the class. The teacher commended her abilities and called her "bright," which she had not thought of herself as previously. This experience turned negative as other students began to bully her for thinking she was smarter than they were. She expressed her resistance to receiving accolades or being singled out in front of others.

Tamayo then discussed how students' situations (learning disabilities, family structures, poverty, or affluence) impact their learning abilities. He stated that age does not necessarily align with its developmental stage, which makes each child unique. This poses a particular challenge for educators and systems. Tamayo argued that the current educational system "no longer [meets] … our challenges or our moral imperative to support every single child individually in this country." In other words, it serves the group, which creates a disservice to individual children by penalizing and rewarding them unfairly based on which groups they belong to and whether they deviate from the expected average. Tamayo said that students who tend to perform outside the expected average are often persons of color and at a disadvantage because systematic racism and other biases continue to infiltrate the educational system.

Tamayo further discussed his point of focusing on individual students, which has advantages and disadvantages as well as implications for educational practice and policy. When focusing on one child, there is a shift to thinking that that child has both the opportunity to learn and the unique potential to achieve. When focusing on the group, larger systemic barriers are often shifted to a different system or agency to battle. Coming from a background teaching American history and government, Tamayo applied key concepts, such as "life, liberty, and the pursuit of happiness and what that means for [the] individual child" in shaping their future and learning. These concepts are becoming more prominent within the education field in discussing education and expectations for students. Equity, social-emotional development, skills, relationships, and positive mental health experiences are becoming priorities in the field.

Tamayo touched on the Science of Learning & Development (SoLD) Alliance, which aims to take the body of research on education, equity, and excellence and bring it to practitioners and policy makers to use in learning environments (SoLD Alliance, 2019). It promotes the idea that each child is unique and has near unlimited potential and that educational systems should approach students where they are because they have different needs, including integrated experiences, academic topics, and social and emotional skills.

Tamayo concluded by defining various aspects of policy to support this context. First, he stated there should be a "whole child vision" in which the educational system serves all aspects of development and growth, not just academic success in the traditional sense. Next, he said there should be appropriate and effective funding to support educational systems and their members. Additionally, Tamayo asserted that knowledge-sharing systems should be integrated and intentional to connect research literature to those in practice and policy.

DISCUSSION

Next, there was a brief discussion and a question-and-answer session with the audience. Michelle Larkin, the moderator, initiated the discussion by asking the panel about potential changes to educational systems, such as later start times, that research supports as positive for cognitive development but that have not yet been enacted. Williams responded that the reasons are often logistical challenges, such as transportation, extracurricular activity coordination, and teacher and family needs. She said that there may be changes with enough political will and pressure. In the meantime, Williams noted that smaller changes, such as monitoring bedtime and limiting activities and workload after school hours, may help to alleviate some of the burden.

John Auerbach of Trust for America's Health shared his concern that schools focus only on events that occur during the school day rather than assisting families with issues outside of school and at home, including racism and poverty. He asked the panel for their opinions. Fagell responded that as a counselor, she often dealt with these external issues, but many teachers did not feel they had adequate training to confront them. As she mentioned in her presentation, some teachers self-identify as helpers, meaning they do not have to solve the problem or act as a liaison but can help to a level dictated by their specific scope of training. Williams discussed the need for a multisector approach (see Chapter 4). Tamayo pointed out an error in the general mindset: that performance is only influenced by the events of the school day. He stated that without understanding the individual child and their uniqueness, educators will not be able to maximize resources.

A roundtable member representing The University of Texas at Austin Dell Medical School asked about suicide attempts and ideation and if first-aid training in mental health may be a positive strategy. Fagell responded by describing typical characteristics of middle schoolers. She shared that they typically do not seek out others for help or know when to ask for help, have not clearly defined their emotions, and do not know what clinical depression is or looks like. Fagell shared that about 20 percent of children have anxiety or depression, which has risen over the years. She mentioned programs that train children to identify harmful behaviors or thoughts in themselves and others and to understand why seeking help from adults is necessary. Fagell felt that validating their feelings, normalizing help-seeking behavior, and empowering them would help address mental health concerns. Tamayo added that young adolescents can be malleable and thus need to be surrounded by adults giving positive messages about resiliency, agency, and confidence.

3

Remarks from the Mayor of Oakland and Middle School Inside Out

The next session began with Hanh Cao Yu of The California Endowment introducing Mayor Libby Schaaf of Oakland, California. Following Mayor Schaaf's remarks was a panel of presentations featuring Robby Dodd of Walt Whitman High School, Joey Jones of Robert Frost Middle School, Jeff Sullivan of Montgomery County Public Schools (MCPS), Tanya Thompson of Resiliency Services, Philip Harris of Broward County Public Schools (BCPS), and Kristofer Comeforo of Stuart-Hobson Middle School. This panel was moderated by Kristofer Comeforo and featured these middle school administrators and their innovative approaches to the school structure, culture, and climate.

REMARKS FROM THE MAYOR OF OAKLAND

Mayor Libby Schaaf of Oakland, California, described her city's achievements in its quest to become the healthiest city in America. She expressed her appreciation as a mother of two "middle schoolers" for the work focusing on middle school students by experts at the workshop. The mayor acknowledged the high levels of mental health concerns, high rates of overweight and obesity, bullying and other unhealthy conditions, and the need to tackle these problems with a multifaceted approach.

The first program that Schaaf discussed was Oakland Goes Outdoors, which is partnered with the Oakland Unified School District, the San Francisco Foundation (SFF), and Bay Area Wilderness Training as part of SFF's Youth Access to Nature initiative. This grant program focuses its efforts on middle school students across 13 schools and is in its 3-year

pilot period. The program provides more equitable access to the outdoors for underserved youth. Schaaf talked about the outdoors as not only a physically healthy opportunity for children but also an avenue to improve their mental health (SFF, 2019).

Schaaf described the second program, Oakland Thrives Leadership Council, a citywide initiative to make Oakland the healthiest city in America. As shown in Figure 3-1, the council aims to achieve its mission by addressing the social determinants of health for children and families using a multisector approach with a focus on five areas: health, education, wealth, safety, and housing. Schaaf called this approach "ambitious" because it hopes to allow systems-level and cultural changes (Youth Ventures, 2018).

Schaaf concluded by considering her path in city government. She said she views her more than 20 years of work for Oakland as a clear asset and believes in multisector approaches to solving problems and promoting health in her community, including academia, nonprofit agencies, and government. To exemplify this, she launched Oakland Promise when she became mayor to ensure that "every child graduates high school with the expectations, resources and skills to complete college" or trade school and be "successful in the career of his or her choice." This strategy provides tuition-free community college, scholarships to 4-year colleges, a $500 college savings account to all babies born to Medi-Cal-eligible parents, financial education to these parents, and $100 kindergarten scholarships.

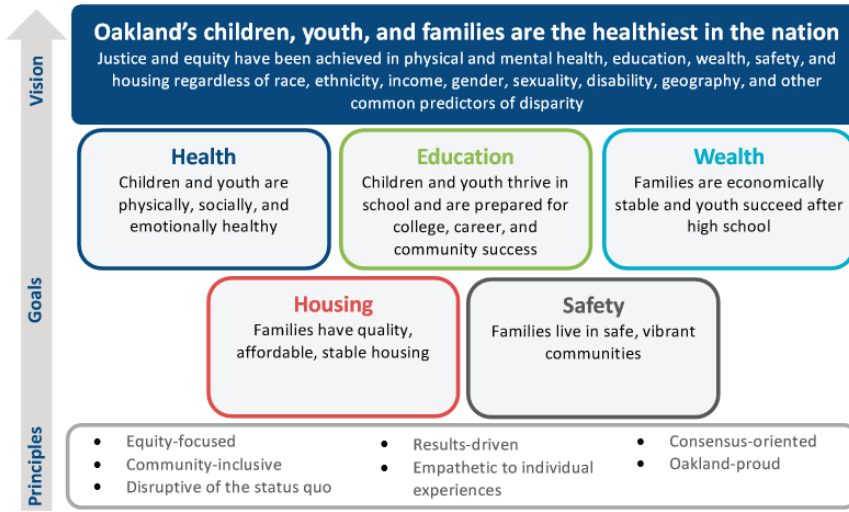

FIGURE 3-1 Oakland Thrives Leadership Council's goals and vision.
SOURCES: Schaaf presentation, December 5, 2019; Oakland Thrives, 2018.

Schaaf shared that collaboration may bring about significant, positive, and lasting change that government alone cannot achieve. She said she discovered a need to collaborate with those outside of government in order to bring information and best practices back to the government to change a system that perpetrates and maintains barriers to health and success (Oakland Promise, n.d.).

MIDDLE SCHOOL INSIDE OUT

Classroom Structure

Robby Dodd, principal of Walt Whitman High School in MCPS in Maryland, introduced the session by discussing his transition from working in an elementary school to a middle school, which provided him with the unique ability to see his students' transition from one setting to another. He noticed that student engagement and achievement were decreasing for students progressing from sixth to eighth grade, anecdotal information that was supported by a Gallup Hope survey (Gallup, Inc., 2020). He saw findings in the peer-reviewed literature exemplified in his school, such as the relationship between large class sizes and lower achievement and lower self-efficacy levels for middle school teachers when compared to their elementary school counterparts. Dodd mentioned that with his experience as an elementary school leader and teacher and middle school principal, he thought that the most significant factor in middle school engagement and achievement lay in the bureaucratic organizational structure itself. Dodd compared and contrasted elementary and middle school structures: in elementary school, students spend the vast majority of their time with one teacher and the same group of students, which may allow for developing stronger relationships. Conversely, middle school students have seven or eight teachers and do not attend each class with the same cohort of peers. They have more teachers but not necessarily more opportunities for strong relationships, even though "nonparental adults" become more important at this point.

Dodd described Project SUCCESS as a response to these concerns. SUCCESS stands for "Student Unified Curriculum Combining English, Digital Literacy, Science and Social Studies." Project SUCCESS employed one teacher for the English, digital literacy, science, and social studies classes, thereby reducing the number of classroom transitions for sixth graders (MCPS, 2016). The students spent half the school day with the same cohort of peers. Findings from the intervention demonstrated that that students' achievement, engagement, and perceptions of the classroom environment increased positively (MCPS, 2016). Students demonstrated improvement in literacy development, which included vocabulary, infor-

mational text, and literacy text. Dodd reported that when the results were controlled for the student's poverty designation, Project SUCCESS eliminated the achievement gap in literacy development. Dodd noted that students who received free and reduced-priced school meals outperformed those in the control group who did not (i.e., those in a better socioeconomic position). Dodd added that students in Project SUCCESS achieved a higher cumulative grade point average in sixth grade, demonstrated less willingness to take risks and more willingness to actively participate in class, and valued their peers more than those in the control group. Lastly, Dodd noted that teachers who were not participating in Project SUCCESS emphasized grading homework more than participating teachers did. Moreover, they did not feel as if they knew their students very well because they had so many more students (150) in a single school year. Overall, Dodd found that Project SUCCESS teachers strongly felt that they assisted their students more with personal or social problems compared to nonparticipants. He stated that in 1989, the Carnegie Corporation's report *Turning Points* suggested that departmentalization in middle schools needed to be replaced with student-centered approaches and that the majority of middle schools still operate under the antiquated approach, to students' detriment. He stated that the existing middle school structure should be changed so that teachers will become "teachers of kids and not just teachers of content."

A Culture of Excellence

Joey Jones, principal of Robert Frost Middle School in MCPS, then gave a presentation on the culture of middle schools and how these help meet the needs of students. Jones began by describing the student demographics at Robert Frost: 39 percent are Asian, 37 percent are White, 11 percent are Black/African American, 9 percent are Latino/Hispanic, and 4 percent are multiracial, but more important than those percentages was the notion that 100 percent of those students were "at promise." To optimize that promise, Jones explained that every year his staff is told that he expects "a PIE," which stands for "professionalism, integrity, and excellence."

Jones briefly pointed out some developmental characteristics of middle schoolers that must be accounted for when interacting with them: they have a short attention span, the tendency to misinterpret emotions and instructions, and a need for 9 or more hours of sleep. Jones re-emphasized that middle school represents a significant time for brain growth.

Using the National Association of Secondary School Principals' Building Ranks (2019), which creates a structure for effective school leadership (see Figure 3-2) and focuses on building culture and leading learning,

FIGURE 3-2 The Building Ranks logic model.
SOURCES: Jones presentation, December 5, 2019; NASSP, 2019. Permission to use granted by the National Association of Secondary School Principals (NASSP). Copyright © 2020 NASSP. All rights reserved.

Jones differentiated between school culture and climate. Jones explained that school culture is the way teachers and staff collaborate and have a relatively constant shared set of beliefs, values, and assumptions. School climate is the effect of the school on students and may change constantly throughout the week or even the day. School climate includes teaching practices, diversity, and relationships between administration, teachers, staff, parents, and students. In response to the desire to improve culture and climate, Jones described a relationship-building approach involving togetherness, excellence, and action to achieve measureable results. He explained that there first should be trust built among team members, which can be achieved through clear communication techniques, active listening skills, and pursuing equity.

Jones continued by stating that Robert Frost Middle School believes in promoting a culture of excellence and that "its core values are to value and respect each person, create a safe and nurturing learning environment and create a sense of ownership and responsibility for each student's and teacher's success; however, it has not been without challenges." Jones gave an example of an instance when students repeated song lyrics with offensive language. The act was recorded on a cell phone and went viral on social media. Jones, as the principal, used this as an opportunity to spread awareness about race and relationship building for both students and adults via a community forum titled "Building Bridges, Let's Talk About Race." The forum was used as a platform to discuss race in general, not to address the specific song incident. What started with one community forum then expanded to learning communities to further dialogue about similarly difficult topics and to provide a space for dialogue in the community. He added that the school is invested in the community and that Robert Frost Middle School "likes to give." He shared that when the federal government closed, the school hosted an appreciation dinner for government workers; it also sponsors a turkey trot every year with a food drive and monetary donation to the community. Finally, he said that the school has an organic garden with which to donate produce to a local food bank.

Last, an important aspect to the culture of excellence at Robert Frost Middle School is the program "Each One Trust One," which conveys the idea that every student should have one trusted adult (MCPS, 2018). This helps students to feel safe approaching others about mental health issues, bullying, and specifically suicide. When this strategy was implemented last year, 70 percent of students reported having a trusted adult; by the end of the year, that increased to 82 percent.

Extracurricular Activities

Jeff Sullivan, director of Systemwide Athletics at MCPS, discussed the importance of extracurricular programs in middle schools within MCPS, the largest school district in Maryland and the 13th largest nationwide (MCPS, 2020a). MCPS has more than 38,000 students attending 40 middle schools (MCPS, 2020a) and a diverse student body. More than 35 percent of its students participate in the free and reduced-price school meals program (MCPS, 2020a). Sullivan discussed MCPS's aim to increase student engagement and parental involvement, provide equitable access to all students, and promote positive character development.

He explained that there are three major components to their extracurricular program: extracurricular clubs and activities, intramural programs, and interscholastic athletics. Stipends for extracurricular activi-

ties, which are consistently allocated across all schools, allow principals to meet with students and decide which clubs will be funded in that school, allowing for different student interests to be supported. Intramural programs are an extension of the physical education curriculum, school rather than district based, and aim to provide students with a safe environment where participation, personal success, and creativity are actively promoted.

The athletic program, which includes about 5,000 middle schoolers, is "an introduction to competition" in which students take part in team sports. Current programs available to seventh- and eighth-grade students include boys' and girls' slow-pitch softball, co-ed cross country, basketball, and soccer.

The extracurricular activities and athletics programs promote the MCPS philosophy of athletics, which is centered around the core values of respect and sportsmanship; academic excellence; integrity and character; spirited, safe competition; and equity and access (MCPS, 2020b) and encourages student excellence through the athletics program (see Box 3-1).

Sullivan continued by explaining the academic eligibility standards and expectations to which students must adhere; he further emphasizes this to students by stating, "You're student-athletes; you're students first." All programs promote a positive culture by addressing bullying, harassment, and hazing. Additionally, MCPS promotes equity and access. There are no fees or costs for extracurricular activities. The district is working

BOX 3-1
MCPS Philosophy of Athletics

Vision

We promote academic excellence, athletic achievement, positive sportsmanship and upstanding citizenship by providing the greatest education-based interscholastic athletics program.

Mission

Every student-athlete will attain the mental, moral, physical, and social-emotional skills to excel in the classroom, community, and the realm of competition.

Purpose

To provide an innovative, education-based interscholastic athletics program that maximizes diverse participation through a commitment to equity and access.

SOURCES: Sullivan presentation, December 5, 2019; MCPS, 2020b.

toward eliminating transportation, equipment, uniform, and other associated costs for all students.

Sullivan said he found there are various ways that extracurricular activities and athletic programs can promote parental involvement. He added that while parents often attend their child's athletic events, MCPS goes one step further and engages them by creating a parent portal that allows them to check grades and connect to teachers.

In his closing, Sullivan stated that coaches should be role models and that extracurricular activities and athletics programs help develop better schools and students.

Reimagining Middle Grades[1]

Tanya Thompson and Philip Harris of BCPS in Florida continued the panel presentations. Thompson first described the Reimagining Middle Grades effort, which BCPS began in July 2018. She explained that BCPS wanted every child to be "literate, emotionally healthy, and academically successful in a safe, experiential learning environment." As part of this effort, BCPS evaluated and assessed its schools and how students were learning. Teachers had been using the traditional lecture-style approach, but this did not appear to be engaging the students in the classroom. In response, the Reimagining Middle Grades initiative took a new approach to the classroom and school dynamics. Thompson mentioned that students became more responsible for their learning through project-based learning (PBL), which focuses on learning skills and goals by using real-world problems to apply and grow their knowledge. Thompson added that through the initiative, BCPS also examined its connections (i.e., the relationships between adults and students), which the project strengthened. A welcoming culture was cultivated so that students would feel welcomed, have a sense of belonging, and feel they had purpose. To foster applied learning, BCPS added middle school elective classes so that students had a creative outlet for learning, gained autonomy, and became excited to attend school (BCPS, 2020a).

Thompson explained that the initiative is not yet at scale at BCPS, which means that the 44 middle schools are divided into different categories (see Figure 3-3). Fifteen middle schools focus on social-emotional learning (SEL) and 15 on PBL, but all schools use applied learning techniques (Gohl et al., 2018). Ambassador schools (four middle schools)

[1] This section summarizes information presented by Tanya Thompson and Philip Harris of BCPS. The statements made are not endorsed or verified by the National Academies of Sciences, Engineering, and Medicine.

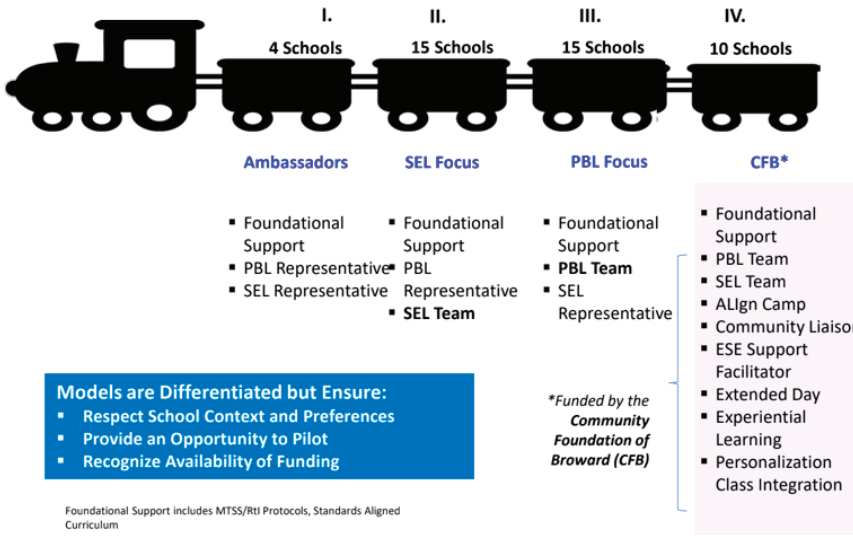

FIGURE 3-3 Reimagining Middle Grades' 2019–2020 implementation models overview.
NOTE: CFB = Community Foundation of Broward; ESE = exceptional student education; MTSS = multi-tiered systems of support; PBL = problem-/project-based learning; RtI = response to intervention; SEL = social-emotional learning.
SOURCES: Thompson presentation, December 5, 2019; Gohl et al., 2018.

combine both SEL and PBL focuses but have not implemented the full program yet because of competing interests.

A fourth set of 10 schools is designated as the Community Foundation of Broward schools. These schools have the largest scaled effort by having both SEL- and PBL-personalized classes due to the increased funding from the Community Foundation of Broward grant. Thompson explained that the foundation is a nonprofit organization with longstanding ties with BCPS. One focus of the foundation is to increase high school graduation rate by addressing middle schools because they are considered to be a lever. The $3 million grant awarded to BCPS to bolster the Reimagining Middle Grades initiative was the largest in the history of the foundation. The grant requires a dollar-for-dollar match, which promotes accountability and collaboration. Thompson mentioned that the mutual responsibility helps BCPS advocate for students who are traditionally overlooked at those Community Foundation of Broward schools.

For the personalized classes, 1,448 students were identified using criteria such as low standardized test results and end-of-year course grades. In addition to either having an SEL or a PBL focus, each class also has a

teacher that is akin to a "school mom" or "school dad," as Thompson described them, who leads each personalized class. This teacher acts like a parent to make students accountable, teach them social-emotional skills, and engage them in weekly conversations focused on resiliency, grit, decision making, and character building. This feature establishes and promotes stronger adult–student relationships and provides students with skill sets as they develop emotionally and academically, she explained.

Thompson briefly discussed the program's evaluation efforts. BCPS identified students in the other 34 schools with similar characteristics to those in the program, and designated them as a comparison group. She explained that BCPS reported to the foundation on a baseline of absences, behavior, and grades of the program and comparison group students. Thompson said there were no significant differences between participants and the control group in the initial year. However, after analyzing the first quarter of the second year, the administrators found that students in the program had fewer negative behavior incidences and higher grade point averages.

Thompson concluded by briefly illustrating what she imagines for middle schools at BCPS (see Figure 3-4) and mentioned that funding and sustainability are points of worry.

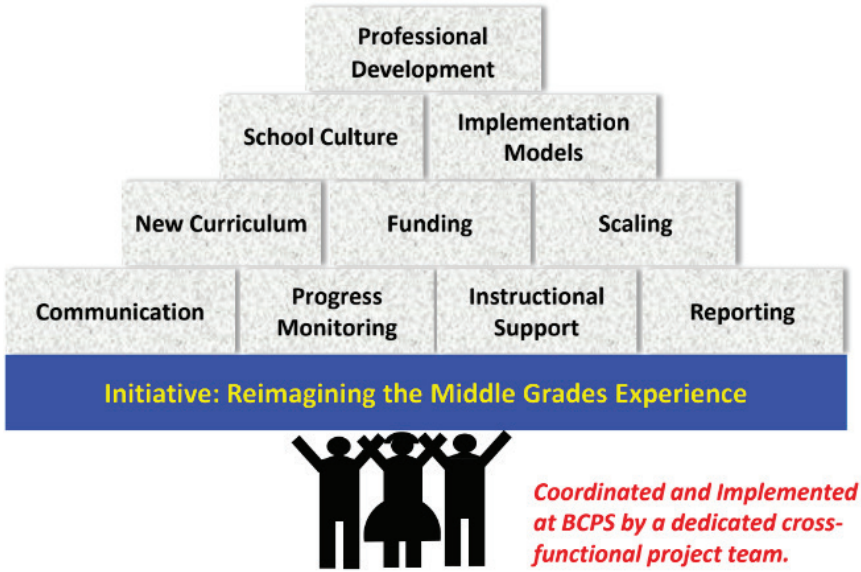

FIGURE 3-4 Framework for BCPS middle schools.
NOTE: BCPS = Broward County Public Schools.
SOURCE: Thompson presentation, December 5, 2019.

Philip Harris, program manager of the Recovery and Resiliency Program, then began his presentation by describing his program's initiative created in response to a shooting at Marjory Stoneman Douglas High School on February 14, 2018, that killed 17 people and wounded 17 others (BCPS, 2020b). Harris stated that the shooting caused a "ripple effect" throughout the community. Turning his attention to the middle school, Harris described how many high schoolers fled the school grounds by "literally jumping over the fence over to Westglades Middle School and running inside [a] portable … [with] blood all over them." Harris said that students at Marjory Stoneman Douglas, Westglades, and Coral Springs (the other middle school) were particularly affected by the trauma both in the short and long term. Harris noted that the situation was challenging because teachers are not mental health professionals or trained to respond to children who may have been traumatized. Thus, BCPS created the Recovery and Resiliency Program initiative, funded through the federal Department of Education, the state, and private donors throughout the county. The initial team comprising therapists, social workers, a psychologist, a nurse, and employment assistance program counselors, all aimed at addressing the mental health needs of teachers, staff, students, and their families within BCPS.

Harris continued by describing the response and recovery needs of the students who experienced the school shooting. Immediately afterward, emphasis was placed on reducing harm, containing damage, mitigating efforts, informing stakeholders, and coordinating all response efforts. Examples of these response and recovery activities included crisis counseling, referrals to various resources, public presentations, and a media presence. In 2019, 2 years later, the community is "going into a recovery phase." Harris said that their focus is ensuring that each student in BCPS is receiving mental health counseling services. Currently, at least 10 mental health teams are spread throughout BCPS due to increased need; he added that a recent increase in local funding has provided for an expansion of 134 mental health professionals. In addition to professional staff, custodial and cafeteria staff and bus drivers are receiving training in psychological first aid. Harris mentioned that in addition to his position as district program manager for the Recovery and Resiliency Program, there is also a service manager: Martha Rodriguez, a clinician who liaises with the wellness center located at Marjory Stoneman Douglas. Harris concluded by stating that community partners, including the Center of Mind-Body Wellness and the National Center for School Crisis and Bereavement in California, have been integral in promoting this mental health response.

Transitions to Middle School[2]

Kristofer Comeforo, principal at Stuart-Hobson Middle School in Washington, DC, began his presentation by describing the demographics at his school, which hosts grades six through eight, with 492 students and 59 staff members. Forty percent of students are classified as economically disadvantaged, making this a Title I[3] school; they receive free and reduced-price lunches. Black students make up 79 percent of the student population, followed by White (13 percent), Hispanic/Latinx (5 percent), and multiracial (3 percent). Only about 30 percent of students live within the boundaries of the school. Comeforo explained that the school choice model[4] in Washington DC Public Schools (DCPS) is aggressive: students attend almost 20 elementary schools and go on to 5 feeder high schools plus 14 additional schools (in smaller numbers).

Stuart-Hobson has many community partnerships, including City Year, Capitol Hill Cluster Parent Teacher Association, After-School All-Stars, One Common Unity, and Communities in Schools. Comeforo stated that the goal is to have all students feel loved, challenged, and prepared and that these partnerships help toward this goal.

Comeforo explained that Stuart-Hobson administers the Panorama Survey, which measures students' sense of belonging, key social-emotional aspects, academic resiliency, student and parental satisfaction, and relationships (Panorama Education, n.d.). The results show an overall improvement over the past several years. Student satisfaction has increased by 4 percent, as has parent satisfaction, demonstrated by the fact that 93 percent of families who start at the middle school finish there. Students reported having a higher sense of belonging because they felt respect from their peers, understood, and that they matter to others.

Comeforo explained that middle school is a time of transitions that can be difficult to manage. First, he said, is the transition from elementary to middle school; Stuart-Hobson had 180 sixth graders from 25 different schools in 2019. Then there was the transition from middle school to high school; he said that for the last school year, 136 students went to 25 different high schools, which is difficult for students, teachers, and administrators to manage.

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[2] This section summarizes information presented by Kristofer Comeforo of Stuart-Hobson Middle School. The statements made are not endorsed or verified by the National Academies of Sciences, Engineering, and Medicine.

[3] Title I is a federally funded education program that provides supplemental funds to school districts to assist schools with high student concentrations of poverty to meet school education goals.

[4] School choice programs give parents alternatives to the local public school their children are assigned to. Governments may give parents financial assistance to be applied to educated expenses.

Comeforo discussed structural programs and activities to alleviate problems caused by these transitions. The first was the Ninth Grade Academies, which aims to help students transition from eighth to ninth grade and beyond. He describes it as having a clear mission of creating strong relationships with adults, giving clear academic expectations, and promoting academic success through classroom routines, leadership and teamwork, instructional design, and recognition. Comeforo stated that in 2012, before DCPS instituted the program, only about 50 percent of students completed ninth grade on time; afterward, it increased to 71 percent.

As Comeforo noted, the DCPS school choice model creates some challenges for teachers and administrators. For example, he said, students do not have their academic records transferred with them when they move to and from various schools. The second activity he introduced to address issues with transitions was the data exchange necessary to facilitate them. RaiseDC, Comeforo described, was created in response to this challenge.[5] It is a cross-sector collective action group that created the Bridge to High School Data Exchange in 2016 to share student data quickly and efficiently between middle schools and high schools regardless of whether the data are on public, private, or charter school students. RaiseDC also creates a space for dialogue between schools to share experiences, interventions, and best practices (RaiseDC, 2019). Comeforo noted that the data exchange is not limited to academic records; RaiseDC organized a systematic KID TALK so that teachers and administrators from middle school and high schools had time to discuss each of the students face to face. The setup, he explained, was like speed-dating, but the topic of conversation was students making the transition to high school.

DISCUSSION

Marice Ashe, formerly of ChangeLab Solutions, asked about security in schools to prevent violence. She pointed out that many schools across the country are discussing options of police presence in schools and arming teachers. She wanted to know more about how to keep students safe while fostering an environment conducive to learning. Harris responded by stating that the Florida governor established the Marjory Stoneman Douglas High School Public Safety Commission, which produced regulatory policies and procedures related to the safety and security of all schools in the state, including charter schools. As an example, Harris mentioned that the Public Safety Commission declared a charter school noncompliant with a mandate that required having a Broward sheriff officer or additional type of security at the school and "shut [it] down."

[5] For more information, see https://www.raisedc.org (accessed March 1, 2020).

This was a politically "difficult situation" because the charter school is not under the purview of BCPS. Other security strategies have been implemented, such as security cameras and doors. Harris added that the Maryland state legislature has required that all teachers and staff complete "a minimum of 5 hours [of] mental health education." Sullivan added that schools in Montgomery County have been trying to integrate security and emergency management in all activities, especially after-school programs; extracurricular activities and athletics are used to prevent bullying or other aspects that inhibit a safe learning environment. Dodd then reflected on Walt Whitman High School, describing it as a school with immense pressures and expectations. Dodd shared that the year before he was named principal, two students died, one by suicide and one of exposure (hypothermia) while under the influence of alcohol. He added that "One Whitman" is a weekly advisory period and was developed to connect students with teachers and discuss important issues that concern them. The school also collaborated with the Anti-Defamation League and its No Place for Hate Program to give lessons on inclusiveness, identity development, and race issues. Dodd said that the goal for both of these strategies is to build relationships and support students who need help.

Joshua Sharfstein of the Johns Hopkins Bloomberg School of Public Health asked for examples of instances when health care or public health have been particularly helpful to the changes their schools have been making. Comeforo responded that there are community resources that parents are not aware of or are uncertain about how to access, particularly in the mental health arena. He mentioned that his district has partnerships that bring mental health practitioners into schools daily and refer students to other mental health resources that administrators are not able to provide within the schools. Comeforo also mentioned community mental health service referrals through the Communities in Schools program. Comeforo said he would like more clinicians who are dedicated to treating the middle school age group, as the demand exceeds the supply. Dodd replied by describing the Kennedy Project, an interagency project that aims to support identified students in need of rental assistance, mental health care, or health care. Harris added that a collaborative approach with community partners is under way in Broward County and that mental health services, policy, safety and security, law enforcement, and nursing should all be included. Harris noted that funding could be a challenge to such a collaboration effort; therefore, BCPS has undertaken innovative approaches, such as telenursing.

4

Multisector Support for the Middle School Experience[1]

The afternoon session opened with a video of 13-year-old Alexandra Simonich sharing her essay about being in middle school and being an advocate for the needs of underserved students. Session moderator John Auerbach of Trust for America's Health then introduced the panel of presenters from various fields working with middle school students: Barbara Ferrer of the County of Los Angeles (LA) Public Health Department and Lisa Warhuus of the Children and Youth Initiatives at Alameda County Health Care Services Agency, representing the public health sector; Tina Cheng of the Rales Center for the Integration of Health and Education and Johns Hopkins University School of Medicine, representing the health care sector; Maryam Toloui of Oakland Unity Middle School and Evelyn Garcia of Rogers Middle School in the Lawndale Elementary School District (LESD), representing the social work sector; and, finally, Erica Louison of the United Way of the National Capital Area and Ta-biti Gibson of Restorative Justice for Oakland Youth (RJOY), representing the community-based organization sector.

[1] This section summarizes information presented by panel session speakers. The statements made are not endorsed or verified by the National Academies of Sciences, Engineering, and Medicine.

WHAT IT IS LIKE TO BE IN MIDDLE SCHOOL[2]

Alexandra Simonich was an eighth grader at Wayside: Sci-Tech Middle School in Austin, Texas, a tuition-free college preparatory charter school founded in 2012 (Wayside: Sci-Tech, n.d.). Its curriculum focuses on science and technology. Simonich won first place in the Education Equality for All competition, which was hosted by the Hispanic Bar Association in Austin, Texas, for her essay describing her position as an education advocate.[3]

Simonich began by stating that she was very fond of her family dogs, adding that they helped with her social anxiety or concerns about how others view her. Simonich said that she wants adults to know that as a middle schooler, she was concerned and stressed about her future. She said she was unsure what options she had for her future as the world continues to undergo rapid changes, particularly related to climate change.

Simonich shared the context that propelled her to write the essay: it was in response to learning about her school's lack of resources, such as good food, teachers, books, and classroom spaces. She shared her awareness that her school does not have a strong voice because it is not located in a wealthy area. Simonich added that while she believes that all children should have equal opportunity in education, she recognizes that the reality is often very different. She said it is easier to educate children when there is enough money and a lack of language barriers, teacher salaries are high, and children have their basic needs met. Students need to have a voice, Simonich stated, and schools can help them develop as leaders and advocates for change. Students need to "organize for change, be angry, be seen," she concluded.

MULTISECTOR SUPPORT

Public Health Sector[4]

John Auberbach of Trust for America's Health introduced a multisector support panel featuring speakers from the areas of public health, health care, social work, and community-based organizations. First to speak was Barbara Ferrer, director of the Los Angeles County Depart-

[2] This section summarizes information presented by Alexandra Simonich of Wayside: Sci-Tech Middle School. The statements made are not endorsed or verified by the National Academies of Sciences, Engineering, and Medicine.

[3] To watch Simonich's full video, see https://www.youtube.com/watch?v=Dz8llXFrnYk (accessed December 14, 2020).

[4] This section summarizes information presented by Barbara Ferrer of the County of Los Angeles Public Health Department and Lisa Warhuus of the Alameda County Health Care Services Agency. The statements made are not endorsed or verified by the National Academies of Sciences, Engineering, and Medicine.

ment of Public Health. Ferrer explained that before her career in public health, she had been a high school principal in Boston, Massachusetts. She shared a story about Jerome, an eighth-grade student who was in a summer academy program helping students transition to high school and aspired to become a pediatrician. Ferrer said that many students in this program had low reading and math levels and were not previously given the necessary support to succeed and that the academy program sought to address some of the issues. After Jerome was absent for three consecutive days, Ferrer visited his home, where she found there were no adults, because his mother was working, no electricity, and limited food. Ferrer learned that Jerome was absent because one of his four siblings was ill and he was the acting caretaker. She felt this situation clearly exemplified how poverty affected his academic achievement. As the public health director in LA, Ferrer identified several problems at the root of education and health gaps: racism, homelessness, poverty, exposure to violence, and environmental hazards. Ferrer stated that unless these factors are addressed, students may be at risk for entering the criminal justice system for avoidable behavioral problems. Ferrer mentioned that 12 percent of seventh graders in LA County who responded to the California Healthy Kids Survey said they did not have any adults who cared about them at their school (Austin et al., 2018). The same children, Ferrer added, were at greater risk for a range of high-risk behaviors, including being

> three times more likely to have high levels of truancy, five times more likely to use e-cigarettes, four times more likely to be using cannabis, three times more likely to be engaged in fights, four times more likely to have vandalized school property on multiple occasions, three times more likely to have missed school due to the fact that they were bullied, and two times more likely to consider themselves as part of a gang. (Austin et al., 2018)

Ferrer added that the fragmented way in which youth risk behaviors are approached is detrimental; given that these behaviors happen in clusters, addressing one at a time (e.g., preventing tobacco or cannabis use or bullying) falls short of what is needed to be effective. She added that positive youth development is an approach that can allow those in the education and public health system to reduce the need for young people to engage in risk behaviors.

Ferrer mentioned that public health departments could support the education sector in a variety of ways. First, Ferrer stated that community programming can help this age population. She added that these children are too young to be unsupervised but too old to be in day care, so early and after-school care based in the community were essential. Ferrer noted the collaboration between the health department and the parks and

recreation department in LA County and added that they have specific programs for middle-school-aged children called "Our Spot."[5]

Second, Ferrer pointed out that middle school students have voices and smart ideas and that spaces and places should be created where it is safe for them to exercise these. A way to do that, she added, was to emphasize social-emotional learning (SEL) not only in the schools but also in the community and also have parents and caregivers learn to manage emotions and relationships. Third, Ferrer added that public health can support teachers and school staff on topics such as trauma-informed strategies (e.g., cooperative discipline), healthy foods, and food security issues. Finally, Ferrer mentioned that public health can support faith-based institutions and other community-based organizations that work closely with families and thereby have a positive impact on these children. Ferrer concluded her remarks with a short video featuring an LA County tenth-grade student testifying before the city council about the need to ban flavored tobacco products. Student organizing and leadership development "makes a huge difference," stated Ferrer.

Lisa Warhuus described the work of the Center for Healthy Schools and Communities (CHSC). Warhuus explained that the center is embedded within the Alameda County Health Care Services Agency. CHSC collaborates with the 18 school systems in Oakland, California, to improve health and education outcomes. Warhuus noted that CHSC was established upon a foundation of action to support the social determinants of health, and specifically education, given that education impacts health outcomes. CHSC has a vision: "a county where all youth to graduate from high school healthy and ready for college and a career." "Ready," Warhuus clarified, means that children are physically, socially, and emotionally healthy, have academic success, are in environments and with families that are supportive and supported, and can access education and health systems that are integrated and equitable.

Warhuus explained that CHSC is staffed with 50 individuals who work directly with school districts to build school health initiatives. CHSC primarily builds capacity to promote its goal by acting as a liaison and partnership builder, influencing policy, and funding school health initiatives, which are approaches that link resources for providing safe and effective learning environments. CHSC functions at the district level to maintain uninterrupted health and wellness services for individual schools, even as school administrations change (ACHCSA, 2019). Warhuus noted that CHSC supports 28 full-service school health centers, which provide medical, mental, youth development, and other services.[6]

[5] See https://parks.lacounty.gov/ourspot (accessed December 14, 2020).
[6] See https://achealthyschools.org/site-map (accessed December 14, 2020).

Warhuus noted that in terms of funding, these centers are run by federally qualified health centers in partnership with Alameda County and receive funds from CHSC, which leverages upward of $1 million through various funding streams. Warhuus added that CHSC also funds behavioral support programs in more than 200 schools and at the district level, along with a youth service center in an unincorporated area of Alameda County, and supports family opportunity initiatives. Overall, Warhuus declared that the county investment in CHSC activities amounts to $17 million annually, which CHSC leverages up to $52 million, and all combined investments in school districts equal $67 million.

In terms of evaluation, Warhuus commented, CHSC uses a results-based accountability framework. Warhuus stated that for the 2018–2019 school year, CHSC registered 14,500 students in the school health center, who made 56,762 total visits.

Warhuus noted that "school-based behavioral health is way more about changing adult behavior than it is about youth behavior" and the work in Alameda County includes supporting teachers and administrators in creating environments that support "positive youth experiences."

CHSC emphasizes a public health approach to mental health by stressing positive school culture and climate. Warhuus added that 84 percent of students who used the school health centers agreed or strongly agreed that the centers helped them "get access to healthy foods when they or their families did not have enough." Additionally, 41 percent of students who used mental health resources showed improvement in behavioral health (ACHCSA, 2019).

Health Care Sector[7]

Tina Cheng, director of the Department of Pediatrics at the Johns Hopkins University School of Medicine and co-director of the Rales Center for the Integration of Health and Education, opened by stating that while health and education are intrinsically linked with highly correlated outcomes, the two sectors remain "siloed financially." Cheng described the bidirectional relationship between health and education: the higher the educational attainment, the better one's health is throughout the life cycle, and the healthier the student, family, and community are, the higher the educational achievement.

[7] This section summarizes information presented by Tina Cheng of the Rales Center for the Integration of Health and Education and the Johns Hopkins University School of Medicine. The statements made are not endorsed or verified by the National Academies of Sciences, Engineering, and Medicine.

Cheng introduced the Centers for Disease Control and Prevention Kaiser Adverse Childhood Experiences (ACEs) Study, which looked at the relationship between ACEs and adult chronic conditions (CDC, 2019). This study had two series of data collections between 1995 and 1997 in which health maintenance organization members receiving care in the Kaiser Permanente Southern California network completed surveys about ACEs and current health status and behaviors (CDC, 2019). ACEs included but were not limited to poverty, violence, incarcerated parents, and racism and other forms of discrimination. The study found that there was a dose–response relationship between ACEs and the risk of poor health as an adult (i.e., the more ACEs a child experienced, the more likely they would have poor health). The relationship has been established for various chronic issues, including ischemic heart disease, stroke, chronic obstructive pulmonary disease, sexually transmitted diseases, and poor mental health outcomes, including depression and anxiety (CDC, 2014). Cheng added that the relationship also holds true for social outcomes, such as absenteeism, financial problems, and poor work performance.

Cheng shared that the World Health Organization pinpointed investment in the academic development of youth as one of the most effective ways to improve health and reduce health disparities. Cheng mentioned that the Community Preventive Services Task Force (2016) conducted a review of 44 studies focused on school-based health centers and found that the centers had a positive impact on issues such as asthma, delivery of recommended preventive services, some high-risk behaviors (including smoking and substance abuse), and general academic achievement. The review did not find the centers to have an effect on sexual activity, self-reported physical health, or mental health. In terms of sexual activity, Cheng noted that although there may be upticks in contraception distributed through school-based health centers, it does not necessarily change sexual activity. Cheng added that there is recognition of missing attention to mental health issues in middle-school-aged children. Overall, Cheng mentioned, the review found that educational outcome improved "just from having school-based health centers."

Cheng said she sees many opportunities to integrate health and education. The Rales Center, for instance, operates health clinics, offers other programming to charter schools in Baltimore, and aims to incorporate health and learning (Rales Center for the Integration of Health and Education, 2020) (see Figure 4-1). The goal of the center is to "weave health into the fabric of learning" by integrating, not merely collocating, health and education. Cheng explained that there is a focus on the school population and wellness and screening programs for hearing, vision, body mass index, and dental concerns as well as nutrition and physical activity programs. In addition to these traditional programs, the center also provides

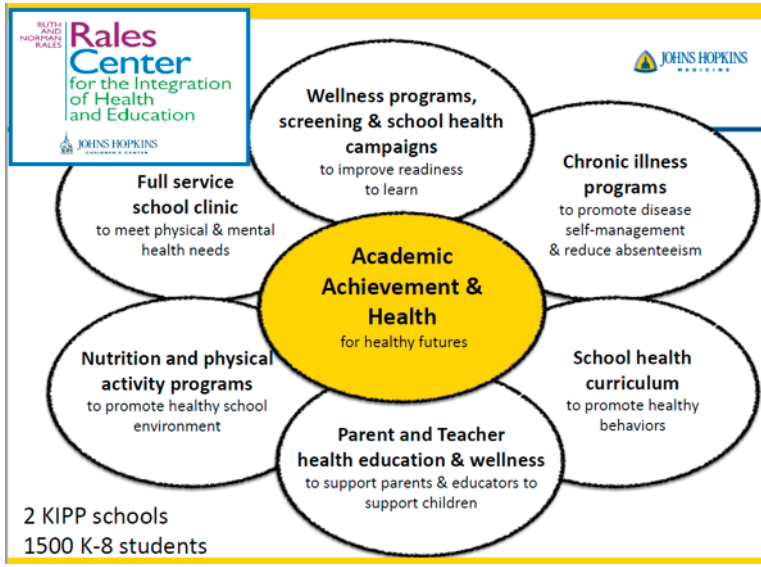

FIGURE 4-1 The Ready model.
NOTE: K = kindergartern; KIPP = Knowledge Is Power Program.
SOURCES: Cheng presentation, December 5, 2019; Rales Center for the Integration of Health and Education, 2020.

mindfulness-based stress reduction, violence prevention, and reproductive health education via the school health curriculum. Cheng added that programs for parents and teachers are also under the umbrella of services offered by the center.

Cheng highlighted a few examples of the Rales Center to illustrate how it supports health and learning. First, Cheng shared a story about a student who had difficulty managing his asthma. He missed school three times during the first month of sixth grade; he was out of breath after gym class, and his teacher sent him to the center, which provided screening, treatment, and education on his disease. There was continuity of care, as the center also connected his family to the home-visit-based Baltimore City Community Asthma Program and his pediatrician. He has not suffered any asthma attacks because he, along with other 50 students, visits the center every morning to use an inhaler for management. The student has also become part of the Rales Afterschool Exercise Class and took part in the center's annual 5K Fun Run with his family.

Cheng also discussed the Rales Center's visual screening program, in which an optometrist is brought to the school to perform eye exams, fit

students for glasses if needed, and provides students with two pairs of glasses, one for school and the other for home.

Lastly, Cheng mentioned the evaluation of the Rales Center's activities. She said that it had served 1,500 students over 3 years, and not only had chronic absenteeism been reduced, but the rates of children with asthma and attention-deficit/hyperactivity disorder (ADHD) dropped by 49 and 50 percent, respectively. She stated that the center had prevented 212 emergency department visits, increased immunization rates, and screened 90 percent of all students for vision, dental, and body mass index issues. Cheng explained that for every $1.00 invested in the center, there was a $4.20 return in social benefit. Both parents and teachers, she added, responded well to placing health centers in schools because of convenience and health improvements in their children and students.

Social Work Sector[8]

Maryam Toloui, director of the Holistic Socioemotional Support Unit at Oakland Unity Middle School, and Evelyn Garcia, social worker and field instructor at Will Rogers Middle School in Lawndale, California, shared social work perspectives on middle school health and well-being.

Oakland Unity is a free public charter school in East Oakland serving 180 students in grades six through eight. Toloui mentioned that to attend the schools, parents apply via the General Common Application called "Enroll Oak," used by the Oakland District and the charter schools, and schools are filled via a lottery system.

Toloui explained that the middle school is located in a converted shopping mall that is now a hub providing a one-stop shop for social services, including the social security office. She said that the area designated as the school has the traditional spaces, including a wellness center, gymnasium, and school cafeteria, although there is no outdoor space for the children.

She stated that the majority of students are Latino/Hispanic (84 percent), while 12.5 percent are African American, 2.5 percent are Asian/Pacific Islander, and 1 percent are White. The vast majority of students (83 percent) qualify for free or reduced-price lunches, almost all are Oakland residents, and 49 percent reside in the school's zip code. Currently, 39 percent are English language learners and 40 percent were formerly English language learners. In the 2019–2020 sixth-grade class,

[8] This section summarizes information presented by Maryam Toloui of Oakland Unity Middle School and Evelyn Garcia of Rogers Middle School in LESD. The statements made are not endorsed or verified by the National Academies of Sciences, Engineering, and Medicine.

16 percent were proficient in English language arts and only 8 percent were proficient in mathematics. Only half of parents had a high school diploma or higher education.

Toloui noted that students at Oakland Unity were exposed to higher levels of stress due to violence and trauma. She said that a survey conducted by Oakland Unity in 2017 specific to middle school teachers found that 80 percent of them felt burned out by their students' emotional and social needs, 90 percent said they wanted more support services to become more effective educators, and 80 percent said more support services would increase their job satisfaction.

Toloui said that "it became very clear that the level of need was much more robust than what we had in place" and thus needed "to increase [their] support structures." The school created the Holistic Socioemotional Support Unit, with a director (Toloui), a social worker, and counseling interns, that renders services in English and Spanish. The interns are enrolled in local graduate programs and practice under Toloui's supervision.

Toloui stated that all of the students at the schools were facing challenges and ACEs, including poverty and housing problems, such as multiple families in one apartment (one nuclear family per bedroom). She added that there were also were immigration and deportation issues and an increase in the number of unaccompanied minors emigrating from Central America to avoid violence.

Toloui described the three tiers of services rendered via wellness program. The first tier is "universal interventions and supports," which implements an SEL curriculum in some classes, manages student advocacy groups and wellness clubs, consults with teachers on trauma-informed educational practices, and collaborates with school administrators regarding school policies, such as discipline and suspension, and their effectiveness and practicality. Tier 2, "targeted intervention and supports," provided students and their families with crisis intervention, group counseling, and peer mediation; acted as a gateway to community resources; and included support unit members consulting with teachers and staff on students who needed more support and collaborating with the Special Education Department. Tier 3 consisted of "intensive interventions and supports," wherein the support unit worked with students and families during weekly mental health counseling meetings, gave family support and therapy, conducted home visits, and provided transportation assistance. Tier 3 also provided teacher and student mediation and entailed working more intensively with teachers and staff on specific students and families.

Toloui said that due to the extensive needs of students, families, teachers, and staff, the unit developed various community partnerships,

including community mental health agencies, dental and vision care, and resources that provide for basic needs. The school used local, state, and federal per-pupil funding and funding available to Oakland middle schools to spend in one of four areas: safety, foreign language, art, or music. Oakland Unity invested this funding into "safety," as mental health services fall within this category, and surveyed students and parents. Toloui concluded with some of the survey responses, which showed that a majority of parents responding felt the school was a safe place (95 percent), and 83 and 85 percent of surveyed students felt they were physically or emotionally safe, respectively. Those teachers who felt they were prepared to meet their students' social-emotional needs increased from 10 to 40 percent.

Evelyn Garcia described the student support services program at LESD, which was established in 2013 and funded via the Local Control Funding Formula. The set of services contains an onsite social worker at each school, eight community liaisons, one Medi-Cal outreach liaison, and one district social worker. The program focuses on academic, social, emotional, and behavioral aspects through the lens of equity, collaboration, and evidence-based practices (LESD, 2018) (see Figure 4-2).

Garcia described Will Rogers as having a diverse student body, with about 74 percent of its students being Latino/Hispanic, African American, Asian, and other. Eighty percent are eligible for free or reduced-price lunches. Garcia noted that the school has identified 26 families who are homeless, and she added that 27 students have recently moved from other countries, 3 are foster youth, and the LGBTQI+ population is significant. She mentioned that major concerns at the school included ACEs, such as trauma and exposure to violence and abuse, which manifest as anxiety, depression, substance abuse, bullying, self-harm, suicidal ideation, and ADHD.

Garcia described how the onsite social workers and interns addressed the wide range of mental and behavioral health issues that students are facing. She said that the onsite licensed social worker trains the interns, provides social-emotional professional development for teachers and staff, and conducts risk assessments and crisis response management. The interns, under her supervision, provide an array of services, which Garcia detailed. About 80 percent of their work is with the general school population, including class lessons, monthly awareness activities, parent workshops, teacher training and support, and Positive Behavioral Interventions and Supports, which is designed to develop positive behavior and school climate.[9] She added that the interns focus some of their efforts on at-risk students by providing short-term individual counseling, group

[9] For more information, see https://www.pbis.org (accessed February 25, 2020).

FIGURE 4-2 LESD student support services overview.
SOURCES: Garcia presentation, December 5, 2019; LESD, 2018.

counseling, and conflict mediation. The interns also tend to high-risk students, who make up 5 percent of the student population, through individual counseling, crisis management, and attendance counseling. Garcia added that professional development topics outside of trauma include implicit bias, responding to challenging behaviors, restorative practices, and self-care.

Garcia closed her presentation by stressing the vital role of partnerships and support from leadership and the need for a collaborative approach to meeting the needs of students, families, and schools. In specific, Garcia mentioned that support from the superintendent, school directors, and students was crucial. She added that community partners, such as the University of Southern California, Loyola Marymount University, California State University, and California State University,

Dominguez Hills, make it possible for her team to connect students with mental health and counseling services and that services such as those rendered by Vision To Learn[10] help students with learning-related needs, including glasses.

Community-Based Organizations Sector[11]

Erica Louison of the United Way of the National Capital Area (UWNCA) began by introducing the United Way, stating that it was established 45 years ago and serves 11 counties across Maryland, Washington, DC, and Northern Virginia. Its mission, Louison described, is to sustainably improve the lives of those living across 11 counties in Maryland, Washington, DC, and Northern Virginia by focusing on community resources. Louison said that in 2014, UWNCA shifted its focus to education, financial stability, and health and, after engaging in dialogue with stakeholders and evaluating evidence-based best practices, developed a 5-year strategic investment plan to solve the root problems of inequity.

UWNCA has a distinct focus on middle schoolers because, as Louison pointed out, the organization found that this group has traditionally been overlooked; other agencies and funding tend to focus on early childhood education and the transition from high school to college. Louison added that UWNCA currently supports 13 schools and more than 10,000 students and their families. UWNCA expressly uses the Community Schools Strategy to prepare students in Title I schools to transition successfully to high school and graduate. At its core, Louison explained, this strategy requires stakeholder engagement, collaborative efforts, and capacity building informed by an annual needs assessment. It employs various activities, both academic and nonacademic, to expose students to experiential learning, integrate students into health services and basic needs resources, and support family and community engagement (United Way, 2020). Louison stated that the UWNCA mobilizes the community via local residents and municipalities, and that donors and volunteers support its overall activities throughout the region. She added that UWNCA has invested about $4.5 million into the community schools programs in the region and that the 5-year commitment aims to serve 12,000 middle school students (it has served 10,000 thus far).

[10] For more information, see https://visiontolearn.org (accessed December 15, 2020).

[11] This section summarizes information presented by Erica Louison of the United Way of the National Capital Area and Ta-biti Gibson of Edna Brewer Middle School. The statements made are not endorsed or verified by the National Academies of Sciences, Engineering, and Medicine.

The middle school success program at UWNCA, Louison added, is engaged in various activities to support its three areas of focus: monitor absenteeism, promote positive prosocial behavior, and promote academic achievement levels, specifically in English language arts and mathematics in middle schoolers, as these are predictors of high school completion. It also provides office hours, data collection and analysis, and technical assistance to teachers and staff. Volunteers for UWNCA participate in various relevant activities, and financial and supplies donations are collected regularly.

Louison then described UWNCA's evaluation processes. Under the advice of the Urban Institute, UWNCA collects a series of reports from the nonprofit partners in 13 schools each year. Louison explained that the schools provide two preliminary reports based on each school's needs assessment plan and preliminary goals, needs-assessment results, and annual goals. These and other reports are used to evaluate the program using achievements, challenges, lessons learned, and standardized test scores. Louison shared a few outcomes captured in these various reports: 88 percent of students in the program had no new suspensions, 76 percent improved by one grade level or maintained the same level of C or higher in mathematics, and 75 percent improved by one grade level or maintained the same level of C or higher in English language arts.

Louison mentioned that in addition to the reports, UWNCA conducts two annual site visits for each school where it collects feedback from students, teachers, administrators, and parents. She shared that these individuals "appreciate and support the investment that [UWNCA] has made in community schools." Louison concluded by reporting that the community sees UWNCA as a leader and expert and invites it to sit in policy councils, steering committees, and school board meetings to help develop and shape policy in the community.

Ta-biti Gibson, coordinator of RJOY at Edna Brewer Middle School, opened by stating that RJOY has the largest peer restorative justice leadership team in the country. Gibson described restorative justice as a theory that focuses on meditation, responsibility, and agreement rather than traditional punishment. Gibson explained that restorative justice aims to collectively identify and address harms and needs for healing.

Gibson explained that there are 94 students at Edna Brewer who have been trained in RJOY's restorative justice model (see Figure 4-3). The model has three circles; the first contains the first tier of restorative activities for students, which consists of providing social and emotional support and hosting restorative conversations. Tier 1 includes community building circles, encouraging relationship building. Gibson added that restorative justice activities should place the most emphasis on building relations. The second circle is tier 2 activities, which focus on reducing

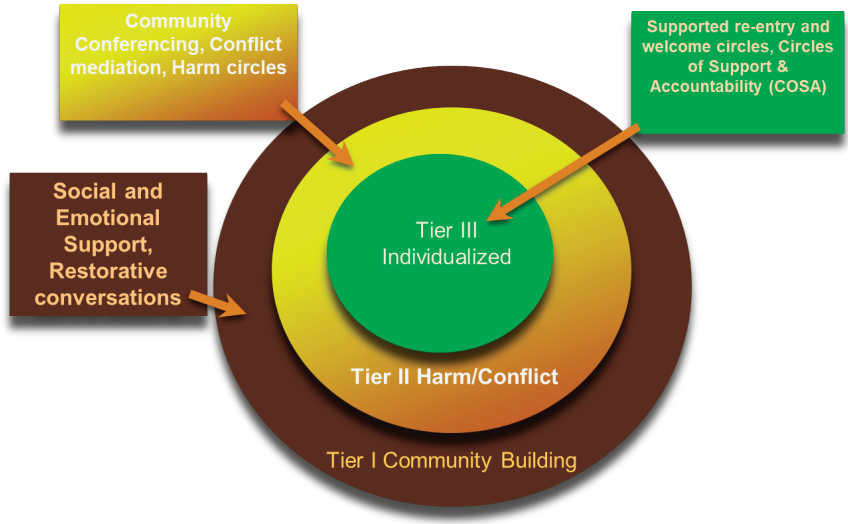

FIGURE 4-3 Restorative justice model.
SOURCE: Gibson presentation, December 5, 2019.

conflict and harm. Gibson added that a strong foundation in tier 1 should be there to support the activities in tier 2 and that tier 2 activities involve alternative modes of disciplinary responses, as opposed to suspensions or detention. Gibson noted that parents are often involved in these circles and there have been positive responses to resolving behavioral concerns this way. Tier 3, Gibson explained, facilitates the reentry of students after an absence from school for reasons such as suspension, illness, family dysfunction, or juvenile hall.

Gibson shared that he took 14 of 94 students to Denver, Colorado, to the Restorative Justice International Conference, where, for the first time, middle school students were presenters on women's equality and transgender rights. He added that the success of the program lies in the fact that the students themselves exercise restorative justice whenever a situation at school calls for it. Gibson added that through restorative justice practice, students know that the "self and silence" are the best teachers.

DISCUSSION

A brief discussion and question-and-answer session with the audience followed the panel's presentations. Auerbach asked "what are the policy implications for a nationwide policy to expand best practices?" Toloui responded that there is a strong need for various social-emotional

skills to be part of the academic curriculum and to be appropriately funded for implementation. She said these skills must be taught so that they can be learned and practiced, just like reading and math. Cheng added that attention was needed to funding for school nurses and school-based health centers to address mental health concerns and disparities. Gibson answered by stating that social-emotional skills and science, technology, engineering, and mathematics approaches should be similarly emphasized in schools.

A participant observed that while approaches within the various sectors were different, there were also similarities. The participant then asked the panel to reflect on the various funding sources that support the range of services the panel described. Warhuus shared her experiences in Alameda County of leveraging multiple funding streams when possible, including the Our Kids Our Family Program, which has nonprofit mental health care providers who bill Medicaid. These providers are paired with social workers and other mental health professionals who do not bill Medicaid to ensure that any student has access to mental health services regardless of Medicaid status. Ferrer agreed with Warhuus in that sector partnerships have to break down siloes and added that some small changes in policies within organizations may have a larger impact on providing resources and services more fully, such as setting up new budgeting priorities. Ferrer added that there has to be intentionality in "every single thing you do as building … justice and capacity for equity." Ferrer mentioned contracting, such as the intention to fund organizations that build said capacity. She added that of the $1.3 billion in the budget she manages per year, $500 to $600 million goes to community organizations and she pays attention to funding smaller community-based, women-owned, and LGBTQ organizations. Ferrer added that hiring practices can also be helpful; for example, the LA County Health Department has set up a youth advisory board for the department and hired them as interns, as opposed to having them be unpaid. She said that everything a local health department does can have a positive impact, and thus reviewing internal policies with a justice and equity lens is helpful.

Cheng responded by stating that the shift from volume to value is leading to greater interest in this kind of community-based work from private payers, Medicaid Managed Care, and federally qualified health centers. Auerbach commented on the importance of state policies (e.g., Medicaid waivers) to support payment models that allow for expanding school-based health care and other best practices. He said that Medicaid or health insurer reimbursement is a "somewhat potentially unlimited funding source." He gave the example that he assumed that restorative justice was not a reimbursable service, but there should be an "[alternative] in those cases."

Phyllis Meadows of The Kresge Foundation asked the speakers to reflect on assets found in students, teachers, and communities and how to apply an asset-based and prevention mindset to this work. Ferrer said that students have not been part of the decision-making process in their schools and may be excited to take part in student council or another form of governance. Ferrer said this may give students a sense of belonging and power in their learning environment. She gave the example of restorative justice, as it trains students to be both leaders and decision makers. Gibson reflected on his experiences with his students conducting restorative justice circles. He said it was important for teachers and adults to let students use the skills they have gained. Auerbach added that students are resilient so long as the root of their problems is being addressed. He illustrated this with an example from Puerto Rico, where the trauma experienced by students in a small community affected by Hurricane Maria could begin to be resolved only when the underlying housing and employment issues were addressed. Toloui added that middle schoolers are intelligent, creative, generous, and resilient. In response to the issue of prevention in Meadows's question, Cheng said there are many issues, such as poverty, that we know how to solve but that there needs to be more political will and appropriate funding to fully address them.

5

The Big Picture[1]

Moderator Joaquin Tamayo introduced the last panel, giving an overview of some key takeaways. The panel featured presenters who shared their experiences on defining and supporting middle school success: Linda Pulido-Esquivel of Oakland Unified School District, Christine Thielen of the Association for Middle Level Education Board of Trustees and Lincoln Middle School, and Nancy Deutsch of the University of Virginia (UVA).

Linda Pulido-Esquivel first described the organizational structure of her district. It has divided its schools into networks, including three elementary school networks, a middle school network, and a high school network. Pulido-Esquivel is on the middle schools network team, along with the superintendent. She explained that this network contains 12 middle schools and aims to ensure that students, families, teachers, and staff have what they need to be successful, including access to computers, science, technology, engineering, arts, and mathematics resources, as well as outdoor education and the restorative justice program directed by Gibson, an earlier workshop presenter.

As part of her role within the network, Pulido-Esquivel manages the Measure G1 Districtwide Teacher Retention and Middle School Improvement Act, passed in 2016, with the goal of supporting teacher retention

[1] This section summarizes information presented by Linda Pulido-Esquivel of Oakland Unified School District, Christine Thielen of the Association for Middle Level Education Board of Trustees and Lincoln Middle School, and Nancy Deutsch of UVA. The statements made are not endorsed or verified by the National Academies of Sciences, Engineering, and Medicine.

and middle school electives (Oakland Unified School District, 2020). She described the act as a $120 annual parcel tax received from the county that approximately totaled $11.6 million, of which $11.4 million was distributed to schools. Within that, about 65 percent was directed to staff and teacher retention, with the rest being used for middle school electives. She continued by describing the large turnover rate and lack of livable wages for teachers. Pulido-Esquivel stated that district teachers, on average, earn $10,000 less compared to other county districts and that first-year teacher retention rates are 67 percent, dropping to 36 percent by year 3, compared to elementary school teacher retention rates of 81 and 61 percent, respectively. Hoping to address these concerns, she concluded by saying that the parcel tax has already created growth in areas such as safety, mental health, art, and music programs.

Next to present was Christine Thielen, who teaches mathematics at Lincoln Middle School in Parkridge, Illinois. She is on the board of trustees for the Association for Middle Level Education (AMLE), whose goal is to empower educators to create opportunities to cultivate the potential of young adolescents (AMLE, 2020). Thielen explained that AMLE is funded through individual, school membership, and professional development fees and offers technical assistance and services in schools, which also provides some funding. She described AMLE as a resource for educators by disseminating action research and best practices to aid them in meeting students' needs. AMLE focuses on social equity and fostering culturally relevant learning environments (AMLE, 2020). She stated that AMLE sees the middle school years as a unique opportunity for developing "healthful decision-making and refusal skills" to avoid risky behaviors.

Thielen then went on to describe a connectedness survey that Lincoln employs each year, which asks students to identify teachers or staff who have shown an investment in them and whom they can talk to about various academic and nonacademic problems. Thielen shared that the guidance department then reviews the results to look for students who have selected no one or only one adult. These students are provided with additional support in an effort to build relationships with them.

Following Thielen was Nancy Deutsch, professor at UVA and director of Youth-Nex, who concluded the panel. She remembered that she had a positive middle school experience and briefly shared that she was in "an experimental open cluster" setting in which there were no walls and only one classroom with a team of teachers and the same peer group. She then described Youth-Nex, which is a multidisciplinary and university-based center aimed at "enhancing the strengths of children and adolescents" (UVA, 2020). She prided the organization for including children and adolescents in its decision-making processes and its advocacy for working directly with them. She listed the organization's three areas of

focus: middle school educational systems, school time environments, and community engagement. Since taking over as director 2 years ago, Deutsch has moved Youth-Nex in the direction of translational research and practices and engaging with community partners, most notably UVA's Curry School of Education and Human Development's Center for Race and Public Education in the South were a collaboration in producing a curriculum called Educating for Democracy. She also questioned whether the decline in student engagement[2] and academic achievement during middle school can be pinned not on the developmental period, but instead on settings that may not be structured to adequately meet the students' needs (Rosenkranz et al., 2014). For example, middle schools receive significantly less funding than elementary, high, and postsecondary schools (see Figure 5-1).

Deutsch then continued to describe Remaking Middle School, a nationwide and multisector program housed within Youth-Nex aimed at using innovative practices, fostering collaboration, and building an online resource repository connecting educators and researchers to promote the learning of young adolescents. Its commitment is to elevate the importance of middle school and realize its promise for all students, highlight and disseminate existing research that the education field can use to ensure middle school better aligns with our youths' developmental needs, and establish the conditions for adults in the classroom and school building to shape educational experiences that elevate our youths' strengths (UVA, 2020). Deutsch then described the three design teams aimed at implementing these intentions. One team focuses on connecting research and practice, the second on teacher learning and professional development, and the third on school climate and culture. These foci were identified by participants in a summit held by Youth-Nex in early 2019. Deutsch then concluded her presentation by showing the future goal of Remaking Middle School: developing a design lab to work directly with individual schools on determining how to improve practices and structures identified by each school (UVA, 2020).

DISCUSSION

A brief discussion and question-and-answer session with the audience immediately followed the presentations. Joaquin Tamayo summarized presenters' points on the need to base practices and structures around evidence-based information and recognize the assets found within

[2] For more information, see *Student Engagement—By Grade* at https://www.sac.edu/research/PublishingImages/Pages/research-studies/2016%20Gallup%20Student%20Poll%20Snapshot%20Report%20Final.pdf (accessed December 15, 2020).

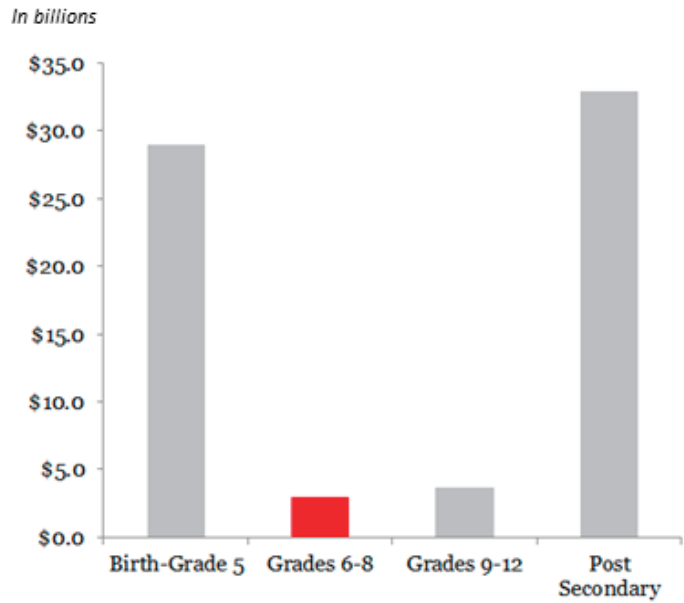

FIGURE 5-1 Federal education spending (fiscal year 2017).
SOURCES: Deutsch presentation, December 5, 2019; Alliance for Excellent Education, 2019.

middle school students. He asked how to keep this trajectory moving forward without regressing. Deutsch responded by saying that adults need to follow suit. That is, she explained, young people tend to be social advocates and the faces of many social movements. She believes that adults need to listen to young people and follow their example. Language on the middle school years may be reframed more positively, to which Thielen and Pulido-Esquivel agreed. Pulido-Esquivel added that they started to interview their middle school students in a campaign called "Oakland in the Middle" to get to know them and the contributions they might offer. She also mentioned the Search Institute in Minneapolis, Minnesota, which uses a model to evaluate individual and ecological assets (the resources and strengths of individual youth) within their communities.

Bobby Milstein of ReThink Health asked the panelists about their observations on how middle school students relate to younger and older students. Deutsch shared that she had conducted research with the Boys & Girls Club and found that when older children and adolescents were around younger children, they saw themselves as role models.

Cathy Baase of the Michigan Health Improvement Alliance directed her comment about the origins of the G1 parcel tax to Pulido-Esquivel, to which the latter explained that the parcel tax narrowly passed after a time of financial instability. It had been argued that middle schools did not have similar resources to elementary schools, such as Parent Teacher Associations, and were having to reduce their programs dramatically.

Hanh Cao Yu, chief learning officer at The California Endowment, asked if the panelists would share examples in which the community and young people were taking leadership roles in how middle schools were being transformed. Deutsch mentioned a communitywide initiative that included a youth participatory action research component in Broward County, Florida, but she was unable to provide further details. She did continue by briefly describing student movements advocating for equity and on issues of segregation in New York City public schools. A participant contributed an example from the University of Arizona, in which there is youth participatory action research and youth informing the curriculum.

6

Reflections on the Day and Closing Remarks

Joshua Sharfstein of the Johns Hopkins Bloomberg School of Public Health initiated the last session by opening the discussion. The key themes from the discussion are listed in Box 6-1. Carla Alvarado of the National Academies of Sciences, Engineering, and Medicine (the National Academies) asked about discretionary funding line items and whether schools had the ability or flexibility to create and pilot new initiatives. She noted that within public health, there are various restrictions on grants and general budgets. Robby Dodd responded that he did not need approval to design or implement Project SUCCESS but instead secured teacher buy-in to support and lead its implementation. Dodd added that the implementation did not have significant funding implications but did require administrative adjustments, such as adding an extra teacher planning period, which required coordinating teaching and class schedules and involving the teacher's union to negotiate with the administration.

Philip Alberti of the Association of American Medical Colleges reflected on the various three-tiered models throughout different sectors and the implications of creating a singular and comprehensive model. Sharfstein reiterated Alberti's point that different sectors were discussing the same things but using different tools for evaluation and problem solving. Sharfstein said that collaboration could come in the form of using common measures and models. An unnamed participant added that at the University of Virginia's The Equity Center, a multisector team approach is used to serve the community better. The center has begun to build shared language and terminology.

BOX 6-1
Key Themes Identified

- Innovative and flexible strategies are needed to facilitate collaborative efforts between sectors. (Dodd)
- There is an opportunity to share models and language for evaluation and problem-solving. (Sharfstein)
- There is a need to evaluate current data collecting measures by removing biases and incorporating various health and education outcomes. (Rosenthal, Sharfstein, Tamayo)
- Every student has potential. (Tamayo)
- There is an opportunity to reframe messages about the middle school experience and middle schoolers themselves. (Gunderson, Tamayo)

NOTE: This list is the rapporteurs' summary of the main points made by individual speakers and participants (noted in parentheses) and does not reflect any consensus among workshop participants or endorsement by the National Academies of Sciences, Engineering, and Medicine.

On the topic of evaluation, Sharfstein added that student engagement is a difficult concept to measure beyond absenteeism and a sense of safety. He noted that educators present at the workshop looked beyond traditional measures such as test scores. He described these types of outcomes as core measures of well-being, which produced better health outcomes later in life, and he wondered about the extent to which these nontraditional educational outcomes would be of interest in the education sector. Sharfstein also described the potential collaboration effort to share absenteeism data with students' pediatricians. This could be used to measure outcomes, and he surmised that something similar could be developed to capture nontraditional outcomes.

One audience member made the point of distinguishing middle school from junior high school. They asserted that relationships and safety are a high priority in middle school, but academic achievement is paramount in junior high school. Another participant expressed that there is a movement to give these nontraditional measures the same importance as others, although it varies from district to district. Funding is often tied to standardized test scores and absenteeism, so while that structure is in place, there will continue to be an emphasis on these more traditional measures as opposed to ones relating to well-being, such as those mentioned by Sharfstein. Johanna Rosenthal with Cardia stated that these measures were becoming more prominent as states and districts mandate safe and inclusive learning environments, as California did in its California Healthy Youth Act 8329.

In response to this comment, Joaquin Tamayo noted that there was "implicit bias and structures built into the algorithms of the math itself." Tamayo explained that many evaluation methods and tools, such as the idea that there is an "average learner," are flawed. Tamayo shared information about the Methods and Measures Across the Developmental Continuum at the Science of Learning & Development Alliance at Tufts University in Massachusetts. He noted that this initiative will attempt to measure the trajectory of a child's development without considering what "normal" is and while removing other biases.

Alina Baciu of the National Academies expressed her confusion, which Sharfstein later mirrored, about the Healthy People 2030's proposed objective of including fourth-grade students in measuring social determinants of health or contributions to academic success. Healthy People 2030 proposes to increase the proportion of fourth-grade students whose reading and mathematics skills are at or above the proficient achievement levels for their grade (Healthy People 2030, 2019). An unnamed workshop participant briefly mentioned that the National Academies' Forum for Children's Well-Being is looking at "whole vital signs" as indicators for children's health and that aspects relating to the Healthy People 2030 objectives[1] are being evaluated.

The last key point discussed was destigmatizing middle school and middle schoolers. Gary Gunderson with Wake Forest University and Tamayo emphasized the importance of using positive language when referencing this developmental phase and said there are tremendous opportunities for growth and development for students, their families, and schools.

[1] For more information on Healthy People 2030, see https://www.healthypeople.gov/sites/default/files/ObjectivesPublicComment508.pdf (accessed December 15, 2020).

Appendix A

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Appendix B

Workshop Agenda

8:30 **Welcome**
Joshua Sharfstein, Roundtable Co-Chair,
Johns Hopkins Bloomberg School of Public Health
Moderator: **Michelle Larkin,** Robert Wood Johnson Foundation

8:40 **To Thrive in Middle School and Beyond**
Phyllis Fagell, Sheridan School

9:05 **The Middle School Years, A 360 View**
Joanna Williams, University of Virginia
Joaquin Tamayo, EducationCounsel

9:40 **Reactions from the Audience**
Moderator: **Michelle Larkin**

10:00 **Break**

10:10 **Remarks from the Mayor of Oakland**
Introduction by **Hanh Cao Yu,** The California Endowment
The Honorable **Libby Schaaf**

10:30 **Middle School Inside Out and Discussion**
Moderator: **Kristofer Comeforo,** Stuart-Hobson Middle School
- Classroom Structure:
  Robby Dodd, Walt Whitman High School
- A Culture of Excellence:
  Joey Jones, Robert Frost Middle School
- Extracurricular Activities:
  Jeff Sullivan, Montgomery County Public Schools
- Reimagining Middle Grade:
  Tanya Thompson, Resiliency Services, and
  Philip Harris, Broward County Public Schools
- Transitions to High School:
  Kristofer Comeforo

12:00 **Lunch**

1:10 **To Be in Middle School—Video**
Alexandra Simonich, Austin, Texas

1:15 **Multisector Support and Discussion**
Moderator: **John Auerbach,** Trust for America's Health

Public Health:
- **Barbara Ferrer,** County of Los Angeles Public Health
- **Lisa Warhuus,** Children and Youth Initiatives,
  Alameda County Health Care Services Agency

Health Care:
- **Tina Cheng,** Rales Center for the Integration of Health and Education, Johns Hopkins University School of Medicine

Social Work:
- **Maryam Toloui,** Holistic Social-Emotional Support,
  Oakland Unity Middle School
- **Evelyn Garcia,** Social Services, Rogers Middle School,
  Lawndale Elementary School District

Community-Based Organizations:
- **Erica Louison,** Middle School Success Strategy,
  United Way of the National Capital Area
- **Ta-biti Gibson,** Restorative Justice for Oakland Youth,
  Edna Brewer Middle School

2:40 **The Big Picture and Discussion**
Moderator: **Joaquin Tamayo**

- **Linda Pulido-Esquivel,** Middle Schools Network, Oakland Unified School District
- **Christine Thielen,** Association for Middle Level Education Board of Trustees, Lincoln Middle School
- **Nancy Deutsch,** Remaking Middle School, Youth-Nex, University of Virginia

4:10 **Reflections on the Day and Closing Remarks**
Joshua Sharfstein, Roundtable Co-Chair

4:30 **Adjourn**

Appendix C

Biosketches of Speakers, Moderators, and Planning Committee Members[1]

John Auerbach, M.B.A.,† is the president and the chief executive officer of Trust for America's Health (TFAH), where he oversees TFAH's work to promote sound public health policy and make disease prevention a national priority. Over the course of a 30-year career he has held senior public health positions at the federal, state, and local levels. As the associate director at the Centers for Disease Control and Prevention he oversaw policy and the agency's collaborative efforts with the Centers for Medicare & Medicaid Services, commercial payers, and large health systems. During his 6 years as the commissioner of public health for the Commonwealth of Massachusetts, he developed innovative programs to promote health equity, combat chronic and infectious disease, and support the successful implementation of the state's health care reform initiative. As Boston's health commissioner for 9 years, he directed homeless, substance abuse, and emergency medical services for the city as well as a wide range of public health divisions. Mr. Auerbach was previously a professor of practice in health sciences and the director of the Institute on Urban Health Research and Practice at Northeastern University, the program director of one of the country's first community health centers, and the director of a clinical training program at a tertiary care safety-net hospital.

Tina Cheng, M.D., M.P.H.,† is the Given Foundation Professor of Pediatrics, the director of the Department of Pediatrics for the School of Medicine

[1] * Denotes planning committee member; † denotes speaker.

with joint appointment in the Bloomberg School of Public Health and the pediatrician-in-chief of Johns Hopkins Hospital. She is the 9th and first woman director of pediatrics at the Johns Hopkins University School of Medicine. A 1986 graduate of the Brown University Program in Medicine, she completed her pediatrics residency and chief residency at the University of California, San Francisco, and San Francisco General Hospital. She received an M.P.H. in epidemiology and her preventive medicine residency from the University of California, Berkeley, followed by a fellowship in academic general pediatrics at the University of Massachusetts.

Her clinical work, teaching, and research focuses on child, adolescent, and family perspectives on improving health and community-integrated models to interrupt the intergenerational cycle of disadvantage. For 15 years she co-led the National Institutes of Health (NIH)-funded DC Baltimore Research Center on Child Health Disparities, which outlined a research action agenda on child health disparities. She led the establishment of two clinical and research innovation centers at Johns Hopkins: Centro SOL: Johns Hopkins Center for Salud/(Health) and Opportunity for Latinos and the Rales Center on the Integration of Health and Education. Both of these centers develop and evaluate community-integrated models of health promotion to address the needs of vulnerable children, adolescents and families.

An author of more than 150 publications, she has been the principal investigator on numerous federal and foundation grants (National Institute of Child Health and Human Development, Centers for Disease Control and Prevention, Maternal and Child Health Bureau, National Institute on Minority Health and Health Disparities, Robert Wood Johnson Foundation) and has conducted randomized trials of primary care and emergency department initiated interventions in partnership with community services (e.g., mentoring programs, legal advocacy, schools, home visitation) to promote positive youth development, behavioral health integration, and family health. She has written on the future of child and adolescent health needs and services, translating life-course theory to practice, health equity, and the importance of two-generation programs and a proposed three-generation approach.

A past president of the Academic Pediatric Association, she has held leadership roles in that organization and in the American Academy of Pediatrics (AAP. She is currently on the National Advisory Panel of the NIH All of Us Research Program and co-led the Child Enrollment Scientific Vision Working Group. She has received numerous recognitions, including the AAP Education Award and the Job Lewis Smith Award for Community Pediatrics, the Vice Dean's Award for the Advancement of Women Faculty, and the Academic Pediatric Association's Public Policy and Advocacy Award. She is an elected member in the National Academy of Medicine.

Kristofer Comeforo, M.Ed.,† is the principal at Stuart-Hobson Middle School, a public, Title I school in Washington, DC. During his tenure, Stuart-Hobson has undergone impressive improvement, not only academically, but also in terms of student and staff culture. By reinvigorating his staff, amplifying student voices, and connecting with aligned community partners, he has ensured that Stuart-Hobson is a place where people love to be.

As the son of two public school educators, he never planned to go into the "family business." Instead, he earned a degree in biochemistry from Boston College, planning to work in the biotech industry. However, after volunteering at a school, he was reminded of how much fun it can be to work with kids. Ten years later, after teaching, coaching football, founding a robotics team, and serving as a school leader, he is committed to reshaping how schools can best serve children.

Nancy L. Deutsch, Ph.D.,† is a professor at the University of Virginia's (UVA's) Curry School of Education and the director of Youth-Nex: the UVA Center to Promote Effective Youth Development. Her research focuses on understanding the process of adolescent development as it unfolds within local environments with a goal of understanding how to create settings that better support youth, especially those at risk due to economic or sociocultural factors. She has also written about the use of mixed methods in developmental and educational research. She is the author of two books, *Pride in the Projects: Teens Building Identities in Urban Contexts* and co-authored *Youth Organizations and Positive Youth Development: Case Studies of Success and Failure*. Dr. Deutsch is the editor of the *Journal of Adolescent Research* and sits on the editorial board for *Qualitative Psychology*. Dr. Deutsch engages in a variety of activities to help translate research to practice, including current membership on the National Mentoring Resource Center's research advisory board. Her work has been funded by the William T. Grant Foundation, the U.S. Department of Justice, and the U.S. Department of Education, among others. In 2019, Dr. Deutsch received the American Psychological Association Division 5 award for Distinguished Contributions in Teaching and Mentoring in Qualitative Inquiry and in 2017 she received an All University Teaching Award from UVA. Dr. Deutsch received her B.A. in English from Vassar College and her Ph.D. in human development and social policy from Northwestern University.

Robert W. Dodd, Ph.D.,† has spent 25 years teaching and leading in the Montgomery County Public Schools (MCPS). Originally trained as an elementary school teacher, Dr. Dodd has also served as a principal at the elementary, middle, and high school levels. In addition, Dr. Dodd spent

3 years as a consulting principal in MCPS, where he trained and assessed novice elementary and middle school principals. In 2014, while he was the principal of Argyle Magnet Middle School, Dr. Dodd was awarded the Distinguished Educational Leadership Award by *The Washington Post*. Dr. Dodd earned his doctorate in entrepreneurial leadership in education from Johns Hopkins University. His research focused on the impacts of various school organizational structures on achievement, engagement, and students' perceptions of the classroom environment. He is currently the principal of Walt Whitman High School in Bethesda, Maryland.

Phyllis L. Fagell, LCPC,† is the author of the best-selling *Middle School Matters*, which earned a starred review from Booklist. Ms. Fagell is the counselor at Sheridan School in Washington, DC, a psychotherapist in private practice, and a journalist who frequently contributes to *The Washington Post* and other national publications. She is also a regular columnist for *Kappan* and *AMLE* magazines, and she consults and speaks to parents and educators throughout the world on a range of topics impacting tweens. Her work and ideas have been featured in *The New York Times*, *The Chicago Tribune*, *The Atlantic*, *The New Yorker*, NPR, Mindshift KQED, *The Boston Globe*, *Working Mother*, *Psychology Today, Inc.* magazine, and others. Ms. Fagell earned her B.A. from Dartmouth College, her master's degree in journalism from the Medill School at Northwestern University, and her master's degree in counseling from Johns Hopkins University.

Barbara Ferrer, Ph.D., M.P.H., M.Ed.,† is the director of the Los Angeles County Department of Public Health, which protects health, prevents disease, and promotes equity and well-being among Los Angeles County's 10 million residents. She oversees a $1.3 billion budget, directs a workforce of 5,000 staff, and works to integrate services with her colleagues at the Departments of Health Services and Mental Health. Dr. Ferrer is a nationally known leader with more than 30 years of experience as a philanthropic strategist, educational leader, researcher, community advocate, and public health director. Dr. Ferrer received her Ph.D. in social welfare from Brandeis University, an M.P.H. from Boston University, an M.Ed. from the University of Massachusetts, and a B.A. in community studies from the University of California, Santa Cruz.

Evelyn Garcia, LCSW,† is a licensed clinical social worker with a Pupil Personnel School Credential. She currently works as a school site social worker and field instructor in a Will Rogers Middle School, which is part of the Lawndale Elementary School District (LESD) in Los Angeles, California. LESD is a teaching institue for M.S.W. and M.F.T. interns, which means that she manages a cohort of M.S.W./M.F.T. interns every school

year. Aside from this, her role entails ensuring the de-stigmatization of mental health; student access to mental health services; increase in parent engagement; improvement of student attendance; linkage to resources; positive behavioral interventions and supports (PBIS) implementation; and staff professional development. In 2018, Ms. Garcia was awarded the Heart of Social Work award by the University of Southern California Suzzane Dworeck Peck School of Social Work in recognition of innovative and outstanding service in the field of social work.

Ta-Biti Gibson† is a restorative justice coordinator at the Edna Brewer Middle School. Mr. Gibson has ample experience in conflict resolution in the school grades involving teachers, students, and administrators. He has lent his expertise to different school-based programs, including Aim High, at different middle schools in the Oakland area.

Philip C. Harris, Ph.D., M.B.A.,† was appointed on May 7, 2019, to the Broward County Public Schools (BCPS) as the program manager, recovery, as a result of the Marjory Stoneman Douglas (MSD) tragedy that impacted the district and the community on February 14, 2018. His resolute leadership, expertise, and passion immediately benefited the organization. Since his appointment he has established a recovery system of supports with emphasis on prevention to mitigate mental health issues, mental health treatment, therapy, training, and implementation of activities to restore social and emotional well-being and collective wellness for the students, staff, and families of BCPS. Dr. Harris has provided a clear vision of the resources needed to address the scale of need (demand) for recovery services and outlined an engagement model that encompasses BCPS and its community partners. He has marked a clear path to district-level support for recovery services to fully meet the needs of MSD/MSD Zone schools and the district. Dr. Harris immediately enhanced the recovery efforts to ensure they aligned with the District Recovery Strategic Plan and ensured the communication and coordination of mental, physical, and behavioral health activities of impacted students, families, and staff are met. He works diligently to develop and implement programs and services with internal and external stakeholders (i.e., Employee Assistance Program, nonprofits, faith-based organizations, elected officials, municipalities, and county government) to maximize the use of available community resources.

Previously, Dr. Harris served as the Broward County human services administrator and managed the Children's Services Administration Section of the Broward County Human Services Department, Community Partnerships Division. In this capacity, he was responsible for nearly $15 million in contracted services for children, youth, and their families in

the areas of juvenile justice system, behavioral health, special needs, child care, social services systems, child welfare services, LGBTQ (social services), and independent living. He closely coordinated with stakeholders, children's services funders, children's services advisory board, and the community board in ensuring a responsive and inclusive system of care.

In addition to Dr. Harris extensive 16 years of professional career experience in the field of public administration, he still takes the time to personally give back to his community. He is faithful to community building and improvement. Some of his community and industry organizational activities to name a few are as follows: president, National Forum for Black Public Administrators South Florida Chapter; Board of Directors, National Sigma Beta Club Foundation, Inc.; regional cluster coordinator, Florida Conference Seventh-Day Adventist Church Children's Adventurer Clubs; Florida Association for Volunteer Resource Management; social action chair, Phi Beta Sigma Fraternity, Inc. Delray Beach Alumni Chapter; and ambassador father, March of Dimes.

He went on to earn his bachelor's degree in communication from the University of South Florida. He also holds an M.B.A. with an emphasis in public administration and doctorate in business administration with a concentration in management from Argosy University.

Joey N. Jones, Ph.D.,† a native of Reidsville, North Carolina, has served as an award-winning educator for more than 30 years, focusing on the development of youth as a middle school principal, high school administrator, technology education teacher, curriculum writer, mentor, minister, coach, tutor, motivational speaker, and author. Currently, he serves as the principal of Robert Frost Middle School, a National Blue Ribbon School of Excellence. He earned undergraduate degrees in industrial arts/technology education from North Carolina A&T State University in Greensboro, North Carolina, and a Ph.D. in school administration and supervision from the University of Maryland, College Park.

Among numerous awards and recognitions, he was selected as the 2019–2020, State of Maryland Principal of the Year; 2013 Mark Mann Excellence and Harmony Award as the school system's Principal of the Year; selected to participate in *The Washington Post*'s Vincent E. Reed Principals Leadership Institute; and serves as a principal developer and a mentor. His book, *100 Percent: The Power of Giving Your All*, is an Amazon best-seller and has motivated adults and youth throughout the United States and China.

Michelle A. Larkin, J.D., M.S.,† associate executive vice president, joined the Robert Wood Johnson Foundation (RWJF) in 1999. With more than 27 years as a leader in health policy and practice, and as an attorney com-

mitted to using law and policy to improve health, she provides leadership to the executive vice president, senior management team, and staff on strategy and program policy, communications, research, evaluation, and learning activities. In this role, she helps shape RWJF's vision to build a Culture of Health in America, where everyone has a fair and just opportunity for health and well-being. Ms. Larkin's path to RWJF began with a career in nursing. Inspired by her maternal aunt, a nurse, she realized her dream when she earned a B.S.N. from the University of Pennsylvania and an M.S. in nursing/health policy from the University of Maryland. As an oncology nurse at the University of Maryland Medical System in Baltimore, she experienced firsthand the opportunities, challenges, and rewards of bedside nursing.

Her experiences in Baltimore led her from direct care nursing to a concentration in health policy. As a Presidential Management Fellow, she worked at the Office on Smoking and Health at the Centers for Disease Control and Prevention (CDC), and as a legislative fellow for the U.S. Senate Labor and Human Resources Committee. She then served as a health policy analyst at the Office on Smoking and Health at CDC in Washington, DC. Ms. Larkin joined RWJF as a program associate, continuing her commitment to tackling some of the nation's toughest health and health care problems, and fulfilling a promise she made to herself early in her career "to create a positive impact on the lives of many and make it easier for people to live healthier lives." Her earliest focus at RWJF involved promoting increased tobacco excise taxes, state and local smoke-free air laws, and funding for tobacco prevention and treatment. With a growing portfolio of responsibilities at RWJF, and her keen interest in exploring areas where the mission of public health intersects with the practice of the law, Ms. Larkin expanded her policy and program expertise by earning a J.D. from the Seton Hall University School of Law. She is a member of the American Public Health Association, the American Bar Association, and the New Jersey Bar. She serves on the Grantmakers in Health Board, the National Board of Public Health Examiners, and the National Academies of Sciences, Engineering, and Medicine's Roundtable on Population Health Improvement.

To date, she has served in many roles at RWJF. She has been the director of the public health team, the assistant vice president for program portfolios, the assistant vice president, the associate vice president–program, and the associate chief of staff. In each of these roles, she has employed her nursing and legal expertise to help shape RWJF's vison, strategies, policies, and programs to ensure that everyone in America can make healthy choices, no matter where they live or how much they earn.

Erica Louison† is a nonprofit professional with more than 20 years of experience in the social services and education sectors. She has coordinated the administrative, operational, and financial activities of grant-supported programs in both Washington, DC, and Baltimore, Maryland. At the school district level, Ms. Louison has led cohorts of school and community stakeholders in developing strategies that improved student attendance, school culture and climate, and family engagement. In her current role at the United Way of the National Capital Area, she is responsible for refining and implementing United Way's education priorities, strategies, and initiatives. Ms. Louison earned her undergraduate degree in psychology from the University of Pittsburgh and a master's degree in nonprofit administration from Trinity University in Washington, DC.

Linda Pulido-Esquivel is a network partner/director of school operations working to support middle school leaders in Oakland, California. She has a B.A. in management from Saint Mary's College of California. Ms. Pulido-Esquivel has worked in several different roles at the Oakland Unified School District since 2006. The focus of her work since 2016 has been to support middle school leaders and staff. She has been working on implementing the Measure G1 Parcel Tax: Middle School Electives and Educator Retention since January 2017. Ms. Pulido-Esquivel has supported the process by creating systems from allocation through accountability for both district and charter schools. An underlying principle in her work is that allocations are not just numbers, rather access to opportunities in the pivotal years of middle school that have a direct impact on the future success of our youth.

Mayor Libby Schaaf, J.D.,† was born and raised in Oakland, which she proudly describes as, "The most unapologetic Sanctuary City in America." During her tenure, Oakland has undergone an economic revitalization and building boom, as well as cut gun violence in half.

Her "17K/17K Housing Plan" has helped increase Oakland's affordable housing production, stabilize rents, and decrease evictions. Her innovative public–private partnerships Keep Oakland Housed and Cabin Communities are credited with preventing 1,800 families per year from losing their housing, while resolving some of Oakland's most unsafe street encampments. In 2019, Governor Gavin Newsom appointed Mayor Schaaf to California's first Council of Regional Homeless Advisors. She created Oakland's first Department of Transportation, whose equity-based paving plan is the first of its kind in the nation and will make previously underserved neighborhoods safer, while addressing the city's decades-old infrastructure backlog. Mayor Schaaf is most proud of launching the Oakland Promise, a bold cradle-to-career initiative to send more low-

income Oakland kids to preschool and college. The Oakland Promise has sent more than 1,400 Oakland students (and counting) to college with scholarships and mentors, and will give every baby born into poverty a $500 college savings account at birth

Joshua M. Sharfstein, M.D.,* is the vice dean for public health practice and community engagement and a professor of the practice in health policy and management at the Johns Hopkins Bloomberg School of Public Health. He is also the director of the Bloomberg American Health Initiative. Previously, Dr. Sharfstein served as the secretary of the Maryland Department of Health and Mental Hygiene, as the principal deputy commissioner of the U.S. Food and Drug Administration, and as the health commissioner of Baltimore City. In these positions, he pursued creative solutions to long-standing challenges, including drug overdose deaths, infant mortality, unsafe consumer products, and school failure. He is an elected member of the National Academy of Medicine and the National Academy of Public Administration.

Jeffrey Sullivan, Ph.D.,† is currently the director of system-wide athletics for the Montgomery County Public Schools (MCPS), located in Maryland, administering the interscholastic athletics program comprised of 25 high schools and 40 middle schools. The mission of the MCPS athletics program is to ensure that every student will attain the mental, moral, physical, and social-emotional skills to excel in the classroom, community, and the realm of competition. As the director, Dr. Sullivan has collaborated with a variety of stakeholders to administer a leadership development program for athletic directors, implement online registration for student-athletes, create a Student-Athlete Leadership Council, and engage athletics department staff in activities promoting equity and access. Additionally, during his tenure, the MCPS athletics program has debuted a vision, mission, purpose, and its R.A.I.S.E. core values—Respect and sportsmanship; Academic excellence; Integrity and honesty, Spirited, safe competition; and Equity and access.

In his more than 20 years with MCPS, Dr. Sullivan has also served as the athletics specialist, the athletic director at Paint Branch and Clarksburg High Schools, a physical education/health teacher, and a coach for multiple sports. He is also active at the state level, serving the Maryland Public Secondary Schools Athletic Association as a member of the Executive Council, Classification Committee, Appeals Committee, and is the director for the state boys' basketball tournament. Dr. Sullivan earned a B.S. in physical education from the University of Maryland, College Park; an M.S. in educational leadership from Hood College; and a Ph.D. in educational leadership and policy studies from Howard University.

He is also a Certified Master Athletic Administrator through the National Interscholastic Athletic Administrators Association. Dr. Sullivan is a two-time recipient of the District Athletic Director of the Year Award from the Maryland State Athletic Directors Association (2012 and 2007) and currently serves on the executive boards for the Montgomery Parks and Recreation Advisory Board and the Montgomery County Sports Hall of Fame.

Joaquin Tamayo, M.P.A.,* is a former high school teacher, principal, and federal policy maker; a senior policy advisor at EducationCounsel, leading projects related to advancing the science of learning and development to drive equity, improvement, and excellence in U.S. public education. Previously, Mr. Tamayo co-founded and was the national director of the Middle School Kindness Challenge at Stand for Children, designed to improve school climate and social emotional learning, as well as reduce unnecessary suspensions by making the intentional teaching and fostering of kindness commonplace in America's middle schools. Mr. Tamayo holds a bachelor's degree in political science from Columbia University, an M.P.A. in public affairs from the Woodrow Wilson School of Public and International Affairs at Princeton University, and is a graduate of the New Leaders for New Schools urban principal residency program.

Christine Thielen,* an educator for almost 20 years, is a middle school math teacher at Lincoln Middle School in Park Ridge, Illinois. She currently serves as the chair of the Board of Trustees for the Association for Middle Level Education (AMLE.org). Ms. Thielen also serves as an adjunct instructor of middle level education classes and she has presented at the AMLE annual conference and the National Council of Teachers of Mathematics conference.

Tanya Thompson, M.Ed.,† originally from the Bronx, New York, Ms. Thompson received her B.S. with a double major in elementary education and Spanish from the University of Miami in 1997. She then proceeded to obtain her master's degree from Florida Atlantic University in educational leadership in 2006. She also earned additional certifications in mathematics, grades 5–9. Ms. Thompson has a diverse background in education. She has been an elementary school and sixth grade math teacher, a middle school assistant principal, and an evaluations coordinator at the district level, overseeing the evaluation systems in the district. Coming full circle, she has "returned back home" to the world of middle school serving in the capacity of project coordinator for the Re-Imagining Middle Grades initiative. This initiative officially kicked off in Broward County in June 2018. Her strengths in organizational skills, long-term planning,

and attention to detail are instrumental to capturing the progress of this transformational and ground-breaking initiative.

Maryam Toloui, LCSW, PPSC,† is a licensed clinical social worker and has a California Credential in Pupil Personnel Services. She is in her fourth year as the director of wellness services for Unity Schools, a pair of public charter schools in East Oakland. Before joining Unity, Ms. Toloui spent 12 years working with youth and families involved in the foster care system. She holds bachelor's degrees from the University of California, Berkeley, and an M.S.W. from New York University.

Lisa Warhuus, Ph.D.,† has a Ph.D. in psychology with 20 years of experience managing programs in health and human services, education, social justice, and systems reform. She has administered health care services for 10 years with the Alameda County Health Care Services Agency. As the director of children and youth initiatives, she leads and provides strategic direction for a county-wide school health initiative that seeks to reduce the effects of economic and racial disparities in Alameda County schools and create opportunities for all youth to cultivate their strengths, resiliency, and promise. In this capacity, she is responsible for the administration and oversight of 28 school health centers; mental health services in more than 200 Alameda County schools; family resource centers in school districts; REACH Ashland Youth Center; and mental health and youth development programs that support unaccompanied immigrant youth, justice-involved youth, and boys and men of color. Over the course of her career, Dr. Warhuus has led organizational planning processes; managed organizational change through team development, conflict resolution, and strategic visioning; created and implemented strategic plans to improve services and service access; grown health and education service systems through partnership and team development, smart financing, public advocacy, and grant management; and facilitated effective, cross-sector initiatives to achieve positive outcomes for youth, families, and their communities.

Joanna Lee Williams, Ph.D., M.S.Ed.,* is an associate professor in the Curry School of Education and Human Development at the University of Virginia (UVA). She is a faculty affiliate with Youth-Nex: the UVA Center to Promote Effective Youth Development, and with the Center for Race and Public Education in the South. She earned her M.S.Ed. in human development from the University of Pennsylvania and her Ph.D. in developmental psychology from Temple University. Dr. Williams studies race and ethnicity as social contexts for youth development. With support from the William T. Grant Foundation she is investigating issues of social

network equity in racially diverse middle schools. She has also studied ethnic identity as a form of positive youth development and previously served as the associate director of research for the Young Women Leaders Program, a mentoring program for middle school girls. Dr. Williams is a member of the National Academies of Science, Engineering, and Medicine's Committee on Neurobiological and Socio-behavioral Science of Adolescent Development and Its Applications and is a contributor to the Youth-Nex Re-making Middle School initiative.

Hanh Cao Yu, Ph.D.,† is the chief learning officer at The California Endowment (TCE) where she oversees learning, strategic development, evaluation, and impact activities and ensures that local and state grantees, board, and staff understand the results and lessons of the TCE's investments in its 10-year Building Healthy Communities (BHC) initiative. BHC focuses on social determinants of health, policy systems change through a community-driven, and power building approach.

Dr. Yu's 25-year career spans the research, evaluation, philanthropic sectors. Prior to joining TCE, she served as the vice president at Social Policy Research Associates, where she oversaw much of the research and evaluation work in education, philanthropy, and adolescent development. Dr. Yu has more than 20 years of experience in qualitative and quantitative research in the areas of health and racial equity social change philanthropy, leadership development, organizational effectiveness, policy advocacy evaluation, community organizing, and vulnerable populations. As a researcher at Stanford University, Dr. Yu is the author of numerous publications, including *Adolescent World: Navigating the Multiple Worlds of Family, Peers, and School* (Teachers' College Press, 1998), *The Handbook on Leadership Development Evaluation* (Jossey-Bass, 2006) and served on the RISE for Boys and Men of Color Advisory Group in 2016.