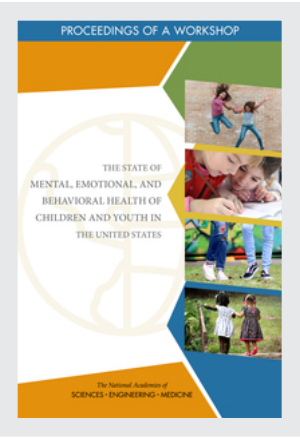

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THE STATE OF MENTAL, EMOTIONAL, AND BEHAVIORAL HEALTH OF CHILDREN AND YOUTH IN THE UNITED STATES

PROCEEDINGS OF A WORKSHOP

Megan Snair, *Rapporteur*

Forum for Children's Well-Being: Promoting
Cognitive, Affective, and Behavioral Health for Children and Youth

Board on Children, Youth, and Families

Division of Behavioral and Social Sciences and Education

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: Thomas F. Boat, dean emeritus of the College of Medicine at the University of Cincinnati and a professor of pediatrics in the Division of Pulmonary Medicine at the Cincinnati Children's Hospital Medical Center; Daniel W. Hatcher, director, Community Partnerships, Alliance for a Healthier Generation; and Deborah Klein Walker, immediate past president, Global Alliance for Behavioral Health and Social Justice.

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 Patrick H. Deleon, F. Edward Hébert School of Medicine and the Graduate School of Nursing, Uniformed Services University of the Health Sciences. He 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 rapporteur and the National Academies.

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APPENDIXES

1

Introduction

Over the past decade, providers, policy makers, and stakeholders across a range of disciplines have taken various approaches to addressing the rising incidence of mental, emotional, and behavioral (MEB) health concerns in children and adults. With the recent opioid crisis affecting young people and families across race, ethnicity, and socioeconomic level, and thus adding to the national concern, new efforts and interventions have emerged. However, an overarching system is lacking for the collection of data on these efforts and their efficacy. A strong system for evaluating programs and distributing information could create more opportunities to improve efforts and reduce inefficiencies across programs. Additionally, through engagement of an array of stakeholders from all sectors involved with youth and families, more possibilities for solutions can be realized.

To bring together some of these relevant stakeholders and to highlight some of these potential solutions, the Forum for Children's Well-Being convened a workshop in October 2019 on The State of Mental, Emotional, and Behavioral Health of Children and Youth in the United States. The workshop planning committee's statement of task is found in Appendix A. The workshop objectives are in Box 1-1.

Prior to the workshop discussions, a public dialogue was held to review the recently released consensus report *Fostering Healthy Mental, Emotional, and Behavioral Development in Children and Youth: A National Agenda* (National Academies of Sciences, Engineering, and Medicine, 2019). The report calls for a broad-based national initiative, led by the U.S. Department of Health and Human Services, to improve MEB health for children and youth. While there has been much research in this area over the past decade,

BOX 1-1
Workshop Objectives

1. To evaluate the current state of the science of promoting mental, emotional, and behavioral health of children and youth, including how far we have come since the inception of the Forum, where we are now, and where we hope to go in the near and distant future.
2. To explore how various sectors, initiatives, and community efforts can impact the healthy development of children and youth, and how they all can collaborate in these efforts.
3. To review the past work of the Forum and to set the stage for the Forum's strategic discussions for future activities.

the committee members noted that there has not been an adequate translation of the research to practice. Many children and families still struggle with MEB health challenges, and rates of depression, suicide, and mental health conditions have been increasing. In addition to the creation of the national initiative, the report's authoring committee also recommends an improved national system for data collection and coordination on important indicators of MEB health, as well as outcomes from interventions and promotion efforts. More details on the recommendations of this report can be found at https://www.nap.edu/catalog/25201/fostering-healthy-mental-emotional-and-behavioral-development-in-children-and-youth.

ORGANIZATION OF PROCEEDINGS

This Proceedings of a Workshop is organized into four chapters based on the workshop agenda (see Appendix B). Following the introduction with background on the Forum's work in this area and the overview of the consensus report, Chapter 2 discusses the state of MEB health for children from a variety of perspectives. Chapter 3 presents discussions on methods to promote MEB health for children across different sectors. Finally, Chapter 4 summarizes the commonalities across sectors and highlights barriers and opportunities to dissemination and scaling of successful practices and interventions. All of the presentations at the workshop, as well as the ensuing discussions, have been summarized for this proceedings. Copies of the speaker slides and archived recordings of the workshop can be viewed on the Forum website at https://sites.nationalacademies.org/DBASSE/ccab/DBASSE_195656.

This proceedings has been prepared by a workshop rapporteur as a factual summary of what occurred at the workshop. The planning committee's role was limited to planning and convening the workshop. The views contained in the proceedings are those of individual workshop participants and do not necessarily represent the views of all workshop participants, the planning committee, or the National Academies.

2

The State of Mental, Emotional, and Behavioral Health for Children in the United States

While there have been many successful and promising interventions to promote mental, emotional, and behavioral (MEB) health across the country over the past several years, they are often a collection of smaller scale efforts implemented in an ad hoc fashion. Scaling them to achieve population-level impact, while still including important family and community perspectives to ensure health equity, remains a challenge. This chapter provides various perspectives on strategies to promote positive MEB health outcomes, the challenges of scaling them, and other considerations to keep in mind moving forward.

ACHIEVING POPULATION IMPACT

In describing his transition into the MEB field, Thomas Boat, dean emeritus of the College of Medicine at the University of Cincinnati and a professor of pediatrics in the Division of Pulmonary Medicine at the Cincinnati Children's Hospital Medical Center, explained how he used to be much more focused on physical health, particularly for children with cystic fibrosis or asthma. He came to realize that addressing social and emotional issues and family wellness can have a big impact on health outcomes. While there are an impressive number of effective interventions for families, children, and youth in this area, he said that they have not translated nationally to broadly improving MEB outcomes. Taking these programs and efforts to scale is the next challenge, and he outlined five strategies for achieving population-level impact: identifying and implementing scalable interventions, leveraging existing system infrastructure, mobilizing cross-

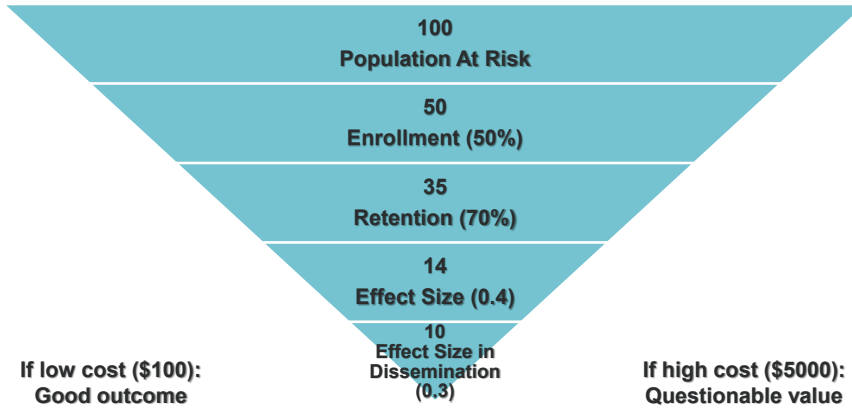

FIGURE 2-1 Choosing an effective MEB program for scaling.
SOURCE: Boat presentation, October 10, 2019.

sector community participation, utilizing informed policy, and focusing efforts through a national agenda.

Strategies for Scaling Programs

Just because an MEB program is successful in one population or community does not mean it will produce intended effects on a larger scale or translate well to another population or community, Boat said. Scaling programs requires investment in expertise and infrastructure. Even deciding which program to select can be difficult and requires thoughtful consideration. After identifying the population at risk, the number of people who might actually benefit from the program must be considered, he explained. Beyond effect size, this involves assessing enrollment rates, retention rates, and effect sizes, including the reduction of effect size with dissemination (see Figure 2-1).

For example, Boat noted that the metropolitan areawide Every Child Succeeds home visitation program in Cincinnati found that approximately 50 percent of families approached by the program declined enrollment in the program.[1] The families most at risk were more likely to say no, whereas the families at lower risk would say yes. Other considerations that are important when trying to successfully scale programs include factors like sustainability of funding and the availability of a well-trained workforce. Researchers are paying increased attention to the identification of program

[1] For more information on this program, see https://www.everychildsucceeds.org.

core components that must be adopted with fidelity, and elements that can be adapted to meet the needs of specific communities or populations. Data systems that support process and outcomes monitoring are critical for assessing and continually improving program outcomes.

Leveraging Existing Systems

A second strategy that Boat highlighted was leveraging systems that are already being routinely used by families and youth such as education, child care, and health care. While Boat recognized several challenges, he said concentrating promotion and prevention activities within these systems that universally serve children and families can have important advantages. All of these systems work with children at a population level, making recruitment and retention easier. The concentration of services can also reduce costs. For example, schools and health care already have personnel and data systems that can be engaged in fostering healthy MEB development. However, Boat noted, these settings are only recently recognizing their unique position to foster MEB development. Many such settings do not yet prioritize this.

Boat explained health care is a system that must be better leveraged to integrate MEB promotion efforts for children—especially through well-child care. By using primary care practices, there are opportunities to link parenting programs to practice, embed parenting specialists that can engage families while they are already at an appointment, and fully integrate the emotional and behavioral dimensions of health into the anticipatory guidance that is a pillar of well-child care. He pointed to two other important areas in health care that can promote healthier MEB development: chronic disease care and preconception/prenatal care. In both settings, patients are already coming in to see their provider team on a regular basis. Boat expressed the belief in the great potential for care models to prospectively support family and patient emotional and behavioral well-being while also addressing a child's physical health needs.

The Economic Imperative

Boat concluded with the idea that there is an economic imperative for the next generation of young people to thrive. They should be providing a meaningful contribution to the workforce and add to U.S. social and economic well-being. Currently, the trajectory is not positive, but Boat hopes that can change with the right focus and investment in MEB health efforts. A recently published study makes a strong case for this investment. Researchers found strong links between a person's social and emotional well-being in kindergarten and their income 30 years later (Vergunst et al.,

2019). For males especially, inattention and aggression at ages 3 and 6 were associated with lower annual earnings, and prosociality was associated with higher annual earnings. Being able to identify these characteristics at an early age, and knowing their future impacts, represents an opportunity to work with schools and teachers to intervene—ideally resulting in higher earnings for a larger number of individuals and overall improved social and economic status for the country.

FAMILY PERSPECTIVES

The family perspective in considering a child's MEB development is important. Lynda Gargan, executive director of the National Federation of Families for Children's Mental Health, provided remarks from her experience acting as a voice for families in response to the worsening state of mental health for youth today. Gargan commented that it is difficult to speak on behalf of families because each family's experience is unique.

Families often experience frustration when considering a child's mental health concerns. For example, while statistics show boys between the ages of 2 and 8 are more likely than girls of the same age to have an MEB disorder, families question the validity of these statistics and are concerned that boys are more at risk of being diagnosed than girls. Families urge that statistics be interpreted contextually and that underlying bias be considered.

Gargan commented on some of the buzzwords that dominate the field, such as "poverty" and "social determinants of health" (SDOH), which she said contribute to a misunderstanding of causation. As an example, she shared that historically in West Virginia mining communities, even though families were poor and suffered from industry-related health issues, such as black lung, the community overall was resilient, lived well-rounded lives, and looked out for one another. But when industries shifted and livelihoods such as mining and farming began to disappear, there was nothing to take their place. It is not singularly the state of poverty that is the issue, she argued, but the social construct of destroying a community's infrastructure with no regard for the consequences. Related to this, Gargan added that the term "SDOH" can be considered classist by some and can act as a deterrent to families who may be offended by it. Finding another way to talk about some of these challenges could be a helpful step forward, she suggested.

Gargan described additional challenges and roadblocks for families in seeking better MEB health outcomes for themselves and their children. The education system can be scary for families due to past negative experiences. As a proactive step for school systems, she offered the example of the Good Behavior Game, created by Dennis Embry.[2] It is an evidence-based

[2]For more information, see https://www.paxis.org/products/view/pax-good-behavior-game.

behavioral health strategy used to improve classroom behavior while also teaching self-regulation skills to children that can be applied in other settings. Gargan reported that the outcomes are impressive and that the next step is to train families to utilize the same strategies to ensure consistency for children throughout their day and ideally improve health outcomes. Other ongoing and emerging challenges for families include an increase in suicide rates for certain populations, such as Hispanic and Alaskan/Native American youth. Families are not educated on the signs of suicide, she noted, and unless the child frequently visits a pediatrician, warning signals may be missed.

Gargan said the epidemic of substance abuse is having a devastating effect on family units and creates worsening problems for MEB health outcomes. One example is the skyrocketing number of children in pockets of the country who are being resettled in the foster care system. Foster care was created initially as an emergency system—to be used as a stopgap until children could be returned to their homes. With the onset of the opioid crisis, she pointed out, children are now being placed in foster care at alarming rates, without a clear roadmap for returning to their families.

She also noted that a lack of access to services is resulting in parents being pressured to relinquish their children who experience MEB challenges to state custody so they can get needed services from child therapists and psychiatrists. But this process often takes children out of state, severing their ties with their families and communities of origin.

In conclusion, Gargan offered the utilization of trained family peer specialists as a promising practice to support families as they navigate these challenges and systems. Acknowledging that there will never be enough specialists and professionals to meet the need, she urged capitalizing on the opportunity to leverage people who have been through similar experiences. By training and certifying parents and family peers, the capacity of this workforce can be increased, ensuring that the families of children and youth who experience MEB disorders receive the support needed to increase their likelihood of positive outcomes. She noted her organization provides national certification for this parent/family workforce through its Certified Parent Support Providers Program.[3]

NATIONAL PERSPECTIVES OF MENTAL, EMOTIONAL, AND BEHAVIORAL HEALTH

Bonita Williams, national program leader for vulnerable populations within the Division of Youth and 4-H at the U.S. Department of Agriculture, shared information about the Children, Youth, and Families At Risk

[3]For more information, see https://www.ffcmh.org/certification.

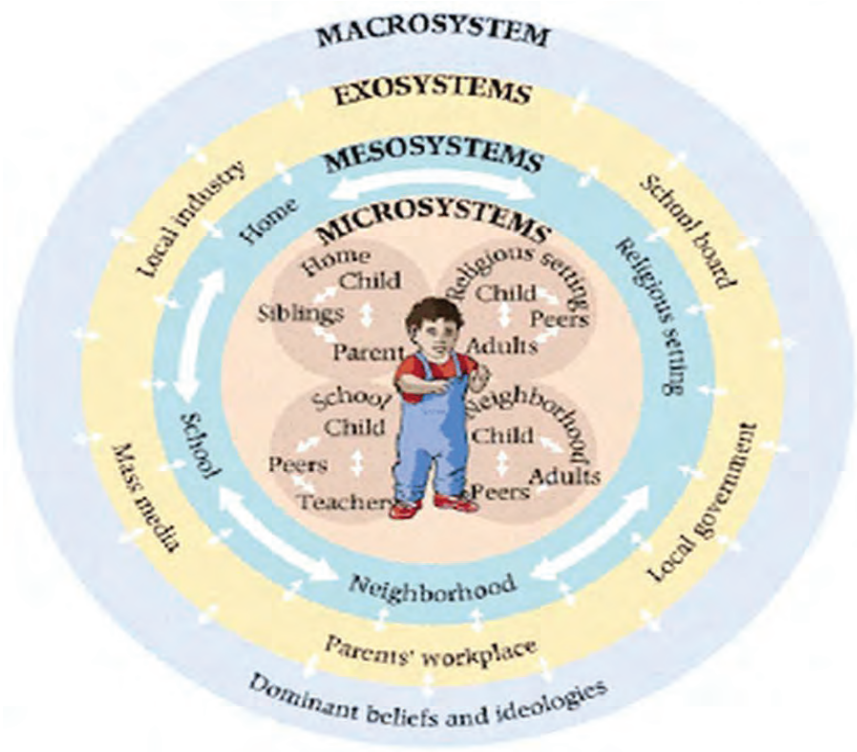

FIGURE 2-2 Bronfenbrenner ecological model.
SOURCE: Adapted from Bronfenbrenner (1979).

(CYFAR) Program. The program is a competitive grant that currently funds 43 grantees in 40 states, serving 12,000 youth and parents. She also explained that CYFAR is based on the Bronfenbrenner ecological model, which places the child at the center (see Figure 2-2). A selection of these programs uses the Positive Youth Development (PYD) approach, which emphasizes building on youths' strengths and providing opportunities that can help them across their life course and have a productive transition to adulthood.

To provide a better understanding of what these programs look like in practice, Williams gave several examples of programs in different states. The University of Nevada, Reno uses the opportunity to fund the Nevada Heart and Shield rural domestic violence program,[4] which focuses on

[4]For more on this program, see https://nifa.usda.gov/announcement/heart-shield-program-end-family-violence-nevada.

ending family violence through teaching skills and providing resources to child and adult survivors of intimate partner violence to break the cycle. All age groups work on topics ranging from communication to identifying emotions and problem solving. In another area promoting MEB health, Michigan State University's Building Early Emotional Skills (BEES) Program[5] focuses on providing parent education for those with children ages 0–3. Data from this program so far are very positive and suggest trends in the right direction, most especially an improved acceptance from parents of their children's negative emotional behaviors. Under this program, knowledge about early social-emotional development increased, and parenting distress decreased following completion of the program. Results from the BEES Program suggest positive effects on parental functioning and overall quality of parenting. As a final example, Williams shared the University of Kentucky's Youth Engagement and Support Program,[6] which provides life-skills development for homeless or at-risk youth. The program helped 66 youth find employment, 13 find housing, 8 connect with mental health assistance, and 3 get out of human trafficking. This program uses the PYD approach with youth at the center of the family context and conducts evidence-based programming based on the needs of housing-unstable youth.

In conclusion, Williams added that 4-H groups around the country and at the national level have programs focused on mental illness. One example is "Talk, Text, Act," a program designed to bring teens together to talk about mental health with peers and in their community. The 4-H program also partners with the Substance Abuse and Mental Health Services Administration to train volunteers on Mental Health First Aid,[7] with positive results so far at Utah State University and University of Idaho.

BENEFITS OF A HEALTH EQUITY APPROACH

To start her presentation, Angelica Cardenas-Chaisson shared a personal example of the challenges her sister faced in accessing MEB health services for her son. Her sister often experienced difficulty accessing mental health services for her Latino son. His school often excluded her from decisions about his care and failed to follow his Individualized Education Plan. As her son grew and his MEB concerns worsened, she advocated constantly with professionals to access mental health services rather than direct him into the pipeline of the juvenile correction system. Her sister

[5] For more information, see https://www.canr.msu.edu/building_early_emotional_skills_in_young_children.

[6] For more information, see https://hes.ca.uky.edu/content/children-youth-and-families-risk-cyfar.

[7] For more information, see https://www.mentalhealthfirstaid.org.

recognized the need to advocate for her son and to challenge a system that disproportionately directs youth of color experiencing MEB issues into this pipeline. Cardenas-Chaisson shared that Iowa, like many states, has an overrepresentation of children of color in the juvenile justice system and an underrepresentation in mental health services. Cardenas-Chaisson said her sister faced negative, racist assumptions from White education and mental health professionals about her and her son. At one point in order to access appropriate services, she had to give up custody of her child to the state. Cardenas-Chaisson noted that while this seems like an unusual last resort, it is more common than it should be. She said she shared her personal story to highlight the need for services and systems that are culturally competent and to use an equity approach, especially when working with families of color.

Cardenas-Chaisson then described the work of the Health Equity and Young Children's initiative funded by the Robert Wood Johnson Foundation. The initiative focused on working with programs and practices that support families with young children. Its purpose was to understand common strategies among exemplary programs and practices that best supported families. Four elements were highlighted (1) a health equity approach, (2) family engagement, (3) care coordination, and (4) community linkages. Cardenas-Chaisson emphasized that disparities in health are largely preventable, and, as such, change is possible. There is a need to focus on societal factors that address disparate outcomes for families of color and equalize health conditions for all groups. She also argued for the importance of a comprehensive approach that considers the different contexts and environments that children are living in. It is impossible to understand a child's mental health diagnosis without understanding the family or particular circumstances. In that respect, a true health equity approach should take into account culture, race, socioeconomic status, and access to services, she said.

Cardenas-Chaisson called for moving away from a "cookie-cutter" approach, assuming that everyone has similar needs and will benefit from the same interventions. Instead, organizations should provide culturally responsive services. Strategies to do this include hiring staff from diverse backgrounds, providing ongoing cultural competency training, collecting data on the community being served, and soliciting feedback and input from families so their perspective can be built into policies and strategies. Cardenas-Chaisson cautioned not to get paralyzed, waiting for the "perfect" data to be collected or better data to be identified. Often the data available already show who is being left out. And while data and research are important components, she added, without connecting them to real stories of children in need, the urgency can be overlooked. Moving forward, she said, continued attention is needed on the potential threats of

the dismantling of federal civil rights mechanisms and pushback on equity approaches. Furthermore, advocates should continue to promote recognition that all policies are health policies, and they should equitably serve children and their families.

DISCUSSION

A discussion that followed the presentations between the panelists and attendees highlighted topics such as engaging youth, leveraging families for policy change, and considering the costs to implement and scale programs nationwide for MEB health.

Taking successful interventions to scale will be an ongoing challenge, many workshop participants commented. As one participant noted, there are few examples in the United States, and though there have been good programs, major policy changes have not followed. She shared a recent paper by the Society for Prevention Research titled *Taking Evidence-Based Interventions to Scale in Public Health Systems* that identified six key factors affecting scale-up: (1) public awareness, (2) skilled workforce, (3) data and evaluation capacity, (4) leadership, (5) community engagement, and (6) developer/funder capacity (Walker, 2019).

According to Gargan, children and youth play an important role in this work, highlighting an effort in her organization called Youth Move.[8] Williams added young people are leading the way to change through 4-H programs and suggested that adults should listen to their new ideas. Cardenas-Chaisson referred to Achieving Maximum Potential as another example of youth-led action.[9] Its 14 council sites around Iowa involve current and former foster youth, who are instrumental in going to state legislators and discussing what is needed to improve their own well-being.

Boat emphasized the importance of family input but lamented that often the people who are willing to give input and participate are in families that are fairly stable, while the families who need the most assistance do not engage. Gargan explained that when families are in crisis—especially if they have a child with chronic disease—they are in survival mode and it is difficult to participate in extra activities, even if they are beneficial. Cardenas-Chaisson and Williams stressed the importance for groups to be intentional about engaging families of color, which sometimes requires groups to leave their comfort zone and go to where families already are. Gargan also said that bringing in families early and often can be valuable in crafting policy and practices that address a diverse array of needs.

[8] For more information, see https://youthmovenational.org/initiatives.
[9] For more information, see http://www.ampiowa.org.

It is important to acknowledge the amount of money that these efforts cost, several participants said. Cardenas-Chaisson noted that Iowa recently passed a children's mental health initiative but with no funding attached to it, making it difficult to fully implement. Boat argued that to enhance MEB health and development, the health system must invest in promotion and prevention services, and the business community must invest in social enterprise. This will take time but is needed before moving forward, he said.

3

Promoting Mental, Emotional, and Behavioral Health for Children Across Sectors

The presentations highlighted in Chapter 2 provide an overview of the remaining challenges to implementing mental, emotional, and behavioral (MEB) health efforts widely. They also suggest a need for investment and cooperation across sectors in order to meet the goals of improving MEB health for children and families. This chapter provides an overview of the various strategies being employed by different sectors in the effort to improve MEB health for children, the barriers that remain, and breakthroughs that are still needed. Participants were organized into five groups: federal and state policy, local and community, business and private sector, education, and health and public health. In each discussion group, participants noted benefits and challenges from their perspectives and what the Forum for Children's Well-Being can learn from each sector.

FEDERAL- AND STATE-LEVEL STRATEGIES

The federal and state governments play an important role in advancing MEB health for children. The federal level typically involves laws and guidance, one participant said, and the state level is focused more on the rollout and implementation of those laws. People often think the work is done once a law is passed, but that is rarely the case. For example, the Family First Prevention Services Act (Family First Act) has toolkits available for states to implement the law as best as possible. Other organizations have provided additional resources such as examples of programming that may

qualify and talking points to help support states.[1] This type of advocacy is important at the state level, one participant pointed out, because if a state decides not to implement such programs, federal funding is potentially "left on the table."

A few participants also gave examples of strategies at the state level, such as the award from the Health Resources and Services Administration (HRSA) to 21 states to look at pediatric mental health care access; funding for seven states to conduct screening and treatment for maternal depression-related behavioral disorders; and the Integrated Care for Kids state payment model through the Centers for Medicare & Medicaid Services (CMS).[2] A challenge to the design of these policies at the state level is the lack of systematic implementation, making it difficult to share lessons across states or understand whether certain interventions have worked for other similar communities or regions, according to one participant.

Opportunities for Greater Federal- and State-Level Contributions to MEB Health

Several participants had ideas for possible ways the public sector could increase its contributions to the field. One potential solution would be for federal agencies supporting MEB health efforts to consistently write up best practices with strong evidence to support them and disseminate the write-ups to reach more states. Another participant highlighted the need for integration of data so agencies can ask for similar metrics that are more easily shared among grantees and stakeholders. Even standardized definitions of various youth age groups across agencies would be helpful. For example, when searching for "adolescents," some sites use the age range of 0–18, while others use 12–24 or 18–34. It may take a few critical metrics to compel funding, a participant noted, so there is a need to be strategic. But there is precedent in other fields, she said, giving the example that $20 million was needed to get the cigarette tax implemented and shift the culture on smoking and tobacco.

The public sector can also play a role by enacting policies for their employees, whether at the federal, state, or local/county level, which can have huge implications for the field, a participant suggested. For example, enacting broad family leave policies can make a statement that will be noticed by others.

[1] The Children's Defense Fund tool "Implementing the Family First Prevention Services Act" will be updated regularly and can be found at https://www.childrensdefense.org/policy/policy-priorities/child-welfare/family-first/implementing-the-family-first-prevention-services-act.

[2] For more on the Integrated Care for Kids Model, see https://innovation.cms.gov/initiatives/integrated-care-for-kids-model.

Barriers to Success

While the Family First Act has been a great example of success in the MEB area across many states, participants highlighted several barriers that continue to present challenges. These include lack of data, funding, and an adequate workforce. One person noted that one of the problems that led to the HRSA behavioral health access grants was the trouble pediatricians often had in finding psychiatrists to whom to refer patients. There often were long wait times for referrals, and families had a hard time accessing care. There is often also a lack of knowledge among doctors and the medical system about the mental health services available to their patients, the participant added.

Another person shared that HRSA does projections of the mental and behavioral health workforce. In 2019, a projection for child and adolescent psychiatry found an oversupply of psychiatrists in 2030 (Health Resources and Services Administration, 2018). However, the participant noted, digging into the data showed adult data were used to calculate the unmet need with no adjustment for the existing shortages. According to a recent analysis, only 27.7 percent of U.S. counties have at least one child and adolescent psychiatrist. The majority of counties do not have any (Beck et al., 2018).

Breakthroughs Needed for Further Success

While there has been positive progress in the MEB health field in the public sector, a participant pointed out that 20 years have passed since the Institute of Medicine report *From Neurons to Neighborhoods* (National Research Council and Institute of Medicine, 2000). That report called attention to the long-term positive impact of investment in social determinants and prevention of adverse childhood experiences. There is a need to make a compelling case for this type of investment in MEB health so it can become a priority with a national agenda, the participant said.

Determining financial incentives for promoting MEB health is another strategy that demands involvement from the federal and state levels. For example, a participant mentioned that Mental Health America is requesting feedback on a proposed pediatric payment measures program that would provide funding for cost measure research and development to incentivize prevention and early intervention of mental health conditions in adulthood. Then, the participant continued, ideally this research would be translated into practice by mandating CMS and its office of innovation to implement the interventions and take a more comprehensive view of what "value" means. The savings or return on investment window would be closer to 15–20 years, recognizing that savings do not always happen in the first 5 years.

Another strategy needed for success is that of communication and alignment of messaging, one person suggested. If stakeholders could agree upon 5 key messages instead of the 100 used, there would be real potential in mobilizing for action. Part of a successful messaging strategy is articulating the urgency of the problem, the participant continued, which seems to get lost by those unfamiliar with the field. Another person noted the impact that youth engagement has had on moving LGBTQ issues along the spectrum of progress. Developing similar messages that are motivating but resonate with a wide range of stakeholders could be valuable, the person added, citing the efforts of the Child and Adolescent Mental Health Coalition, cochaired by the American Academy of Pediatrics and the National Alliance to Advance Adolescent Health, as an example. The coalition came together to develop broad mental health principles and action steps for each principle. It was difficult for everyone to get on the same page, and various groups have different focus areas depending on age range or cohort type. However, they were able to identify five big bucket areas to coalesce around to make their voices more powerful: workforce, insurance coverage and repayment, integration of MEB health into pediatric primary care, early identification and intervention, and mental health parity (Child and Adolescent Mental Health Coalition, 2019).

For this sector to be really successful, a few participants proposed creating an interagency group to look at the top five priorities for MEB health. Existing interagency infrastructures are not sufficient as they often lack the authority needed to move initiatives forward, one stated. But another participant said that agencies do not collaborate, people do. There is often a lot of activity and partnership at lower levels, but it may not elevate to the highest leadership, which results in the disconnect. With nearly every sector involved in MEB health touching the federal and state levels in some way, several people raised questions on how best to coordinate efforts with others. Suggestions included bringing together representatives from early childhood/infant centers, adult care, population advocacy groups, disability law centers, deaf and hard-of-hearing communities, corrections (prioritizing trauma-informed intervention instead of detention and correction), payers such as CMS or Kaiser Permanente, and civil rights organizations.

LOCAL- AND COMMUNITY-LEVEL STRATEGIES

As the session began, several participants noted that there is much to learn about community investment and trying to respect communities and their leaders. The discussion covered successes achieved and barriers encountered, breakthroughs still needed, and how the Forum for Children's Well-Being can help advance the field.

Past Examples of Success

Four programs were described as examples of success. The first example highlighted came from Kelly Kelleher's experience with Nationwide Children's Hospital in Columbus, Ohio, investing in the south-side communities of the city to improve social factors affecting health. Instead of taking the sole lead, the hospital partnered with the community to drive the process and coordinated funding together. They created a public-private partnership that included United Way and the mayor's office to increase programming effectiveness. Working with neighborhood leaders also helps replicate a project, Kelleher said, because they can help connect with leaders of the next neighborhood and trust is already built. The partnership also prevents the spending of money on things that are not needed.

Another highlighted success began 20 years ago in Montgomery County, Maryland, driven by the county's Department of Health and Human Services. The department put a program in schools to work with teachers and identify struggling children and tried to engage the parents early. The program, called Linkages to Learning,[3] began in three schools. Case workers were brought in who had access to food stamps, child welfare records, and other needed resources. The results were very successful, the participant added, and the program is ongoing in 28 schools, including middle school.

A third example, Baltimore's Charm City Care Connection, was founded in 2009 to help low-income residents navigate the system and access the services they need. Through a health resource center, they receive help that includes securing health insurance, accessing substance abuse programs; and accessing community services such as food stamps, energy assistance, and housing.[4]

The fourth example came from the maternal and child health sector in Indianola, Mississippi, where infant and maternal mortality rates were abnormally high. Five years ago, the Delta Health System went to communities to identify leaders and gave them a stipend to reach out to pregnant mothers and connect them with the health system. It ended up being so successful that Delta began paying more of a salary and developing other community health workers in the maternal and child health space, leading to what is now the Parent Engagement Program,[5] which focuses on connecting people to the system. In just 5 years, the participant explained,

[3] For more information on the Linkages to Learning Program, see https://www.montgomeryschoolsmd.org/community-engagement/linkages-to-learning.

[4] For more information on Baltimore's Charm City Care Connection, see https://www.charmcitycareconnection.org.

[5] For more information on the Delta Parent Engagement Program, see https://deltahealthalliance.org/parent-engagement-program.

the infant mortality rate decreased and the school readiness of the group increased by 40 percent.

Barriers to Success

While there has been clearly demonstrated success at the local and community levels in this area, participants identified barriers as well. Four big barriers to engagement mentioned by participants were transportation, language, child care, and food. Lack of trust among immigrant communities is an important challenge as well, said another participant. Many immigrant families are afraid to participate and often do not trust the programs. It can be expensive and time-consuming to truly engage communities, but it is crucial if programs are to be successful, a participant said.

Another challenge identified is integration of services and programs. Many groups working in related areas may want to offer things that seem needed, but no one wants to duplicate services. There is also a concern of misalignment of resources and community needs. Making sure all the leads involved are talking to each other and ensuring that those in the community understand what resources are available and how to access them is critically important, a participant stressed. Another said that honoring the family voice and lived experience can be both a barrier and an opportunity for consideration.

Breakthroughs Needed to Advance the Field

One of the breakthroughs needed, someone suggested, is figuring out a way to build relationships with youth at risk and teach the needed skills through interactions with them instead of trying to force a structured program. It is difficult to get teens to attend a program outside of school where they review a list of skills in session one and then another list of skills in session two, when they would rather be playing basketball with friends, a participant commented. Learning how to do this in a setting where there is a lot of turnover is difficult but would be really valuable, the participant added. Another commenter explained that many institutions often start programs, but nothing changes until the relationships change. For example, this participant's organization has 200 nurses as mentors in schools and 50 secretaries who operate Play Streets, where the streets close to traffic once a week to let children play. People clean up the neighborhood in partnership, and the neighborhood and hospital have adopted each other. This way, the group is hearing feedback all the time and does not need to worry about securing that one voice at the table to try to "represent" the whole community.

In addition to creating more authentic relationships, a participant identified the need to find strong leaders—people who can engage the public,

private, and volunteer sectors. This is a challenge, but important, a participant said, because each community has its own specific needs, so typical "best practices" might not be easily implemented. Strong leadership can help bring the work to the core of the community and the heart of the people.

A final breakthrough suggested by a pediatrician is the importance of measures of well-being. Current measures of MEB health or well-being are quite thin, he said, but the identification of metrics and measures that honor the variation of human development will make it easier to reassure parents that they are on the right track. Early intervention when problems arise is also key, he added.

By nature, commented several members of the group, the local and community levels represent a variety of sectors, including business, faith, and local government. Aside from sufficient funding, what is critical in coordinating sectors is a strong anchor institution to convene people. In Oregon, a participant shared, the policy landscape created early childhood hubs for collective impact. Recommendations from the Oregon Health Policy Board, through its Care Coordination Organizations (CCOs), require a percentage of money to be invested in health activities within place-based community activities. Since CCOs need to report on the kindergarten readiness of their Medicaid population, working closely with the community can be incentivized, which can drive further coordination across all sectors involved in MEB health.

Future Directions for the Forum

Overall, multiple participants saw a role for the Forum in taking the recommendations from *Fostering Healthy Mental, Emotional, and Behavioral Development in Children and Youth: A National Agenda* (National Academies of Sciences, Engineering, and Medicine [NASEM], 2019) further. Beyond just sharing the information, these participants suggested, there is a need to engage families and communities across the country to understand what the report got right, as well as what was missing. They stated elevating the stories from families and positive activities that are going on, even if they have not been properly documented or stamped as "evidence based," could bring energy to others working on similar issues. Also, several added, having cross-sector conversations in communities—similar to those at the workshop—as a targeted outreach effort with similar questions could generate a lot of knowledge to support the work of the Forum.

One participant highlighted a lack of investment options for local communities that focus on children and youth. Similar to other fields such as clean energy, impact investing, and social impact bonds for recidivism, there could be creative investment options to increase available financing. As an

example from another sector, there is a competition between solar funds at Goldman Sachs and Chase Bank to see who can retain the most clients, she observed. She asked whether hospitals could invest their residual funds in a child development pool.

Another valuable effort the Forum could take on is a communication strategy, suggested another participant. *Fostering Healthy Mental, Emotional, and Behavioral Development* is full of resources and important findings and recommendations. Those messages could be translated into shorter and more digestible pieces, another participant added, making it easier to reach interested policy makers and researchers. Each sector may need the message to be slightly tweaked, but doing so can have great influence.

Lastly, a participant suggested the Forum could capitalize on its role as a convener and bring together national federal leaders from the United States, Canada, and elsewhere, to find exemplars of programs that promote MEB health in children and youth. Past work of the National Academies' Forum on Investing in Young Children Globally has included hosting international workshops to gain insight into how similar problems are dealt with by varying governments and cultures (NASEM, 2017).

BUSINESS AND PRIVATE-SECTOR INVESTMENT

While the Forum has not historically engaged businesses in its efforts around children's health and well-being, several participants suggested this could be a positive way forward to consider. The advocacy of businesses in state and local needs is a different perspective but can offer lessons for other stakeholders in advancing this field. Businesses and the private sector can be better engaged by leveraging existing resources, such as the consensus report (NASEM, 2019), but tweaking the communication tools and messaging to resonate with their goals and values.

Learning from the Business Sector's Contributions to Healthy Development

Having businesspeople involved in advocating for an issue can be tremendously helpful in advancing discussions, several participants argued. Many business leaders see child health and well-being as essential to workforce development, as morally right, and as an essential determinant of a city's, region's, or nation's workforce. It is also an essential determinant of the current productivity of parent employees. Employee productivity is greater where quality child care and early education resources are readily available, one person pointed out.

"As advocates, business leaders are very effective," said Robert Dugger, founder of ReadyNation. He shared examples from his experience in

organizing business leaders to talk to legislators about increasing funding for young families to increase workforce competitiveness. He noted that this can be equated to supporting mission readiness in the military. However, he expressed the opinion that there is a lack of concerned scientists who want to talk about child well-being in the same organized fashion. Another participant disagreed, noting there are professional organizations who go to legislatures and make those arguments. However, the concerns of today's young people often do not resonate with policy makers, the participant opined. Another person commented on the lack of credibility that scientists can have sometimes when arguing for policy changes and they do not have the same ability to secure attention as local businesses or members of the police or military.

One participant noted that the research community could do a better job of branding. There is value in learning how much coaching researchers need in delivering a message so it is heard. The participant suggested that organizations such as the National Academies could invest in learning how to distinctly brand and bring authenticity to researchers so they can deliver important messages to legislators and business leaders without getting caught up in technical details and statistics.

Lauren Caldwell, director of the Children, Youth and Families Office of the American Psychological Association, said her office helps businesses see the return on investment by bringing in researchers to conduct studies. The benefits can also be described as twofold, she said, as businesses get a more engaged workforce and develop loyalty if they provide child support. Such investments can also prepare the next generation to be productive in the workforce. Some see this value right away, she said, but asked how to marshal arguments to better engage more businesses.

Barriers to Success and Future Breakthroughs Needed

Investing in pre-kindergarten (pre-K) and other child and family support is important for business leaders, Dugger said. They notice a lack of people trained in high-level skills and are looking outside the country for talent. They increasingly feel it is morally wrong to not adequately feed and educate kids across the nation, but there is a need to create a greater moral and economic argument around why this investment is necessary. Dugger offered suggestions of limitations, including resources and organization competence. There are also internal industry conflicts in things like quality child care, he said. While people might see the positive benefits, they do not want to pay for it. Businesses are worried about cost they will have to bear alone.

In terms of resources, one person added, more is spent on the elderly than on children. There is a lot of noise in the system, and children and

families have very little voice. He urged the need to constantly humanize people's conditions. The breakthrough would be finding ways that advocates can talk about the well-being of children in personal ways. Nothing is communicated with a graph, Dugger said. Policy makers are people, and like all people, they respond to personal stories and advocacy.

Arun Karpur, director for data science and evaluation research at Autism Speaks, described the bucking of stigma as a positive change in his work with youth. Adolescents and young adults today are very open about their experiences and feelings, he said. Talking about going to therapy is something they are more open about, which can help reduce the stigma around MEB health issues. Karpur added that the accepting perspective of youth ready to work with people with autism and disabilities is important and increasing, because they often went to school together or they have friends with siblings who have developmental disabilities.

EDUCATION STRATEGIES

Formal school settings have much to offer in terms of improving MEB health, as children spend a large portion of their day in school. Some participants suggested the importance of informal settings, too, including out-of-school time, adult learning programs, and early child care environments to ensure this effort is comprehensive and takes advantage of all opportunities.

Role of Education in MEB Health

One overarching principle, a participant offered, was that MEB health is unavoidably impacted by the education sector. There are opportunities for developmentally relevant promotion efforts like universal social and emotional learning (SEL) and adult development. Schools present a great platform to teach core competency skills around SEL and allow children to develop their own skill sets to navigate relationships, work, and life in general. But, the participant warned, there is danger of marginalization and exclusion in these environments. Schools and educational settings can be places of trauma for both children and adults, so this consideration should be kept at the forefront of any intervention design. For example, for those children and teachers who make up a sexual or gender minority, structural processes of marginalization can exacerbate their stressors. The difficulty, another participant added, is that children have increasing awareness and understanding of inequality. He questioned how educators can effectively work with marginalized children without addressing their unequal conditions. Teachers may not be well trained, and schools often historically prefer a "colorblind" ideology, making it difficult to design SEL

interventions systematically. A participant added that doing this well will require the consideration of the MEB needs of staff, who may need to build resilience in themselves before helping to create an environment conducive to resilience building for children.

Opportunities and Barriers

Several workshop attendees discussed a variety of opportunities and barriers in the sector related to promoting MEB health. A few participants suggested SEL as a key strategy for pre-K through adulthood because there are formal and informal opportunities at every level. One person suggested making empathy a skill that is a graduation requirement for high school. If children and youth can learn to demonstrate empathy, conflict resolution skills, interpersonal skills, and communication, they are likely to have better MEB health potential going into adulthood. Similarly, the learning should not stop when formal education ends, the participant urged. Another participant highlighted the research demonstrating how mishandled marital conflict can negatively influence child development (Davies et al., 2016) and suggested the positive impacts of parenting groups. Helping couples in their transition from partners to parents can help alleviate conflict and the downstream consequences.

A second opportunity suggested is leveraging school climate initiatives. There are conflict resolution systems that avoid punishment and promote alternatives to exclusionary discipline. Programs such as "Engaging Schools"[6] are also helpful in making the environment more welcoming to all children and revamping codes of conduct to be more developmentally focused and less punitive. Other participants suggested viewing students as agents of their own outcomes instead of things to be controlled. Teachers and educational providers can focus on promoting student success, tying "wins" into self-esteem and self-efficacy, and empowering students to prevent dropout and promote their success across physical, cognitive, and emotional dimensions.

Short-term behavioral health interventions were also suggested as a promising practice in the education sector. One participant shared an example in which community-based private providers agree to hold a certain number of spots for children in the school system in case those students do not have access to a provider or are met with a long waitlist. The providers agree to start them right away with six sessions so there is no lag time where the need is unmet. This is a collaboration between the county and the providers, so there is very little cost to the family, if any. Finally,

[6] For more information on Engaging Schools, see https://engagingschools.org/why-engaging-schools.

preservice training of adults and teachers in the school system, and general expansion of school-based mental health providers in elementary and secondary school levels are an opportunity for improved MEB health, it was pointed out.

While the opportunities are promising, several barriers preventing the education sector from meeting goals related to MEB health were also discussed. First, while there are great examples of SEL as a strategy, the term itself is ill-defined. There is no strong consensus on what it means or how best to measure it. With this type of uncertainty, SEL programs can be hard to evaluate and replicate. Similarly, the available evidence makes it difficult to show that implementation beyond where a program was first studied would be effective and appropriate.

Structural issues are also a challenge, a few people pointed out. For example, the way schools are set up in terms of K–5, middle school, and high school may not track the optimal developmental stages of children. One person suggested grouping K–3rd grade and 3rd–7th grade as more appropriate. Additionally, school ends at 2:30 or 3:00 pm, well before many parents are able to leave work, which results in an often piecemeal approach to after-school child care. Out-of-school time should be framed as an issue around women and racial inequalities, a participant said. Even for those places with after-school programs, there is huge variability in evaluation (unless they are federally funded). The providers differ in their intentionality and programs are often understaffed. Because of these factors and the difficulty in measuring success, it is hard to develop metrics to help understand the efficacy of interventions.

Innovation and Ways Forward

Moving forward, several participants described innovations in the education sector that could be leveraged for MEB health. For example, one participant shared the prospect of "contagion" efforts and social network mapping, which provides insight into who child or youth leaders are and where problems may arise. Partnering with marketing and communications groups is another new idea that can positively frame these interventions to show they are about broadly influencing workforce development, the well-being of adults, and more, not only about children. Thinking carefully about how to strategically target interventions can have cascading effects, a participant observed. General lessons can be adapted to the education sector—both formal and informal—to shift the field in subtle ways. The Forum can play a role in this by bringing together the education sector and those committed to MEB health, advancing this discussion even further, a participant suggested.

HEALTH CARE AND PUBLIC HEALTH STRATEGIES

While the challenge of MEB health sits within the health care and public health fields, several participants acknowledged that it is not a "health only" problem to be solved. Tina Cheng, a pediatrician and director of the Department of Pediatrics at Johns Hopkins, said she can think about adverse childhood experiences and talk to her patients about them, but the solution lies in thinking about primary prevention. This discussion centered on the need to partner with schools, daycares, summer programs, and other specialists to achieve the goal of improved MEB health for children.

MEB Health Challenges for Children and Families

Describing the current situation in health care, Thomas Boat estimated around 5 percent of the total childhood population in the United States has a disabling, complex, chronic disorder that needs ongoing medical attention. This is a large number of children who also are likely to have a higher incidence of behavioral health problems. Boat continued that some disorders may have interventions that are not solely behavioral in nature but can make a difference for outcomes, such as prevention through better preconception and prenatal health. One of the biggest contributors to cognitive and behavioral problems for children in this country, he said, is the neurodevelopmental consequences of prematurity. Ten percent of children are born underweight and the more premature a baby is, the more likely that child will have neurobehavioral problems. Many of these problems can be mitigated, he added. The promotion of true value-based care for children, he said, includes preventing unintended pregnancies, improving preconception and prenatal care, preventing onset or serious consequences of chronic disorders such as asthma, and improving primary care provider coordination of surveillance and intervention for risks that may impede healthy MEB development. These investments in prevention can truly achieve value as children grow into adults, he said.

Along the same lines as value-based care and early investment, another participant highlighted the issue of maternal stress during pregnancy. While it is not well understood, Boat acknowledged the links of both preconception and prenatal stress to prematurity and other adverse neurobehavioral risks in childhood. There is a need to understand triggers for the consequences and the pathways to adverse health outcomes, he said. This issue also relates to the lack of universal maternity leave policies in the United States, resulting in women typically having to work until the day they go into labor. Afterward, they often return to work several weeks after giving birth. Other countries understand the long-term implications of attachment theory and the importance of parent and child bonding, so have imple-

mented broader leave policies to encourage better health outcomes for all in the family.

When considering issues of MEB health for children with chronic health problems, it is also important to remember that entire families are often affected, Boat said. Hearing a positive result from health screening, whether genetic such as cystic fibrosis or neurobehavioral such as autism, can be a stressful experience for families, he said, and it is often difficult for them to recover. Almost one-half of parents experience depression, anxiety, and stress following a newborn diagnosis of cystic fibrosis or when their newborns leave the neonatal intensive care unit (Children's National Health System, 2017). This may require other family members to step in and help. Regardless of the diagnosis, the family involved should be included in interventions.

Finally, another participant suggested the challenges in treatment programs for youth in terms of substance abuse. There are few youth-focused detox programs, special step-down programs, sober high schools, or other programs specifically targeted at adolescents taking into account their social, physical, and emotional needs. Encouragement of people in recovery can also lead to prevention of future recurrences and the prevention of others falling into similar patterns.

Implementing the Agenda from the Consensus Report

Several suggestions were offered when thinking about how to best implement the agenda and recommendations described in the consensus report (NASEM, 2019). Cheng emphasized the critical role of messaging and getting the right message out to mobilize political will. Right now, she said, health care is very focused on the value-based approach and how to best avoid high costs. Investing further upstream and earlier in life for children would be an example of improving value. This investment could include behavioral health integration in emergency department, inpatient, or outpatient settings; training primary care providers on mental health; or better care management to ensure that children do not fall through the cracks of the system. Overall, there is a need for more common language across disciplines, aligning messaging to disseminate the information in a way that can start changing societal attitudes.

Another suggestion offered by Rahil Briggs, national director of HealthySteps at ZERO TO THREE, is to increase the availability of HealthySteps. But, she added, if it is fully integrated into existing health care programs, HealthySteps no longer needs to exist as a standalone program. Integrated behavioral health for children from birth to age 3 is a two-generation intervention, she added. Many parents of children needing intervention are likely to have their own behavioral health needs or mental

health concerns. They may not go to well-health visits for themselves, but they do take their children to appointments, which presents an opportunity to address their needs.

A few suggestions were offered in terms of changes to infrastructure. One participant identified a need for preventive care that is paid for without a prior diagnosis. A behavioral health preventive code could be added onto a visit, just like physical health. If there were a diagnosis, then that patient could go to specialty care and may require additional payment, but having an "MEB code" that mirrored the payment structure that already exists in pediatrics would be key. Similarly, since the electronic health record (EHR) system often drives the care that people receive, the participant said, there is a need for a behavioral health template. A participant noted that capturing and harvesting data from outside the health care system should be improved so it is easier to understand whether children are meeting the functional outcomes that are being examined. Current EHRs do not do a good job of communicating with other systems and are also not conducive to behavioral health needs and reporting.

The MEB workforce was also highlighted as an area to focus on in terms of implementation. Instead of each discipline trying to make changes alone, several participants noted the need to think collectively and advocate for an increase in professionals across the board. A participant suggested developing shared competencies that would span different positions, which requires a different perspective. Everyone in an office, including front desk staff, could be trained at different levels depending on their interaction with the patient or families. While it is easy to visualize what a child with a conduct disorder might look or act like, it is much more difficult to understand what a 7-year-old with anxiety might look like. These providers on the front lines are depended on to do that initial identification, which should lead to a "warm handoff" to needed services.

Overall, a participant noted, there is a need for a systems perspective, instead of making small changes incrementally across various areas, at the state and local levels to think about the well-being of children, youth, and families. While this may exist in statute, support for this kind of infrastructure is needed in different states. Currently, the efforts are being made in a piecemeal manner. For example, for children with a physical health diagnosis, only certain states have turned on the cognitive-behavioral therapy or "procedure" codes for health and behavior intervention and assessment. Every state has a different set of criteria for who can bill under these codes. Even when billing is available, the reimbursement is not enough to sustain a workforce.

Future Considerations and New Ideas

Various suggestions and considerations emerged from participants as they thought about what this field could look like and how it could be optimized moving forward. Many participants called for bold actions but acknowledged the large resource requirements—with resources going to the public health system if the system were to be expected to facilitate local surveys in communities and manage the data required to direct interventions appropriately.

A suggestion in thinking about the future is incorporating the word "development" into MEB language, said one participant. There are developmental milestones met throughout childhood and adolescence—and even beyond as adults. Similarly, language and cognition are not quite included in the MEB lexicon but can present challenges for families who are dealing with developmental delays. As professionals, a participant added, we want to foster skills for these children with delays, but also recognize that not every child will be able to catch up to others, so we should think about how to encourage these children to flourish in their own way. Families with children who suffer from language, cognition, or development delays should not be left out. That would deepen the divides between fields based on arbitrary designations like type of diagnosis or type of health care institution, the participant said.

As an example, Boat described the Reach Out and Read program, which recognizes that only one-third of young children have the skills needed to do well when they enter kindergarten.[7] Families are given books and a contact within the primary care office who introduces the concept of early reading and its benefits. Their data show that it makes a difference in kindergarten readiness, and multiple studies have found evidence that the program results in improved adherence to pediatric visits, increased literacy and engagement at home, and improved vocabulary scores (Reach Out and Read, n.d.). This is a scalable program, he said, and an example of how to be more creative in scaling behavioral health promotion.

Another consideration brought up by a participant is ensuring that information and emerging evidence are distributed, especially into the hands of teens and young people. Simply having doctors and academics discussing it will not get the job done, but engaging social influencers can have a great impact. The work that Lady Gaga has done in mental health through her Born This Way Foundation was cited as an example of a potential partner.

Several ideas were brought up during the discussion that could be implemented within the health care or broader public health system, together with payers, providers, and other roles. For example, one participant asked

[7] For more information on Reach Out and Read, see https://www.reachoutandread.org.

why discounts on insurance premiums exist for individuals who regularly go to the gym, but not for new parents who participate in parenting or nurturing programs. Similarly, others advocated for teaching about parenting well before pregnancy, even as early as high school. As another example, when people turn 50, they can expect to start receiving magazines from AARP. There could be a similar effort when a family learns they are expecting their first child. The field could be very intentional and mirror other health initiatives by conducting interventions in barbershops, hair salons, libraries, and other places where people already routinely visit.

A few participants brought up the role of nutrition and its importance in impacting mental health, but also identified the challenges in changing dietary habits of Americans. A nutrition checkup could be paired with a physical checkup and lead to outcomes measuring the impact of each one, a participant suggested. Someone shared an example of this concept, a U.S. Department of Agriculture-funded effort called Starting Early, which is primary-care based and family-centered, starting in the third trimester of pregnancy and focusing on child obesity and nutrition. A randomized control trial studying the program demonstrated increases in exclusive breastfeeding and reduction in complementary foods for 3-month-old infants (Gross et al., 2016).

Another participant shared a recent experience in Des Moines, Iowa, with the Burmese community, where families said they found it difficult to feed their children through government programs that forced them to buy food they were unused to. When thinking about nutrition interventions, the participant suggested the need to teach families how to cook certain foods, and also take into account the context of different cultures and the foods they eat. Nutrition policies can be creative, one person added. Some states are using proceeds from tobacco taxes and sugar-sweetened beverage taxes to fund early childhood development programs, which is a win in two ways.

Suggestions for the Forum's Work

One participant suggested a role for the Forum, as a neutral convener, in working together with relevant stakeholders to see what it could look like to have MEB health fully integrated into the child health care system. Every state is doing this differently. Unless there is a list of the various policy interventions being tested, and which are working or not working, it is difficult for state and health system leaders to know where to begin. There are great examples, but unless stakeholders come together and define what this process should look like, it will be a slow and haphazard experience.

4

Implementing a National Agenda

David Willis opened the final workshop session by introducing the various perspectives that are important in considering how the Forum for Children's Well-Being can work to improve mental, emotional, and behavioral (MEB) health. The main opportunities and challenges were summarized from the points of view of the local and community levels, the education system, federal and state levels, business and private sector, and the public health and health care system. This chapter concludes with commonalities highlighted by participants across various sectors, and opportunities for the Forum for Children's Well-Being to advance this work in the future.

OPPORTUNITIES AND CHALLENGES ACROSS SECTORS

In the final session of the workshop, speakers reported on the highlights of discussions among their group sectors. These included definitions of terms, opportunities and challenges for MEB health across various environments, and future work the Forum could focus on to move this effort forward.

Federal and State Levels

Fan Tait, chief medical officer at the American Academy of Pediatrics, discussed some barriers and solutions with respect to state and federal policies. One immediate barrier that is found at both levels is data sharing. "We cannot get the data needed from different agencies, across grants, and different implementation of laws," she said. Having someone at the federal

level who can direct appropriate data measurement and sharing could help overcome this challenge. While there are several examples at the state level of laws that support MEB health, Tait explained that it is also necessary to consider the regulatory sections of those laws and how they frame accountability. She used maternal depression screening as an example, saying that until the Centers for Medicare & Medicaid Services (CMS) released a letter saying that providers could be reimbursed for screening, it was difficult to move forward on that intervention, despite known benefits of the practice.

While there are several opportunities to move MEB health prevention and promotion forward, there is a need to acknowledge how much of a pressing issue this is, a participant suggested. A federal interagency group with legislative authority to decide what data are collected and which elements need to be consistent as reported across various grants from different agencies on related topics would help, the participant added. With this direction and requirement in place, it would be easier to realize shared accountability and consistency at every level—whether federal, state, local, or community. To make an impact, Tait said, both "top-down" and "bottom-up" approaches are needed. She also identified the criminal justice system as a missing seat at the table. Examples of other groups that should be included in these conversations but currently are often missing include adult care, self-advocacy groups, and children and youth with special health care needs.

Local and Community Levels

Erin Hegarty, executive associate with the Afterschool Alliance, began by identifying a common opportunity for community interventions: When implemented at this level, intervention teams are already familiar with the culture, local government, and nuances of the target population. Community interventions allow for close observation to know both when things are working and going well and when practices need to be reexamined. However, this can be challenging when policies and practices may have come from the state or federal level. Additionally, using evidence-based practices can be difficult because they often are not tailored to individual communities. Hegarty suggested practices need to be adapted in ways that make sense for the community. Finally, effective communication is a necessary tool at the local level, because there are often multiple groups that might be working on similar issues. This includes communication across organizations, as well as with families and parents who are on the receiving end of these practices. Lynda Gargan noted that it is important to have authentic feedback and input from families, rather than having one person at the table to "check the box" for family or patient engagement. To ensure that agencies and organizations are not duplicating efforts and working toward the same goals, strong communication is paramount, she urged.

Business and Private Sector

In highlighting the effectiveness of advocacy by the business sector, Robert Dugger introduced ReadyNation, an organization he cofounded that has 2,500 members nationwide who are available to advocate for proven early childhood development programs. Generally, he said, the trigger for business leader involvement is the recognition of acute workforce challenges that require specific solutions. ReadyNation advocates for programs that have positive effects on youth in all aspects—health, education, socialization, workforce, and so forth. While the primary focus is early childhood, it works across the life course, he said, from "cradle to career."

Dugger highlighted some successful examples of business leader advocacy. A recent ReadyNation report shows the financial costs of not having effective national child care delivery policies. The report shows an annual loss of $57 million in lost earnings, productivity, and revenue (Bishop-Josef et al., 2019). This type of economic argument could certainly get the attention of businesses in the community, he said. Additionally, he shared an example of how implementing a quality pre-K program can offset the special education costs in schools to pay for the program, known as "Pay for Success" (PFS) financing. Salt Lake City, Utah, established a PFS Pre-K program that is working well. Working through its United Way, Salt Lake City secured a $2.5 million loan from Goldman Sachs and an additional $2.5 million from the Pritzker Foundation to fund the program for 3- and 4-year-olds. After several years of tracking children, the special education costs in the district have decreased enough for them to pay back the loans year by year. He added that research shows it is possible to finance other early childhood programs in similar ways. Quality prenatal care for an at-risk mother-to-be reduces Medicaid expenses and results in improved outcomes for children (Dubno et al., 2014).

In terms of barriers to engaging this sector, Lauren Caldwell offered one example of "noise in the system" as there are so many competing interests when it comes to business investment in communities. Moving forward, though the Forum has not specifically engaged the business sector before, Caldwell suggested bringing more businesses to the table and ensuring the right stakeholders are present, as well as leveraging the existing tools already created. The new consensus report (National Academies of Sciences, Engineering, and Medicine [NASEM], 2019) is a resource that could be used, adapting its language to engage businesses in a new way. Another participant offered the 2018 *NAM Perspectives* Commentary, Business Engagement to Promote Healthy Communities Through Child and Family Well-Being (Watson et al., 2018), written by several Forum members, as a resource for strategies and examples.

Education System

Stephanie Jones, Gerald S. Lesser professor in early childhood development at the Harvard Graduate School of Education, said the discussion group on education first asked themselves if they shared a common definition of the education sector and wanted to ensure they could reflect on and take advantage of successes found beyond the traditional K–12 education system. Marisa Paipongna, a project associate with the Afterschool Alliance, added that they decided the education sector encompasses all education experiences throughout the life course—both formal and informal. In formal education settings, she said it is important for staff members to have social and emotional learning (SEL) competencies and ongoing staff training, as well as SEL programs available for parents.

Kristin Darling, a research scientist at Child Trends, provided examples of successes in education related to MEB health that could be opportunities for the future. One example is the broad set of SEL programs, she said, with many being rigorously tested. The expansion of the programs from students to include a focus on social, emotional, and mental well-being for all staff members in a school was also crucial. Additional successes in the education sector include the promotion of alternatives to exclusionary punitive school discipline, school-based mental health services, and offering a range of programs to parents.

Carlos Santos, assistant professor at the University of California, Los Angeles, offered insights into current innovations from his work using social network analysis in school-based settings. This analysis moves beyond the traditional randomized control trial framework to get a better understanding of relationships in schools, he said. It is a fairly low-cost method in which children nominate their peers, identify influencers, or map out entire friendship networks—all of which can be used in a variety of ways. Building on Darling's point about well-being of a school extending beyond the student base, Santos suggested engaging with innovative strategies and marketing professionals to reframe efforts in schools as not limited to youth, but also including teachers, cafeteria workers, reading specialists, custodians, and others. Jones reiterated the theme of leveraging data to be as efficient as possible and to target interventions strategically. For example, data can be used to consider how a classroom-based intervention may be adapted for a broader setting. She noted that the education field has the opportunity to leverage its extensive work in "nudge-like"[1] interventions.

[1]In the behavioral sciences, a "nudge" is an intervention that is focused on encouraging desirable behavior(s) without taking away choice (Benartzi et al., 2017).

Public Health and Health Care System

Tom Boat offered some suggestions for MEB health within the overarching health system in the United States. Many opportunities in integrated behavioral health for primary and specialty care have not been realized yet, he said. First, from birth until age 3, there are 12 well-child visits. This is the only system in the country that universally accesses infants and toddlers, and parents trust the system. Unfortunately, electronic health records (EHRs) are not currently designed to encompass MEB health needs. Second, he said, there is a wonderful payment method for preventive surveillance visits around physical health from a pediatrician, but not MEB health. This system could easily be mirrored around a similar schedule and have payment for those visits cover both physical and MEB health. "We know what works," he said, but there is a need to figure out the best way to finance it and document it so demonstrated quality is evident.

Another issue, raised by Rebecca Baum, a pediatrician with Nationwide Children's Hospital and clinical assistant professor at The Ohio State University College of Medicine, is improving MEB core competencies in the health care and public health workforce, such as the work done through the Forum's Collaborative on Creating an Integrated Health Care Workforce to Improve Cognitive, Affective, and Behavioral Health for Children and Families (Workforce Collaborative).[2] The MEB workforce itself is very diverse, and there is a need to work across all organizations. Baum praised the Forum as a great convener for that work. As the importance of team-based care has emerged, an additional workforce consideration is training people in an integrated model, not only primary care physicians, but also subspecialists caring for children with chronic disease, mental health staff, front desk staff, nursing staff, and others. Engaging youth and families in this effort and maintaining a health equity approach will also be paramount, she said.

Commonalities Across Sectors

While each sector will need to work within itself to identify champion stakeholders and opportunities for making changes to improve MEB health outcomes, there are some strategies that can be applied in multiple areas. Throughout the discussions, certain interventions were mentioned by a number of participants from the different areas. One simple, yet critical aspect is acknowledgment of the urgency of the problem. For example, the country has been hearing about the opioid crisis and other MEB health

[2] For more on the collaborative, see https://sites.nationalacademies.org/DBASSE/ccab/DBASSE_180693.

issues throughout the population for years, but communication differs depending on the sector, Tait observed. She emphasized that the lack of alignment in messaging has made it difficult to demonstrate the urgency and pervasiveness of the problem. Working across sectors and developing key messages can help communicate the urgency for action and provide understanding for the collaborative actions needed across these sectors.

As another example, a few speakers said engaging families in a meaningful way could inform policies that apply to a diverse population and also ensure that recommendations are actionable. Whether at the local/community level, within the education system, or, as Baum noted, within health care and public health as they train their workforce to employ a health equity approach, inclusion of the family perspective is a necessary component.

Finally, integrating MEB health services and interventions into established systems was mentioned by multiple participants, supporting the initial statements made by Boat during his presentation on strategies for scaling efforts. Whether incorporating MEB strategies into the education system or adapting primary or chronic health care protocols to include MEB specialists, promotion of MEB health will be better served by partnering across interested and involved sectors.

NEXT STEPS FOR THE FORUM FOR CHILDREN'S WELL-BEING

Throughout the discussion, several participants identified opportunities for the Forum to continue advancing this important issue of MEB health promotion. Lynda Gargan suggested engaging families and various communities on the report recommendations before disseminating it widely. She said that would be an opportunity for the Forum to make the recommendations more actionable and understand how they might work better in the community. Kathleen Siedlecki stressed the need to make the information easily available. She added there should be mechanisms for the communication to be bidirectional, so the Forum members and stakeholders can receive feedback from the community level in order to tailor approaches as needed. Tracking data long term can also be a good investment, in order to better understand how these programs affect families intergenerationally, Siedlecki added.

Jones proposed using the Forum to investigate innovations that have been implemented in the education system around MEB health to learn how they can be best implemented or scaled in other platforms. During the federal- and state-level discussion, Tait suggested the Forum could work with existing laws and toolkits to develop talking points for various groups and to enhance implementation of laws such as the Family First Prevention Services Act at the state level. Another opportunity would be examining

various MEB health-related grants in states to learn from them, understanding the strengths and weaknesses of each and how best to replicate successes across other states.

Caldwell suggested the Forum increase its engagement with the business sector. Bringing more businesses to the table and encouraging them to help solve some of the persistent challenges and ensure more stakeholder representation could be a helpful way forward, she said. The Forum can leverage existing tools, including *Fostering Healthy Mental, Emotional, and Behavioral Development in Children and Youth: A National Agenda* (NASEM, 2019) to develop new resources that businesses are more likely to respond to.

Finally, Baum and others suggested that the Forum can be a neutral convener for the multiple disciplines involved in MEB health and can help improve MEB competencies that need to be developed in the public health and health care workforce. She noted that the Forum's Workforce Collaborative has begun this important work and urged it to continue.

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Appendix A

Workshop Statement of Task

A planning committee of the National Academies of Sciences, Engineering, and Medicine will organize and convene a 1-day public workshop that will explore the state of mental, emotional, and behavioral (MEB) health of children and youth in the United States. The workshop will discuss the Consensus Study Report, *Fostering Healthy Mental, Emotional, and Behavioral Development in Children and Youth*, as well as the progress made since the inception of the Forum for Children's Well-Being, the current state of MEB health, and where the field hopes to go in the near and distant future. The planning committee will develop the agenda, identify meeting objectives, and select appropriate speakers. A Proceedings of a Workshop will be prepared by a designated rapporteur in accordance with institutional guidelines.

Appendix B

Workshop Agenda

Workshop on the State of Mental, Emotional, and Behavioral Health of Children and Youth in the United States

The Forum for Children's Well-Being
National Academy of Sciences Building
2101 Constitution Avenue, NW
Room 125
Washington, DC
October 10, 2019

Workshop Goals:

- To evaluate the current state of the science of promoting mental, emotional, and behavioral health of children and youth, including how far we have come since the inception of the Forum, where we are now, and where we hope to go in the near and distant future.
- To explore how various sectors, initiatives, and community efforts can impact the healthy development of children and youth, and how they all can collaborate in these efforts.
- To review the past work of the Forum and to set the stage for the Forum's strategic discussions for future activities.

11:00am–1:00pm	**Setting the Stage: The State of MEB Health for Children and Youth in the U.S.** *Panel moderator: Kelly Kelleher* *Panelists: Tom Boat, committee chair; Lynda Gargan, family voice representative; Bonita Williams, federal funder representative; Angelica Cardenas, health equity representative*
1:00–2:00pm	**Lunch**

2:00–4:00pm **Small Group Discussions**
Education Strategies, Room 250
Moderator: Stephanie Jones

Local and Community Strategies, West Court
Moderator: David Willis

Federal and State Policy Strategies, West Court
Moderator: Fan Tait

Business and Private Sector Strategies, Room 280
Moderator: Arun Karpur

Health and Public Health Strategies, Room 125
Moderator: Tom Boat

4:00–5:00pm **Implementing a National Agenda**

Appendix C

Biographical Sketches of Workshop Presenters and Planning Committee Members

Harolyn M. E. Belcher (*Planning Committee*) is the director of the Johns Hopkins University School of Medicine and Center for Diversity in Public Health Leadership Training, Kennedy Krieger Institute. She is principal investigator (PI) of three Centers for Disease Control and Prevention public health leadership training programs to promote diversity in public health research, training, and leadership experiences for undergraduate, public health graduate, medical, dental, pharmacy, and veterinary students. She is co-PI on a National Institutes of Health (NIH) grant to conduct a cost comparison of two evidence-based parent interventions for young children with emotional and behavioral problems. Belcher received her B.S. in zoology from Howard University, medical degree from Howard University College of Medicine in 1982, and master's in health science focusing on mental health in 2002 from the Johns Hopkins Bloomberg School of Public Health.

Thomas F. Boat (*Workshop Presenter*) is the dean emeritus of the College of Medicine at the University of Cincinnati and a professor of pediatrics in the Division of Pulmonary Medicine at the Cincinnati Children's Hospital Medical Center. Earlier, he was the director of the Cincinnati Children's Hospital Research Foundation and chair of the Department of Pediatrics at the University of North Carolina at Chapel Hill. More recently, he has worked at local and national levels to improve child health research efforts, subspecialty training, and clinical care. He has a special interest in issues posed by children's mental health for pediatric care, research, and training, and he is working in Cincinnati and nationally to promote children's behavioral health. He is a member of the National Academy of Medicine. He is a

member of the Association for the Accreditation of Human Research Protection Programs and served as president of its board of directors. He has also served as chair of the American Board of Pediatrics and as president of both the Society for Pediatric Research and the American Pediatric Society. He has an M.D. in pediatric pulmonology from the University of Iowa.

Angelica Cardenas-Chaisson (*Workshop Presenter*) works as a policy associate with a focus on health equity and young children at the Child and Family Policy Center. In her role, Cardenas-Chaisson performs research on various policy issues that affect young children and their families. She has dedicated her career to working with families and communities, specifically families of color. Cardenas-Chaisson co-led the Health Equity and Young Children Initiative, a project funded by the Robert Wood Johnson Foundation, which worked with exemplary programs and practices throughout the country that work to support families and their children. She received her M.S.W. from the University of California, Berkeley.

Lynda Gargan (*Workshop Presenter*) is executive director for the National Federation of Families for Children's Mental Health. Throughout her career, she has worked across the nation providing technical assistance and training to ensure that all individuals are afforded the opportunity to live in the community of their choice. Gargan served as the project manager and project director, respectively, for two Federal Supported Employment Technical Assistance Centers. She more recently served as CEO for an agency specializing in intensive in-home family therapy services. Gargan currently serves as a partner in the national evaluation of System of Care grantees. She also serves as principal collaborator with the National Association of State Mental Health Program Directors' Technical Assistance Coalition.

Stephanie Jones (*Workshop Presenter*) is the Gerald S. Lesser professor in early childhood development at the Harvard Graduate School of Education. Jones is a recipient of the Grawemeyer Award in Education and of the Joseph E. Zins Early-Career Distinguished Contribution Award for Action Research in Social and Emotional Learning. Jones's research portfolio emphasizes the importance of conducting rigorous scientific research, including program evaluation that also results in accessible content for early and middle childhood practitioners and policy makers. She serves on numerous national advisory boards and expert consultant groups related to social-emotional development and child and family antipoverty policies, including Engaging Schools and the national boards of Parents as Teachers. She consults to program developers, including Sesame Street, and has conducted numerous evaluations of programs and early education efforts, including Reading, Writing, Respect and Resolution; Resolving Conflict Creatively;

SECURe; and the Head Start CARES initiative. She received her Ph.D. from Yale University.

Arun Karpur (*Workshop Presenter*) is the director for data science and evaluation research at Autism Speaks. Karpur is leading efforts on utilizing existing datasets, electronic health data, and insurance claims data to advocate for health equity and improved quality of care for individuals with autism spectrum disorder. He established the Autism Data Science Advisory Network for leveraging machine learning and artificial intelligence in autism research. He is also directing research and evaluation efforts in the area of transition to adulthood as well as quality service provider training. Prior to joining Autism Speaks, Karpur served as a research faculty member at Cornell University, where he was a co-investigator for a federally funded study to improve employment, education, and economic outcomes for low-income youth with disabilities. Karpur has received funding support for his research from the Rehabilitation Services Administration, Administration for Community Living, National Institutes of Health, and The World Bank. He has an M.P.H. from the University of South Florida and a Ph.D. in organizational behavior from the Cornell University School of Industrial and Labor Relations.

Kelly J. Kelleher (*Workshop Presenter*) is the ADS Professor of Innovation at The Research Institute at Nationwide Children's Hospital. Kelleher is also distinguished professor of pediatrics and public health at The Ohio State University's Colleges of Medicine and Public Health. As a pediatrician, his research interests focus on accessibility, effectiveness, and quality of health care services for children and their families, especially those affected by mental disorders, substance abuse, or violence. He has a long-standing interest in formal outcomes research for mental health and substance abuse services. He has an M.P.H. from The Johns Hopkins University School of Hygiene and Public Health and an M.D. from The Ohio State University College of Medicine.

Cheryl Polk (*Planning Committee*) is a psychologist and Safe & Sound's first chief program officer. In this position, Polk supervises the agency's clinical and family teams: Integrated Children and Family Services that bolster mental health, and Community Education and Strategic Partnerships. Prior to starting this position, Polk was the president at HighScope, where she translated research knowledge about the first 5 years of life into programs, and was executive director of the Lisa and John Pritzker Family Fund. She was president of the board of directors of ZERO TO THREE: National Center for Infants, Toddlers and Families, as well as a board member for more than 15 years. She is one of the founding members of the California

First 5 Children and Family Commission and served as commissioner, chair of the budget committee, and chair of the San Francisco Commission. She holds a Ph.D. in psychology from the California School of Professional Psychology, Berkeley.

Carlos Santos (*Planning Committee*) is an assistant professor in the Luskin School of Public Affairs at the University of California, Los Angeles. His research draws on diverse disciplines, theories, and methods to better understand how oppressions (e.g., racism, heterosexism, etc.) overlap to create unique conditions for individuals that have implications for development and well-being. He studies how individuals cope with overlapping stressors and whether such coping attenuates or amplifies the negative consequences of overlapping oppressions on mental health, educational outcomes, and civic engagement. Santos has authored nearly 30 peer-reviewed publications. In 2017 he was awarded the Emerging Professional Contributions to Research Award by the Society for the Psychological Study of Culture, Ethnicity, and Race of the American Psychological Association. Santos received his Ph.D. in developmental psychology from New York University, master's degree in education from Harvard University, and bachelor's degree from New York University.

Vera Frances "Fan" Tait (*Workshop Presenter*) is a pediatric neurologist and brings years of experience in child health and wellness, family-centered care in medical homes, children with special needs, and health care delivery systems. She is currently the chief medical officer of the American Academy of Pediatrics (AAP), where examples of her leadership and oversight include Global Child Health; Healthy Resilient Children, Youth and Families; health equity, the development of AAP policy; the AAP Pediatric Leadership Initiative; and Physician Wellness and Resilience. For more than 10 years, she directed the Department of Child Health and Wellness which included many of the strategic priorities of the academy, such as early brain and child development; the Institute of Healthy Childhood Weight; Bright Futures (which is the anticipatory, preventive guidance for children, adolescents and young adults from birth to age 21); and the National Center on Early Childhood Health and Wellness, which addresses health in Head Start and Child Care. In addition, she led the Disaster Preparedness Advisory Council from its inception as well as AAP climate change initiatives such as the Pediatric Environmental Health Specialty Unit grant. She earned a B.S. from the University of Alabama, her M.D. from the University of Kentucky Medical Center, and her pediatric residency and pediatric neurology fellowship at the University of Utah Medical Center.

Deborah Klein Walker (*Planning Committee*) is the immediate past president of the Global Alliance for Behavioral Health and Social Justice (formerly the American Orthopsychiatric Association) and a former president of the American Public Health Association and the Association of Maternal and Child Health Programs. She is currently the president of the board of Family Voices, a board member of the Institute for Community Health and the Cambridge Health Alliance Foundation, and an adjunct professor at the Boston University School of Public Health and Tufts University School of Medicine. She formerly served as vice president and senior fellow at Abt Associates, Inc. and as associate commissioner for programs and prevention at the Massachusetts Department of Public Health. Prior to state service, Walker was an associate professor of human development at the Harvard School of Public Health and a faculty member at the Harvard Graduate School of Education. She has authored three books and more than 100 articles and book chapters. Her research and policy interests include child and family policy, program implementation and evaluation, public health practice, disability policy, community health systems, health outcomes, and data systems. Walker has been honored by organizations representing maternal and child health services, disabilities, and at-risk populations. She received her Ed.D. in human development from Harvard University.

Bonita Williams (*Workshop Presenter*) provides national leadership for the Vulnerable Populations Program at the 4-H National Headquarters, National Institute of Food and Agriculture (NIFA), U.S. Department of Agriculture. In this role, Williams emphasizes the coordination and integration of programs that address the needs of youth living with social, emotional, physical, developmental, and mental vulnerabilities in relation to context, residence, and demographics. She serves as liaison to the 4-H Program Leader Working Group Committee on Access, Equity and Belonging. Prior to NIFA, Williams served as assistant professor and extension specialist with Virginia Tech University; Youth at Risk Specialist with Lincoln University; and as family and consumer science and 4-H agent with the North Carolina Extension Program. She received her Ph.D. in career and technical education from the University of Missouri–Columbia, an M.S. in adult and community college education from North Carolina State University, and a B.S. in family and consumer science from East Carolina University.

David Willis (*Workshop Presenter*) is a senior fellow at the Center for the Study of Social Policy, where he leads a national initiative to advance early relational health for child health and communities. A board-certified, developmental-behavioral pediatrician, Willis was a clinician in Oregon for more than 30 years with a practice focused on early childhood development

and family therapy. Most recently, he was the first executive director of the Perigee Fund and also served as director of the Division of Home Visiting and Early Childhood Services at the Health Resources and Services Administration (HRSA) Maternal Child Health Bureau, in Washington, DC. During his career, Willis has been a Harris Mid-Career Fellow with ZERO TO THREE, past president of the Oregon Pediatric Society, executive member of the American Academy of Pediatrics' (AAP) Section on Early Education and Child Care, and chair of the AAP Board's Early Brain & Child Development Strategic Initiative. He received his M.D. from Jefferson Medical College of Thomas Jefferson University.

BOARD ON CHILDREN, YOUTH, AND FAMILIES

The Board on Children, Youth, and Families (BCYF) is a non-governmental, scientific body within the National Academies of Sciences, Engineering, and Medicine that advances the health, learning, development, resilience, and well-being of all children, youth, and families. The board convenes top experts from multiple disciplines to analyze the best available evidence on critical issues facing children, youth, and families. Our ability to evaluate research simultaneously from the perspectives of the biological, behavioral, health, and social sciences allows us to shed light on innovative and influential solutions to inform the nation. Our range of methods—from rapidly convened workshops to consensus reports and forum activities—allows us to respond with the timeliness and depth required to make the largest possible impact on the health and well-being of children, youth, and their families throughout the entire lifecycle. BCYF publications provide independent analyses of the science and go through a rigorous external peer-review process.