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Realizing Population-Level Improvements for All Children’s Cognitive, Affective, and Behavioral Health:

Introduction to the Special Issue

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The strategy of using prevention as a first line of behavioral health care, particularly for children, is well accepted on scientific, economic, and social justice grounds. It just has not been made as a cornerstone of health in the U.S. Currently, the systems to promote children’s mental health and well-being, prevent substance abuse, and provide enabling, stimulating, and nurturing environments are not functioning in ways that our children and families need. This is evidenced by high rates of depression, youth homicide and suicide, and substance misuse, as well as the existence of major health disparities. The disparities that minorities and poor communities often experience, both in health and in health service, often have roots in the communities they reside where violence is present; housing and education are substandard; stigma and discrimination are prevalent; and health, education, housing, job training, and other social service systems fail to address their critical needs. However, major elements of a behavioral prevention system do exist and can be integrated together to provide a major shift to improve children’s behavioral health and well-being. This special issue focuses on such system-level innovations in research, practice, and policy that can promote children’s cognitive, affective, and behavioral health.

Several unique factors are coming together that hold much promise on taking prevention programs to scale. Firstly, there is a strong scientific knowledge base, in terms of what prevention programs work, for whom, for how long, and under what conditions. Evidence from randomized trials and other non-randomized but rigorous designs have identified numerous prevention programs and practices that improve children’s behavioral health, often extending across multiple stages of life. Secondly, a science of implementation is being built that has begun to identify robust strategies for scaling up these interventions and adapting them to local conditions. Thirdly, there is increased investment in prevention and promotion as communities, non-governmental and governmental organizations, and the private sector begin to recognize the full magnitude of behavioral health problems and the costs of delayed action or inaction. Fourthly, the Patient Protection and Affordable Care Act and the Mental Health Parity and Addiction Equity Act greatly expanded behavioral health insurance and the right to services to an estimated 63 million Americans,^{1,2} much

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of this through primary care. Finally, there is renewed interest in local communities; states, territories, and tribes; and federal agencies in working together to find creative ways to enhance prevention, with behavioral preventive services ranging from early home visiting³ to HIV prevention programs⁴ to community-based programs to prevent drug abuse⁵ and prevent youth suicide,^{6,7} and to interventions for those recently experiencing a first episode psychosis.^{8,9} There has also been a deep recognition in the medical field of the behavioral, social, and economic factors that impact children's health.¹⁰

The Board on Children, Youth, and Families, through the Division of Behavioral and Social Sciences and Education and the Health and Medicine Division within the National Academies of Sciences, Engineering, and Medicine (the Academies) has established a Forum on the Promoting Children's Cognitive, Affective, and Behavioral Health, supported by 16 sponsoring organizations.¹¹ The papers in this special issue derive from workshops and other activities hosted by this Forum over the last 2 years. This Forum sprang out of the work on an earlier National Research Council/Institute of Medicine (now the Health and Medicine Division) consensus study¹² that documented the extensive scientific progress and value of mental health promotion and prevention for children and youth. Although this consensus statement focused on progress, it also documented major gaps in understanding how to enhance the adoption of evidence-based prevention programs, how to deliver them with fidelity in diverse service delivery systems and communities, how to scale these programs up, and how to sustain them over time. The Forum's aims are to inform a forward-looking agenda for building a stronger research and practice base around the development and implementation of programs, practices, and policies to promote all children's cognitive, affective, and behavioral health, including those with disabilities. The Forum recognizes the important principles of social justice and health equity as cornerstones for the work and embraces a broad public health approach. The Forum also identifies what implementation successes and challenges have been learned by communities, decision makers, practitioners, and researchers, and how these lessons can improve the health and well-being of all children.

The papers included in this issue provide a range of approaches to prevention and wider-scale dissemination and implementation coming from Forum presentations and collaborations. They represent new approaches to improving availability, access, and reliable use of a continuum of evidence-based interventions to meet the needs of all children and are appropriate for delivery in the systems that deliver such programs and the communities where they live. Also critical to these visionary perspectives are the building and sustainment of partnerships that allow diverse communities, service delivery systems, and researchers to align their work and complement one another's strengths.

Among the major research achievements in prevention of behavioral problems are those programs focusing on improving parenting.¹²⁻¹⁵ As Leslie and colleagues¹⁶ note in their paper, many of these parent education/skill-building programs have been shown to be effective and economically beneficial, but few, other than those involving birthing classes, have been implemented widely. These authors propose that delivery of such parenting programs through primary care would greatly expand their use by reducing stigma and by offering quality programs in or through a professional and trusted health system.

Furthermore, these programs could be reimbursed fully by most insurance programs if it was determined by the U.S. Preventive Services Task Force (Task Force) that their “net benefit” is moderate or substantial to a degree of high certainty. Pathways to such a determination are presented.

The second paper by Kemper et al.¹⁷ describes the process by which the Task Force makes its decisions with regard to child cognitive and behavioral health. An important function of this body, beyond grading of evidence, is to point out gaps in the existing knowledge base. Thus, screening for autism spectrum disorder for those aged younger than 3 years received an “insufficient” rating in 2016, not as a statement against conducting such screening but as a call for more research. Though the Task Force has evaluated only a small fraction of behavioral interventions for children and made recommendations about screening for depression and other conditions, there is a critical need to coordinate the timing of such activities. A full review that occurs before sufficient research has been conducted will likely end in an insufficient recommendation, although a ripe research field will spoil if it has to wait in a long line for review. Such coordination is critical for bringing prevention programs to scale and delivering effective programs to America’s families.

Chambers’ and Norton’s¹⁸ paper on the Adaptome begins by noting that the traditional translational pipeline—which moves from program development and efficacy to effectiveness testing, followed by implementation research and practice¹⁹—needs to be informed by more practice-based implementation.²⁰ This will create an ever-expanding evidence base and assure that knowledge about implementation need not wait until an intervention is fully tested.²¹ This paper calls for a “full science of intervention adaptation,” which would need a “multidisciplinary team of researchers, practitioners, implementers, and consumers” to provide and assess data on program adaptation in real-world settings. Such a perspective would advance health equity for both minorities and other populations that are currently underserved or ineffectively served by existing programs.

Rith-Najarian and colleagues²² discuss the translation of successful approaches to knowledge translation and decision making for designing, implementing, and evaluating interventions in mental health treatment to the prevention field. In their view, evidence-based decision making about programs takes advantage of all available knowledge and resources and using them to “direct goals and actions with more certainty” through distillation of common practice elements and use of value of information and other approaches to address uncertainties. Such an approach can lead to new preventive interventions that address the needs of specific populations as well as incorporate key elements of evidence-based programs. Like the other papers in this issue, this vision for prevention depends on a high degree of collaboration and interdisciplinary activities among potential users, developers, researchers, and organizations to coordinate general and local knowledge into action.

Next are two papers that address wide-scale federal initiatives to deliver evidence-based prevention programs, administered by this country’s two major public health agencies, the Centers for Disease Control and Prevention (CDC) and the Substance Abuse and Mental Health Services Administration. Collins and Sapiano²³ discuss lessons learned from the Diffusion of Effective Behavioral Interventions Project for HIV prevention that was

conducted by CDC's Division of HIV/AIDS Prevention. Working in close partnership with the original program developers, this project has prepared implementation packages and conducted trainings for 29 such programs to more than 11,000 agencies. They point out lessons learned from this project that can inform other large-scale dissemination strategies. One fundamental lesson was the recognition that despite the rich evidence base, there was a gap between the needs of policymakers and practitioners (e.g., programs focusing on men who have sex with men) and what research had been done. By focusing on such gaps, CDC was able to direct research efforts to fill them. Secondly, adaptations were continually required to integrate new findings (e.g., biomedical advances to prevention and treatment) and community needs and values.

The paper by Harding et al.²⁴ presents a national response to prevent underage drinking in the U.S. through the Sober Truth on Preventing Underage Drinking Act, directed by the Substance Abuse and Mental Health Services Administration's Center for Substance Abuse Prevention. This program builds on existing Drug Free Community coalitions funded through the White House and trained by the Community Anti-Drug Coalitions of America to implement comprehensive, community, policy, and enforcement-based approaches to reduce underage drinking and binge drinking. Such approaches can be enhanced when combined with alcohol screening and referral of adolescents, a promising approach that still needs more research. Also, a key challenge for the field is supporting the sustainment of prevention programs that are directed by community organizations, especially after federal funding ends.

The final paper in this special issue, written by Cruden and colleagues,²⁵ discusses an integrated partnership between three mostly siloed institutions: public health, primary care, and public education. Although integration of the first two has been identified as critical for improving health in general, the general and specific prevention needs of children's behavioral health need to involve schools as well, as this offers unique opportunities to address the diverse needs of nearly all children from age 5 years throughout adolescence. Though prevention programs cannot take away from the major mission of schools to educate and socialize children, the commonalities between behavioral health and cognitive health, defined therein by "the neurological and reasoning, memory, language, and attention capacity of youth" are abundantly clear and preventive interventions can improve youth outcomes in education, behavioral health, as well as physical health. This paper pays special attention to the formation of partnerships based on mutual self-interest and their sustainment through financing by public, non-profit hospitals, and private partnerships.

Broad themes have emerged from these papers as well as presentations and discussion in the Forum. First, there is a need to take a systems approach, aligned with public health, that focuses on improving the health of populations as well as addressing health disparities. Second, there is a need to engage all levels of community (diverse individuals, service delivery and research organizations, and political leaders) in collaborative decision making, with shared accountability for actions and change. These partnerships must engage diversity, express political will to promote children's health, and be responsible for ongoing change and vigilant to sustain both health outcomes and the infrastructure to support such outcomes. A workforce is also needed of researchers, practitioners, and community leaders who have

competencies in community engagement and organization, as well as systems change. Fundamental to this vision is the need to build research and engineering of prevention systems to address the needs of communities along the integration of multiple sectors of service delivery systems.

Major activities by the Academies are being advanced to support this broad mission of moving effective prevention programs and improving economic, educational, and social service systems in communities in order to address social determinants of children's health. Workshops have focused on: scaling up family-based preventive interventions²⁶; harvesting the scientific investment in prevention through implementation in mental health, schools, child welfare, and juvenile justice²⁷; using measurement systems to monitor the implementation of evidence-based programs²⁸; addressing the unique opportunities to integrate prevention into health care²⁹; facilitating depression prevention and treatment into pediatric care³⁰; and promoting cognitive, affective, and behavioral health in children who have complex medical or educational needs.³⁰ Perspective papers have addressed the power of prevention,^{31,32} healthcare reform to promote children's mental and behavioral health,³³ and family-focused interventions for children with disabilities.³⁴ Along with these opportunities afforded by the Patient Protection and Affordable Care Act, there is an additional need to provide prevention and wellness funds for strengthening communities to promote healthy development through the integration of systems and elimination of separate carve outs. A major approach would be to extend local and state programs focused on "Health in All Policies" to include "Healthy Development in All Policies," as this would facilitate developing approaches for financing and funding services that are sustainable. Tying into this focus would be the inclusion of metrics on children's and adolescents' behavioral health in all ongoing community and agency needs assessments.

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