Child TRENDS

Robert Wood Johnson Foundation

Are the Children Well?

A Model and Recommendations for Promoting the Mental Wellness of the Nation's Young People

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A Model and Recommendations for Promoting the Mental Wellness of the Nation's Young People

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ABOUT CHILD TRENDS

Child Trends is a nonprofit, nonpartisan research center that improves the lives and prospects of children and youth by conducting high-quality research and sharing the resulting knowledge with practitioners and policymakers.

For more information about our organization, please visit our website at *www.childtrends.org*.

To find out more on the integral relationship between our health and how we live, learn, work and play, visit ***www.rwjf.org.***

Overview

The mental health challenges our country's young people face call for shifting the focus of policy and practice from illness, to promotion of wellness and flourishing. This requires using evidence-based strategies with both children and parents, and improving the quality of the environments where children and youth live, learn, play, and grow.

In recent years, prominent experts have urged changes to help end longstanding disparities between physical and mental health care, and to foster wellness. This report builds on that prior work. We argue that the distinction between physical and mental health is both artificial and harmful, and we make a case for re-balancing attention to include wellness in addition to illness. It is important to identify and address the needs of children at risk, while also improving the mental wellness supports and services available to all children and youth. Therefore, we consider the evidence for interventions, both prevention- and promotion-oriented, that can improve mental wellness at the multiple levels of individual, family, school, and community.

THIS REPORT:

• Summarizes the knowledge conveyed by earlier reports on children's mental health;

• Considers the social and economic burdens associated with the status quo of segregating physical and mental health;

• Summarizes the current landscape, in terms of how families access and pay for mental health services;

• Provides a brief review of the research on the development of mental illness and wellness over the life course;

• Offers a more inclusive framework for understanding mental wellness;

• Describes multiple opportunities for improving children's well-being, consistent with this model;

• Makes concrete, feasible recommendations to policymakers for improving the mental wellness of children and youth.

The distinction between physical and mental health is both artificial and harmful, and we make a case for re-balancing attention to include wellness in addition to illness.

Background

BUILDING ON CURRENT KNOWLEDGE AND EXPERT CONSENSUS

In recent years, many authoritative organizations have urged new approaches to mental health care in the U.S.[1-7, a] Many arguments can be made for change, but perhaps most compelling is that the current approaches do not seem to be working. That is, the prevalence of serious mental health conditions has not declined over the period for which we have comparable data[8]—despite attention from the mass media, increased scientific understanding, and the advent of new treatments—most prominently, psychotropic medications. Those medications are prescribed, for adolescents and adults younger than 60, more often than any other type of prescription.[9]

The previously published reports all emphasize

1. The disconnect between the needs of children and youth, on the one hand, and the availability of appropriate mental health care for this population, on the other;
2. The unique vulnerabilities of particular sub-groups; and,
3. The absence of a system of care that prevents illness and promotes health and wellness[b] among all children.[1]

All call for changes in our current patchwork "system" of children's mental health care, and they emphasize the necessity of shifting more resources to prevention and promotion approaches, instead of continuing in a primarily reactive mode.

There are some signs that policymakers are responding to this chorus of concern. In 2012, the Senate Appropriations Committee encouraged the U.S. Department of Health and Human Services' (DHHS) Office of Adolescent Health and the Substance Abuse and Mental Health Services Agency (SAMHSA) to implement the recommendations of the 2009 Institute of Medicine report, "Preventing Mental, Emotional, and Behavioral Disorders among Young People." Currently, SAMHSA's Children's Mental Health Initiative "provides funds to public entities to promote the coordination of the multiple and often fragmented systems that serve children and youth diagnosed with a serious emotional disturbance."[10] The Affordable Care Act of 2010 also incorporates provisions that are responsive to some of these identified needs (see p. 8).[11]

CONTINUING THE PROGRESS

While we applaud the work that has already led to some promising reforms, we also urge the widespread adoption of a perspective that emphasizes wellness, focusing particularly on children and youth. Our model describes wellness as a resource for

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a Among these are the Institute of Medicine's (IOM) 2009 report, "Preventing Mental, Emotional, and Behavioral Disorders Among Young People"; the American Psychological Association's 2009 report on the Healthy Development Summit; the Substance Abuse and Mental health Services Administration's (SAMHSA) 2010 report, "Mental Health, United States"; a 2010 report from Georgetown University's Center for Child and Human Development, "A Public Health Approach to Children's Mental Health: A Conceptual Framework"; and a 2013 report from The Center for Health and Health Care in Schools at The George Washington University, "Improving Access to Children's Mental Health Care: Lessons From a Study of Eleven States." The Robert Wood Johnson Foundation contributed to this chorus for change with 2010 and 2011 reports highlighting lessons learned from the Caring Across Communities program.

b Please see the appendix for a glossary of key terms and how they are used in this report.

adaptation. This further implies that wellness can be either replenished or depleted. How this happens, in part, depends on characteristics of the environments where children live, learn, play, and grow, and on the relationships they experience within those environments.

We also discuss the distinction typically made between the health of mind and body. This separation, which is not supported by science, is usually the result of custom and convenience, and contributes to inequities in services and the social marginalization of affected individuals. While embedded in our everyday language, and reflecting deep cultural-historical roots, the separation of "mental" from "physical" health contributes to the perpetuation of prejudice and stigma that cause significant harm.

Developmental science provides evidence of the powerful influence of relationships and environments across the lifespan, beginning in early childhood, and neuroscience does so for the connections between physical and mental health. An ecological model of wellness promotion—one that addresses influences at multiple levels of a child's personal, family, social, and cultural environment—informs the report throughout.

The scientific community has learned a great deal about what it means for children to be well—to be able to exercise their developing abilities, form positive bonds with others, adapt successfully in the face of challenges, and be happy. For all children and youth to realize their potential for wellness, however, requires two major changes in how we think about these issues:

- a shift from focusing on (mental) illness and disorders, to a more comprehensive view of well-being; and

- a shift from treating wellness as an exclusively individual concern, to promoting wellness as a community goal.

However, while the population can benefit from a universal approach to wellness, there is also a need for more effective interventions for those currently struggling with mental health challenges.

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The economic burden of business-as-usual

The cost of the *status quo* as it pertains to the mental health of young people is high. The burdens borne by the individuals directly affected by poor mental health, and their families and friends, are essentially incalculable. From a policy-making perspective, however, it is often useful to quantify total economic costs, including social costs. Competing interests vie for limited funds, and one way to prioritize spending is to estimate the price of leaving the current system as it is—"business-as-usual." When estimating the burdens that are associated with various injuries, illnesses, and risk factors, the two most common metrics are direct costs, and healthy years of life (a measure that reflects both premature death, and years lived with a disability).

To count direct and indirect costs, we need to consider both what society currently spends on mental health treatment and prevention, and what it spends now, and in the future, due to the inadequacy of these efforts. To illustrate, when a child's mental health challenges are not properly addressed, costs include not only those associated with unsuccessful attempts at treatment, but also may encompass expenses for special education services, and a parent's lost productivity due to the child's greater need for care.

DIRECT COSTS

The most recent estimate available, from 2007, is that the monetary burden of mental illness among young people in the U.S. was $247 billion. *Direct spending on treatment* for those under 18 was calculated in 1998 at $11.7 billion, or $16.7 billion in 2013 dollars.[1, 12] Looking at other monetary measures of burden, mental illness and substance abuse together account for the highest burden of any disease category for people younger than 25. In terms of healthy life-years lost to young people, 30 percent of those are attributable to mental health conditions and substance abuse.[c] Moreover, mental health challenges that emerge in youth often continue to have effects into adulthood, leading to continuing costs. An authoritative estimate puts the total lost earnings associated with adult mental illness at $193.2 billion.[14] Adding the direct costs of disability benefits (paid by the government to support those with mental illness) ($24.3 billion), and the cost of health care expenditures ($100.1 billion), total mental health spending in the United States is an estimated $317.6 billion, annually.[15]

INDIRECT COSTS

Indirect costs are certainly high as well, although it is always more difficult to make a firm estimate of these expenses. One component includes costs shouldered by service systems other than the mental health system, including the education, child welfare, medical, and juvenile justice systems.[f] There are also costs associated with co-occurring conditions: many diseases traditionally deemed "physical" (diabetes, hypertension, stroke, heart disease, cancer) are more likely to be accompanied by complications when those affected also have a mental health condition.[16] Where children are concerned, we can also add the costs of lost parental earnings associated with caregiving, and the stresses borne by parents and other family members, including siblings.

The burdens borne by the individuals directly affected by poor mental health, and their families and friends, are essentially incalculable.

Total mental health spending in the United States is an estimated $317.6 billion, annually.

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c The problems associated with substance abuse are not easily separated from the issue of mental illness. The two commonly co-occur, and share many risk-factors. Also, there is some evidence that drugs and alcohol may be used as coping strategies by those with under-treated mental illness.[13]

While life is precious we must quantify the value of a life cut short; therefore, we include the cost of suicide in our accounting. Suicide is a risk for a very small number of people with mental illness, but it is the third-leading cause of death among children and young people ages 10 to 24.[17] Nearly one in every six high school students nationwide in 2011 had seriously considered attempting suicide in the past year, while about one in 13 attempted it.[18]

THE HIGH COST OF STIGMA

Difficult to quantify, but essential to identify, are the costs and burdens that stem from society's unhelpful attitudes. People facing mental health challenges are subject to social exclusion and stigma comparable to that associated with skin color, ethnicity, or sexual orientation—a response that has been described as a "second illness."[19] Prejudice, which includes neglect as well as active harm, can cause stress that contributes to further ill health.[20] Stigma associated with mental illness can delay or prevent individuals from seeking help, or cause them to terminate treatment early.[20, 21] Mental health professionals themselves can be both victims and perpetrators of the negative stereotypes associated with mental illness.[22] Finally, because of stigma, society loses out on the valuable contributions that excluded members could be making.

Illness—regardless of the form it takes—deserves a compassionate response. Mental health conditions are no more a reflection of defects in character or personal motivation than are asthma or diabetes. Nor are mental health disorders, as a group, any more innate or predetermined, or a consequence of bad choices, than are other illnesses. In fact, as we will elaborate on further in this report, nearly all aspects of our health stem from how we and our environments interact.[23]

Unfortunately, misconceptions about mental illness abound, and are perpetuated by the sometimes sensational media treatment of the topic. Thus, when the media focus on a connection between mental illness and disturbing behavior (including serious violence), they reinforce the idea that these are closely tied. In fact, most people with mental health challenges are not violent, and disturbing or criminal behavior cannot always be readily linked to mental illness.[24] Unfortunately, the public is more likely to be swayed by emotionally-charged isolated sensational acts than it is to be persuaded by fact-based probabilities.[25] These skewed perceptions can lead the public to distance themselves from, rather than assist, those in need—particularly children and adolescents.[26]

People facing mental health challenges are subject to social exclusion and stigma comparable to that associated with skin color, ethnicity, or sexual orientation.

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RECOMMENDATION

1. Use media campaigns, both universal and those targeted for specific audiences, to reduce the stigma associated with mental illness and treatment.

Accessing and paying for services

For those who seek treatment despite the stigma, paying for and gaining access to mental health services in the U.S. is often a complicated, inconsistent, and frustrating experience for both consumers and providers. Less than a quarter of adolescents who need mental health treatment receive it,[27] an indication of the barriers faced. Although many factors are related to low rates of access, many experts believe that the complex system for financing mental health services plays a large part.

Services related to mental health may be "carved out" of insurance plans and made subject to separate criteria for authorization, selection of approved providers, and benefit caps, deductibles, and co-pays. This means that when problems with mental health surface, even those with insurance may be surprised by what is and is not covered. Additionally, payment through both public and private insurers is structured around reimbursement for services tied to a specific diagnosis of illness. Thus, when it comes to providing preventive care, early intervention, or multidisciplinary approaches, there are few structural incentives, and many disincentives, to addressing mental wellness.[28]

However, along with health coverage in general, our third-party payment system for mental health care is in flux, as of the writing of this report. Efforts are ongoing to implement the terms of the Affordable Care Act of 2010 (ACA), which include a number of provisions related to mental health services[11]:

- A requirement that mental health and substance abuse services be included as part of the "essential benefits" package offered by private insurers participating in the health care exchanges (they are already so included under Medicaid);

- Funding for training an additional 5,000 mental health care professionals;

- New funding to create additional community health centers, including those that are school-based;

- Regulations stipulating that pre-existing conditions (including mental health-related conditions) cannot be a basis for denying coverage for children;

- Expanded eligibility (through age 20) for Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) services under Medicaid;

- A requirement that dependents in private insurance plans, and foster youth under Medicaid, be eligible for coverage up to age 26; and,

- New coverage for preventive services, including screening for alcohol abuse and depression for adolescents and adults, and developmental and behavioral assessments for children. Insurers are prohibited from requiring co-pays for such services.

Under previous law, 23 states required at least some insurance plans to have the same coverage for mental health as for physical health, although in some states "non-biological" conditions or substance abuse were not included. Other states required coverage, but did not limit co-pays or prohibit lifetime caps on care.[29] At the federal level, the Mental Health Parity and Addiction Equity Act of 2008 required all insurance plans that covered mental health conditions to do so at parity with their coverage for medical/surgical health conditions. However, it did not apply to plans that did not provide any coverage for mental health care, or plans that were offered by companies

with fewer than 50 employees.[30] Starting in 2014, however, ACA will require all plans to cover mental health services at parity with other procedures.[31]

Other recent federal initiatives to improve access include the following:

- Mental Health First Aid (MHFA), a new $15 million grant program for school districts and state education departments to provide readiness training to professionals—including teachers, police, judges, and social workers—likely to be in contact with youth.

- $40 million for 20 "Project AWARE" (Advancing Wellness and Resilience in Education) grants, to support referral and treatment programs in schools.

- Community Transformation Grants, from the Centers for Disease Control and Prevention, supporting wellness promotion. Grants assist a variety of community interventions to improve health. For example, Austin, Texas, received a grant to expand "efforts in tobacco-free living, active living and healthy eating, quality clinical and other preventive services, social and emotional wellness, and healthy and safe physical environments."[32]

Although important progress has been made, additional efforts will be required if, as a nation, we are serious about promoting wellness. Mental health providers will need a payment structure that acknowledges the importance of services that enhance wellness, even when children do not have diagnosable conditions. And wellness-enhancing programs will require funding to undergo the rigorous—and often years-long—process to demonstrate results. One promising platform for reform is "Accountable Care Organizations (ACOs)," a model that Medicare and some state Medicaid programs are testing. ACOs are constellations of health providers that are assigned a caseload of patients. ACOs are penalized for poor outcomes within that group, and rewarded for good ones. In theory, this encourages providers to invest in preventive care and the proper management of chronic conditions, such as depression. There is hope that such models can be used to move the system away from fee-for-service billing entirely, in preference to "outcome-based" billing, further encouraging prevention and promotion. ACOs are also intended to integrate care across multiple providers. Though few currently encompass mental health care, they are a promising platform for such integration.[33]

RECOMMENDATIONS

1. Remove structural and financial barriers that discourage clinicians from providing preventive care.

2. Promote the integration of mental health practitioners with other care providers, through Accountable Care Organizations and other structural innovations.

Starting in 2014, ACA will require all plans to cover mental health services at parity with other procedures.

Mental wellness and illness over the life course

Mental health conditions in childhood were once considered rare. But recent research clearly shows that this is not true. In addition, we know much more in recent decades about how wellness develops over the course of a lifetime.[34-36]

FREQUENCY OF MENTAL HEALTH DIAGNOSES

Nationally representative data suggest that about half of Americans will experience a mental health concern at some point in their lives, and most will originate in childhood (see Table 1; note that different data sources were used for the two age groups, and prevalence figures may reflect historical changes in recognition/identification of particular diagnoses). In a study of adults who had been diagnosed with a mental illness at some point during their lives, half said that they had experienced symptoms by their mid-teens. Anxiety and impulse-control problems were particularly likely to appear early in life, with more than half appearing before age 12.[37]

Analyses of a similar dataset of youth found that a majority who had been diagnosed with depression or oppositional defiant disorder recalled their first symptoms occurring before they entered high school, while the majority diagnosed with a phobia or attention-deficit/ hyperactivity disorder (ADHD) had experienced symptoms by kindergarten or first grade.[38]

About half of Americans will experience a mental health concern at some point in their lives, and most will originate in childhood.

TABLE 1: Lifetime Prevalence of Specific Mental Health Diagnoses for Adolescents and Adults		
Mental Health Diagnosis	**Lifetime Prevalence Among 18-year-olds (%)[38]**	**Lifetime Prevalence Among 75-year-olds* (%)[37]**
Depression	18.6	16.6
Specific phobia	19.9	13.2
Social phobia	8.5	12.6
Panic disorder	2.4	6.0
Post-Traumatic Stress Disorder (PTSD)	4.7	8.7
Attention Deficit / Hyperactivity Disorder ADHD	8.1	8.1
Conduct Disorder	6.8	9.5
Oppositional Defiant Disorder	12.6	8.5
Any disorder	51.3	50.8

Estimated. Some differences in lifetime prevalence between 18- and 75-year-olds may be due to historical changes in recognition/identification of particular diagnoses.

These data, based on recall later in life, complement results from other studies indicating that childhood conditions often persist into adolescence or adulthood.[39, 40] While adults' recollection of symptoms can sometimes be unreliable, research suggests that any inaccuracies are more likely to *under*-estimate than to over-estimate the prevalence of childhood symptoms.[41] It is clear that a large segment of our population will be affected by mental health challenges at some point in their lives—often much earlier in life than was recognized in the past.

TOXIC STRESS

One rapidly developing area of research identifies exposure to overwhelming stress early in life as a primary risk factor for mental illness.[42] Such stress is called "toxic," because of the damage it causes to multiple body systems.

Studies find that toxic stress, which may result from exposure to violence, family instability, or severe economic deprivation, alters brain structure and function, and negatively impacts children's cognitive and social skills.[43, 44] Not all stress is toxic, of course. Dealing with everyday stressful situations, such as the first day at a new school, is an important (and generally positive) aspect of development. But when stress is severe or ongoing, and is not buffered by caring adults, it can have damaging effects.[45] Both the timing and amount of toxic stress also make a difference in whether or not health risks persist into adulthood.[46]

Sensitive periods

The brain develops complexity over time, and much of that development depends on what happens during childhood. Initially, an infant's brain has many more neural connections (synapses) than it will ultimately need. Those that go unused are eventually "pruned" away, enhancing the efficiency of the most-used synapses.[47] This process does not happen uniformly, however. Some abilities and dispositions are more easily acquired during particular "sensitive periods" of development, when the areas of the brain responsible for them are more easily influenced.

These sensitive periods for ideal development vary in timing and duration. Some occur relatively early in life—even before birth—and have short duration (for example, those associated with development of vision and hearing), while others occur later in childhood and tend to be longer in duration (language acquisition, or musical skill). While there are different sensitive periods for other developmental milestones, much of the foundation of emotion regulation is built in the earliest years. Studies of orphaned children rescued from conditions of severe institutional deprivation find that the nature and severity of the damage to their abilities is affected by the timing of their removal from the institution.[48, 49]

Interventions that improve social-emotional supports for older children, including parenting programs, have demonstrated success in reducing the symptoms of mental illness.[50, 51] However, it is still unclear whether such interventions can modify the brain itself and reverse early harm[43, 52]—which underscores the urgency of our paying attention to these earliest years.

Cumulative risk

In addition to *when* stress occurs, research suggests that the *accumulation* of multiple stressful events and environments negatively impacts mental wellness. A number of studies find that cumulative exposure to adversity is a key factor affecting later wellness.[53, 54] The occurrence of multiple stressful events is not rare. A recent study of a nationally representative group of adults found that "adverse events" (that is, those frequently associated with toxic stress) are common, and rarely occur in isolation. More than half the participants recalled at least one adverse childhood event (for example, physical or sexual abuse, neglect, loss of a parent). Moreover, among individuals who recalled any of these, most recalled three or more.[55]

Often, stressful events are compounded by the co-occurrence of environmental threats to wellness. For example, family poverty is often associated with exposure to chemical

Adverse events are common, and rarely occur in isolation.

toxins, including environmental lead, and fetal exposure to alcohol.[56] Poverty is also associated with excessive noise[57],deficient and overcrowded housing[58],violence[59],lack of neighborhood social cohesion,[60] and the unpredictability that comes with extreme hardship.[61] All of these conditions have also been linked to children's and adults' poor mental health, and those who are exposed to one are more likely to be exposed to others, as well as to the adverse events discussed above. The consensus among researchers is that the cumulative experience of risk is much more likely to harm development than is a single exposure.[62]

Genes and early experience

Genes also play a role in mental wellness, though our understanding of their influence has changed considerably in the past few decades. It was once assumed that an individual's genes determined how he or she functioned, regardless of experiences. However, current science suggests a much more nuanced story. The science of epigenetics shows that certain parts of an individual's genetic code can be turned on or off, or the timing of their activation or de-activation altered, by particular types of experiences.[44, 63]

A decade ago, animal studies found that experience could influence genes.[64] Since then, similar patterns in humans have been observed, specifically in studies on the effects that child abuse has on the brain[65] While much more research is needed, some of these gene changes prompted by abuse may even be passed on to the children's offspring.[63]

Genes also play a role in how different individuals respond to the same experience. For example, among abused children, those who carried a variant of a particular gene were less likely than those without it to act in anti-social ways.[66, 67] Similarly, a parenting intervention was more successful in reducing aggression and disruptive behavior for children with a certain receptor gene than for children without it.[68] As these studies suggest, genes can contribute both to vulnerability (an increased likelihood of bad outcomes), and to resilience (an increased likelihood of good outcomes, despite adverse exposures). At the same time, experience can either amplify or diminish the behavioral expression of genes, making for a complex relationship between the two.

DISPARITIES IN RISK

Exposure to toxic stress and the associated burdens of mental illness more often fall on particular groups of young people. These are usually populations who, for reasons of prejudice, loss of family support, or other "system failures," already experience some form of disenfranchisement: racial/ethnic minorities; lesbian, gay, bisexual, and transgender youth; children in foster care; homeless youth; incarcerated youth; and, particularly, children and youth living in poverty.[69]

The deprivation associated with poverty—like other sources of toxic stress—"gets under the skin."[70, 71] Growing up in poverty shapes brain structure and functioning in ways that hinder development in childhood and threaten later wellness.[72, 73] For example, a recent study found that the longer children lived in poverty prior to age nine, the more stress they were likely to experience, and the more likely were to have behavior problems or symptoms of depression as adolescents.[74] Using brain imagery, other researchers have found that the amount of time spent in childhood poverty was associated with diminished functioning, at young adulthood, in a brain region that

regulates emotion.[75] When it comes to physical health, an "income-gradient" is well recognized;[76] mental health, it seems, follows a similar pattern.

Racial and ethnic minority groups in the U.S. are disproportionately poor, and so they are more likely to experience a host of factors that put them at risk for compromised mental wellness. Additionally, minority children and adults are much less likely to have access to mental health services.[77, 78] Nevertheless, some studies find that after accounting for income differences, African Americans and Latinos report better mental wellness than whites.[79, 80]

More than half of youth who abuse substances, such as alcohol or illicit drugs, also have a mental health diagnosis.[81] There is evidence that childhood mental illness increases the risk for later substance abuse. However, there may also be common risk factors at work, or substance abuse may diminish wellness in ways that lead to disorders.[82] Regardless of the answer to the "which comes first" question, the frequent co-occurrence of substance abuse and other mental health conditions deserves attention. The majority of both types of problems typically begin in childhood or adolescence; therefore, early prevention and intervention efforts may help lessen the societal burden of both substance abuse and other mental health challenges.[83]

RESILIENCE

While, in general, toxic stress can lead to poor mental health, not every child or adolescent exposed to it will suffer those consequences. And, while large proportions of child and adolescent mental health conditions persist into adulthood, many do not.[84] Research over the past four decades has focused attention on individuals who seem to do well even in the face of adversity and trauma, a response referred to as "resilience."[85] An example might be a child, growing up in a poor, urban neighborhood, who, unlike most of his peers, graduates from college and becomes a renowned surgeon. An adolescent might maintain good grades, excel in athletics, and be well-adjusted, showing resilience despite her parents' contentious divorce. A boy, with a history of good grades, who begins failing in school after his father's death, but is able to "bounce back" over time and regain his academic focus, also illustrates resilience.

We can understand resilience best as a response to a specific situation, not as a constant "trait." Responding resiliently in one instance does not guarantee that one will do so in another. However, studies have identified several "protective factors" that make it more likely someone will be able to respond resiliently.[86, 87] (See Text Box, p. 13)

Protective factors cannot guarantee resilience, just as toxic stress does not guarantee mental illness.[88] However, when we promote caring relationships, and help children learn wellness-promoting skills such as social competence and problem-solving, we increase the odds that children—even when they face adversity—will thrive.[35, 87]

More than half of youth who abuse substances also have a mental health diagnosis.

PROTECTIVE FACTORS

Individual-level: Easy-going temperament, social competence, confidence, problem-solving skills

Family-level: Warm and engaged parenting

Community-level: Access to caring adults outside of the family

RECOMMENDATIONS

1. Align funding priorities in mental health services and research with what is known regarding both the age of onset of mental health disorders, and increased risks among certain populations.

2. Include mental health consultation (see p. 27) in all Child Protective Services' investigations to identify youth in need of care.

A different way to think about wellness

The critical needs of U.S. children and youth with mental health challenges call for fresh thinking and a new set of responses. To move the dial with respect to the prevalence of mental illness, and begin to reclaim even a portion of the staggering costs associated with current treatment approaches—let alone the costs of untreated disability—we will need a distinctly different model. This new perspective has several key features:

- Mental and physical wellness are inseparable,

- Wellness is more than the absence of illness, and

- Wellness is a resource.

MENTAL AND PHYSICAL HEALTH ARE INSEPARABLE

In the view of many scholars and practitioners, physical and mental health are interwoven, with origins and consequences that are not easily disentangled.[89] This is especially true when it comes to children and youth.[90] For instance, adequate physical exercise and good nutrition contribute to mental wellness—one example of how emotions are regulated through physiological processes. But emotions also *trigger* physical responses.

All emotional and mental processes occur in the brain and nervous system, and are further embodied in hormonal, immune, and motor responses. For example, when stress makes a child anxious, hormones are released that help prepare her for a "fight, flee, or freeze" response. If this happens frequently, it creates physiological "wear and tear."[42] By the same token, individuals who report more positive feelings, such as happiness, tend to recover more quickly from illness, and are generally at lower risk for heart disease, stroke, and infection.[91] Because separating physical and mental health—a distinction that science now tells us is misleading—limits our ability to gain a comprehensive understanding of wellness, we propose using "wellness" to refer to both physical and mental health.

WELLNESS IS MORE THAN THE ABSENCE OF ILLNESS

Being well means more than not being sick; it encompasses all aspects (biological, physiological, intellectual, social, emotional, and spiritual) of functioning "well" in the world. In fact, most scholars believe that wellness is not adequately represented by a single continuum, with disease at one end and its absence at the other.[92] Rather, wellness is better understood as a state that is influenced by two distinct dimensions: "illness" to "no illness," and "struggling" to "flourishing" (see Figure 1).

The flourishing dimension of wellness includes how we appraise our own well-being (feeling "good"), as well as characteristics such as optimism, self-efficacy, self-respect, and a sense of purpose. While flourishing can mean different things to different people, there is broad agreement that this includes both *functioning* well and *feeling* well.[93] For a child, this might include expanding and deepening her engagement with the world around her; frequently experiencing joy, delight, and wonder; and having a sense of security and safety in her family and community.[36] Although the characteristics of flourishing typically develop over time, evidence shows that they can be cultivated, even in early childhood.[94]

All emotional and mental processes occur in the brain and nervous system, and are further embodied in hormonal, immune, and motor responses.

Figure 1. Illness/Flourishing Dimensions

When we understand that wellness is influenced by a child's experiences along both dimensions—illness and flourishing—we can see that illness and flourishing can co-exist within the same individual.[95, 96] A child might have a mental health disorder and yet be confident in her abilities to solve problems, and feel supported by friends and family. Another child might not have a diagnosed disorder, and yet feel unmotivated and isolated from others. Despite the lack of a diagnosis, few of us would call the second child, "mentally healthy." Therefore, while prevention and treatment of mental illness are important, we need to accompany those efforts with strategies that aim specifically to promote flourishing.

WELLNESS AS A RESOURCE

In order to help shift our thinking away from a simplistic health-or-illness model, some scholars propose thinking of wellness as *a resource.* As we do in the case of other kinds of resources (energy, technology, money, etc.), people draw upon wellness in order to adapt positively—that is, become better able to function well in a particular context.[97,98] Thinking of wellness as a resource, or capacity to thrive, rather than merely as the absence of disease, also helps explain how the same individual can be simultaneously both "not ill" and "struggling."

The model, in brief

To promote wellness, we need to understand how we get it, and how we spend it. Wellness can be thought of as a bank account: wellness increases as "deposits" are made into the account, and it decreases with each "withdrawal" made in order to achieve goals and adapt to challenges (see Figure 2). Innumerable transactions–both large and small—occur every day and across multiple environments, resulting in an ever-changing "wellness account balance." As long as sufficient deposits are being made, there can be some degree of well-being, even if one is facing the challenges associated with illness.
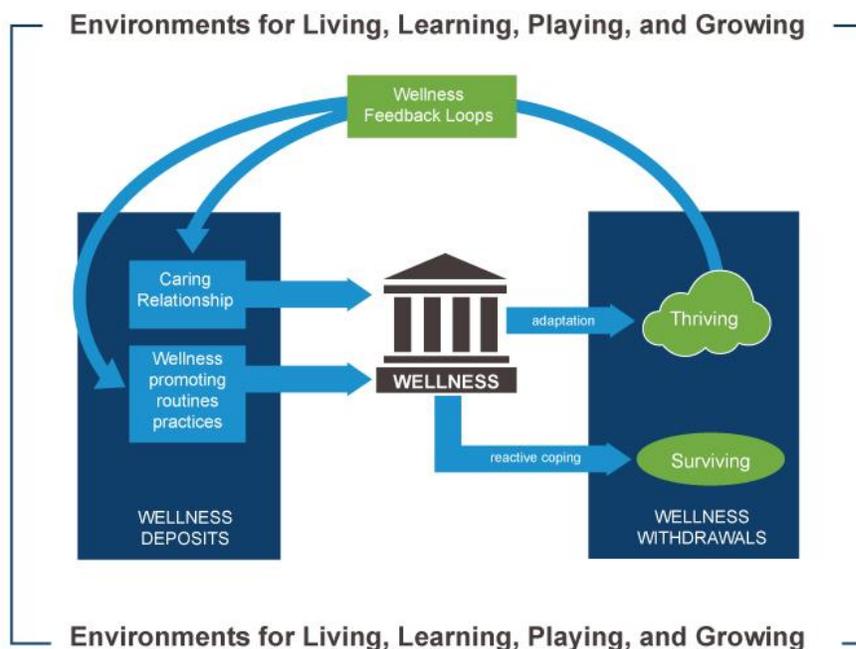
Deposits to the wellness account come in through multiple channels.[d] We will focus on two that are particularly important for children, and where we know high-quality interventions can make a difference: 1) caring relationships, and 2) wellness-promoting routines and practices.[101] Like the antibodies we produce in response to many infectious diseases, these deposits provide a "boost" to the wellness system. To be clear, what we are referring to are *sustained patterns* of relationships and routines, not occasional "inoculations."

Withdrawals from our wellness account result in either 1) "surviving" (that is, minimizing negative outcomes), or 2) "thriving" (that is, maximizing positive outcomes). Withdrawals for "surviving" may be adaptive in the short run, but over the long run they drain the wellness reserve. In contrast, withdrawals in the service of thriving will "pay interest" over the long run.

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d A comprehensive discussion of these pathways is beyond the scope of this document; see Ferguson[99] and Viner[100] for recent overviews of social and physical environmental factors influencing child well-being.

Figure 2.

Environments for Living, Learning, Playing, and Growing

Wellness Feedback Loops

Caring Relationship

Wellness promoting routines practices

WELLNESS

adaptation — Thriving

reactive coping — Surviving

WELLNESS DEPOSITS

WELLNESS WITHDRAWALS

Environments for Living, Learning, Playing, and Growing

The model in more detail

Contributing to the wellness account: Caring relationships

Nurturing relationships are essential to creating and maintaining wellness. Responsive early caregiving from parents and others helps meet children's physical, social, and emotional needs. Such caregiving is expressed through innumerable everyday back-and-forth interactions. The security that results when proper caregiving meets these needs builds up children's wellness reserves.[35, 87] Moreover, the "serve-and-return" (reciprocal) aspect of sensitive relationships actually builds early brain architecture in a positive way (we can think of it as a positive counterpart to the negative effects of toxic stress). It also provides a template for subsequent healthy relationships, including those with peers.[102] For example, parents who speak about feelings more with their children help them become more aware of emotions and better able to regulate their own emotions, and this reduces behavior problems.[103] Supportive relationships can also provide a buffer, a protective "shield," from stress that might otherwise be toxic. This, too, conserves wellness.[62]

As children enter school-age, parents and other primary caregivers continue to be important providers of physical and emotional security. For instance, positive family relationships in adolescence predict a smoother transition to adulthood.[104] However, new relationships with peers, teachers, and school staff also become important when children enter school. When adolescents feel teachers care about them, they are more likely to do well academically, and less likely to get involved in a number of risky behaviors, including substance use, early sexual activity, and suicide attempts.[105] The effects of peer friendships on wellness are more complex; they can be negative or positive, depending on the nature of the relationships and the behavior of the peers.[106]

Supportive relationships can also provide a buffer from stress that might otherwise be toxic.

Contributing to the wellness account: Positive routines and practices

Consistent, predictable, and sustained habits for both families and individuals are a second major contributor to wellness. Often, these reflect not only healthy personal care, but family routines and valued cultural traditions. When these practices are established early in life, usually modeled by the child's primary caregivers, they help children learn how to care for themselves and to continue the habits that will sustain wellness as they grow older.[107] For example, having consistent schedules around bedtimes and family mealtimes helps young children learn to manage their energy levels and their emotions.[108, 109] Children who regularly get physical activity tend to have a more positive body-image, better health and quality of life, and more positive family and peer relationships.[110]

In the earliest years, primary caregivers often need to create and enforce healthy routines for children. However, people are more likely to persist in activities when they have a sense of control and feel able to accomplish them. For that reason, parents can encourage children, as they get older, to set their own goals and find the wellness-promoting activities that they enjoy.[107] Mastering skills, both simple and complex, is linked with increased wellness.[111] As children learn the behaviors that promote wellness, they feel competent, and that additionally bolsters their wellness account.

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Drawing from the wellness account: Surviving

When children's wellness is insufficient for a given challenge, they cannot readily recover from adversity or adapt to new situations. They may feel they have little control over what is happening. In this case, their responses are usually aimed at minimizing negative outcomes, rather than at promoting positive ones.[112] For instance, a child with an abusive parent may hide, or make up alternative explanations for an injury. We refer to the outcomes of these responses as "surviving." Such responses may temporarily produce results preferable to some alternatives, but in the long run they result in

diminished well-being. Until there is improvement to the situation, or in the child's coping skills, it is unlikely that he or she will be able to replenish their now-depleted reserve of wellness.[42]

Drawing from the wellness account: Thriving

When children have adequate wellness reserves, they are able to respond to a challenge or an opportunity in ways that are more likely to result in positive outcomes—what we call "thriving." Such children will not be invulnerable to toxic stress, but they will be more likely to adapt in ways that will contribute to their thriving, and even flourishing, in the long run. Thus, a teenager with a supportive family and a relatively "full" wellness account may find a move to a new school stressful, but they will be likely to quickly find new friends. They may be socially anxious initially, but, because they have sufficient wellness, they are not overwhelmed by their fears. They can "spend" their wellness in starting a conversation, and gaining a new friend will enhance their wellness in the long run.

Research on the implications of this process is still relatively new; however, there are some promising findings. Several studies of adults with serious health conditions, including cancer,[113] heart disease,[114] and type-2 diabetes,[115] found that those with a higher-rated quality-of-life (akin to what we call flourishing) prior to treatment had better outcomes. Studies of children, though fewer, have yielded similar findings. In one study, adolescents with type-1 diabetes whose initial quality-of-life was poor were less effective at managing their disease, resulting in worse outcomes twelve months later.[116]

Wellness feedback loops

Thriving reinvests in wellness through the two primary channels for wellness deposits–caring relationships, and positive routines and practices (see Figure 2). Babies who are easier to soothe, or children who are eager to learn, are more likely to prompt positive responses from the adults around them.[117] Thus, when children are thriving, they elicit more responsive caregiving–a "positive feedback loop" that promotes wellness. Thriving also increases the likelihood of following wellness-promoting routines and practices. Thriving generally makes it easier to learn, adopt, or maintain the routines and practices that replenish wellness. In a recent study of adolescents with diabetes, when they had more confidence in making healthy food choices, they were more likely to choose healthy foods. As they made more healthy food choices, they felt more capable of continuing to do so.[118] In sum, thriving "reinvests" in wellness through multiple pathways, while "surviving" depletes it.

Opportunities to improve well-being within a re-framed model of mental wellness

ADDRESSING WELLNESS AT MULTIPLE LEVELS

Growing, learning, and becoming more engaged with what life has to offer—what we refer to here as adaptation or development—never occurs in a vacuum. When the places where children live, learn, play, and grow (their environments) are nurturing—that is, provide the resources needed for flourishing—then fewer of their own wellness resources are required for meeting life's challenges. When there are few such external resources, children have to draw on their own wellness reserves to make up the difference. This is a task that may be especially difficult for children who have had early exposure to adversity.

Resource-rich environments are more likely to occur when the adults who care for and shape the growing child's experience—parents, teachers, and other important adults—are also flourishing. Such caregivers (rather than simply surviving themselves) can spend more time devoted to their child's well-being, and are more likely to be able to model healthy behaviors and coping skills.[119]

To cultivate caring relationships and nurture healthy habits among children requires strategies at multiple levels of the child's social "ecosystem."[2, 120] Examples at each level include:

- Intra-personal: teaching children "self-caring" habits (for example, using exercise to reduce stress, getting adequate rest, and holding reasonable expectations for oneself);

- Inter-personal: supporting parents to engage in positive parenting; teaching young people how to resolve conflicts with adults or peers peacefully; teaching teachers and other adults how to have positive interactions with adolescents;

- Institutions: creating a positive, wellness-oriented climate within schools, businesses, and other places where young people spend time;

- Community: fostering widely-shared responsibility for caring relationships; and wellness-promoting practices, including stewardship of the natural and physical environment; and,

- Infrastructure and systems: providing supervised recreational activities for young people throughout communities; restricting access to firearms, drugs, and alcohol; supporting planning for community response to trauma; identifying community strengths and building on them.

At each of these levels, decisions are made on how to prioritize resources. Advocates and policymakers often debate the relative importance of so-called "universal" approaches to prevention and treatment, versus "targeted" strategies. *Universal* strategies are those that adopt a population-wide focus, while *targeted* approaches concentrate resources on those individuals with acute needs or high levels of risk. This distinction applies at every level of the ecology described above. Will the intervention serve every student in a school, or will it be just for those who are showing early signs of depression? With a community-level intervention, will it be implemented across the state, or just in those communities with high levels of risk?

In fact, there are sound arguments in favor of both approaches. In targeted strategies, resources are concentrated on those who stand to benefit most; this can be seen as a prudent use of limited funds. Moreover, acute problems can be associated with such negative consequences that targeted intervention is imperative.

However, targeted approaches require ongoing screening for risk and/or illness, which can be costly. In addition, they do not address the root causes that lead to illness. Targeted approaches reach a relatively small number of people, and often ask that they adopt behavior changes that go against prevailing social norms (think of the person with alcoholism who is told to abstain, while his social group continues to treat drinking as a favored activity). Moreover, the very fact that relatively few people are singled out can discourage participation, because of stigma.

Universal approaches deal with underlying causes, and therefore stand a chance to truly reduce what health analysts call "the burden of disease." However, they generally do so by bringing subtle improvements to large numbers of people, rather than by effecting life-changing recoveries. Thus, for any one individual the benefits may be slight; it is because their relatively incremental benefits are multiplied across a much greater number that universal approaches—paradoxically as it may seem—have the greater potential to improve overall wellness.[121] Policies that can shift in a positive direction, even slightly, the wellness of the majority of children, result in many fewer children requiring intensive—often costly—treatments than those policies which address only the relatively small sub-group of children with full-blown illness (see Figure 3).[122]

Universal approaches deal with underlying causes, and therefore stand a chance to truly reduce what health analysts call "the burden of disease."

Figure 3. A small shift in the population mean for mental wellness positively affects many
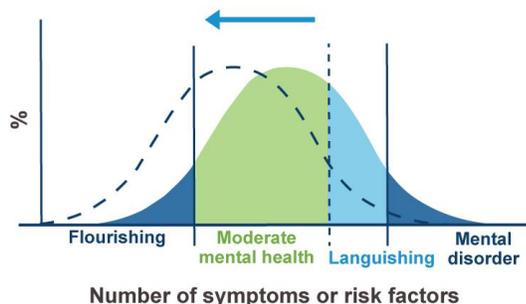
Source: Huppert (2009)[122]

RECOMMENDATIONS

1. Fund research for programs that promote wellness, instead of focusing exclusively on treating illness.

2. Support interventions that impact children at multiple environmental levels.

Opportunities within families

In many ways, relationships with parents and within families are the bedrock of all development, and the most important environment for promoting wellness. Families provide young people with their first opportunities to experience caring relationships and learn wellness-promoting routines and practices. Even when children begin to spend significant parts of their time outside the home, supportive families help them thrive, and families serve protective roles in the face of stress or hardship. As mentioned earlier, the behavior of caregivers is especially influential during "sensitive periods" of development, when the quality of interactions has been shown to affect the structure of the child's developing brain.[123]

Nurturing Parenting

A wealth of evidence suggests that parenting style influences children's wellness. Parenting that is nurturing, but also sets appropriate limits on behavior (a style often called "warm and firm") is generally considered optimal for child and youth wellness.[124] Clear and respectful communication, a positive approach to discipline, and consistency in both expectations and consequences, are often cited as critical components of positive parenting. Nurturing parenting also promotes emotional wellness by guiding children, both overtly through emotional coaching (helping children label and react constructively to their emotions), and more subtly in their consistent responsiveness to children's needs.

We can illustrate the importance of nurturing through a concrete example. When a toy rolls out of her sight, an infant is likely to be frustrated and respond by crying. With this first frustration, a brain connection is formed, reflected in her response. That initial neural pathway can be likened to a barely-cleared path through the woods. However, with the experience of many similar interactions, the path will become more like a well-traveled highway. Brains value efficiency and will tend to prefer the highways.

The way her parent responds to the infant's frustration will influence which of several potential routes is strengthened through subsequent use. If the parent allows the crying to continue, or becomes upset herself and starts yelling, this will create a pathway habitually associated with distress. If this pattern occurs repeatedly, it is increasingly unlikely that, when the infant encounters frustration in the future, the pathway to "calm" will be taken. On the other hand, if she is comforted by her parent, it is that pathway that will be strengthened, and, over time, the "distress" pathway will become the one that is less used.

Because preferred pathways are what build the physical structure of the brain, these lessons are difficult to "unlearn," and can contribute to problems well into adulthood. Early experiences are particularly critical for young people's wellness, and parenting style is particularly influential in these early experiences.

School-age children and adolescents will continue to benefit from nurturing parenting that remains responsive to their needs. However, unlike younger children, they also need parenting that allows for some independence and risk taking. Sometimes referred to as "authoritative," this parenting style sets and enforces clear expectations, while maintaining a balance of autonomy and open communication. This balance can be difficult to achieve in practice, but has been shown to help youth achieve better grades in school, become more competent and self-reliant, report less anxiety and depression, and resist substance abuse and delinquent behavior.[125]

When caregivers help children establish consistent routines early (such as healthy nutrition, physical activity, adequate sleep, and minimizing screen time), they give young people a strong foundation from which to face challenges they may encounter. When established early, and consistently reinforced by caregivers, children adopt these practices as their own. Parents' use of consistent routines is important for helping infants and children develop optimal biological rhythms, lower stress, and begin to regulate their emotions.[126] Moreover, some of the same practices that help promote wellness in children have been found to ease the stress of parents, as well. For example, having a bedtime routine for a child has been shown to decrease parental depression.[127]

Families are a natural setting to promote a number of social and emotional skills. Young children in families where emotions can be expressed and discussed openly have greater awareness of their own emotions, and a better handle on how to manage their own, and others', emotional expressions.[128] By being tuned in to their child's feelings, having him or her identify the emotion, showing empathy, and helping them to problem-solve at times of sadness or frustration, caregivers help children learn. In contrast, children whose parents are dismissive or disapproving of displays of feeling are less likely to have this understanding or control with respect to their emotions. Negative and punitive responses to emotions may teach children either to avoid emotional expression or to resort to uncontrolled outbursts (i.e., tantrums and aggression).[129]

Warm and firm parenting, especially during the sensitive periods of early childhood requires stable living conditions. For example, being able to feed and put an infant to sleep at the same time each day requires the predictable availability of food and a quiet place to sleep. Poverty, unstable housing, or inconsistency of caregivers, all pose obstacles to establishing these routines, and to the secure bonds infants need to form with their caregivers.

When caregivers help children establish consistent routines early, they give young people a strong foundation from which to face challenges.

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Taking care of parents and other caregivers

To properly practice warm and firm parenting, parents must be well enough to regulate their own emotions, communicate effectively, engage in healthy routines with their children, and be consistent (a tall order!).

The positive effects of parents' mental wellness on children's outcomes have not been as frequently studied as have the effects of parental *illness* on children's development. Negative outcomes for children, including cognitive and attention problems,[130] greater likelihood of criminal conviction in adulthood,[131] and premature death,[132] have been associated with parental mental illness. Such children are also more likely to develop a mental health condition themselves. Significantly, they are not more likely to have the *same* illness,[133] so it is unlikely that genetics are the primary factor at work in this case.

The negative effects of maternal depression have been particularly well researched. A mother's stress, as reflected in hormones transmitted to her child during pregnancy, may negatively affect her child's health and well-being into adulthood.[134] However, the more immediate effects of maternal depression are on her ability to provide sensitive, responsive caregiving. When a parent is withdrawn or irritable, a child has trouble developing the social and emotional responses that are essential to positive interactions.[134] Promoting the mental wellness of both children and parents together is clearly a strategy that pays multiple dividends.

Since mental health challenges often emerge early in life, prevention and wellness promotion are most effective when they focus on children and youth. However, ensuring that adults are well enables them to develop caring, consistent relationships with their children, providing children with the kinds of environments that help create a cycle of wellness. This has led some to call for a "two-generation" model of support for wellness, which aids both children and their parents.[35, 135] When caregivers are well and have a consistent presence in children's lives, they are one of the most reliable "depositors" to their child's wellness accounts, throughout the lifespan.

Supporting parental investment in child-rearing can be seen as an investment in the continued strength of our society. Parents—regardless of their income or other characteristics—need time to establish these foundations of good parenting. Societies that recognize this is "job #1" for new parents reflect that support in policies that allow adequate parental leave that does not jeopardize employment or family economic sufficiency. In fact, most developed nations do so, and the U.S. is a clear outlier in this regard. There is no evidence for short-cuts to children's optimal development, nor for the idea that compressing parent-child "quality time" into pre-scheduled or "on-the-fly" episodes creates the kind of intimate, relaxed, and spontaneous interactions that are essential to a nurturing environment, and to a child's mental wellness. These benefits can be obtained only when parents have the security of knowing these are "protected" times—protected from the need to make a choice between the roles of parent and breadwinner.

In cases where a child is already struggling with mental health challenges, parents and other caregivers may need additional family support services, such as respite care, to maintain their own wellness, as well as manage other aspects of their child's care.[136]

Promoting the mental wellness of both children and parents together is a strategy that pays multiple dividends.

Parenting programs that promote children's mental wellness

Most parenting programs support behaviors that promote positive parent-child relationships. Starting with the newest parents, programs teach expectations for children that are age-appropriate, and parental behaviors that contribute to environments that are safe and supportive. Evidence from several rigorous evaluations shows that programs that emphasize skills-based training, either in small groups or home visits from trained professionals, can have positive impacts, particularly for parents who used inconsistent or harsh discipline before the intervention.[137, 138]

High-quality programs[e] also draw from the research on parenting styles in order to inform parents, support their positive practices at home, and reduce their stress—leading to positive outcomes for both children and parents. These mostly-universal interventions all promote a nurturing approach that also sets limits; positive discipline that avoids hitting or spanking; and establishing a secure attachment through responsiveness to children's cues. They also promote good sleeping and nutrition habits. They teach practices that help develop emotional and social competence (both in children and parents)—such as identifying emotions, gaining self-control through problem-solving, conflict management, and, for parents, stress- and anger-reduction techniques. Most have shown positive results in improving parental skills and self-efficacy, and achieving reductions in problem behaviors. For example, the *Incredible Years* program improved effective limit-setting by replacing spanking and hitting, and it also reduced parental depression.[138]

Universal parenting programs

Although many programs are designed for high-risk parents, a few programs emphasize the importance of increasing positive parenting behaviors among *all* parents. For example, the *Family Check-Up* program takes advantage of the central role that schools play in the lives of most young people and their families. Services offered universally include a family resource center within the school, and screening students for risks associated with emotional and behavioral problems. Parents of students identified through the screening are invited to participate in a brief three-session program to develop a response plan. A recent evaluation of the program found school-wide improvement in self-regulation and less substance abuse among middle-school students.[139]

The *Positive Parenting Program* (Triple-P), designed for parents of children from birth through adolescence, is an example of a "tiered" approach. Community-wide messaging about positive parenting is delivered via a variety of broadcast, print, and electronic media, in order to change community norms around parenting behaviors, and to reduce the stigma related to seeking help. For parents who have one or more risk factors, *Triple-P* provides progressively more-targeted services, including large-group workshops, small-group sessions lasting 10-14 weeks, and individual consultation. In addition, training is provided for a variety of community-based care providers who frequently come into contact with children and their families (pediatricians, child care providers, social workers in government and non-profit agencies, school counselors). Rigorous evaluations of the program suggest it can have a positive impact on

Starting with the newest parents, programs teach expectations for children that are age-appropriate, and parental behaviors that contribute to environments that are safe and supportive.

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e In this section and those following, the specific programs mentioned are illustrative, and their mention does not imply endorsement, or that there are not additional evidence-based programs with merit. However, examples of programs met the following criteria: a promising or strong evidence base as indicated by rigorous evaluation and/or inclusion in an evidence-based program registry.

community-wide parenting outcomes (lower incidence of child maltreatment and fewer out-of-home placements).[140]

Several other evidence-based parenting and early childhood programs have demonstrated promising child and family outcomes. These programs employ a variety of strategies, from classroom- or home-based direct instruction with children, to group and one-on-one parenting sessions in a variety of settings. Instruction, information, coaching, and support are provided by certified trainers, therapists, social workers, nurses, and physicians in schools, at home, or in medical settings such as a pediatrician's office. Many programs operating in group settings focus on establishing a supportive and collaborative network of parents who can reflect and learn together. Programs also focus on providing resources to all parents about establishing routines and developing relationships, such as those offered by The Center for Social and Emotional Foundations and its "Pyramid Model for Promoting Social and Emotional Competence in Young Children."[f]

Targeted parenting programs

Other programs and approaches specifically target especially vulnerable populations, such as low-income families, or children who have experienced trauma. Such programs include *ParentCorps,*[141] *Parent-Child Interaction Therapy,*[142] *Child-Parent Psychotherapy,*[143] and *Nurse-Family Partnership.*[144]

Programs such as *Incredible Years*[138] focus on preparing young children for school by teaching social-emotional, literacy, and language development behaviors to parents. *Circle of Security*[145] focuses on establishing secure attachment among parents and their babies and young children, while *Healthy Steps for Children*[146] utilizes physicians and child development specialists as partners in monitoring early development through regular family check-ups. Some parenting programs, including *Nurse-Family Partnership*, target women while they are still pregnant, to ensure a healthy start toward wellness at birth.

RECOMMENDATIONS

1. Increase screening for parental depression in locations such as pediatric and WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children) offices.

2. Promote "warm and firm" parenting through comprehensive parenting programs or other outreach.

3. Expand guaranteed, paid job-leave to all new parents.

4. Develop community capacity for respite care for parents of a child with mental illness, and support the inclusion of respite care as a covered service under insurance plans.

Programs employ a variety of strategies, from classroom- or home-based direct instruction with children, to group and one-on-one parenting sessions.

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f (*http://www.challengingbehavior.org/do/pyramid_model.htm*)

Opportunities for children and youth

Within the framework we have laid out, children and youth have many opportunities to take an active role in improving their own wellness. All children can benefit from the support of adults and peers in adopting habits and learning skills that promote wellness. However, an active role for the child is important—especially in the case of older children and youth. It is challenging for anyone to grow up well, and life's experiences and relationships are rarely without problems. However, our wellness model implies that, given the right tools, children and young people can cope, or even thrive, in the face of unexpected adversities.

Developing caring relationships

Parents and other adults usually come to mind when we think of caring relationships. But children, especially older children, spend much of their time with people their own age. When children and youth form positive relationships with peers, they help themselves and others. These relationships are more readily formed and maintained when the partners involved have social and emotional skills. Those skills include knowing how to communicate, how to manage emotions and empathize with others, and how to resolve conflicts peacefully.[147]

When children and youth form positive relationships with peers, they help themselves and others.

Having close friends can reduce the likelihood of depression among children,[148] as well as increasing well-being and social competence.[149] Among adolescents, being accepted by a peer group can have powerful protective effects, even in the absence of close friends.[150] Along with reaching out to less-popular children, young people can also help their peers by being alert to warning signs of violence or distress. They can then administer "mental health first-aid"--offering support and guiding them to get further help from a professional.[151] Youth can also intervene directly to stop violence, for example, by standing up to bullies instead of being passive bystanders.[152] Positive relationships promote wellness for all children involved, and improve their chances of having a supportive network throughout life.[153]

Developing their own positive routines and practices

Practices known to promote "physical" health also benefit overall wellness, because, as we have described, mental and physical health cannot be separated. Forming these positive habits and routines early can make a substantial contribution to one's wellness account. For instance, adequate sleep for both children and adolescents improves their ability to make good decisions and manage emotions or behavior.[154] "Sleep hygiene" includes such routines as maintaining a regular pattern of sleep, getting sufficient exposure to natural light during the day, and not reading or watching TV in bed.

Moderate amounts of physical exercise can increase mood as well, in part by improving sleep quality.[155] Outdoor exercise is especially effective in improving self-esteem and mood,[156] though any regular, intense workout has been found to reduce symptoms of depression.[157] Exercise may also act as a buffer against toxic stress, such as that created by family conflict, by releasing endorphins and other chemicals in the brain known to benefit mood.[158]

Good nutrition also improves the health of both the mind and body. All known nutrients are important to the brain for its myriad functions,[159] but research has found that B-vitamins,[160] whole iodine, antioxidants, and omega-3 fatty acids may be especially important for mental wellness.[161, 162]

Other personal practices have also shown promise in the promotion of well-being. Mindfulness-based stress-reduction techniques teach conscious attention to emotional reactions and physical sensations, and may increase mental wellness among young people.[163]

RECOMMENDATIONS

1. Start school for adolescents later in the day to help them get enough sleep.

2. Support the provision of basic mental health "first aid" training for interested youth.

Opportunities within early childhood education and schools

Young people, depending on their age, spend the majority of their weekday waking hours in early childhood education settings and school classrooms. Because public policy can have a direct impact in these settings, prominent institutions (such as the World Health Organization, the Institute of Medicine, and the Centers for Disease Control and Prevention) have identified schools as essential in any comprehensive effort to promote the wellness of *all* young people.[164] In particular, educational settings are one of many places for the development of caring relationships and the establishment of wellness-promoting routines and practices among our nation's youth.

Preschool-age children

Social and emotional learning have long been a focus in high-quality child care and early childhood education settings. For example, they may provide universal screening of young children for cognitive, social, and behavioral concerns as a part of a holistic approach to addressing their needs.[165] High-quality care provides opportunities for stimulation and learning, as well as for the development of caring relationships among children, teachers, parents, extended family, and the community.[166]

Head Start and Early Head Start are examples of high-quality early education and family-support programs.[167] They are designed specifically to serve low-income families, who are the group most likely to benefit from high-quality early education.[168] However, while well-qualified staff with post-secondary training are a key feature of such programs, more than half of states do not require post-secondary training for teachers in child care centers generally.[169] When child care centers emphasize social and emotional, as well as physical and cognitive development, children's behavior is more positive.[168] Yet, nearly one in five states lacks requirements for centers to include activities related to social and emotional development, despite decades of research showing the benefits of such requirements. These findings helped motivate the 2014 federal appropriation of $500 million to support Early Head Start – Family Child Care Partnerships, which will allow child care providers to partner with Early Head Start programs to receive training and mentoring.[170]

One strategy in which Head Start and Early Head Start are leading the way is a model referred to as "mental health consultation." Mental health consultants work to increase children's positive behavior, addressing their needs both in the child care setting and at home. By working one-on-one with children and their families, as well as training and coaching center staff on children's emotional and behavioral needs, these consultants equip adults with the skills needed for caring relationships with children. They also

Nearly one in five states lacks requirements for centers to include activities related to social and emotional development.

foster healthy routines and practices in the environments where young children spend most of their time.[171]

Just as for parents, child care providers are able to offer better care when they have adequate training and support. The *Foundations of Learning* project combined teacher training with in-class support from a clinician to reinforce classroom management skills, and offered teachers courses in stress management. Later, children still exhibiting problem behaviors received individualized clinical services. Children in the program showed improved social and emotional competence, while teachers experienced less "burn-out" due to stress, and had more positive interactions with children overall.[172]

School-age children and youth

Positive student-teacher and student-student relationships are important in promoting a climate of wellness within schools. Increasingly, teachers are required to get training in understanding mental health and recognizing early warning signs in the young people they see. Both Minnesota[173] and Texas[174] require such training, including training in positive behavior interventions, for certification and license renewal; California's Mental Health Services Authority has called for similar requirements. A new federal initiative, Mental Health First Aid, will provide funding for more training of teachers and others who regularly interact with youth. Evidence from the *Seattle Social Development Project* demonstrates that training teachers in reinforcing children's skills in communication, and in fostering children's interpersonal problem solving-skills, has positive benefits for their mental wellness that extend into adulthood.[175]

Many schools have adopted formal approaches to fostering caring relationships and the routines and practices that promote mental wellness. A comprehensive review of these programs is beyond the scope of this paper; however, the best of these can have positive effects on social, emotional, and behavioral, as well as academic, outcomes.[176] A number of organizations have compiled extensive lists of innovative, school-based interventions shown to be effective in increasing students' socio-emotional skills, including the Collaborative for Academic, Social and Emotional Learning, the U.S. Department of Education, and the Substance Abuse and Mental Health Services Administration.

In addition to new programs and curricula, many school leaders have adopted building-wide approaches to influence "school climate." School climate includes the values promoted, both formally and informally, in the school setting; the messages conveyed regarding students' physical and emotional safety; the physical environment; and a "culture of learning."[177] Mounting evidence finds that school climate affects both students' well-being and academic performance.[178]

School climate affects both students' well-being and academic performance.

Similar to the strategies used in many parenting programs, many schools adopt a tiered approach to their wellness-promoting efforts. While some interventions properly include the whole school community, other strategies are appropriate for particular groups of students known to have one or more risk factors. Still others are necessary for a smaller number of students who are already in distress. Many tiered approaches include a process, first, to identify the needs of students and their families, then to apply that information in selecting strategies that address needs at multiple levels. Within tiered approaches, interventions may be either universal or targeted.

Positive Behavior Interventions and Supports (PBIS) is one example of a tiered approach for establishing a positive school climate. PBIS addresses school discipline by establishing clear expectations, enhancing the quality of relationships among

students, and fostering caring relationships between students and their teachers.[179] A promising framework for linking PBIS and mental health services within schools has recently gained the sponsorship of several federal offices.[180]

Integrated Student Supports (ISS) is another tiered approach for addressing students' wellness.[181] ISS promotes students' social, emotional, behavioral, and physical health by coordinating universal and targeted services provided in partnership with community organizations (particular examples are *Communities in Schools*[182] , *CityConnect*[183], and *Elev8*[184]). A hallmark of the ISS approach is an emphasis on assessing student needs, and fostering connections between schools and community organizations to improve the coordination and effectiveness of services.[181]

School-based and school-linked services

Schools can also partner with community-based organizations to improve health services. School-based health centers (SBHCs) are one example, aiming to increase students' access to important health and mental health services.[185] The Affordable Care Act makes available $200 million to increase the number of SBHCs and upgrade current facilities.[11] In Oregon, as a part of that state's Medicaid expansion, SBHCs will be eligible to join Coordinated Care Organizations (CCOs). CCOs will integrate school-based health services into their provider networks.[186] Similar to SBHCs, school-*linked* mental health services are another promising model that offers some advantages in terms of keeping students' health information separate from their school records.[187]

While schools seem to be doing more recently to meet the social, emotional, and behavioral needs of students, very few programs—and even fewer policies—have been rigorously evaluated. Among those schools that are implementing evidence-based programs, it is difficult to characterize the quality of their implementation. An evaluation of the *Communities in Schools* model, which focuses on addressing students academic and non-academic barriers to learning, found that schools with high-quality implementation saw improvements, but schools with lower-quality implementation had no better outcomes than schools that were not implementing the model at all.[188] Data from a recent nationwide review of school health policies and practices found that only two-thirds of school districts offered training to their mental health staff related to the identification and treatment of mental health concerns.[189] Given these data, it is unclear how often and how well schools are meeting the mental wellness needs of students, despite the existence of many promising programs such as those mentioned in this report.

Only two-thirds of school districts offer training to their mental health staff related to the identification and treatment of mental health concerns.

RECOMMENDATIONS

1. Increase access to high-quality child care and early childhood education, particularly for low-income families.

2. Support early childhood educators with training in classroom management, social-emotional learning, and stress-reduction techniques.

3. Encourage the implementation of whole-school tiered approaches to promote positive school climate and the mental wellness of all students.

4. Locate comprehensive mental health services within schools, and increase partnerships with additional community resources.

Opportunities within communities

Families and schools are not the only environments where young people live, learn, play and grow —efforts to improve wellness need to include their neighborhoods and wider communities. That the status of children reflects the community in which they live is not a new idea; traditional societies have long viewed the well-being of children as a powerful indicator of community vitality. The Masai people of Kenya traditionally greet each other with the question, "Kasserian Ingera?" ["Are the children well?"].

Efforts to enhance the physical environments in community settings are already underway in many communities. Efforts to rid neighborhoods of toxins (including lead, environmental tobacco smoke, and so on), create spaces where children and youth can safely play and exercise, and reduce access to drugs and alcohol to minors all contribute to wellness, as do efforts to reduce violence in communities and families.[190] Additional support for and engagement in these initiatives could be gained by emphasizing their mental health benefits.

Reducing the impact of poverty on young children: "no wrong donor"

Policy choices that reduce the burdens that poverty imposes on families indirectly support wellness. The *Work Support Strategies Initiative*, a federal pilot program launched in 2011, allows states to make it easier for low-income families to meet their needs, ranging from obtaining child care vouchers, to enrolling in other programs, like Temporary Assistance for Needy Families (TANF) and the Supplemental Nutrition Assistance Program (SNAP).[191] Families seeking a child care voucher, for example, could enroll at the same time in all of the services for which they qualify, if states created better linkages across their administrative systems. Ninety percent of states' costs associated with these changes can be covered under this program.

Access to dependable child care is also essential to improving family life. When parents are unable to access child care or other essential services, it interferes with their ability to work and adds to parental stress, particularly in low-income families. Unstable child care arrangements make it difficult to achieve financial security,[192] and they can be disruptive to the optimal development of young children.

Using media campaigns to change community norms and promote positive behaviors

Media messaging has the potential to alter longstanding norms—witness the dramatic shift in recent years in the social acceptability of smoking.[193] The stigma still surrounding mental illness would be an ideal topic for a similar media campaign, successful examples of which have been implemented in New Zealand and other countries around the globe.[194]

Successful campaigns generally focus on four themes:

• Mental health conditions are prevalent;

• Persons with illness are people first; their illness does not define them;

• Recovery is possible; and

• Social inclusion and human rights are moral imperatives.[194]

Media campaigns can also address people's reluctance to seek help for mental health challenges, and improve the recognition of common warning signs in oneself and

Media messaging has the potential to alter longstanding norms— witness the dramatic shift in recent years in the social acceptability of smoking.

others. Media messages are most effective in changing behaviors when they are part of a comprehensive campaign. If they do not include efforts to increase access to the resources necessary to change attitudes or behavior, they may be ineffective. This includes access to education, skills training, or effective behavioral or medical treatments.[195]

The *Triple-P* program, previously described (page 24), is an example of a program that uses media effectively. It seeks to change community norms concerning positive parenting behaviors, by using broadcast and print media, while also offering more comprehensive community supports.[140]

Training health professionals to identify early warning signs and make timely referrals

Health providers, such as pediatricians and nurses, have a unique relationship with young people and their families—one that often develops over time through well-child visits and annual check-ups. Because these professionals are perceived as authoritative and impartial, youth and parents may be more willing to share concerns about mood or behavior with them. Regular visits also allow doctors and nurses to assess and discuss risk factors for toxic stress, such as parental depression, or exposure to family violence. Given the right resources, pediatricians can also be leaders in promoting knowledge about trauma, children's mental health, and the importance of early prevention.[196]

Pediatricians are already trained to provide parents with "anticipatory guidance," information about particular behaviors that children are likely to exhibit as they get older. In many (particularly, smaller) communities which lack evidence-based parenting programs, pediatricians are often the only source of professional parenting advice that is available to caregivers. The American Academy of Pediatricians (AAP) has detailed curricula to guide pediatricians in their interactions with parents.[197] They emphasize positive, age-appropriate parenting, to create a safe and caring home environment and minimize children's exposure to harmful experiences. As children grow older, the AAP recommends that pediatricians continue to provide young people and their caregivers with information about common challenges, such as depression, suicidal thoughts, bullying, and dating violence, as well as drug and alcohol refusal skills.[198]

Despite these recommendations, not all health professionals are comfortable discussing these sensitive topics, or have the skills to assess topics like depression or suicide. In their training, mental and physical health are likely to be treated separately, mirroring how care has traditionally been delivered. For these reasons, many health professionals are unaware of the range of resources available within their communities, including mental health services for children and adults, parenting programs, and social services to support families that are in crisis. Thus, both expanded training for health providers, and greater integration of care, would help in promoting mental wellness.

Training community members to assist young people in getting help early

Another promising model for community interventions is "gatekeeper training." This approach is designed to educate adults—and sometimes youth—about mental health, in order to reduce the stigma that often stands in the way of seeking help. Training also covers "mental health first-aid"–recognizing early warning signs of distress, assessing the severity of a situation, and how to provide non-professional support, including helping young people access more intensive community resources as needed.[199]

Many health professionals are unaware of the range of resources available within their communities, including mental health services for children and adults, parenting programs, and social services to support families that are in crisis.

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Similar programs train older students to deliver a range of workshops on mental health and suicide prevention to their peers.[200]

Gatekeeper trainings are tailored for different types of audiences—health professionals, educators, students, or other community members—and can be conducted at various sites, including schools and faith-based organizations.[201] Specific community figures who should be trained on these topics include judges and law enforcement personnel, as well as the adults working in afterschool and other youth-serving programs. While this approach is only beginning to be assessed, most evaluations have found positive effects on trainees' knowledge and attitudes about mental health. However, evidence that these programs lead to fewer suicide attempts or to more youth seeking help from adults is limited, partially because of the challenges in measuring such outcomes.[199]

Programs such as these often focus on equipping community members to assist youth who are contemplating suicide, but they could be expanded to include other forms of mental health crises, such as severe panic attacks, a sudden withdrawal from school and social ties, or a long-lasting depressive episode. For example, one preventive approach is to increase the number of sources of support available to young people in times of crisis. Aimed at strengthening connections to peers and community adults in their communities, the *Sources of Strength* project trains teen leaders to encourage help-seeking behaviors among their potentially suicidal peers.[202] This program may be a good model for interventions to help youth who are experiencing other types of crises.

Gatekeeper trainings are tailored for different types of audiences and can be conducted at various sites, including schools and faith-based organizations.

RECOMMENDATIONS

1. Link community environmental improvement efforts with child mental health and well-being; enhance efforts to rid neighborhoods of toxins, and to improve them with playgrounds, community centers, and other youth-friendly facilities.

2. Support gatekeeper training to adults who work with youth; expand the scope of such training beyond suicide prevention to encompass a broader focus on wellness.

3. Support training for pediatricians and other primary care physicians, to improve their competence and comfort in discussing and referring for mental health concerns.

Moving to practice and policy changes

The failings of our current system for managing mental health and treatment have been recognized for too long. The current system excludes many who need care, and provides substandard care for many others. In addition to improving the system to increase access, many in the field have called for policies and programs that focus on preventing mental illness, rather than continuing in responses that are predominantly reactive. We agree that such programs are essential. However, prevention and treatment of illness are not enough—we must promote *wellness* for all children and youth, as well as for their families.

SHIFT THE FOCUS

Strategies that successfully promote wellness will generally emphasize the importance of the two pillars we have discussed: caring relationships, and positive routines and practices. Based on the research on sensitive periods, provision of these resources should begin early in childhood, but it should continue throughout life.

In this report, we propose a new framework for wellness promotion that:

- Breaks down distinctions between physical and mental health;

- Distinguishes wellness from the absence of illness; and,

- Regards wellness as a resource that can be replenished or depleted by experiences in numerous environments.

Broadly, we recommend:

- A focus on promotion of caring relationships and routines and practices, in order to build the foundations of wellness;

- A focus on prevention of the toxic stress that erodes wellness; and,

- Increased supports for positive development, to strengthen wellness.

We urge that policies and programs promote wellness at the community level, along with treating individuals. Individual wellness is largely a product of what happens in families, schools, communities, and the broader social context, and interventions are more efficient when they target root causes, rather than symptoms alone. More specific policy recommendations are listed throughout the report and are recapped in Appendix B.

PROMOTE FAMILY WELLNESS

- Wellness promotion efforts should adopt a two-generation approach. As described in this report, children who are cared for throughout the course of their development by flourishing parents and other adults are more likely to flourish themselves.

- Promoting parents' mental wellness is especially important. The National Research Council and the Institute of Medicine estimate that more than 15 million children in the U.S. are living with at least one depressed parent.[203]

- Supporting families so that they can develop caring relationships and wellness-promoting habits and routines will reduce the number of individuals requiring costly social services, now or in the future. Job-leave policies and employer practices should support parents of newborns, so that they do not have to choose between

Individual wellness is largely a product of what happens in families, schools, communities, and the broader social context, and interventions are more efficient when they target root causes.

staying employed and investing in a positive start for their families.[204] Agencies that work primarily with *parents* of vulnerable children (for example, law enforcement; domestic violence; child welfare; employment/career/adult education services; housing; re-entry programs for formerly incarcerated parents; adult health systems) should be required to collaborate with *child*-serving systems in support of family wellness.

- Interventions for parents should emphasize skills-based training in positive parenting practices. One approach is to engage mass media to help change community norms around parenting. Programs that include parents should screen for their concerns about young children's development and provide information on the supports, services, and screenings available for their children.

- Family support services can help ease the challenges parents and caregivers face when a child is struggling with mental health concerns. In one model, trained peer mentors offer emotional and instrumental support, such as respite care and transportation to appointments, which can be invaluable for parents trying to stay well themselves, and to navigate the complex system of children's mental health care.[136]

PROMOTE WELLNESS IN OTHER ENVIRONMENTS WHERE CHILDREN LIVE, LEARN, PLAY, AND GROW

As we highlight in this report, when children are in environments that support thriving, they expend less of their wellness resources in coping with life's challenges, and can invest more in positive adaptation and development. All of the settings in which children live, learn, play, and grow are promising venues for promoting wellness.

- All children and adolescents can benefit from neighborhoods that are free from toxins, and with playgrounds, community centers, and other facilities available for them to play and socialize safely. This includes access to high-quality child care settings and schools.

- Education settings are essential components of a comprehensive effort to promote mental wellness for all children. The federal initiative "Safe Schools-Healthy Students," particularly its "Element Three-Student Behavioral, Social, and Emotional Supports."[205] is one model that should be adequately resourced. Other promising models are the Strengthening Families initiative,[206] active in more than 30 states, and endorsed by the Children's Bureau of the Department of Health and Human Services; and the Centers for Disease Control and Prevention's strategy for preventing child maltreatment through promotion of "safe, stable, and nurturing relationships."[207]

- Community members can also play important roles in helping young people promote their own mental wellness. Programs should train "lay" community members to encourage help-seeking among the youth they encounter.

- Policies and programs should promote collaboration among the various systems that serve families and children, (child welfare, education, health, juvenile justice, and income assistance). Many of the factors that put children at risk for poor mental health also increase their risks for poor physical health, academic problems, and involvement with the child welfare and juvenile justice systems.

- Cross-sector integration efforts are evident in such initiatives as *Help Me Grow*, and *Communities In Schools*, which provide platforms for identifying needs and

brokering services from multiple sectors within a community. The concept of collaboration across sectors that previously tended to operate in isolation has been widely adopted, including by the U.S. Department of Education's Promise Neighborhood grants (with a "cradle-to-college" perspective), and SAMHSA's *Project LAUNCH*, which focuses on strengthening the coordination among early childhood services. Similarly, the BUILD Initiative works with states to coordinate early childhood policies, programs, services, and data systems.[208]

- Promoting wellness also requires addressing the epidemic violence in many families and communities, including its glamorization by the media. Exposure to violence is one of the most prevalent sources of toxic stress, and has to be addressed if children are to thrive. Policymakers and other community leaders should take a stand opposing violence, starting with violence within families. This could include, for example, renaming physical punishment and other harsh discipline as violence, and providing public education on the damaging effects on children who witness violence.

IDENTIFY CHILDREN AT RISK AND THOSE WITH CURRENT NEEDS

While universal wellness promotion is essential, targeted services are also needed. No matter how well we implement promotion activities, there will always be those who need a bit more help than their peers. Services for those children who have risk factors for (or early signs of) distress are an important component of a comprehensive approach. Targeted prevention and wellness-promotion programs, for example, can give particular support to youth who are homeless, in foster care, involved in the juvenile justice system, or who have physical disabilities.

- Screening for social-emotional problems, including depression and exposure to trauma, is critical for identifying those in need of extra supports and services. Screenings should include youth who have risk factors for mental health problems, though less detailed, universal screening is important as well. Mental health consultation, for example, can be included in all Child and Protective Services' investigations, to identify youth in need of care. Screenings can also identify youth who have been exposed to trauma, or who are otherwise at risk for poor mental wellness. Once children and youth are screened, concerns must be followed up with a full assessment and a treatment plan. Of course, for screenings to be of value, there needs to be sufficient community care capacity.

IMPROVE SUPPORTS AND SERVICES FOR CHILDREN

True parity of insurance coverage would go a long way toward improving access. There is no real justification for a distinction between coverage for mental and physical care, besides long-held stigmas about mental illness. However, parity—important as it is— will not address the inadequate supply of providers to handle the care for those who need it.

- There is a need to expand the workforce of qualified youth mental health practitioners, including primary care physicians, child and adolescent psychiatrists, school counselors, and mental health consultants who work in child welfare and early childhood education settings. Appropriate salary increases, scholarships or student loan forgiveness, and other incentives, can be among the strategies considered for addressing this need.

Exposure to violence is one of the most prevalent sources of toxic stress, and has to be addressed if children are to thrive.

- The quality of mental health services can be enhanced by incentivizing evidence-based practices. The skills of mental health providers should be improved through increased training and a review of the competency and endorsement systems for professionals, such as those of the Michigan Association for Infant Mental Health[209] and California's Early Childhood Mental Health Workforce Training and Competency Guidelines. [210]

- Funding priorities in mental health services, from the federal research agenda on down to the support of community mental health services, should be better aligned with what is known regarding the ages at which mental health challenges commonly occur. As described in this report, these can arise much earlier in life than was previously recognized, requiring our earlier response.

How symptoms are expressed, how people cope with their illness, their willingness to get treatment, and what family and community supports they have, are all affected by culture.

Another pressing need for research is in the area of multi-cultural conceptions of illness and wellness. Cultural and linguistic competence have assumed greater importance as our nation has experienced an historic demographic shift with recent immigration. However, some observers emphasize that culture and language sensitivity is also required when considering other distinct populations, such as rural, youth, racial minority, and low-income families that may share certain features of culture.[211]

Much of current practice in the U.S. context—whether targeted or universal—is based exclusively on western-European norms, and—understandably—feels foreign to people living in the United States whose heritage is elsewhere. Yet, relatively little work has been done to clarify which, if any, mental health constructs are broadly held across diverse cultures, and which are predicated on traditions and understandings specific to a particular group.[212] Nevertheless, it is clear that how symptoms are expressed, how people cope with their illness, their willingness to get treatment, and what family and community supports they have, are all affected by culture. In addition, the cultures represented by the clinician and the service system play a part in how conditions are diagnosed and treated, and how services are delivered.[213] A culturally sensitive approach to intervention is essentially one which requires problem-solving skills that have only begun to be articulated in the guidance professionals receive.[214]

While multiple criteria are typically used to judge the appropriateness of policies, considering the four questions can be informative component of decision-making, whether for choosing between multiple policy options, or when considering changes to an existing policy. We can use the issue of school discipline to illustrate briefly how these questions can be used to evaluate policy alternatives.

USING THE FRAMEWORK: A POLICY EXAMPLE

The model described in this report helps explain how wellness is accrued and spent as young people pursue goals and tackle the day-to-day tasks of living. The model can also inform policy decisions related to children and their families. Specifically, we suggest four questions that policymakers can ask (with the corresponding part of the model in brackets):

1. What are the *positive outcomes* that we expect for children as a result of this policy? *[thriving]*

2. How does this policy foster *caring relationships* (for example, with parents, caregivers, peers, teachers, etc.)? *[caring relationships]*

3. How does this policy help children establish *wellness-promoting routines and practices*? *[wellness-promoting routines and practices]*

4. How does this policy *reduce children's exposure to toxic stress* and other forms of adversity? *[surviving]*

Policy Option One: Zero-tolerance

In the late 1980s and early 1990s, many schools adopted "zero tolerance" policies in regard to certain student behaviors. For example, bringing a weapon to school, or possession or use of illegal drugs on school grounds, would result in an automatic suspension, even when these were first offenses.[215] Predictably, many students were suspended, some instances of which were controversial, such as cases of children as young as five being excluded from school for pretending that an innocuous object was a gun.

Policy Option Two: Positive Behavior Interventions and Supports (PBIS)

In recent years, a different response—Positive Behavior Interventions and Supports (PBIS)–is gaining support as an alternative to punitive policies like zero tolerance. In general, PBIS stresses the importance of having clear rules and expectations for behavior at school, using evidence-based strategies to teach important social and emotional skills to all students, and screening for behavioral and emotional problems in order to provide more intensive services to a smaller number of students with high-risk profiles.[179]

The following table illustrates how the four questions can highlight contrasts between the two approaches.

COMPARING TWO ALTERNATIVE SCHOOL DISCIPLINE POLICIES	
Zero tolerance	**Positive Behavior Interventions and Supports**
1. What are the positive outcomes that we expect for children as a result of this policy?	
Reduce students' risky behaviors related to violence and substance use.	Increase students' positive behaviors.
2. How does this policy foster caring relationships (parents, caregivers, peers, teachers, etc.)?	
Suspension cuts off students' access to teachers and other caring adults in the school. In the longer term, relationships with teachers and school staff may suffer if students feel that the school's punishment is unfair.	School staff provide clear expectations for students' behavior, and a systematic process for enforcing consequences when those expectations are not met. School staff use positive reinforcement to acknowledge positive student behaviors and "catch them being good."
3. How does this policy help children establish wellness promoting routines and practices?	
Suspension limits students' opportunities to practice important social and emotional skills in a setting that offers support and supervision. Suspended students may be without adequate adult supervision during school hours, increasing the likelihood that they will become involved with peers or adults in delinquent behavior.	All students learn social and emotional skills that equip them to make responsible decisions. Students whose needs are greater are identified early and offered additional, evidence-based supports for positive behavior.
4. How does this policy reduce children's exposure to adversity?	
Students who are suspended may receive harsh or abusive punishments at home. Suspensions are disproportionately imposed on students, including ethnic and racial minority youth, who are already at greater risk for poor outcomes.	Students who engage in risky behaviors remain in a structured, supervised setting. A focus on increasing positive behaviors, versus punishing infractions, gives parents a model for alternative discipline strategies, lowering the risk for harsh or abusive parenting.

Conclusion

Our hope is that policymakers will use this new framework as a guide in prioritizing and developing programs and services that promote wellness for children and their parents, in all the environments where they live, learn, play, and grow.

What would that landscape look like?

Wellness is a national priority. When individuals are unwell, they actively seek treatment – and they can get it. For milder problems, or simply concerns about children's emotional or behavioral development, professional consultation is available at their child's school or child care setting, or at their doctor's office.

Parents with a newborn have unhurried time to get to know their baby—and themselves as parents. New parents might receive a visit by a nurse or other professional to offer guidance on positive parenting, as is already routine in many European countries. Local schools and other community institutions provide both universal and targeted wellness-promotion activities, as well as screenings for early signs of illness. As their children grow, parenting workshops on developmentally relevant issues are widely available. Children learn a number of ways to conserve their own wellness in the daily habits they adopt.

In schools, students learn not only cognitive, but also social-emotional skills, and teachers are trained to notice signs of potential trouble. In addition to teachers, other caring adults, and peers, intervene or refer the student to appropriate help. Institutions– youth shelters, the child-welfare system, and the juvenile justice system – that serve youth with troubled histories have staff who are dedicated to improving the self-efficacy and overall wellness of the young people they reach.

Such an ideal is not an impossibility, but one to which we can progress in specific, evidence-driven steps. Without an investment in wellness, together with a new, compassionate understanding of illness, our society will continue to pay the heavy price that the neglect of mental health has exacted, generation upon generation. That need not, and should not, continue.

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ACKNOWLEDGEMENTS

COMPREHENSIVE LIST OF RECOMMENDATIONS

1. Use media campaigns, both universal and those targeted for specific audiences, to reduce the stigma associated with mental illness and treatment.

2. Remove structural and financial barriers that discourage clinicians from providing preventive care and mental health screening.

3. Promote the integration of mental health practitioners with other care providers, through Accountable Care Organizations and other structural innovations.

4. Align funding priorities in mental health services and research with what is known regarding both the age of onset of mental health disorders, and increased risks among certain populations.

5. Include mental health consultation in all Child Protective Services' investigations to identify youth in need of care.

6. Fund research for programs that promote wellness, instead of an exclusive focus on treating illness.

7. Support interventions that impact children at all levels of their environment.

8. Increase screening for parental depression in locations such as pediatric and WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children) offices.

9. Promote "warm and firm" parenting through comprehensive parenting programs or other outreach.

10. Expand guaranteed, paid job-leave to all employed new parents.

11. Develop community capacity for respite care for parents of a child with mental illness, and support the inclusion of respite care as a covered service under insurance plans.

12. Start school for adolescents later in the day to help them get enough sleep.

13. Support the provision of basic mental health "first aid" training for interested youth.

14. Increase access to high-quality child care and early childhood education, particularly for low-income families.

15. Support early childhood educators through training in classroom management, social-emotional learning, and stress reduction techniques.

16. Support the implementation of whole-school tiered approaches to promote positive school climate and the mental wellness of all students.

17. Locate comprehensive mental health services within schools, and increase partnerships with additional community resources.

18. Link community environmental improvement efforts with child mental health and well-being; enhance efforts to rid neighborhoods of toxins, and to improve them with playgrounds, community centers, and other youth-friendly facilities.

19. Support gatekeeper training to adults who work with youth; expand the scope of such training beyond suicide prevention to encompass a broader focus on wellness.

20. Support training for pediatricians and other primary care physicians, to improve their competence and comfort in discussing and referring for mental health concerns.

GLOSSARY

Many commonly used terms have multiple or imprecise definitions, and the way we understand language relating to health and wellness may be influenced by our previous experiences, our values, and the context in which the words are used. In order to clarify the language used throughout this report, here we explain how we, drawing on usage prevalent in the research community, are using some key terms.

Adaptation: Adaptation is a person's ability to grow, learn, and increase positive engagement with what life has to offer. Adaptation occurs as one responds to one's environment. Successful adaptation generally requires both internal and external resources, and contributes to overall wellness.

Development: Development is the process of learning skills and gaining the ability to function in increasingly independent and flexible ways over time, in all realms of living. Development occurs through reciprocal interactions ("give-and-take") with one's environment and the people that inhabit it. Wellness and development are reciprocal: high-levels of wellness promote positive development, while positive development enables high-levels of wellness throughout one's lifetime. Development refers to the acquisition of skills that enable increasingly adaptive functioning, while wellness is a resource that can be spent (and, ideally, replenished) in applying those skills.

Environments: Environments are the contexts that enable or inhibit development and wellness, such as the places where children live, learn, play, and grow. Environments include one's family, community, school, and the public policy context, and the interactions occurring among individuals within each of these. Through interactions with one's environments, wellness is either depleted or replenished.

Flourishing: Flourishing describes an experience that includes having happiness, optimism, self-efficacy, and a sense of purpose. One can be "ill" but still flourishing; or, one can be free of illness but not flourishing. Thus, as we use the terms here, "flourishing" is different from traditional concepts of health.

Intervention: An intervention is action taken to change the current or future condition of an individual, family, or community. Interventions, which may include clinical treatments, adoption of new programs and practices, environmental changes, or policy innovations, aim to increase wellness by treating existing disorders, preventing potential disorders, or promoting aspects of wellness.

Positive routines and practices: These are activities that create and replenish wellness. Examples include establishing consistent and adequate patterns of nutrition, sleep, and physical activity, as well as regular routines such as family meals, and reasonable limits on "screen time." Wellness-promoting routines and practices also include the acquisition of social and emotional competence, through the practice of communication skills and awareness and regulation of emotions.

Prevention/Promotion: Prevention aims to reduce the likelihood that threats to wellness will occur, focusing on individuals with known risk factors. Promotion, on the other hand, seeks to foster wellness among all individuals, regardless of their risk, by focusing on strengthening protective factors and the building blocks of wellness.

Resilience: When individuals seem to recover with relatively few ill effects after facing adversity or trauma, they are said to be resilient. Resilience can be best understood as a response to a specific situation, not as a constant "trait." Responding resiliently in one instance does not guarantee that one will do so in another.

Struggling: As used here, this refers to a diminished state of well-being, not solely attributable to the presence of illness. Thus, persons can be dispirited, lack a sense of purpose, and have low self-regard, even when they have no illness. Struggling is at one end of a continuum that has "flourishing" at the other.

Surviving: As used here, this describes a form of adaptation that taxes children's wellness without replenishing it. In these situations, children's responses are usually aimed at minimizing negative outcomes, rather than at

promoting positive ones. In the long run, a pattern of "surviving" rather than "thriving" can result in diminished well-being.

Thriving: As used here, this describes a form of adaptation that occurs when children's wellness reserves are adequate, and they can to respond to a challenge or an opportunity in ways that are more likely to result in positive outcomes. As a result, wellness replenished or even increased.

Wellness: Wellness describes the entirety of one's physical, emotional, and social health; this includes all aspects of functioning in the world (physiological, intellectual, social, and spiritual), as well as subjective feelings of well-being. A child who is doing "well" frequently experiences joy, delight, and wonder, is secure and safe in his/her family and community, and is continually expanding and deepening his/her engagement with the world around him/her.

Wellness is a resource used to achieve goals and enable functioning; it is influenced by experiences. The presence of caring relationships, and wellness-promoting routines and practices, amplify wellness. Wellness is depleted when it is used merely to "survive" or "get by" during times of adversity. Having more external resources reduces the need to tap into one's internal wellness reserves in order to achieve goals.

WORKS CITED

1.   O'Connell ME, Boat T, Warner KE. Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities. Washington, DC: National Academies Press; 2009.

2.   Report of Healthy development summit II: Changing frames and expanding partnerships to promote children's mental health and social/emotional development. Washington, DC: Society for Child and Family Policy and Practice; 2013.

3.   Substance Abuse and Mental Health Services Administration. *Mental health, United States, 2010 (HHS Publication No. (SMA) 12-4681).* Rockville, MD: author; 2012.

4.   Miles J, Espiritu RC, Horen N, Sebian J, Waetzig E. *A public health approach to children's mental health: A conceptual framework.* Washington, DC: Georgetown University Center for Child and Human Development, National Technical Assistance Center for Children's Mental Health; 2010.

5.   Behrens D, Graham J, Acosta Price O. *Improving access to children's mental health care: Lessons from a study of eleven states.* Washington, DC: The George Washington University and The Center for Health and Health Care in Schools; 2013.

6.   McNeely C, Sprecher K, Bates D. Comparative case study of caring across communities: Identifying essential components of comprehensive school-linked mental health services for refugee and immigrant children. Knoxville, TN: Robert Wood Johnson Foundation, The Center for Health and Health Care in Schools, The George Washington University, and The Center for the Study of Youth and Political Violence and Department of Public Health, University of Tennessee; 2010.

7.   Robert Wood Johnson Foundation. Caring Across Communities: Addressing mental health needs of diverse children and youth. Princeton, NJ: author; 2011.

8.   Baumeister AA, Hawkins MF, Lee Pow J, Cohen AS. Prevalence and incidence of severe mental illness in the United States: An historical overview. *Harvard Review of Psychiatry.* 2012;20(5): 247-258.

9.   Gu Q, Dillon CF, Burt VL. *Prescription drug use continues to increase: U.S. prescription drug data for 2007-2008.* NCHS data brief, no 42. Hyattsville, MD: National Center for Health Statistics; 2010.

10. ICF Macro, Walter R. McDonald & Associates, Inc. Comprehensive community mental health services for children and their families program. Evaluation findings: Annual report to Congress. Rockville, MD: SAMHSA, US Department of Health and Human Services; 2010.

11. *U. S. Department of Health and Human Services. HealthCare: About the Law.* http://www.hhs.gov/healthcare/rights/index.html. *Accessed Mar 12, 2014.*

12. *Bureau of Labor Statistics. Consumer Price Index. http://www.bls.gov/cpi/#tables. Accessed Feb 20, 2014.*

13. Bolton JM, Robinson J, Sareen J. Self-medication of mood disorders with alcohol and drugs in the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Affective Disorders.* 2009;115(3):367-375.

14. Schoenbaum M, Insel TR, Wang PS. *Components of the Economic Burden of Serious Mental Illness in the US.* Bethesda, MD: National Institute of Mental Health; 2009.

15. Insel T. Assessing the economic costs of serious mental illness. *American Journal of Psychiatry.* 2008;165(6):663-665.

16. Clarke DM, Currie KC. Depression, anxiety and their relationship with chronic diseases: A review of the epidemiology, risk and treatment evidence. *The Medical Journal of Australia.* 2009;190(7 Suppl):S54.

17. Heron M. *Deaths: Leading causes for 2009.* National vital statistics reports; vol 61 no 7. Hyattsville, MD: National Center for Health Statistics; 2012.

18. Centers for Disease Control and Prevention. Youth risk behavior surveillance: United States 2011*. MMWR.* 2012;61(No. SS-4).

19. Corrigan PW. Mental health stigma as social attribution: Implications for Research methods and attitude change. *Clinical Psychology: Science and Practice.* 2000;7(1):48-67.

20. Link BG, Phelan JC. Stigma and its public health implications. *The Lancet.* 2006;367(9509):528-529.

21. Byrne P. Stigma of mental illness and ways of diminishing it. *Advances in Psychiatric Treatment.* 2000;6(1):65-72.

22. Schulze B. Stigma and mental health professionals: A review of the evidence on an intricate relationship. *International Review of Psychiatry.* 2007;19(2):137-155.

23. *U. S. Department of Health and Human Services. Healthy People: Social Determinants of Health. Updated 11/13/2013; http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=39. Accessed Feb 19, 2014.*

24. Elbogen EB, Johnson SC. The intricate link between violence and mental disorder: Results from the national epidemiologic survey on alcohol and related conditions. *Archives of General Psychiatry.* 2009;66(2):152-161.

25. Tversky A, Kahneman D. Availability: A heuristic for judging frequency and probability. *Cognitive Psychology.* 1973;5(2):207-232.

26. Martin JK, Pescosolido BA, Olafsdottir S, McLeod JD. The construction of fear: Americans' preferences for social distance from children and adolescents with mental health problems. *Journal of Health and Social Behavior.* 2007;48(1):50-67.

27. Knopf DM, Park J, Mulye TP. *The mental health of adolescents: A national profile, 2008.* San Francisco, CA: National Adolescent Health Information Center; 2008.

28. Bringewatt EH, Gershoff ET. Falling through the cracks: Gaps and barriers in the mental health system for America's disadvantaged children. *Children and Youth Services Review.* 2010;32(10):1291-1299.

29. Cauchi R, Landess S, Thangasamy A. *State Laws Mandating or Regulating Mental Health Benefits.* Updated December 2012; *http://www.ncsl.org/research/health/mental-health-benefits-state-mandates.aspx.* Accessed December 11, 2013.

30. U. S. Department of Labor. *Fact sheet: The Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA).* Washington, DC: U.S. Department of Labor, Employee Benefits Security Administration; 2010.

31. Koyanagi C, Siegwarth AW. *How will health reform help people with mental illness.* Washington, DC: Bazelon Center for Mental Health Law; 2010.

32. *National Center for Chronic Disease Prevention and Health Promotion. Community Transformation Grants (CTG): States and communities program descriptions. Updated 10/25/2013; http://www.cdc.gov/nccdphp/dch/programs/communitytransformation/funds/programs.htm. Accessed Feb 20, 2014.*

33. O'Donnell AN, Williams BC, Eisenberg D, Kilbourne AM. Mental health in ACOs: Missed opportunities and low-hanging fruit. *The American Journal of Managed Care.* 2013;19(3):180-184.

34. Braveman P, Barclay C. Health disparities beginning in childhood: A life-course perspective. *Pediatrics.* 2009;124(Supplement 3):S163-S175.

35. Center on the Developing Child. *The foundations of lifelong health are built in early childhood.* Cambridge, MA: Harvard University; 2010.

36. Moore KA, Lippman LH. What do children need to flourish? Conceptualizing and measuring indicators of positive development. Vol 3: Springer; 2005.

37. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry.* 2005;62(6):593.

38. Kessler RC, Avenevoli S, McLaughlin KA, et al. Lifetime co-morbidity of DSM-IV disorders in the US National Comorbidity Survey Replication Adolescent Supplement (NCS-A). *Psychological Medicine.* 2012;42(09):1997-2010.

39. Pine DS, Cohen P, Gurley D, Brook J, Ma Y. The risk for early-adulthood anxiety and depressive disorders in adolescents with anxiety and depressive disorders. *Archives of General Psychiatry.* 1998;55(1):56.

40. Reinherz HZ, Paradis AD, Giaconia RM, Stashwick CK, Fitzmaurice G. Childhood and adolescent predictors of major depression in the transition to adulthood. *American Journal of Psychiatry.* 2003;160(12):2141-2147.

41. Hardt J, Rutter M. Validity of adult retrospective reports of adverse childhood experiences: review of the evidence. *Journal of Child Psychology and Psychiatry.* 2004;45(2):260-273.

42. Shonkoff JP, Garner AS, The Committee on Psychosocial Aspects of Child Family Health, Committee on Early Childhood Adoption Dependent Care, Section on Developmental Behavioral Pediatrics, et al. The lifelong effects of early childhood adversity and toxic stress. *Pediatrics.* 2012;129(1):e232-e246.

43. Davidson RJ, McEwen BS. Social influences on neuroplasticity: Stress and interventions to promote well-being. *Nature Neuroscience.* 2012;15(5):689-695.

44. Essex MJ, Thomas Boyce W, Hertzman C, et al. Epigenetic vestiges of early developmental adversity: Childhood stress exposure and dna methylation in adolescence. *Child Development.* 2013;84(1):58-75.

45. National Scientific Council on the Developing Child. *Excessive stress disrupts the architecture of the developing brain: Working paper 3. (updated edition).* Cambridge, MA: Center on the Developing Child, Harvard University; 2005/2014.

46. National Scientific Council on the Developing Child. *The timing and quality of early experiences combine to shape brain architecture: Working paper #5.* Cambridge, MA: Center on the Developing Child, Harvard University; 2008.

47. Blakemore S-J, Choudhury S. Development of the adolescent brain: Implications for executive function and social cognition. *Journal of Child Psychology and Psychiatry.* 2006;47(3-4):296-312.

48. Beckett C, Maughan B, Rutter M, et al. Do the effects of early severe deprivation on cognition persist into early adolescence? Findings from the english and romanian adoptees study. *Child Development.* 2006;77(3):696-711.

49. Nelson CA, Zeanah CH, Fox NA, Marshall PJ, Smyke AT, Guthrie D. Cognitive recovery in socially deprived young children: The Bucharest Early Intervention Project. *Science.* 2007;318(5858):1937-1940.

50. Ippen CG, Harris WW, Van Horn P, Lieberman AF. Traumatic and stressful events in early childhood: Can treatment help those at highest risk? *Child Abuse & Neglect.* 2011;35(7):504-513.

51. Perrin EC, Sheldrick RC, McMenamy JM, Henson BS, Carter AS. Improving parenting skills for families of young children in pediatric settings: A randomized clinical trial. *JAMA Pediatrics.* 2014;168(1):16-24.

52. McEwen BS, Gianaros PJ. Stress- and allostasis-induced brain plasticity. *Annual Review of Medicine.* 2011;62(1):431-445.

53. Anda RF, Felitti VJ, Bremner JD, et al. The enduring effects of abuse and related adverse experiences in childhood. *European Archives of Psychiatry and Clinical Neuroscience.* 2006;256(3):174-186.

54. Felitti VJ, Anda RF, Nordenberg D, et al. relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) study. *American Journal of Preventive Medicine.* 1998;14(4):245-258.

55. Green J, McLaughlin KA, Berglund PA, et al. Childhood adversities and adult psychiatric disorders in the national comorbidity survey replication: I: Associations with first onset of DSM-IV disorders. *Archives of General Psychiatry.* 2010;67(2):113-123.

56. Gray R. Fetal alcohol syndrome: The causal web from disadvantage to birth defect. In: Carpenter B, Blackburn C, Egerton J, eds. *Fetal Alcohol Spectrum Disorders: Interdisciplinary Perspectives*. New York, NY: Routledge; 2014.

57. Lercher P, Evans GW, Meis M, Kofler WW. Ambient neighbourhood noise and children's mental health. *Occupational and Environmental Medicine.* 2002;59(6):380-386.

58. Evans GW, Saltzman H, Cooperman JL. Housing quality and children's socioemotional health. *Environment and Behavior.* 2001;33(3):389-399.

59. Sharkey PT, Tirado-Strayer N, Papachristos AV, Raver CC. The effect of local violence on children's attention and impulse control. *American Journal of Public Health.* 2012;102(12):2287-2293.

60. Xue Y, Leventhal T, Brooks-Gunn J, Earls FJ. Neighborhood residence and mental health problems of 5- to 11-year-olds. *Archives of General Psychiatry*. 2005;62(5):554-563.

61. Center on the Developing Child at Harvard University. *The impact of early adversity on children's development.* Cambridge, MA: author.

62. Shonkoff JP, Boyce W, McEwen BS. Neuroscience, molecular biology, and the childhood roots of health disparities: Building a new framework for health promotion and disease prevention. *JAMA.* 2009;301(21):2252-2259.

63. Jackson FLC, Niculescu MD, Jackson RT. Conceptual shifts needed to understand the dynamic interactions of genes, environment, epigenetics, social processes, and behavioral choices. *American Journal of Public Health.* 2013;103(S1):S33-S42.

64. Meaney MJ, Szyf M. Environmental programming of stress responses through DNA methylation: Life at the interface between a dynamic environment and a fixed genome. *Dialogues in Clinical Neuroscience.* 2005;7(2):103-123.

65. McGowan PO, Szyf M. The epigenetics of social adversity in early life: Implications for mental health outcomes. *Neurobiology of Disease.* 2010;39(1):66-72.

66. Caspi A, McClay J, Moffitt TE, et al. Role of genotype in the cycle of violence in maltreated children. *Science.* 2002;297(5582):851-854.

67. Kim-Cohen J, Caspi A, Taylor A, et al. MAOA, maltreatment, and gene-environment interaction predicting children's mental health: New evidence and a meta-analysis. *Molecular Psychiatry.* 2006;11(10):903-913.

68. Bakermans-Kranenburg MJ, Van Ijzendoorn MH, Pijlman FT, Mesman J, Juffer F. Experimental evidence for differential susceptibility: Dopamine D4 receptor polymorphism (DRD4 VNTR) moderates intervention effects on toddlers' externalizing behavior in a randomized controlled trial. *Developmental Psychology.* 2008;44(1):293-300.

69. Braveman PA, Cubbin C, Egerter S, Williams DR, Pamuk E. Socioeconomic disparities in health in the United States: What the patterns tell us. *American Journal of Public Health.* 2010;100(S1):S186-S196.

70. Hertzman C, Boyce T. How experience gets under the skin to create gradients in developmental health. *Annual Review of Public Health.* 2010;31(1):329-347.

71. Luby J, Belden A, Botteron K, et al. The effects of poverty on childhood brain development: The mediating effect of caregiving and stressful life events. *JAMA Pediatrics.* 2013;167(12):1135-1142.

72. Evans GW, Schamberg MA. Childhood poverty, chronic stress, and adult working memory. *Proceedings of the National Academy of Sciences.* 2009;106(16):6545-6549.

73. Lipina SJ, Posner MI. The impact of poverty on the development of brain networks. *Frontiers in Human Neuroscience.* 2012;6(238):1-12.

74. Evans GW, Cassells RC. Childhood poverty, cumulative risk exposure, and mental health in emerging adults. *Clinical Psychological Science.* in press.

75. Kim P, Evans GW, Angstadt M, et al. Effects of childhood poverty and chronic stress on emotion regulatory brain function in adulthood. *Proceedings of the National Academy of Sciences.* 2013;110(46):18442-18447.

76. Evans W, Wolfe B, Adler N. The income-health gradient. *Focus.* 2013;30(1).

77. Chow JC-C, Jaffee K, Snowden L. Racial/ethnic disparities in the use of mental health services in poverty areas. *American Journal of Public Health.* 2003;93(5):792-797.

78. Kataoka SH, Zhang L, Wells KB. Unmet need for mental health care among U.S. children: Variation by ethnicity and insurance status. *The American Journal of Psychiatry.* 2002;159(9):1548-1555.

79. Alegría M, Canino G, Shrout PE, et al. Prevalence of mental illness in immigrant and non-immigrant U.S. Latino groups. *The American Journal of Psychiatry.* 2008;165(3):359-369.

80. Gibbs TA, Okuda M, Oquendo MA, et al. Mental health Of African Americans and Caribbean blacks in the United States: Results From the National Epidemiological Survey on Alcohol and Related Conditions. *American Journal of Public Health.* 2013;103(2):330-338.

81. Storr CL, Pacek LR, Martins SS. Substance use disorders and adolescent psychopathology. *Public Health Reviews.* 2012;34:1-42.

82. O'Neil KA, Conner BT, Kendall PC. Internalizing disorders and substance use disorders in youth: Comorbidity, risk, temporal order, and implications for intervention. *Clinical Psychology Review.* 2011;31(1):104-112.

83. Kessler RC, Wang PS. The Descriptive epidemiology of commonly occurring mental disorders in the United States. *Annual Review of Public Health.* 2008;29:115-129.

84. Griffin G, McEwen E, Samuels BH, Suggs H, Redd JL, McClelland GM. Infusing protective factors for children in foster care. *The Psychiatric Clinics of North America.* 2011;34(1):185-203.

85. Masten AS, Obradović J. Competence and resilience in development. *Annals of the New York Academy of Sciences.* 2006;1094(1):13-27.

86. Luthar SS. Resilience in development: A synthesis of research across five decades. In: Cicchetti D, Cohen DJ, eds. *Developmental Psychopathology.* Vol 3. 2 ed. Hoboken, NJ: John Wiley & Sons Inc; 2006:739-795.

87. Masten AS, Tellegen A. Resilience in developmental psychopathology: Contributions of the Project Competence Longitudinal Study. *Development and Psychopathology.* 2012;24(02):345-361.

88. Ross T, Vandivere S. Indicators for child maltreatment prevention programs. Washington, DC: Quality Improvement Center on Early Childhood; 2009.

89. Chapman DP, Perry GS, Strine TW. The vital link between chronic disease and depressive disorders. *Preventing Chronic Disease [electronic resource].* 2005;2(1).

90. Combs-Orme T, Heflinger CA, Simpkins CG. Comorbidity of mental health problems and chronic health conditions in children. *Journal of Emotional and Behavioral Disorders.* 2002;10(2):116-125.

91. Helliwell J, Layard R, Sachs J. *World Happiness Report 2013.* New York, NY: UN Sustainable Development Solutions Network; 2013.

92. Antaramian SP, Scott Huebner E, Hills KJ, Valois RF. A dual-factor model of mental health: Toward a more comprehensive understanding of youth functioning. *American Journal of Orthopsychiatry.* 2010;80(4):462-472.

93. Keyes CLM. The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior.* 2002;43(June):207-222.

94. Howell AJ, Keyes CLM, Passmore H-A. Flourishing among children and adolescents: Structure and correlates of positive mental health, and interventions for its enhancement. In: Proctor C, Linley PA, eds. *Research, Applications, and Interventions for Children and Adolescents.* Netherlands: Springer Netherlands; 2013:59-79.

95. Keyes CLM. Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist.* 2007;62(2):95.

96. Suldo SM, Shaffer EJ. Looking beyond psychopathology: The dual-factor model of mental health in youth. *School Psychology Review.* 2008;37(1):52-68.

97. Bircher J. Towards a dynamic definition of health and disease. *Medicine, Health Care and Philosophy.* 2005;8(3):335-341.

98. Huber M. How should we define health? *British Medical Journal.* 2011; 343:d4163.

99. Ferguson KT, Cassells RC, MacAllister JW, Evans GW. The physical environment and child development: An international review. *International Journal of Psychology.* 2013;48(4):437-468.

100. Viner RM, Ozer EM, Denny S, et al. Adolescence and the social determinants of health. *The Lancet.* 2012;379(9826):1641-1652.

101. Mistry KB, Minkovitz CS, Riley AW, et al. A new framework for childhood health promotion: The role of policies and programs in building capacity and foundations of early childhood health. *American Journal of Public Health.* 2012;102(9):1688-1696.

102. Shonkoff JP, Bales SN. Science does not speak for itself: Translating child development research for the public and its policymakers. *Child Development.* 2011;82(1):17-32.

103. Havighurst SS, Wilson KR, Harley AE, Prior MR, Kehoe C. Tuning in to kids: Improving emotion socialization practices in parents of preschool children – Findings from a community trial. *Journal of Child Psychology and Psychiatry.* 2010;51(12):1342-1350.

104. Fosco GM, Caruthers AS, Dishion TJ. A six-year predictive test of adolescent family relationship quality and effortful control pathways to emerging adult social and emotional health. *Journal of Family Psychology.* 2012;26(4):565-575.

105. McNeely C, Falci C. School connectedness and the transition into and out of health-risk behavior among adolescents: A comparison of social belonging and teacher support. *Journal of School Health.* 2004;74(7):284-292.

106. Chu PS, Saucier DA, Hafner E. Meta-analysis of the relationships between social support and well-being in children and adolescents. *Journal of Social and Clinical Psychology.* 2010;29(6):624-645.

107. Bandura A. Health promotion by social cognitive means. *Health Education & Behavior.* 2004;31(2):143-164.

108. Bernier A, Carlson SM, Bordeleau S, Carrier J. Relations between physiological and cognitive regulatory systems: Infant sleep regulation and subsequent executive functioning. *Child Development.* 2010;81(6):1739-1752.

109. Eisenberg ME, Olson RE, Neumark-Sztainer D, Story M, Bearinger LH. Correlations between family meals and psychosocial well-being among adolescents. *Archives of Pediatrics & Adolescent Medicine.* 2004;158(8):792-796.

110. Iannotti RJ, Kogan MD, Janssen I, Boyce WF. Patterns of adolescent physical activity, screen-based media use, and positive and negative health indicators in the U.S. and Canada. *Journal of Adolescent Health.* 2009;44(5):493-499.

111. Masten AS. Ordinary magic: Resilience processes in development. *The American Psychologist.* 2001;56(3):227-238.

112. Compas BE, Connor-Smith JK, Saltzman H, Thomsen AH, Wadsworth ME. Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. 2001;127(1):87.

113. Sehlen S, Marten-Mittag B, Herschbach P, et al. Health-related quality of life supersedes other psychosocial predictors of long-term survival in cancer patients undergoing radiotherapy. *Acta Oncologica.* 2012;51(8):1020-1028.

114. Hoekstra T, Jaarsma T, Veldhuisen DJ, Hillege HL, Sanderman R, Lesman-Leegte I. Quality of life and survival in patients with heart failure. *European Journal of Heart Failure.* 2013;15(1):94-102.

115. Best JH, Rubin RR, Peyrot M, et al. Weight-related quality of life, health utility, psychological well-being, and satisfaction with exenatide once weekly compared with sitagliptin or pioglitazone after 26 weeks of treatment. *Diabetes Care.* 2011;34(2):314-319.

116. Hilliard ME, Harris MA, Weissberg-Benchell J. Diabetes resilience: A model of risk and protection in Type 1 Diabetes. *Current Diabetes Reports.* 2012;12(6):739-748.

117. Putnam SP, Sanson AV, Rothbart MK. Child temperament and parenting. In: Borstein MH, ed. *Handbook of Parenting.* 2nd ed. Mahwah, NJ: Lawrence Erlbaum Associates; 2002.

118. Austin S, Guay F, Senécal C, Fernet C, Nouwen A. Longitudinal testing of a dietary self-care motivational model in adolescents with diabetes. *Journal of Psychosomatic Research.* 2013;75(2):153-159.

119. Case A, Paxson C. Parental Behavior and Child Health. *Health Affairs.* 2002;21(2):164-178.

120. Bronfenbrenner U, Morris PA. The ecology of developmental processes. *Handbook of Child Psychology.* Vol 1: Theoretical models of human development. 5 ed. Hoboken, NJ: John Wiley & Sons Inc; 1998:993-1028.

121. Ahern J, Jones MR, Bakshis E, Galea S. Revisiting Rose: Comparing the benefits and costs of population-wide and targeted interventions. *Milbank Quarterly.* 2008;86(4):581-600.

122. Huppert FA. A new approach to reducing disorder and improving well-being. *Perspectives of Psychological Science.* 2009;4(1):108-111.

123. Fox SE, Levitt P, Nelson CA. How the timing and quality of early experiences influence the development of brain architecture. *Child Development.* 2010;81(1):28-40.

124. Baumrind D. The influence of parenting style on adolescent competence and substance use. *The Journal of Early Adolescence.* 1991;11(1):56-95.

125. Steinberg L, Mounts NS, Lamborn SD, Dornbusch SM. Authoritative parenting and adolescent adjustment across varied ecological niches. *Journal of Research on Adolescence.* 1991;1(1):19-36.

126. Wright KP, Lowry CA, LeBourgeois MK. Circadian and wakefulness-sleep modulation of cognition in humans. *Frontiers in Molecular Neuroscience.* 2012;5(50).

127. Zajicek-Farber ML, Mayer LM, Daughtery LG. Connections among parental mental health, stress, child routines, and early emotional behavioral regulation of preschool children in low-income families. *Journal of the Society for Social Work and Research.* 2012;3(1):31-50.

128. Denham S, Kochanoff AT. Parental contributions to preschoolers' understanding of emotion. *Marriage & Family Review.* 2002;34(3-4):311-343.

129. Morris AS, Silk JS, Steinberg L, Myers SS, Robinson LR. The role of the family context in the development of emotion regulation. *Social Development.* 2007;16(2):361-388.

130. Hay DF, Pawlby S, Sharp D, Asten P, Mills A, Kumar R. Intellectual problems shown by 11-year-old children whose mothers had postnatal depression. *Journal of Child Psychology and Psychiatry.* 2001;42(7):871-889.

131. Dean K, Mortensen PB, Stevens H, Murray RM, Walsh E, Agerbo E. Criminal conviction among offspring with parental history of mental disorder. *Psychological Medicine.* 2012;42(03):571-581.

132. Webb R, Abel K, Pickles A, Appleby L, King-Hele S, Mortensen P. Mortality risk among offspring of psychiatric inpatients: A population-based follow-up to early adulthood. *American Journal of Psychiatry.* 2006;163(12):2170-2177.

133. Dean K, Stevens H, Mortensen PB, Murray RM, Walsh E, Pedersen CB. Full spectrum of psychiatric outcomes among offspring with parental history of mental disorder. *Archives of general psychiatry.* 2010;67(8):822-829.

134. Center on the Developing Child at Harvard University. *Maternal depression can undermine the development of young children: Working paper no. 8.* Cambridge, MA: Center on the Developing Child at Harvard University; 2009.

135. Lombardi J, Mosle A, Patel N, Schumacher R, Stedron J. Gateways to two generations: The potential for early childhood programs and partnerships to support children and parents together. Washington, DC: Ascend at the Aspen Institute; 2014.

136. Hoagwood KE, Cavaleri MA, Olin SS, et al. Family support in children's mental health: A review and synthesis. *Clinical Child and Family Psychology Review.* 2010;13(1):1-45.

137. Olds DL. The nurse-family partnership: An evidence-based preventive intervention. *Infant Mental Health Journal.* 2006;27(1):5-25.

138. Webster-Stratton C, Reid MJ. The Incredible Years parents, teachers, and children training series: A multifaceted treatment approach for young children with conduct disorders. In: Kazdin AE, Weisz JR, eds. *Evidence-based psychotherapies for children and adolescents.* New York: Guilford Press; 2010.

139. Fosco GM, Frank JL, Stormshak EA, Dishion TJ. Opening the "black box": Family Check-Up intervention effects on self-regulation that prevents growth in problem behavior and substance use. *Journal of School Psychology.* 2013;51(4):455-468.

140. Prinz R, Sanders M, Shapiro C, Whitaker D, Lutzker J. Population-based prevention of child maltreatment: The U.S. Triple P System population trial. *Prevention Science.* 2009;10(1):1-12.

141. Brotman LM, Dawson-McClure S, Calzada EJ, et al. Cluster (School) RCT of ParentCorps: Impact on kindergarten academic achievement. *Pediatrics.* 2013;131(5):e1521-e1529.

142. Chaffin M, Silovsky JF, Funderburk B, et al. Parent-child interaction therapy with physically abusive parents: Efficacy for reducing future abuse reports. *Journal of Consulting and Clinical Psychology.* 2004;72(3):500.

143. MacMillan HL, Wathen CN, Barlow J, Fergusson DM, Leventhal JM, Taussig HN. Interventions to prevent child maltreatment and associated impairment. *The Lancet.* 2009;373(9659):250-266.

144. Olds DL, Hill PL, O'Brien R, Racine D, Moritz P. Taking preventive intervention to scale: The nurse-family partnership. *Cognitive and Behavioral Practice.* 2003;10(4):278-290.

145. Powell B, Cooper G, Hoffman K, Marvin RS. The circle of security. In: Zeanah CH, ed. *Handbook of Infant Mental Health.* New York: Guilford Press; 2009:450-467.

146. Minkovitz CS, Strobino D, Mistry KB, et al. Healthy steps for young children: Sustained results at 5.5 years. *Pediatrics.* 2007;120(3):e658-e668.

147. Collaborative for Academic Social and Emotional Learning (CASEL). *What is Social and Emotional Learning? http://www.casel.org/social-and-emotional-learning.* Accessed Mar 12, 2014.

148. Nangle DW, Erdley CA, Newman JE, Mason CA, Carpenter EM. Popularity, friendship quantity, and friendship quality: Interactive influences on children's loneliness and depression. *Journal of Clinical Child and Adolescent Psychology.* 2003;32(4):546-555.

149. Wentzel KR. Peer relationships, motivation, and academic performance at school. In: Elliot AJ, Dweck CS, eds. *Handbook of Competence and Motivation.* New York, NY: The Guilford Press; 2005.

150. La Greca AM, Harrison HM. Adolescent peer relations, friendships, and romantic relationships: Do they predict social anxiety and depression? *Journal of Clinical Child and Adolescent Psychology.* 2005;34(1):49-61.

151. Yap MBH, Jorm AF. Young people's mental health first aid intentions and beliefs prospectively predict their actions: Findings from an Australian National Survey of Youth. *Psychiatry Research.* 2012;196(2):315-319.

152. Coloroso B. *The Bully, the Bullied, and the Bystander*. Toronto, ON: HarperCollins Canada; 2003.

153. Bagwell CL, Newcomb AF, Bukowski WM. Preadolescent friendship and peer rejection as predictors of adult adjustment. *Child Development.* 1998;69(1):140-153.

154. Telzer EH, Fuligni AJ, Lieberman MD, Galván A. The effects of poor quality sleep on brain function and risk taking in adolescence. *NeuroImage.* 2013;71:275-283.

155. Kalak N, Gerber M, Kirov R, et al. Daily morning running for 3 weeks improved sleep and psychological functioning in healthy adolescents compared with controls. *Journal of Adolescent Health.* 2012;51(6):615-622.

156. Barton J, Pretty J. What is the best dose of nature and green exercise for improving mental health? A multi-study analysis. *Environmental Science & Technology.* 2010;44(10):3947-3955.

157. Hughes CW, Barnes S, Barnes C, DeFina LF, Nakonezny P, Emslie GJ. Depressed Adolescents Treated with Exercise (DATE): A pilot randomized controlled trial to test feasibility and establish preliminary effect sizes. *Mental Health and Physical Activity.* 2013;6(2):119-131.

158. Sigfusdottir ID, Asgeirsdottir BB, Sigurdsson JF, Gudjonsson GH. Physical activity buffers the effects of family conflict on depressed mood: A study on adolescent girls and boys. *Journal of Adolescence.* 2011;34(5):895-902.

159. Bourre JM. Effects of nutrients (in food) on the structure and function of the nervous system: Update on dietary requirements for brain. Part 1: micronutrients. *Journal of Nutrition, Health & Aging.* 2006;10(5):377-385.

160. Herbison CE, Hickling S, Allen KL, et al. Low intake of B-vitamins is associated with poor adolescent mental health and behaviour. *Preventive Medicine.* 2012;55(6):634-638.

161. Amminger G, Schafer MR, Papageorgiou K, et al. Long-chain omega-3 fatty acids for indicated prevention of psychotic disorders: A randomized, placebo-controlled trial. *Archives of General Psychiatry.* 2010;67(2):146-154.

162. Parletta N, Milte CM, Meyer BJ. Nutritional modulation of cognitive function and mental health. *The Journal of Nutritional Biochemistry.* 2013;24(5):725-743.

163. Burke CA. Mindfulness-based approaches with children and adolescents: A preliminary review of current research in an emergent field. *Journal of Child and Family Studies.* 2010;19(2):133-144.

164. *Centers for Disease Control and Prevention. Adolescent and school health: Coordinated school health. Last updated: 2/27/2013; http://www.cdc.gov/healthyyouth/cshp/index.htm. Accessed 2/25/2014.*

165. Knitzer J, Lefkowitz J. *Helping the most vulnerable infants, toddlers, and their families.* New York, NY: National Center for Children in Poverty, Columbia University; 2006.

166. National Association for the Education of Young Children. NAEYC early childhood program standards: A position statement of the National Association for the Education of Young Children. author; 2005.

167. *Office of Head Start. Head Start: Early Head Start. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/Early%20Head%20Start. Accessed 2/20/2014.*

168. Burchinal M, Vandergrift N, Pianta R, Mashburn A. Threshold analysis of association between child care quality and child outcomes for low-income children in pre-kindergarten programs. 2010;25(2):166-176.

169. Child Care Aware of America. We can do better: Child Care Aware of America's ranking of state child care center regulations and oversight - 2013 update. Arlington, VA: author; 2013.

170. Schmit S. Goals for EHS-CC partnerships that meet the needs of low-income families. Washington, DC: Center for Law and Social Policy; 2014.

171. Perry DF, Allen MD, Brennan EM, Bradley JR. The evidence base for mental health consultation in early childhood settings: A research synthesis addressing children's behavioral outcomes. *Early Education & Development.* 2010;21(6):795-824.

172. Morris PA, Lloyd C, Millenky M, Leacock N, Raver CC, Bangser M. Using classroom management to improve preschoolers' social and emotional skills: Final impact and implementation findings from the Foundations of Learning demonstration in Newark and Chicago. New York: MDRC; 2013.

173. *The Office of the Revisor of Statutes. 2013 Minnesota Statutes. https://www.revisor.mn.gov/statutes/?id=122A.09. Accessed Mar 12, 2014.*

174. *Texans Care for Children. School-Wide Positive Behavioral Interventions and Supports: A Plan for Texas. http://texanscareforchildren.org/Images/Interior/reports/pbis-%20a%20plan%20for%20texas.pdf. Accessed Mar 12, 2014.*

175. Hawkins JD, Kosterman R, Catalano RF, Hill KG, Abbott RD. Promoting positive adult functioning through social development intervention in childhood: Long-term effects from the Seattle Social Development Project. *Archives of Pediatrics & Adolescent Medicine.* 2005;159(1):25.

176. Durlak JA, Weissberg RP, Dymnicki AB, Taylor RD, Schellinger KB. The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development.* 2011;82(1):405-432.

177. *American Institutes for Research. Safe supportive learning. http://safesupportivelearning.ed.gov/.*

178. Wang M-T, Dishion TJ. The trajectories of adolescents' perceptions of school climate, deviant peer affiliation, and behavioral problems during the middle school years. *Journal of Research on Adolescence.* 2012;22(1):40-53.

179. Bradshaw CP, Waasdorp TE, Leaf PJ. Effects of school-wide positive behavioral interventions and supports on child behavior problems. *Pediatrics.* 2012;130(5):e1136-e1145.

180. Barrett S, Eber L, Weist M, eds. *Advancing education effectiveness: Interconnecting school mental health and school-wide positive behavior support*: Technical Assistance Center on Positive Behavioral Interventions and Supports, U.S. Department of Education's Office of Special Education Programs; 2013.

181. Moore KA, Caal S, Carney R, et al. *Making the grade: Assessing the evidence for Integrated Student Supports.* Bethesda, MD: Child Trends; 2014.

182. ICF International. Communities in Schools national evaluation volume 1: School-level report. Results from the quasi-experimental study, natural variation study, and typology study. Fairfax, VA; 2008.

183. City Connects. *City Connects: Optimized student supports.* Chestnut Hill, MA: Lynch School of Education; Last updated 2/24/2014. *http://www.bc.edu/schools/lsoe/cityconnects/.* Accessed April 29, 2014.

184. Baker S, Rich L, Wojnarowski M, Meehan P. *Implementing successful school-based health centers: Lessons from the Chicago Elev8 initiative* Chicago: Chapin Hall at the University of Chicago; 2013.

185. School-Based Health Alliance. *2010-2011 census report of school-based health centers.* Washington, DC: author; 2013.

186. School-Based Health Alliance. Health care innovation spotlight: Oregon school-based health centers readying for reform. Washington, DC: author.

187. *School Based Work Group of the Hennepin County Children's Mental Health Collaborative. Hennepin County Children's Mental Health Collaborative School Mental Health Practice Framework. Last updated: 07/12/2012. http://www.hccmhc.com/wp-content/uploads/2010/09/Hennepin-County-Children%E2%80%99s-Mental-Health-Collaborative-School-Based-Mental-Health-Practice-Framework.pdf. Accessed April 29, 2014.*

188. ICF International. Communities in Schools evaluation volume 1: Results from the quasi-experimental study, natural variation study, and typology study. Fairfax, VA: ICF International; 2010.

189. Demissie Z, Parker JT, Vernon-Smiley M. *Mental health and social services: Results from the School Health Policies and Practices Study 2012*. Atlanta, GA: Centers for Disease Control and Prevention; 2013.

190. Bunnell R, O'Neil D, Soler R, et al. Fifty communities putting prevention to work: accelerating chronic disease prevention through policy, systems and environmental change. *Journal of Community Health.* 2012;37(5):1081-1090.

191. Golden O. Early lessons from the Work Supports Strategies initiative: Planning and piloting health and human services integration in nine states. Washington, DC: The Urban Institute; 2013.

192. Lipscomb ST. Increasing access to quality child care for children from low-income families: Families' experiences. *Children and Youth Services Review.* 2013;35(3):411-419.

193. National Cancer Institute. *The Role of the media in promoting and reducing tobacco use. tobacco control monograph no. 19*: NIH Pub. No. 07-6242. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; 2008.

194. Clement S, Jarrett M, Henderson C, Thornicroft G. Messages to use in population-level campaigns to reduce mental health-related stigma: Consensus development study. *Epidemiology and Psychiatric Sciences.* 2010;19(1):72-79.

195. Wakefield MA, Loken B, Hornik RC. Use of mass media campaigns to change health behaviour. *The Lancet.* 2010;376(9748):1261-1271.

196. Johnson SB, Riley AW, Granger DA, Riis J. The science of early life toxic stress for pediatric practice and advocacy. *Pediatrics.* 2013;131(2):319-327.

197. Levin-Goodman R. *Connected Kids Implementation Case Studies project: Final report*: American Academy of Pediatrics and the Centers for Disease Control and Prevention; 2009.

198. Foy JM, Perrin J. Enhancing pediatric mental health care: Strategies for preparing a community. *Pediatrics.* 2010;125(Supplement 3):S75-S86.

199. Lipson SK. A comprehensive review of mental health gatekeeper-trainings in schools and other youth settings: Working paper, in preparation for publication; 2013.

200. Catanzarite JA, Robinson MD. Peer education in campus suicide prevention. *New Directions for Student Services.* 2013;2013(141):43-53.

201. Stajura M, Glik D, Eisenman D, Prelip M, Martel A, Sammartinova J. Perspectives of community- and faith-based organizations about partnering with local health departments for disasters. *International Journal of Environmental Research and Public Health.* 2012;9(7):2293-2311.

202. O'Connell ME, Kelly BB, Keenan W, Kasper MA. Report brief: A focus on costs and benefits: Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities: The National Academies; 2009.

203. England MJ, Sim LJ. Depression in parents, parenting, and children: Opportunities to improve identification, treatment, and prevention: National Academies Press; 2009.

204. Ochshorn S, Skinner C. *Building a competitive future right from the start: How paid leave strengthens 21st century families*. New York, NY: The National Center for Children in Poverty (NCCP); 2012.

205. *U. S. Department of Education, U.S. Department of Health and Human Services, U.S. Department of Justice. The Safe Schools/Healthy Students (SS/HS) Initiative. Last updated 05/29/2013 http://www.sshs.samhsa.gov/INITIATIVE/default.aspx. Accessed Mar 12, 2014.*

206. *Center for the Study of Social Policy. Strengthening families: A protective factors framework. Last updated 2012. http://www.cssp.org/reform/strengthening-families. Accessed April 29, 2014.*

207. Preventing child maltreatment through the promotion of safe, stable, and nurturing relationships between children and caregivers. Atlanta, GA: Centers for Disease Control and Prevention; 2014.

208. *Build Initiative. http://www.buildinitiative.org/.* Accessed Mar 12, 2014.

209. Michigan Association for Infant Mental Health. *http://www.mi-aimh.org/,* Last updated 2014.

210. California Infant-Family and Early Childhood Mental Health Training Guidelines Workgroup. *California training guidelines and personnel competencies for infant-family and early childhood mental health, revised*. Sacramento, CA: California Center for Infant-Family and Early Childhood Mental Health; 2011.

211. Miller L, Chan W, Comfort K, Tirella L. Health of children adopted From Guatemala: Comparison of orphanage and foster care. *Pediatrics.* 2005;115(6):e710-e717.

212. Bhui K, Warfa N, Edonya P, McKenzie K, Bhugra D. Cultural competence in mental health care: A review of model evaluations. *BMC Health Services Research.* 2007;7(1):15.

213. Satcher D. *Mental health: Culture, race, and ethnicity—A supplement to mental health: A report of the surgeon general.* Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services; 2001.

214. Whaley AL, Davis KE. Cultural competence and evidence-based practice in mental health services: A complementary perspective. *American Psychologist.* 2007;62(6):563.

215. Skiba RJ, Knesting K. Zero tolerance, zero evidence: An analysis of school disciplinary practice. *New Directions for Mental Health Services.* 2001;2001(92):17-43.