



EARLY CHILDHOOD DEVELOPMENT:
Implications for Policy, Systems and Practice

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A photograph of a woman with dark hair tied back, smiling warmly as she holds a sleeping baby in her arms. The image is overlaid with a semi-transparent blue filter. The text of the Table of Contents is positioned on the right side of the page.

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Early Childhood Development: Implications for Policy, Systems and Practice

Robert P. Franks, PhD, Matthew Pecoraro, MSW, Jayne Singer, PhD, Sarah Swenson, MA & Julie Boatright Wilson, PhD

Introduction

Early childhood is the most critical time in human development.¹ Experiences during this stage of life can have a long-lasting impact on an individual's health, wellbeing, academic success, and social adjustment. Policy decisions that promote healthy early childhood development will not only have lasting impact on the health and wellbeing of our citizens, but also on the vibrancy of our civic and economic life, likely leading to significant return on investment and mid- to long-term cost savings. By supporting a continuum of care for young children and their families that includes promotion, prevention, education, early identification, intervention and treatment, the Commonwealth of Massachusetts can ensure a healthy, productive society and help reduce significant and costly negative social and health outcomes for our citizens.

Ample evidence and experience gathered over the past several decades informs how to successfully support early childhood development. Research demonstrates that the best approach to optimize children's development is by (1) supporting healthy family functioning and caregiving environments, and (2) coordinating and supporting a comprehensive system of care that provides effective support to all families from birth through young adulthood.² The highest quality early childhood services and supports should be made accessible to all families and implemented to be affordable, accessible, equitable and effective within a coordinated system of care. Massachusetts is rich with intellectual innovation and determination to implement services well-informed by early childhood developmental science. The Commonwealth is poised to become a national leader in the care of our young children and their families if we implement the necessary continuum of services and supports. While some

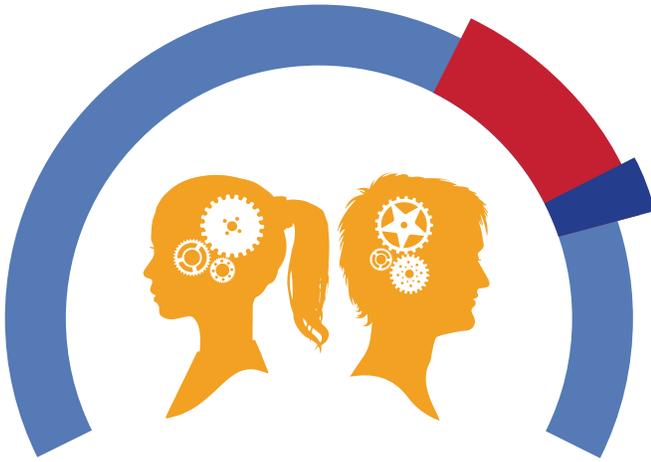
additional investment may be necessary to achieve this goal, much can be achieved by utilizing our existing resources in a coordinated, efficient, evidence-informed approach to create a comprehensive, integrated system of care that optimally serves young children and their families.

This brief outlines the major implications derived from identified needs, best practices and research in early childhood development, and identifies key strategies for building an effective continuum of care in Massachusetts. By implementing evidence-based policy recommendations, we have the opportunity to directly impact the systems that promote healthy child development, prevent behavioral health problems and intervene early with children and families at risk. Through sound and evidence-informed early childhood policies, systems and practices we can ensure the long-term vitality and stability of all of our young children and their families.

The Importance of Early Childhood Development

Research shows that healthy child development between birth and age six leads to higher achievement across the lifespan in multiple domains. Healthy early childhood development is crucial for every child and family, across social, economic, racial, ethnic and geographic backgrounds. Healthy development includes the social-emotional well-being of young children and their families. A healthy brain is literally built through interactions in a nurturing relationship between caregiver and child.³ Furthermore, healthy development is the result of a caregiver's ability to be both a role model and mediator to assist the young child in learning to cope with life's stressors through effective "*mutual co-regulation*" where

¹ Center on the Developing Child, 2010, ² Singer, J., 2007, ³ Singer, J., 2007



1 in 5

Children experience a diagnosable mental health concern.

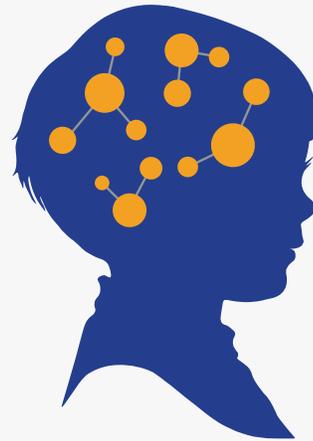
ONLY 20 – 25%

of children and youth who need mental health services receive them.

Merikangas, K.R., He, J., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., Benjet, C., Georgiades, K., Swendsen, J. 2010. Lifetime Prevalence of Mental Disorders in US Adolescents: Results from the National Comorbidity Study-Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(10), 980-989., http://www.nccp.org/publications/pub_929.html

the parent and child engage in a healthy, interactive relationship.⁴ Therefore, when we consider the importance of early childhood development, we must also consider how to best support the whole system of caregiving families and providers to enable them to provide the necessary nurturance, support and guidance through relationships that facilitate health in the early years and across the lifespan. Supporting these skills requires more than public service information and knowledge; it requires systems of care that promote healthy relationships between young children and their caregivers, while providing the necessary services and supports to facilitate healthy development and meet the needs of the child and family.

Within the first five years of a child's life 80-90% of brain structures are formed and the foundation for lifelong learning is established.⁵ The physical, cognitive, emotional, and social foundations established during these years are essential to health and wellbeing across the lifespan.⁶ Children's social and emotional development is foundational for learning and school readiness, as well as for healthy relationships throughout life. Early childhood emotional/mental health is "the developing capacity of the child from birth to 5 years of age to form close and secure adult and peer relationships; experience, manage, and express a full range of emotions; and explore the environment and learn – all in the context of family, community, and culture."⁷



In the first few years of life,
**700 NEW NEURAL
CONNECTIONS**
are formed every second.

Center on the Developing Child (2009). Five Numbers to Remember About Early Childhood Development (Brief). Retrieved from www.developingchild.harvard.edu

⁴ Tronick, E., 2007, ⁵ Ludy-Dobsos, Perry, & Gil, 2010, ⁶ National Scientific Council on the Developing Child, 2010a, ⁷ Zero to Three, 2016b

SIGNIFICANCE OF EARLY RELATIONSHIPS & ATTACHMENT



Secure attachment: the healthy emotional bond formed between caregiver and child when a caregiver is appropriately attentive and responsive to an infant's needs.

INSECURE ATTACHMENT



INSECURE ATTACHMENT CAN LEAD TO:

- Development delays
- Inconsistent eating habits
- Self-harming soothing behaviors
- Inconsistent emotional functioning
- Aggressive behaviors
- Inappropriate social interactions



SECURE ATTACHMENT



Produces a safe and secure base from which the infant can explore the environment



Becomes the organizing factor for all future relationships



Creates genetic potential, allowing genes essential for healthy functioning to become expressed



Strengthens brain development and fosters better cognitive skills & motivation to learn

OUTCOMES OF SECURE ATTACHMENT



Better control of aggressive impulses

Fewer behavioral issues

Ability to resolve conflicts in nonviolent ways

Ability to develop and sustain casual friendships and intimate relationships



Improved physical health

Improved immune system responses

Healthier behaviors, e.g. oral hygiene & exercise

Improved self confidence & mental health



Increased academic achievement

Higher employment success

Less involvement with the criminal justice system

Better capacity to be a successful parent

Children who experience positive, nurturing environments during these years demonstrate more positive outcomes such as healthier social relationships, higher academic and professional achievement, and enriched psychological and physical health⁸, all of which contribute to a healthier economy and society. However, when children are under-nurtured, or are subjected to toxic environmental stressors or traumatic adversities, their developmental trajectory can be significantly derailed; leading to a range of negative outcomes such as educational and employment issues, decreased social functioning, substance use, emotional disorders, and involvement with the justice system.⁹ Research further shows that children with compromised development are at significantly greater risk for life-long, extremely costly physical conditions such as heart disease, cancer, and chronic lung disease.¹⁰ Thus, healthy early childhood development not only has ramifications for the young child's life, but also for his or her wellbeing across the lifespan. Effective policy must therefore examine factors that potentially impact early childhood development at the individual, familial, community and systems levels. This ecological perspective can help identify opportunities to better promote and support healthy child development in health and human services, education and care systems.¹¹

What Is Early Childhood Development?

The life stage of early childhood is commonly defined as between birth and age six, and includes prenatal care and development. The burgeoning science of early childhood reflects the imperative to optimize support from even the earliest periods of development. Developmental needs within early childhood vary across the developmental phases of early childhood including, infants aged birth through 15 months, toddlers aged 15-months through 3 years, preschoolers aged 3-5 years, and kindergarteners aged 5-6 years. However, all stages within early childhood entail an incredible rate of development across multiple domains. The younger the child is, the more the consideration of early childhood must include the health and functioning of caregiving systems; since during early childhood a child's development across all domains is embedded in their social-emotional well-being.

Early childhood development includes cognitive, communication, physical, motor, psychological and social competencies that grow and change over the course of



a child's early years. Development includes a mixture of skills all developing side-by-side — sometimes at different rates and degrees of competency. While certain developmental milestones are expected by identified ages, research has shown that there can be a wide range of variability for achieving these milestones. We see this variability in a child's emotional and social development as well. Some children take longer than others to form relationships, interact with others in their world, and develop a healthy range and ability to express emotions. Many factors contribute to the rate of development and the competencies that children develop during these crucial years. Some factors are genetic and biological, while other factors, such as the child and family's environment and relationships with their caregivers, are also critical for healthy early childhood development. Thus, while we have expectations for what "normal" healthy early childhood looks like, we also must recognize that every young child is different and must be considered as individuals within a familial and environmental context.

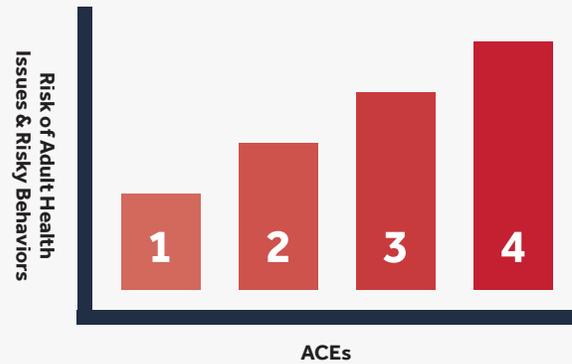
⁸ Center on the Developing Child, 2010, ⁹ Felitti et al., 1998; Mersky, Topitzes, & Reynolds, 2013; Shonkoff et al., 2012a, ¹⁰ Felitti et al., 1998, ¹¹ Bronfenbrenner, U., 1994

What Supports Healthy Child Development?

One of the most significant and remarkable processes in early childhood is brain development. As young children develop and grow, their brains develop at a rate faster than any other time in life. The young brain is highly adaptive and responsive to the child's environment. During this period, caregivers are a child's key to survival and play a critical role in forming the trajectory for future healthy development. This process of caregivers and young children responding to each other is referred to as "serve and return."¹² The enduring emotional relationships formed with caregivers, also known as "attachment," are the most significant early experiences a child will have.¹³ Attachment becomes the organizing factor for all future relationships, and, in part, determines a child's future success in forming and maintaining relationships.¹⁴ "Secure attachment," the healthy emotional bond formed between caregiver and child when a caregiver is appropriately attentive and responsive to an infant's needs, produces a safe and secure base from which the infant can explore the environment and learn new skills.¹⁵

Nurturing caregiving within loving family relationships is linked to stronger cognitive skills, better language development, and increased social competence as children grow.¹⁶ Longitudinal studies show that children with secure attachment to a caregiver are more likely to have better mental and physical health outcomes, academic achievement, lower use of social services over time, fewer behavioral issues, less involvement with the criminal justice system, and higher employment success. Of course, different children can have vastly different biological make-ups and be more or less prone towards potential behavioral difficulties. However, even children who are biologically at risk of developing mental health and behavioral problems can benefit from stable caregiving and secure attachment. Children with attentive and responsive caregivers are shown to develop improved self-regulation, including sleep cycles, improved immune system responses, and healthy behavior.¹⁷ The capacity for basic trust and attachment is foundational to self-regulation; trust and self-regulation are the foundation of self-esteem, self-control and capacity for successful relationships; all of which are necessary ingredients for communication, attention and "executive functioning", skills crucial to the learning

Impact of Adverse Childhood Experiences on Child Development



There is a strong relationship between health issues and the number of early adverse experiences; the more adversities experienced during childhood the more reported health issues and risky behaviors experienced in adulthood

process throughout life. Thus, in the early years the child's relationship with their primary caregivers is perhaps the most critical factor that helps determine their healthy development with significant implications for future outcomes.

Research has clearly demonstrated that relationships during early childhood inform nearly every aspect of the child's development.¹⁸ In particular, the child's relationship with caregivers is critically important to healthy development.¹⁹ Simply put, when a child is raised in a safe environment where basic needs are met and relationships with caregivers are stable, the child thrives. However, when a child lives in an environment with frequent exposure to adversity within their primary relationships, the child can suffer developmentally in a myriad of ways, while adversity buffered by strong parenting is less harmful than instability and inconsistency.²⁰

¹² National Scientific Council on the Developing Child, 2004, ¹³ Perry, B. D., 2001, ¹⁴ Ludy-Dobsos et al., 2010, ¹⁵ Perry, 2001, ¹⁶ National Scientific Council on the Developing Child, 2004, ¹⁷ Center on the Developing Child, 2010, ¹⁸ Center on the Developing Child, 2013, ¹⁹ The National Academies of Sciences, Engineering, and Medicine, 2016, ²⁰ De Young, Kenardy, and Cobham, 2011

Experiences outside of the home also help shape a child's early development. High quality caregiving or early educational environments, such as infant-toddler care and preschools, can be instrumental in promoting the health and wellbeing of young children. These environments engage children's attention, focus, memory and social abilities, allowing them to build upon the skills founded in the home environment.²¹ Early education and care settings are also crucial in forming executive functioning skills of working memory, inhibitory control and cognitive flexibility, and are linked with successful learning habits, school achievement, as well as social and moral development.²² These environments can serve as a powerful support for children who either do not have the innate capacities to build executive functioning or whose caregiving system in the home is in need of support.²³ These settings are particularly noteworthy now, given the rising alarm regarding preschool expulsion both in Massachusetts and nationally. In recent years, this phenomenon has been studied using data collected from the National Prekindergarten Study which included 3,898 teacher respondents from classrooms across 40 different states and 52 state-funded school systems. The national rate of prekindergarten expulsion was 6.67 per 1,000 preschools which was 3.2 times higher than the national average of expulsion for K-12 students. In Massachusetts, preschoolers

were expelled at a rate of 11.15 per 1,000 students versus the rate of K-12 student expulsion being .80 per 1,000 students. Analysis of the data revealed that the type of classroom setting, teacher training, and child-teacher ratios impacted these rates of expulsion.²⁴

In addition, early education and care settings expose children to caregivers beyond their immediate family. Research shows young children benefit greatly from responsive and attentive caregiving provided by multiple caregivers. When that positive relationship is formed with a teacher, the child is more excited about learning, is more positive about attending school, more self-confident and more academically successful.²⁵ In addition to enhancing supportive relationships with caregivers, learning environments have been found to promote healthy physical, behavioral, emotional, cognitive and social functioning.²⁶ Cutting-edge genetic research has even shown that engaging environments with positive caregiving relationships promote genetic potential, allowing certain genes essential for healthy functioning and development to become expressed. In contrast, exposure to adversity and negative experiences can inhibit gene expression and potentially derail an individual's ability to navigate the complexities of life.²⁷



TOXIC STRESS

Repeated and continued activation of the stress response system without the support of a caregiver to offset the impact of this frequent activation. Often seen in situations of chronic abuse, neglect, or poverty.

TOLERABLE STRESS

Seen in situations of adverse experiences (i.e. death of loved one, car accident) and is supported by consistent and emotionally-attuned caregiving. Tolerable stress results in resilience and growth in a child.

POSITIVE STRESS

Short-term stress response to daily frustrations that is a normative part of development and a positive learning experience.

IMPACTS OF POVERTY

By age 2, children in the lowest socio-economic group are behind their peers in measures of cognitive, language and social-emotional development.



Poverty is a leading cause of toxic stress and negative early experiences



Toxic stress undermines school readiness and academic success



Poverty is linked to increased risk behaviors such as alcohol & drug use



Increased risk behaviors are linked to higher school dropout rates, unemployment, homelessness, & incarceration

A BETTER PATH

Access to Quality Child Care & Early Learning Programs Lead to...



Higher IQ and higher reading & math achievement



Greater likelihood of completing college



Better health outcomes into adulthood



Higher employment rates



The Impact of Adversity on Child Development

Toxic Stress

Brain development is dependent upon daily use; the more a person uses certain parts of the brain and brain functions, the easier they are to activate and the stronger they become, especially during earliest childhood.²⁸ Thus, our environment helps strengthen or promote development in corresponding areas of the brain.

When exposed to stressors in the environment, the brain responds and over time its development is impacted. The stress response system, also known as the “fight or flight” response, helps people interpret internal and external events and cues as either safe or threatening, and then prompts the individual to respond accordingly.²⁹ A growing body of research shows that the frequency and severity of the activation of this stress system has various short and long-term effects on child development. In a stress response, there is biological change and a release of stress hormones. When the source of stress is typical and appropriately supported by caregivers and the environment, this stress response can result in growth and greater resilience. However, if a child is exposed to excessive or prolonged stress, the response system can become derailed. This can lead to unhealthy child development and have long-term damaging effects on learning, behavior and health throughout life.^{30 31}

Studies have revealed three types of stress experienced by children: positive stress, tolerable stress, and toxic stress. “Positive stress” is necessary to healthy child development and consists of brief periods of heightened stress that activate

a child’s response system. Examples of positive stress could include a child’s first day with a new caregiver or an immunization injection.³² When a child experiences positive stress, the emotionally responsive and self-regulated caregiver provides scaffolding for the child to develop an ability to cope with such situations and to feel in control of the bodily responses caused by stress.³³

In a “tolerable stress” response, the child’s system is activated to a greater degree in response to a more intense, longer-lasting adversity, such as the death of a loved one, divorce, or a physical accident.³⁴ Consistent, emotionally-attuned, and supportive caregiving can help create a safe relationship and be an emotional mediator that helps the child learn to cope with extraordinary stressors. With robust caregiving in place, even a tolerable stress experience may result in increased resilience and growth of the child.³⁵

“Toxic stress” is seen in cases of “strong, frequent, and/or prolonged adversity”³⁶ and is characterized by repeated and continued activation of the “fight or flight” system, which can adversely affect the developing brain. Events that cause toxic stress are chronic and can be further complicated by the lack of supportive and consistent caregiving systems that would otherwise offset frequent and prolonged exposure to stress. This most often occurs in situations of chronic abuse, neglect or circumstances of poverty. Toxic stress leads highly stimulated stress response systems to over-develop and prevents other nervous system functions, such as those necessary to learn and regulate emotions, from operating and growing to their full potential. For example, a persistent state of fear can stop a child from being able to tell the difference between a safe environment and a threatening one, and can certainly interfere with the child’s ability to develop attachment and trust in relationships. An inability to appropriately navigate potentially dangerous or

IMPACTS OF POVERTY RESOURCES

Center on the Developing Child, 2009; Felitti et al., 1998; National Center for Children in Poverty, Income status of children under age 6, by parental education; Savageau, et al., 2014; Shonkoff et al., 2012a; Zero to Three, 2013; Zero to Three, 2016d; Zero to Three, 2016e

²⁸ Ludy-Dobsos et al., 2010, ²⁹ Ludy-Dobsos et al., 2010, ³⁰ Center on the Developing Child; <http://developingchild.harvard.edu/science/key-concepts/toxic-stress/>, ³¹ National Scientific Council on the Developing Child, 2005/2014, ³² Center on the Developing Child, <http://developingchild.harvard.edu/science/key-concepts/toxic-stress/>, ³³ National Scientific Council on the Developing Child, 2005/2014, ³⁴ Center on the Developing Child; <http://developingchild.harvard.edu/science/key-concepts/toxic-stress/>, ³⁵ Center on the Developing Child; <http://developingchild.harvard.edu/science/key-concepts/toxic-stress/>; National Scientific Council on the Developing Child, 2005/2014

stressful environments can have lifelong ramifications. Not only does prolonged stress impact the way a child interacts with the world, but it also can severely compromise the developing brain of the child which can lead to a myriad of costly problems over the lifespan.

Adverse Childhood Experiences

Adverse Childhood Experiences (ACEs) are defined as traumatic events that may have negative and long-lasting effects on the health and well-being of a child.³⁷ Research has found that over 50% of people have at least one adverse childhood experience by the time they reach adulthood, and 25% have more than two.³⁸ The research further shows that there is a strong relationship between the number of early adverse experiences in childhood and health issues later in life. That is, more adversities in childhood tend to lead to more reported health problems and risky behaviors in adulthood. ACEs have also been correlated with poorer overall health, poorer mental health, negative social outcomes, and increased substance use.³⁹ Exposure to childhood adversity also correlates with poor health outcomes in adulthood, including cardiovascular disease, asthma, autoimmune disease, cancer, and chronic lung disease, among others.⁴⁰ Not only are these diseases leading causes of death for adults, they also result in enormous healthcare costs each year, suggesting that early identification and intervention with adverse childhood experiences could produce a high economic rate of return.⁴¹

Further, when individuals with unhealthy and risky lifestyles become parents, they are less likely to provide a stable and supportive home environment for their own children through emotionally attuned, behaviorally and emotionally regulated relationships, thus contributing to the intergenerational transmission of childhood adversity.⁴²

Complex Trauma

Traumatic events, such as the death of a loved one, abuse or community violence, can seriously affect a child's development.⁴³ *Chronic* exposure to traumatic events and the resulting long-term negative affect it has on child development is referred to as "complex trauma."⁴⁴ Research shows that exposure to trauma can negatively affect the prefrontal cortex, the brain structure responsible for executive cognitive skills such as emotional reasoning and control, attention, memory and response inhibition. Deficits in this area have been shown to correlate to impairments in school performance, lower school

attendance, learning and behavior problems, and higher risk for health problems and substance use throughout the life of the child.⁴⁵ Children exposed to complex trauma often demonstrate difficulty with boundaries, perspective-taking, increased medical problems, coordination and balance, emotional regulation, feelings identification, impaired memory, oppositional behavior, sleep and eating disturbances, aggression, impaired executive functioning and learning, and poor self-esteem.⁴⁶

The first five years of life are not only a critical period of development, but also a time during which the highest rate of maltreatment is seen nationally.⁴⁷ Many behaviors during a child's most critical periods of development offer the most significant challenges to their caregivers. An estimated 56% of maltreatment victims are younger than seven years old and children between birth and four years old have the highest rate of reported child abuse and neglect cases.⁴⁸ This prevalence of adversities during young childhood has also been linked to lasting negative impacts for our society.

It is evident that negative experiences in early childhood can have a lasting impact into adulthood.

Exposure to toxic stress and traumatic events are widespread, yet we know that early identification and intervention can help mediate the effects of these insults to healthy development.

Research has identified a range of protective factors, including parental resilience, social connections and support, knowledge of parenting and child development, concrete supports in times of need, and social emotional competence that can help promote healthy development and offset the negative impact of childhood adversities.⁴⁹ Further, over the past two decades, we have developed a range of early identification, prevention, intervention and treatment strategies for at-risk children and families that have been proven to be highly effective in helping to restore healthy development and positive outcomes. The Commonwealth of Massachusetts has incrementally begun to implement some of these strategies, but much work remains to ensure that every vulnerable child and family has access to the highest quality support and care.

³⁶ Center on the Developing Child; <http://developingchild.harvard.edu/science/key-concepts/toxic-stress/>, ³⁷ Child Trends, 2014, ³⁸ Felitti et al., 1998, ³⁹ Felitti et al., 1998; Merskey et al., 2013, ⁴⁰ Felitti et al., 1998; Shonkoff et al., 2012a, ⁴¹ Shonkoff et al., 2012a, ⁴² Shonkoff et al., 2012a, ⁴³ Child Trends, 2016, ⁴⁴ National Child Traumatic Stress Network., 2014, ⁴⁵ Carrion and Wong, 2012, ⁴⁶ Cook et al., 2005, ⁴⁷ Liebermann, Chu, Van Horn, Harris, 2011, ⁴⁸ De Young et al., 2011, ⁴⁹ Child Welfare Information Gateway; www.childwelfare.gov/topics/preventing/promoting/protectfactors



Massachusetts Context: Policies, Systems and Practices that Promote Healthy Development

Over the past two decades, Massachusetts has made a wide range of efforts to promote healthy early childhood development and address the myriad of risk factors that lead to negative outcomes. A review of early childhood supports in Massachusetts reveals a complex and often changing network of policies, systems, workforce development programs, and practices that target early childhood and family health and emotional well-being through promotion, prevention, intervention, and treatment.

Policy Development

A variety of policies in Massachusetts have been developed to address the mental health needs of young children and families. Some of the more recent policies followed a 2001 lawsuit, known as *Rosie D.*, in which the Commonwealth of Massachusetts received a court order in 2006 to develop a complete range of home-based mental health services including assessments, case management, behavior supports, and mobile crisis response.⁵⁰ Policies and programs developed in the wake of this court order include the Children's Behavioral Health Initiative (CBHI), established by the Executive Office of Health and Human Services (EOHHS) and charged with strengthening, expanding, and integrating home and community-based mental healthcare for all MassHealth enrolled children under the age of 21.⁵¹ However, stakeholders interviewed for this brief reported that access to early childhood services through CBHI can be limited, and CBHI providers have varying levels of expertise and limited capacity to treat very young children. Most of the services offered through CBHI target school-aged children and adolescents.

Groups such as the Parent/Professional Advocacy League (PPAL), the Young Children's Council, the Massachusetts Chapter of the American Academy of Pediatrics' Children's Mental Health Task Force, and the Children's Mental Health Campaign (CMHC) are actively advocating for policy advancement at the local, state, and federal levels. At the time of this writing, policy efforts underway include the CMHC proposed *Act to Support Healthy Development among Preschoolers*, in response to mounting alarm in Massachusetts regarding the growing rates of preschool expulsion due to challenging behaviors. Early education and care settings continue to grow as an area of policy focus across

Massachusetts with the Department of Early Education and Care (EEC) as a prime driver for reform. For example, in 2008 Massachusetts passed An Act Relative to Early Education and Care, which, among other outcomes, created the Universal Pre-Kindergarten (UPK) pilot program.⁵²

This program still operates as a pilot without equal access to important early programming across the Commonwealth despite strenuous advocacy (e.g., the private non-profit Massachusetts Budget and Policy Center). Interest in supporting early childhood development at the policy level is further exemplified by Massachusetts' participation as a partner in the national consortium of states applying the Pyramid Model, designed by the Center on the Social and Emotional Foundations for Early Learning to promote social-emotional development and school readiness in young children.⁵³

In 2016, Massachusetts House Speaker Robert DeLeo convened the Early Education and Care Business Advisory Group, promoting increased investment in early education and care settings; and workforce development for those working in that sector. This group recently released *"The Business Imperative for Early Education,"* a report presenting findings on the role of early education and care in supporting future generations of the Massachusetts workforce, as well as general social and economic health. The report suggests that high return on investment may come from supporting early care and education settings, as it highlights a gap between the established importance of these critical learning years and the current state of the system - including quality and availability of early education and care programming, credentialing requirements,

⁵⁰ Rosie D., 2008 <http://www.rosied.org/page-67061>, ⁵¹ Children's Behavioral Health Initiative (2017a); Children's Behavioral Health Initiative (2017b), ⁵² Strategies for Children. An Act Relative to Early Education and Care, http://www.strategiesforchildren.org/state_leg_EEC.html, ⁵³ Center for Social-Emotional Foundations for Learning, <http://csefel.vanderbilt.edu/>, ⁵⁴ Early Education and Care Business Advisory Group, 2017, ⁵⁵ Put MA Kids First, www.putmakidsfirst.org



compensation, professional development and growth, and coordination of a workforce pipeline.⁵⁴ The Put MA Kids First coalition of 66 affiliated agencies is also actively advocating for increased salary rates for state grantee early care and education professionals.⁵⁵ This will in turn assist in reducing staff turnover, and advocating for increased state subsidy rates in early education and care settings in order to ensure more high quality options for lower income families.

Stakeholder interviews indicate that Speaker DeLeo's concern for workforce development is shared across sectors in Massachusetts. The Massachusetts Association for Infant Mental Health (MassAIMH) and its Policy, Intervention, Research, and Training Committees, enabled by EEC's use of Federal Race to the Top funding in 2015, entered into an inter-state agency memorandum of understanding to adopt the Michigan Infant Mental Health Professional Competency Guidelines for Massachusetts and become a member of the National Alliance of State Associations of Infant Mental Health. These competencies are designed to: enhance the skills of the workforce, thus promoting healthy child development and parenting; enhance social and emotional well-being; prevent early mental health problems; intervene with effective, evidence based strategies that reduce risks of early developmental and child-family relationship challenges; and treat identified mental health concerns.⁵⁶ Workforce development is further advocated for by a number of state and community affiliated workgroups including, but not limited to, DPH led Infant Early Childhood Mental Health (IECMH) Interagency Systems Workgroup, which includes EEC, Departments of Elementary and Secondary Education (DESE), Mental Health (DMH), Children and Families (DCF), MassHealth, and the Children's Behavioral Health Initiative (CBHI); DMH's Professional Advisory Council for Children and Youth; and the Children's Mental Health Campaign.

Cross-sectoral support for early childhood development has gained momentum as well. In 2016, The Kids First Initiative initiated by the Massachusetts State Senate and led by Senator Sal DiDomenico was launched as a cross sector, multi-year initiative focused on fostering healthy child development through innovative strategies and targeted investment opportunities.⁵⁷ Also in 2016, there were two separate summits regarding social-emotional health across the state: the *Starting Strong Summit on Early Childhood Social-Emotional Health*, hosted by the Collaborative for Educational Services of Western Massachusetts, and The Massachusetts Children's Trust Foundation *Inaugural Summit on Social-Emotional Health*. Later that spring, the Post-Partum Depression (PPD) Commission and the State House hosted the *Post-Partum Depression Awareness Day*, with rich information about the importance of detection and treatment of PPD related to early childhood development. In February 2017, Senator Jennifer Flanagan, Representative Kimberly Ferguson, and The Home for Little Wanderers' (The Home) newly founded Center for Early Childhood sponsored a meeting on early childhood social and emotional health and well-being; entitled, "*Resiliency Begins at Birth*" to highlight The Home's relationship-based wrap-around services that engage multiple agencies in closing gaps in service delivery for vulnerable children and families.

The numerous state efforts are often siloed, and do not always include or focus on early identification, prevention or intervention of emotional and behavioral health concerns — an issue that could be addressed by a statewide early childhood strategic plan.

⁵⁶ MassAIMH Competency Guidelines, 2015, ⁵⁷ Kids First; Kids First Initiative, <https://malegislature.gov/CC/WhatsNext/SessionReportAttachment/27>

Systems Development

Massachusetts is home to a number of child-serving systems that promote healthy child development, parent and caregiver support, and agencies that work to foster the best long-term outcomes possible for children and families. State systems that serve young children include numerous agencies such as Department of Children and Families (DCF), Department of Elementary and Secondary Education (DESE), Department of Mental Health

(DMH), Department of Public Health (DPH), MassHealth, and more recently, Department of Early Education and Care (EEC). Early childhood systems are spread between more than twenty-six state initiatives targeting early childhood social-emotional health within seven different state agencies across two separate state executive offices (Figure 1).

Figure 1: State Interagency Systems Workgroup IECMH Efforts⁵⁸

The State Infant Early Childhood Mental Health Systems Workgroup has been meeting since 2013, co-led by DPH and DMH. It follows the Massachusetts IECMH Strategic Plan developed by a previous state interagency group in 2009. The workgroup coordinates state IECMH efforts such as the recent/current activities listed below.

AGENCY/SECRETARIAT	IECMH RELATED EFFORTS
DPH/EOHHS	<ul style="list-style-type: none"> • Young Children’s Council • Early Intervention State Systemic Improvement Plan • LAUNCH Expansion • CSEFEL Pyramid State Leadership Team • Maternal Child Health Initiative • Mass Home Visiting Initiative • Zero To Three Technical Assistance grant • EOE Birth to Grade 3 Advisory
DMH/EOHHS	<ul style="list-style-type: none"> • Reflective Supervision Training for In-Home Therapy Supervisors • Supporting EEC’s Mental Health Consultation project • MCPAP & MCPAP for Moms • Children’s Behavioral Health Knowledge Center • ARC-GROW training with MassHealth • Zero To Three Technical Assistance grant
DCF/EOHHS	<ul style="list-style-type: none"> • Mass Child Trauma Project • Family Resource Centers with EOHHS • Early Childhood Specialist • Regional Mental Health Specialists
MassHealth/EOHHS	<ul style="list-style-type: none"> • CBHI Early Childhood Mental Health Guide • Reflective Supervision Training for In-Home Therapy Supervisors • ABA coverage for Autism Spectrum Disorder • MassHealth BH screening tools/postpartum depression screener • ARC GROW training with DMH
EEC/EOE	<ul style="list-style-type: none"> • Early Head Start/Head Start • Social Emotional Learning Guidelines • ECMH Consultation • Coordinated Family and Community Engagement Grantees • Preschool Expansion Grant • Birth to Grade 3 Advisory
ESE/EOE	<ul style="list-style-type: none"> • State Systemic Improvement Plan with Preschool Special Ed • Training Facilitators on Pyramid Family Modules • Social Emotional Learning Guidelines • EOE Birth to Grade 3 Advisory

⁵⁸ Developed by Kate Roper

Beginning in the early 2000s, Massachusetts started directing more attention and resources to promoting social-emotional development in child and family serving systems. In 2005, the Commonwealth formed the EEC to ensure these settings most effectively support the social-emotional health of young children and their caregivers.⁵⁹ While Massachusetts is dedicated to this department, EEC is not currently funded or structured to fully coordinate or support the growing network of early childhood screening, prevention, intervention and treatment programs across the state. Despite these limitations, EEC works collaboratively with more than 10 state agencies including those listed above, and the MA Head Start State Collaboration Office to coordinate its programming and services.

In 2009, the Executive Office of Health and Human Services (EOHHS) was awarded a six-year, \$8.9M grant to create MYCHILD (Massachusetts Young Children's Health Interventions for Learning and Development). This collaboration utilized the pediatric medical home setting to provide early childhood mental health services to children and families, and has shown promising outcomes in decreasing parental stress and improving behavioral functioning in children. The state has further demonstrated support for promoting social-emotional development through the Pyramid Initiative, and Project LAUNCH (Linking Actions for Unmet Needs in Children's Health) also under DPH within EOHHS.⁶⁰

Other early learning efforts include a \$50 million grant award in 2011 through the Race to the Top- Early Learning Challenge which continued the expansion of public preschool services in the state, and led to systems building and interagency collaboration. However, when funding ended, these advancements were not fully sustained. In 2014, Massachusetts was one of 18 states that received federal funding as a part of the Preschool Development Grants Program within the Department of Education. Systemic adaptation is further exemplified by Boston Public Schools (BPS), which is in the process of implementing the Comprehensive Behavioral Health Model (CBHM), an initiative to improve mental health support services in public schools (including pre-kindergarten and kindergarten).⁶¹

Community-based services have also been the focus of systems advancement and reform. For example,

Massachusetts conducted an evaluation of the Maternal, Infant and Early Childhood Home Visiting (MIECHV) program, addressing implementation, utilization, data collection, and outcomes of home visiting programs. This project assesses the capacity of provider communities and examines the organization and operation of the state systems, as well as long term systems sustainability.⁶² The MIECHV program, contained within the Affordable Care Act, is a state agency partnership that utilizes local human service agencies to provide home visiting services to Commonwealth families.⁶³ Home visitors provide guidance and skills building to parents, as well as social-emotional development screening.⁶⁴ Other home-based visiting services in Massachusetts include the Early Intervention Program (EIP) under DPH; as well as Healthy Families, Parents as Teachers, and Early Head Start. Massachusetts' care delivery systems collaborate across sectors to implement emotional and physical health interventions. Examples include the Human Development Initiative at the Austen Riggs Center, the Developmental Understanding and Legal Collaboration for Everyone (DULCE), and the Smith Family Foundation's TEAM UP (Transforming and Expanding Access to Mental Health in Urban Pediatrics) Initiative. The Human Development Initiative at the Austen Riggs Center was recently launched to support infant, child, and family mental health in Berkshire County by applying a relational view of early development to a community-based preventive model of care. DULCE embeds the Strengthening Families⁶⁵ framework within the primary care setting to identify the needs of vulnerable families with newborns and provide support utilizing identified family strengths. DULCE is a partnership of the Center for Study of Social Policy, Boston Medical Center, Healthy Steps, Medical Legal Partnership, and the Brazelton Touchpoints Center. The DULCE original pilot included a community component added through the active participation of Boston's Thrive in Five (school readiness initiative), the Massachusetts Children's Trust, the DCF, DPH, and the Boston Public Health Commission. The Smith Family Foundation has recently committed up to \$10 million for its TEAM UP Initiative. In partnership with Boston Medical Center, this initiative aims to build the capacity of local community health centers to address the mental health needs of children through fully integrated pediatric health care.⁶⁶

⁵⁹ Department of Early Education and Care, 2009. ⁶⁰ Center for Social-Emotional Foundations for Learning, <http://csefel.vanderbilt.edu/>; <http://www.mass.gov/eohhs/provider/guidelines-resources/services-planning/family-health/perinatal-early-child-special-needs/child-care-health-and-safety/social-emotional-development.html>. ⁶¹ Boston Public Schools Behavioral Health Services, <http://cbhmboston.com/what-is-cbhm/>. ⁶² Zero to Three, 2016b. ⁶³ The Massachusetts Home Visiting Initiative, <http://www.mass.gov/eohhs/gov/departments/dph/programs/family-health/home-visiting/the-massachusetts-home-visiting-initiative.html>. ⁶⁴ Stakeholder input; The Massachusetts Home Visiting Initiative, <http://www.mass.gov/eohhs/gov/departments/dph/programs/family-health/home-visiting/the-massachusetts-home-visiting-initiative.html>. ⁶⁵ Center for the Study of Social Policy, <http://www.cssp.org/reform/strengtheningfamilies/about>. ⁶⁶ Richard and Susan Smith Family Foundation, Retrieved from <http://www.smithfamilyfoundation.net/health/>

A well trained and credentialed workforce may promote successful child-serving systems. The Young Children's Council⁶⁷ catalogues Massachusetts based professional development opportunities in its *Early Childhood Mental Health Professional Development Resource Guide*. These opportunities are available to the multidisciplinary workforce that serves Massachusetts' young children and their families. The introduction to the Resource Guide and the full compendium of trainings is available on the MA DPH website at www.ecmhatters.org.

Coordinating systems across Massachusetts is inherently challenging; and has garnered the interest of professionals across the state. While it is evident that the Commonwealth

is developing its early childhood systems and supports, there appears to be a lack of consistent strategic coordination across systems to prioritize efforts, decrease silos, and ensure that the most effective strategies are being utilized to reach desired outcomes. The lack of a single agency or entity to routinely coordinate or oversee the full range of services and supports for young children and their families can result in redundancies in services and programs in some areas and significant gaps in others. As a result, some of these services are only accessible to special, targeted populations, while others are only available in certain geographic regions of the state. Stakeholders interviewed for this brief report that parents and caregivers in local communities often do not know what services are available or how to access them.

Practice Development

Across Massachusetts there are pockets of highly-effective services that target a range of needs experienced by young children and their families. For example, the EEC Coordinated Family and Community Engagement Programs (CFCE) utilize the Strengthening Families Protective Factors and local community partner organizations to provide Massachusetts families and children from birth to age 8 with developmental support and transition services. These include needs identification (utilizing the ASQ screening tool), evidence based early literacy opportunities, family education support programming, early childhood and school transition services, and as needed referrals to outside assessments and interventions. Particular emphasis is placed on high-needs families, and families who are not engaged in the formal early education and care system.⁶⁸ The grant is a collaboration between Community Partnerships for Children Programs (CPC), Massachusetts Family Network Programs (MFN), Parent Child Home Programs (PCHP) and Joint Family Support Programs (JFSP).⁶⁹

Early Childhood Mental Health Consultation (ECMHC) Programs provide consultation services to address and support the social-emotional development and behavioral health of children in early education and care, and

out-of-school time settings. The early childhood mental health consultation services offered through the EEC Early Childhood Mental Health Consultation Grant are available across Massachusetts, provided by six mental health consultation grantee organizations: Community Healthlink and Together For Kids in Worcester, Massachusetts Society for the Prevention of Cruelty to Children (MSPCC) Mental Health Consultation Program in Lawrence, Enable, Inc. Consultation Services for Children in Canton, The Home for Little Wanderers Preschool Outreach Program in Roslindale, the Justice Resource Institute, Inc. Early Childhood Training and Consultation in Taunton, and the Behavior Health Network, Inc. Early Childhood Mental Health Consultation Program in Springfield.

In 2015, the Maternal and Child Health (MCH) Transformation Coalition conducted an environmental scan of services available to young children and their families in Massachusetts. These services were particularly focused around the primary care setting, which is widely viewed as a gateway to other types of service delivery. The Coalition identified over 40 agencies and organizations that provide social-emotional resources and services for young children and their families.⁷⁰ While

⁶⁷ Stakeholder input revealed that The Young Children's Council formed in 2010 to advise EOHH's MYCHILD System of Care and DPH's LAUNCH. Currently the YCC is broadening its role to align multiple DPH efforts on IECMH and systems building, ⁶⁸ Massachusetts Department of Early Education and Care – FY 2015 EEC Coordinated Family and Community Engagement Grant, ⁶⁹ Executive office of Education, 2017; Stakeholder input, ⁷⁰ Maternal Child Health Workgroup, Convened by Massachusetts Department of Public Health, 2016, ⁷¹ Massachusetts Child Psychiatry Access Project, 2014; UMassMemorial Community Healthlink, <http://www.communityhealthlink.org/chl/services-for-young-children/together-for-kids-coalition>

this list is not exhaustive, it is one of the few efforts to identify the range of services and supports available to caregivers and their young children across the state. The scan grouped programs into categories of intervention and identified their funding sources. Some of the notable services the scan identified include the Massachusetts Child Psychiatry Access Project (MCPAP), and MCPAP for Moms; providing psychiatric consultation services through Primary Care Providers (PCP) and Obstetricians (OB); and the community coalition Together For Kids, providing mental health promotion, prevention, and intervention services for children, families, educators; and as needed referrals to more intensive care.⁷¹ Other agencies such as the Guidance Center, Jewish Family & Children's Services, the Brazelton Touchpoints Center (Touchpoints; Newborn Behavioral Observation, Family Connections Mental Health Consultation), Boston Children's Hospital Neighborhood Partnerships, The Judge Baker Children's Center, The Home for Little Wanderers Center for Early Childhood, the Training and Access Project (TAP) from Children's Hospital, and the Parent Child Development Centers each provide programming or services to support early childhood development, promote socio-emotional health and wellbeing, and provide workforce skills building within early education and care and community-based settings. This scan revealed a limited number of evidence-based practices (EBPs) available to families across the state. While some EBPs are available in pockets, currently, there does not appear to be any statewide access to established evidence-based outpatient or in-home early childhood services and supports. As Massachusetts continues to

develop its continuum of care, attention to implementing EBPs should be a priority. More information about Massachusetts-based initiatives can be found in Figure 1 and the appendix.

Stakeholder interviews for this brief indicate that, while present, the private and public services and supports being offered in Massachusetts are not always known to each other or well-coordinated, and may not be accessible to all children and families throughout the state. This lack of an integrated, statewide infrastructure to support early childhood development can result in fragmentation, limited access, and a lack of coordinated services and supports, resulting in less than optimal outcomes for our most vulnerable families. Further, while the Commonwealth has an increasing range of services and supports to address developmental issues such as autism, the available range of prevention and intervention services that address emotional and behavioral health issues is more limited.

There needs to be more cohesive access to the kinds of evidence-based services known to specifically support young children and their families that promote emotional and behavioral health and wellbeing.



Best Practices

The Institute of Medicine (IOM) model helps classify services and programs by the level of intensity of services and supports and the populations served, including the following three categories based on level of risk: **Universal**, **Selective**, and **Indicated**. These same categories are used by the U.S. National SAMHSA National Registry and Evidence based Programs and Practices (NREPP) to classify **best practices** available to support the population of early childhood and their families.⁷² To describe the services being offered in Massachusetts, these defined categories of *target populations* will also be cross-referenced to their *tiers of support* (degree of intensity of services) according to the pyramid model of service delivery as defined by the MA DPH model: Promotion, Prevention, Intervention, and Treatment.⁷³

Universal Services

Universal services and public awareness programs target the general population and are not directed at a specific risk group. Universal measures address the entire population of Massachusetts young children and their families with messages and programs aimed at **promotion and prevention**. The objective is to deter the onset of early childhood mental health difficulties and/or behavioral disorders by providing families with the information *and skills* necessary to prevent problems. The entire population is considered at general risk and able to benefit from promotion and prevention programs. Thus, every child and family would benefit from universal approaches. An example of a universal approach to early childhood health promotion would be universal screening for all young children by their primary care providers to identify developmental, emotional and behavioral health risk factors and symptoms.

Selective Services

Selective programs target young children and families identified by the magnitude and nature of risk factors to which they are exposed or potentially exposed. These efforts include **prevention** measures which target specific segments of the early childhood population which are considered at risk for difficulties with emotional and behavioral health. Selective prevention targets the entire segment, not specific children or families within that subgroup. Therefore, children and families who have been identified as at risk of compromised development would be included in this category. An example of a selective approach would be providing evidence-based in-home services and supports to young children and their caregivers who live in poverty, have limited social supports, and multiple risk factors.

Indicated Services & Treatment

Indicated services and programs are **interventions** that target designated young children and families already referred or identified in the system as in need of intensive therapeutic treatment for families. Indicated services target symptoms and signs of early childhood mental health diagnoses, social-emotional or behavioral health difficulties. Indicated services are directed towards young children, their caregivers and families who have demonstrated a need for support, treatment or intervention. Indicated services can be provided in clinic-based, community-based, or home-based settings. Because indicated early childhood services almost always involved the caregiver, these services are often provided in a manner that facilitates access and ensures that families' needs are met. An example of an indicated service is providing evidence-based intervention services in a clinic-based or home-based setting to young children and their caregivers who are demonstrating diagnosable behavioral health problems.

Numerous research evidence-based best practice interventions have been developed to support young children and families. Because of the ample evidence to support these programs, increasing access to evidence-based indicated services is cost-effective and yields long-term benefits for the families they serve. These are included in the appendix of this brief. These practices are categorized according to the IOM Universal, Selective, or Indicated classification system; as formally designated by their status with the SAMHSA Registry. Some of these practices are already implemented in Massachusetts. Many of these programs share characteristics that increase consistency and effectiveness in early childhood support services. Their goals and objectives are building caregiver skills; matching interventions to sources of significant stress; supporting the health and nutrition of mothers before, during, and after pregnancy; improving the quality of the broader caregiving environment; and establishing clear goals and appropriate

⁷² www.samhsa.gov/NREPP; key words early childhood, intervention, and practice, ⁷³ Stakeholder input: DPH adopted this language from Georgetown University,

skill-building to support the whole family, the parent-child relationship specifically and the socio-emotional well-being and behavior of the young child.⁷⁴ This includes assisting parents and providers in building partnerships to better understand early childhood development, anticipate and address challenging behaviors and sources of stress, and provide positive, strengths-based methods to improve parent/child relationships.

The appendix of this report lists a range of evidence-based strategies at the universal, selective and indicated levels that help promote healthy childhood development, address emotional and behavioral health issues, and support children and families in need. An effective system of care should include access to a continuum of services for all families based on their level of risk and need. When selecting evidence-based approaches it is vital to base decisions on a sound needs assessment that examines the capacity and resources of the current system, the cost of providing services and supports and the need for infrastructure development and support to sustain best practices. Resources must be allocated to not only support training and the purchase of services, but also must include an investment in structured implementation and quality assurance strategies to ensure that best practices are implemented with fidelity and good outcomes.⁷⁵ It is critical for Massachusetts to systematically collect, analyze and share metric and outcome data across the system to promote quality of care. Oftentimes, systems of care do not take the requisite steps to ensure that the necessary infrastructure is developed to support and sustain practice change. Resources are wasted if services purchased are ineffective, overly costly, or not implemented successfully to ensure positive outcomes.⁷⁶

Evidence-informed Policy Making

In a recently released report, the Pew-MacArthur Results First Initiative summarized the ways in which states were utilizing evidence-based policy making across the human service domains of behavioral health, child welfare, criminal justice, and juvenile justice.⁷⁷ As a point of comparison, states were ranked as leading, established, modest, or trailing within these domains of evidence-based policy making. The assessment of each state was based upon the state's engagement in six specific actions including defining levels of evidence, establishing an inventory of existing programs, comparing program costs and benefits, reporting outcomes in the budget, targeting funds to

evidence-based programs, and requiring action through state law. According to the report, five states, Connecticut, Minnesota, Oregon, Utah, and Washington lead the nation in evidence-based policy making. Similar to the majority of states, Massachusetts ranked as a modest state in the use of evidence-based policy making (this is the third of four categories with two categories, “established” and “leading” ranking higher). Across the four human service domains of policy, Massachusetts demonstrated minimum engagement in approximately half of the key actions outlined. Massachusetts demonstrated advanced engagement in only two actions, including requiring action through state law in the behavioral health domain and in comparing program costs and benefits in the criminal justice domain. While most states are engaging in a modest level of evidence-based policy making, this report holds implications for states with specific actionable areas of improvement to better support the human service domains at the policy level.⁷⁸

What does evidence-based policy making look like?

According to the Pew-MacArthur report, in order to attain a “minimum” level of competency, states must make efforts to define the levels of evidence that support interventions or strategies being utilized, consistently collect data on state programs that describes funding, performance, design and location, and engage in ongoing efforts to analyze costs and non-monetized outcomes of programs and services being delivered.⁷⁹ Massachusetts was able to obtain the minimum status in several categories. However,

... in order to be ranked as an established or leading state in the nation in evidence-based policy making, Massachusetts would need to further its efforts by implementing a more robust continuum of evidence-based services ...

and define the multiple tiers of evidence that support its service array. Furthermore, the Commonwealth would need to inventory its programs according to levels of evidence to support their efficacy and conduct a cost-benefit analysis of implementing evidence-informed policies and practices.

⁷⁴ Center on the Developing Child, 2016, ⁷⁵ Franks and Schroeder, 2013, ⁷⁶ Franks and Schroeder, 2013; National Implementation Research Network, Implementation Drivers, <http://implementation.fpg.unc.edu/sites/implementation.fpg.unc.edu/files/NIRN-ImplementationDriversAssessingBestPractices.pdf>, ⁷⁷ Pew-MacArthur Results First Initiative, 2017, ⁷⁸ Pew-MacArthur Results First Initiative, 2017

Evidence-based policy includes comparing program costs and conducting cost-benefit analyses of implementing evidence-informed policies and practices. The state budget should ideally include outcome indicators for services and programs and state contracts should require quality assurance and data collection. States that are rated the highest for evidence-informed policy making have enacted legislation that supports these priorities and targets funding to prioritize evidence-based practices and programming.

From this analysis, Massachusetts has a way to go to consistently implement evidence-informed policy making.

Conclusions & Implications

This brief has established the importance of early childhood development, identified best practices and programs, and reviewed a variety of efforts that are underway in the Commonwealth of Massachusetts to support young children and their families. While many advances have been made in the past decade, there is still much work to be done. Efforts at the policy, systems and practice levels have yielded some positive results, but our state continues to lack a comprehensive system of care that promotes healthy development and provides a continuum of effective prevention and intervention services to families in need.

At the policy level, the major implication of this brief is that Massachusetts would benefit from developing a new, overarching evidence-informed early childhood strategic plan with input from key stakeholders that would identify priorities and benchmarks over the next ten years. The variety of existing and proposed legislation and policies directed toward young children could be integrated under the auspices of this plan. Centralized administration and coordination of early childhood programs and initiatives across state agencies could be developed, augmenting the foundation established by the Department of Early Education and Care, the Department of Mental Health, the Department of Public Health, and other child serving agencies. Furthermore, the recommendations from this brief can be utilized as a framework to propose new legislation to improve the quality of care and build a robust continuum of services and supports for young children and their families, as well as measuring performance and accountability.

Child-serving systems across the state need better integration and coordination. While much good work is being done, our systems often do not adequately communicate with each other and can operate in silos. Currently, Massachusetts

These results have implications for early childhood policy development and implementation and should shape the Commonwealth's next steps in how resources are allocated and decisions are made.

By investing in evidence-based strategies and programs, Massachusetts positions itself to have long-lasting, sustainable outcomes. The recommendations that follow present a vision for working toward more evidence-informed policy-making that supports early childhood development.

lacks an integrated and multi-level infrastructure capable of adequately supporting a robust continuum of early childhood services and supports for all families. Present services and supports can be difficult to access by families in need, and programs and systems do not routinely share data with each other. As a result, many families in need can fall through the cracks. Systems can be better organized so that they are family-friendly while increasing access to needed services and supports. Also, communities can further develop and enhance local systems of care that can identify, refer and treat families with a wide range of needs. Existing services should be catalogued and a referral network created to maximize access to available resources. Resources that are only available in certain regions will need to be expanded so that families across the Commonwealth have full access to a range of services in their local systems of care. Furthermore, these local systems need to be nested within a larger statewide system that is family-friendly and focuses on meeting the needs of young children and their caregivers. Barriers to sharing information, examining outcomes, and accessing funding should be examined and removed when possible.

Practice level implications include the need to ensure that proven, evidence-based approaches at the universal, selective and indicated levels of care are made available to all children and families in need. This includes universal prevention strategies and screening of young children across child serving systems to identify children at risk of developmental, emotional, and behavioral health problems. An emphasis on screening children in pediatric settings should be prioritized to include not only developmental screening, but emotional and behavioral screening as well. Children are being more routinely screened for developmental problems such as autism; and CBHI's behavioral health screening

mandate has increased screening among MassHealth insured children.⁸⁰ However, routine emotional and behavioral health screening for all young children is lacking and not systematic. Once children have been screened and identified as at-risk, a referral should be made to a robust local system of care that has the capacity to conduct further targeted assessment and provide the appropriate treatment. Access to effective and evidence-based models of care proven to restore children's development to a healthier trajectory should be prioritized. While Massachusetts has made some significant advances in screening young children, connecting those families to the services they need can be challenging because the availability of effective, evidence-based interventions in our local communities is highly limited. In order to build the Commonwealth's capacity to deliver high-quality care, workforce development should include fully implementing the Michigan Competencies to ensure we have an adequately qualified workforce, as well as investment in training and dissemination of proven early childhood prevention and intervention strategies.

Investment must be made in training the workforce in effective, evidence-based prevention and intervention models. Selection of evidence-based treatment should be based on identified needs and should take into consideration, cost, access and setting. Treatments should be available in the home, community, and outpatient settings (including co-location in pediatric providers).

For the evidence-based interventions to be effective, investment in structured implementation strategies is vital.⁸¹ Implementation of evidence-based practices must include quality improvement, outcome monitoring and sustainable structures and supports.

While the implications for creating an early childhood system of care at the policy, systems and practice levels may seem immense in scope, many of the building blocks already exist in Massachusetts. This brief highlights the strong foundation that the Commonwealth has built. With the support of stakeholders, the provider community, legislators, policy makers and families, Massachusetts can achieve a fully articulated and robust early childhood system of care that is a model for the rest of the nation. It is well established that investment in the earliest stages of life reaps rewards for both the individual and society over time.

Our investment in young children today will yield an ample return on investment for our future generations resulting in healthy outcomes and significant long-term cost savings.



Recommendations

It is evident that significant efforts have been underway in Massachusetts for many years to address the importance of early childhood development. One of the greatest challenges any state faces is how to bridge the gap between research and practice in the field for the benefit of the people that systems and programs serve. Developing, implementing and sustaining comprehensive early childhood policy takes many years and cannot be accomplished overnight. Massachusetts is poised to build upon a strong foundation to move to the next level in evidence-informed policy.

The following recommendations provide a vision of where we need to go as a state; recognizing that much work has been done in many of these areas, while much work remains in others.

Some systemic issues that we face as a society, such as poverty, are at the heart of many of the challenges we encounter and are not easily solved. But by working together, across agencies, systems and public health sectors, we can develop a comprehensive strategy to further move Massachusetts to become a model for the nation in how we meet the needs of our most vulnerable young children and ensure a healthier future for all our citizens.

1

Develop a statewide early childhood strategic plan

- a. Building upon the plan developed in 2009, develop a new statewide strategic 10 year plan that incorporates the advances of the past decade with the vision of breaking down silos and promoting cross-agency and cross-sector collaboration and integration.
- b. Include input from all stakeholders, state agencies, the executive branch, providers, policy makers, experts and families.
- c. Align science of early childhood with identified evidence-informed strategies at the policy, systems and practice levels.
- d. Develop a logic model that summarizes and provides a conceptual framework for the plan.
- e. Identify major areas of work, existing and pending legislation and policies, and develop strategic priorities, benchmarks and a timetable for implementation.

- f. Identify actionable short, medium, and long-term goals with benchmarks identified for every 2 years of the plan.
- g. Identify a statewide structure and accountability mechanisms to oversee and support the implementation of the strategic plan.
- h. Identify funding priorities including no-cost, low cost, and higher cost strategies and funding mechanisms to work toward these goals.
- i. Fast track the development of the plan to be completed and implemented within one year.

2

Advance evidence-based policy-making for early childhood policy, systems and practices

- a. Define the multiple tiers of evidence that support the current array of early childhood practices and programs.
- b. Inventory existing programs and services according to levels of evidence that support their effectiveness and assess access in local communities.
- c. Compare program costs and conduct a cost-benefit analysis of implementing evidence-informed policies and practices.
- d. Include outcome indicators and provisions for quality assurance in the budget and contracting materials.
- e. Target funding to prioritize implementation of evidence-based practice.
- f. Enact legislation that supports evidence-based policy-making.

3

Implement a statewide and local infrastructure to support early childhood development

- a. Map policies and programs that support early childhood and identify gaps at the state, regional, and community levels.
- b. Align early childhood policies and programs at the state, regional, and community levels.
- c. Establish a statewide and regional early childhood system of care that identifies needs, maps resources, promotes training and workforce development, and coordinates care across Massachusetts.

- d. Enhance local early childhood collaboratives that can map, coordinate and refer families in need to services by community including pediatric providers, early childhood serving agencies, service providers, educators, and families.
- e. Identify barriers to communication, information sharing, and quality assurance at the local, regional and state levels. Develop strategies to address barriers, minimize redundancies, and reduce silos.
- f. Identify and fund a backbone organization to monitor quality, access and promote workforce development.
- g. Create linkages among existing systems and supports (i.e., MCPAP, home visiting, EEC centers).

4

Develop an early childhood workforce development plan and implement competency standards

- a. Fully implement MassAIMH Competency Guidelines (Michigan Competencies) and support an infrastructure to manage and implement the endorsement process.
- b. Develop and implement EEC standards based on the competencies outlined in the MassAIMH Competency Guidelines.
- c. Integrate established competencies for early childhood providers including the Department for Early Education and Care and the MassAIMH Competency Guidelines. Create an annual training plan to work towards addressing the identified competencies.
- d. Ensure that all primary care and early care and education providers are trained in early childhood development and understand the impact of trauma and toxic stress on young children.
- e. Train providers to support caregivers and promote effective communication with parents over difficult topics such as challenging behavior and suspected developmental delays.
- f. Work with local universities to ensure students focusing on early childhood development, care and education meet competencies.
- g. Ensure early childhood providers are trained in established best practices for young children and families.

5

Train early childhood providers in best and evidence-based prevention and intervention strategies

- a. Conduct a needs assessment identifying needs at the community level and mapping existing services to prevent and treat a range of developmental, emotional and behavioral disorders in young children.
- b. Identify cost-effective best and evidence-based practices to target identified needs.
- c. Leverage funding from federal, state, and community agencies and augment with support from philanthropy and other funding sources.
- d. Systematically train providers across the state to increase access to effective practices in local communities using established structured dissemination, implementation and quality improvement strategies.
- e. Ensure that implementation of best and evidence-based prevention and intervention strategies includes ongoing monitoring of outcome data, fidelity monitoring, quality improvement and sustainability strategies.
- f. Track cost-benefit savings from implementing effective services.

6

Fully implement early screening & identification and link to local systems of care

- a. Develop and endorse a universal early screening protocol to identify at-risk children for developmental concerns (including autism), emotional and behavioral health issues and trauma.
- b. Widely disseminate the screening protocol to primary care providers and other young child serving systems across the state and provide ongoing training to screen and refer at-risk children to local community-based resources.
- c. Train local early childhood providers in conducting more intensive and targeted assessments of referred children to include established and comprehensive developmental and emotional/behavioral health assessments for young children.
- d. Ensure that primary care providers can refer to a range of appropriate services and supports in their community and create a system for tracking and monitoring referrals and access to appropriate assessment and treatment (leverage existing MCPAP network).
- e. Raise public awareness among families about the importance of developmental monitoring and screening as well as emotional and behavioral health screening.

7

Fully implement a systematic diagnostic system for early childhood

- a. Implement a clear and integrated diagnostic system for young children to ensure that emotional/behavioral health challenges are properly diagnosed and receive appropriate reimbursement for screening, assessment and services. "Cross-walk" Zero to Three's Diagnostic Classification System 0-5 to DSM5 and ICD-10.
- b. Work with Medicaid, insurance and 3rd party payers to accept cross-walked codes for reimbursement.
- c. Restructure fee-for-service system to enable compensation for professionals providing early identification, promotion and prevention services.
- d. Identify opportunities for child serving systems to routinely utilize and implement a consistent early childhood diagnostic system.

8

Promote early education and care

- a. Improve access to high quality early education and care.
- b. Make public preschool more accessible and affordable and work towards the goal of free public preschool for all poor and at-risk children.
- c. Guarantee every child full-day kindergarten.
- d. Ensure EEC providers meet minimum standards set by the MassAIMH Competency Guidelines.
- e. Increase training of early education and care providers on the impact of trauma, behavior management, and identification of at risk students. Train them in strategies to consult with parents when identifying students who are potentially at risk for developmental or behavioral health concerns.
- f. Train early education and care providers in the provision of a socially, emotionally, developmentally appropriate and nurturing environment in their classrooms and care settings.
- g. To decrease rates of preschool expulsion, increase and promote developmental, emotional, and behavioral health consultation to early education and care settings.
- h. Integrate early education and care providers into local early childhood systems of care and

ensure that providers have connections to ample community based resources for referral.

- i. Develop and implement strategies to address poor compensation and turnover for early education and care providers.
- j. Ensure that definition of "school readiness" includes early social-emotional competencies.
- k. Develop and promote linkages from EEC to the K-12 system.

9

Support parents and caregivers

- a. Provide training and mentorship for early childhood providers to work effectively and collaboratively with parents; employing relationship-based practices and strengths-based strategies to meet the family's identified needs.
- b. Further develop and enhance local family-driven community collaboratives.
- c. Support family networks, advocacy organizations and parent-to-parent support services.
- d. Increase access to evidence-based family services and supports (both in-home and office-based) that promote positive parenting and healthy development of young children.
- e. Provide training and support to at risk caregivers in early childhood development and positive parenting approaches.
- f. Increase access to paid family leave for caregivers to promote healthy early relationships and attachment between parent and child.
- g. Screen mothers for maternal depression and PTSD and link to appropriate services and supports.
- h. Identify concrete needs of families (housing, safety, childcare, food security) and link to community-based resources.
- i. Align child welfare policies with the science of healthy early childhood development and promote family resiliency and attachment through policies and practices.
- j. Ensure that all young child serving systems and programs are family driven and include parent and family active engagement and participation.

10

Address financing and funding barriers

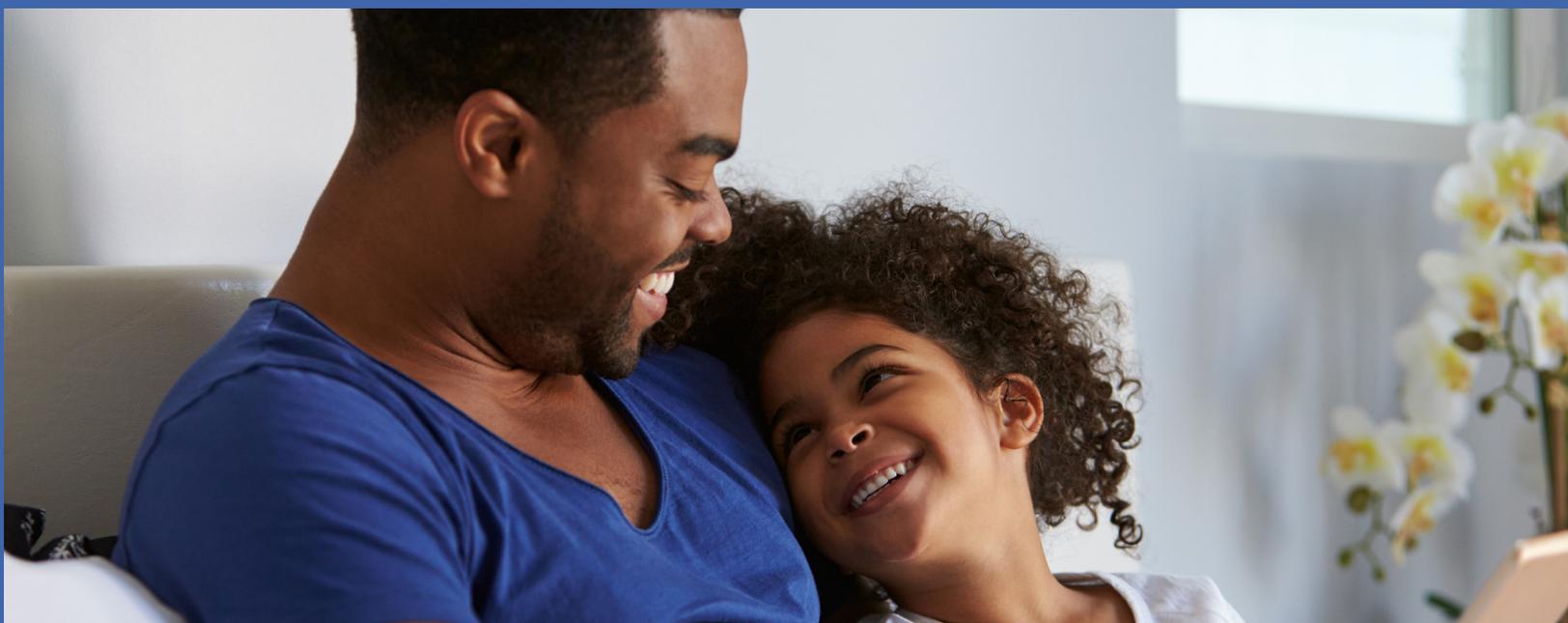
- a. Identify funding barriers and work in partnership with government, philanthropy, and business to:
 - i. Identify shared strategic priorities and link funding needs to statewide early childhood strategic plan.
 - ii. Decrease silos and share resources by coordinating federal, state, and local funds.
 - iii. Maximize investment by creating match incentives.
 - iv. Promote and support funding collaboratives across philanthropies.
 - v. Explore social impact bonds.
- b. Pursue additional federal grants (including a SAMHSA early childhood system of care grant). Promote public/non-profit partnerships and utilize the extensive expertise of the academic and provider communities.
- c. Maximize and leverage federal funding, including Medicaid.
- d. Examine existing array of funded programs and identify opportunities for collaboration, synergy and consolidated care.
- e. Ensure that all early childhood services and programs include outcome monitoring, quality improvement strategies and a long-term sustainability plan.
- f. Examine workforce inequities and develop incentives for early care providers.

- g. Identify strategies for reimbursement of services.
- h. Identify strategies to invest in promotional and prevention efforts in service of long-term collective benefits.
- i. Enhance Temporary Assistance for Needy Families (TANF) to support families with infants to reduce odds of toxic stress that can disrupt healthy child development.

11

Raise public and professional awareness about the importance of early childhood development

- a. Develop and implement a statewide public awareness campaign.
- b. Utilize a range of public awareness strategies including traditional and social media.
- c. Develop resources for parents on early childhood development and parenting and make available statewide through OB-GYN, pediatric providers and other young child serving systems.
- d. Raise awareness among key stakeholders, funders and policy makers about the importance of early childhood development, prevention, and intervention.
- e. Create messaging that educates public on significant benefits and cost-savings associated with investment in early childhood resources.



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Appendix: Early Childhood Best Practices

Evidence Based Practices Identified by the National Registry of Evidence-based Programs and Practices (NREPP)⁸²

IOM CATEGORY	SETTING	PROGRAM NAME	AGE SERVED	DESCRIPTION
Universal	School/ Classroom	HighScope Curriculum	0yrs-5yrs	Program is designed for children with or without special needs, promoting school success and lifelong positive outcomes by enhancing cognitive, socioemotional, and physical development.
Universal	School	Fun FRIENDS Program	4yrs-7yrs	"FRIENDS Program is a cognitive behavioral intervention that focuses on the promotion of emotional resilience to prevent--or intervene early in the course of--anxiety and depression in childhood, adolescence, and adulthood."
Universal	School	Lesson One	Pre-k – 6th grade	"Lesson One: The ABCs of Life is a universal, school-based intervention designed to integrate social competency skills with academics in prekindergarten through grade 6. Grounded in the theory of social and emotional competence, Lesson One prepares children with the basic life skills that they will need throughout their lives to make healthy decisions; avoid violence, bullying, and other risk-taking behaviors; and achieve personal and academic success."
Universal	School	Promoting Alternative Thinking Strategies (PATHS), PATHS Preschool	3yrs-5yrs	"Promoting Alternative Thinking Strategies (PATHS) and PATHS Preschool are school-based preventive interventions for children in elementary school or preschool. The interventions are designed to enhance areas of social-emotional development such as self-control, self-esteem, emotional awareness, social skills, friendships, and interpersonal problem-solving skills while reducing aggression and other behavior problems."
Universal	School	Positive Action Pre-K Program	0yrs-5yrs	"The Positive Action Pre-K Program is a classroom-based intervention that aims to improve social-emotional skills among preschool students."
Universal	School; Other Community Settings	Healthy Alternatives for Little Ones (HALO)	3yrs-6yrs	"HALO is designed to address risk and protective factors for substance abuse and other health behaviors by providing children with information on healthy choices."
Universal	School; Other community settings	ParentCorps	3yrs-6yrs	Helps parents in low-income communities promote healthy child social, emotional, and self-regulatory skill development; as well as developing parents ability to partner w/ educators to support child behavioral and academic functioning, mental health, and physical development.
Universal	Home	Parents as Teachers	Pregnant mothers; 0yrs-5yrs	Works with families to "strengthen protective factors and ensure that young children are healthy, safe, and ready to learn" through culturally sensitive home visiting.
Universal	Other Community Settings	Chicago Parent Program (CPP)	2yrs-5yrs	"The Chicago Parent Program (CPP) is a parenting skills training program that aims to reduce behavior problems in children ages 2 to 5 by improving parenting self-efficacy and promoting positive parenting behavior and child discipline strategies."
Universal; Selective	School	Early HeadSmarts Program for Preschool Children	3yrs-6yrs	"The Early HeartSmarts Program for Preschool Children is designed to facilitate the social, emotional, physical (i.e., motor skills), cognitive, and language development of children ages 3-6."

⁸² Unless otherwise identified, all information and quotes are taken directly from the National Registry of Evidence-based Programs and Practices. Retrieved from <http://nrepp.samhsa.gov/AdvancedSearch.aspx>, Key word search: early childhood, intervention, and practice

Universal; Selective	Home; Other Community Settings	Metropolitan Family Services Parenting Fundamentals	0yrs-5yrs	"Parenting Fundamentals (formerly called the Parenting Education Program) is a group-based parent education and skills training program for parents who speak English or Spanish and, often, have low incomes, are part of an immigrant family, and/or are involved with the court or social service system. The program is designed to improve participants' parenting strategies and, by extension, to improve their children's behavior, social capacities, emotional competencies, and cognitive abilities."
Selective	Home	Two Families Now (TFN): Effective Parenting Through Separation and Divorce	Parents; 0yrs- 5yrs and above	"TFN is an online, self-directed curriculum for parents who have separated or divorced or are in the process of divorce. The program aims to increase the use of positive parenting and co-parenting strategies, increase parental self-efficacy, and facilitate the development of a supportive network, as well as improve child outcomes such as prosocial behavior."
Selective	Home; Other Community Settings	Legacy for Children	0yrs-5yrs; Mothers	"Legacy for Children (Legacy) is a curriculum-driven parenting intervention designed to positively impact the early development of children of limited-resource mothers. Specifically, this primary prevention strategy aims to improve child outcomes by increasing positive parenting among low-income mothers of infants and young children..."
Selective	Outpatient; School; Other Community Settings	Systemic Training for Effective Parenting (STEP) Early Childhood	0yrs-6yrs	Skills training for parents with emphasis on "responsibility, independence, and competence in children; improving communication between parents and children, and helping children learn from natural or logical consequences of their choices."
Selective; Indicated	Home; Other Community Settings	Child-Parent Psychotherapy (CPP)	0-5	"...an intervention for children from birth through age 5 who have experienced at least one traumatic event (e.g., maltreatment, the sudden or traumatic death of someone close, a serious accident, sexual abuse, exposure to domestic violence) and, as a result, are experiencing behavior, attachment, and/or mental health problems, including posttraumatic stress disorder (PTSD). The primary goal of CPP is to support and strengthen the relationship between a child and his or her parent (or caregiver) as a vehicle for restoring the child's sense of safety, attachment, and appropriate affect and improving the child's cognitive, behavioral, and social functioning."
Indicated	Outpatient; Home; School; Other commu- nity settings	Family Check-Up (FCU) for Children	2yrs-17yrs	"The Family Check-Up (FCU) for Children is a strengths-based, family-centered intervention that motivates parents to use parenting practices in support of child competence, mental health, and reducing risks for substance use."
Selective; Indi- cated	Outpatient; Home; School; Other Commu- nity Settings	Incredible Years	Children 3yrs- 8yrs; Parents; Teachers of students 3yrs- 8yrs	Program is a set of three "interlocking" programs; one for children 3-8yrs, one for parents with children from birth to 12 years; one for early education teachers (students 3-8yrs). "The three programs are designed to work jointly to promote emotional and social competence and to prevent, reduce, and treat behavioral and emotional problems in young children..."
Indicated	Home	Family Spirit	Pregnant mothers; 0m-36m post- partum	Home-visiting program culturally tailored for American Indian teenage mothers at high risk. Intervention is designed to increase mother's competence and decrease psychosocial and behavioral risk factors.
Indicated; Treatment ^a	Home	HOMEBUILDERS	0yrs-5yrs	"HOMEBUILDERS is an intensive family preservation services program designed to improve family functioning and children's behavior and to prevent out-of-home placement of children into foster or group care, psychiatric hospitals, or correctional facilities."
Indicated; Treatment ^a	Outpatient	Preschool PTSD Treatment (PPT)	3yrs-6yrs	"Preschool PTSD Treatment (PPT) is a 12-session individual psychotherapy intervention that uses cognitive behavioral therapy (CBT) techniques to treat 3- to 6-year-old children with posttraumatic stress symptoms. The protocol is applicable to all types of traumatic events."
Indicated; Treatment ^a	Outpatient; School	Parent-Child Inter- action Therapy	2yrs-7yrs	"Parent-Child Interaction Therapy (PCIT) is a treatment program for young children with conduct disorders that places emphasis on improving the quality of the parent-child relationship and changing parent-child interaction patterns."

^a Categorized by authors as Indicated; Treatment as these programs, identified through NREPP, reduce symptom related sequelae of behavioral and mental health concerns.

Universal; Selective; Indicated	Home, School, Other Community Settings	Active Parenting (4th Edition)	Parents of children 2yrs- 12yrs	"The program teaches parents how to raise a child by using encouragement, building the child's self-esteem, and creating a relationship with the child based upon active listening, effective communication, and problem solving. It also teaches parents to use natural and logical consequences and other positive discipline skills to reduce irresponsible and unacceptable behaviors."
Universal; Selective; Indicated	Home, School, Classroom, Clinic, Other Community Settings	Brazelton Touchpoints Center	0yrs-5yrs	"Brazelton Touchpoints Center has collaborated with partners nationwide to establish scalable and sustainable, low-cost, low-tech interventions that propel children's healthy development and build the internal capacity of – and strengthen the collaborative relationships among – families, parents, caregivers, providers, and communities." ⁸³
Universal; Selective; Indicated	Outpatient; Other Community Settings	Triple P – Positive Parenting Program	0yrs-12yrs	"Triple P is designed to prevent social, emotional, behavioral, and developmental problems in children by enhancing their parents' knowledge, skills, and confidence."
Universal; Selective; Indicated	Other Community Settings	Parenting Wisely	3yrs-18yrs	"Parenting Wisely is a set of interactive, computer-based training programs for parents of children ages 3-18 years... the programs aim to increase parental communication and disciplinary skills."
No Designation ^b	School/ Classroom	Early Head Start	Pregnant women; 0yrs- 3yrs	Federal EHS program was designed to support "healthy development of expectant mothers and low-income infants and toddlers" ⁸⁴ Including the Research-Based Developmentally Informed (REDI) classroom program, and the Research-Based Developmentally Informed Parent Program (REDI-P).
No Designation ^b	School/ Classroom	Head Start	3yrs-4yrs	"Head Start provides early learning experiences, academic skills development, physical wellness, and social-emotional development, across eight domains of learning: language, literacy, mathematics, science, creative arts, social and emotional development, approaches to learning, and physical development." ⁸⁵
No Designation ^b	School/ Classroom	Conscious Discipline	0yrs-5yrs	Social Emotional Learning program to "modify teacher and child behavior in order to create classrooms based on safety, connection, and problem solving instead of external reward and punishments." Focus on building teachers skills to help them develop SEL skills in students.
No Designation ^b	School/ Classroom	INSIGHTS into Children's Temperament	Kindergarten – 2nd grade	"The intervention is designed to provide parents and teachers with a framework for appreciating and supporting the individual differences of children and to teach child-management strategies directed at reducing behavior problems. The goal of the children's program is to enhance their empathy skills; facilitate their appreciation of the uniqueness of family members, friends, and teachers; and employ problem-solving techniques when they encounter daily challenges."
No Designation ^b	School/ Classroom	Primary Project	Pre-k – 3rd grade	"Primary Project (formerly the Primary Mental Health Project) is a school-based prevention and intervention program designed to enhance learning, build social skills, and address school adjustment through the early detection of social, emotional, or behavioral difficulties exhibited by children in pre-K through third grade."
No Designation ^b	Home	Child FIRST	Pregnant mothers; 0rs- 5yrs	"The program seeks to prevent or reduce children's emotional, behavioral, developmental, and learning problems, and prevent or reduce abuse and neglect by their caregivers." "Child FIRST identifies children at risk of behavioral or learning problems..."
No Designation ^b	Home; Substance Abuse Treatment Center	Attachment and Biobehavioral Catch-up (ABC)	6mo-24mo; Caregivers	"ABC targets young children who have experienced early adversity, such as maltreatment or disruptions in care, and addresses several issues that have been identified as problematic among children who have experienced early adversity, including behaving in ways that push caregivers away and behavioral and biological dysregulation. The program works with parents or other caregivers to help them learn how to 1) behave in nurturing ways when children are distressed; 2) follow their child's lead to behave in delighted ways when children are not distressed; and 3) avoid behaving in frightening or intrusive ways."

⁸³ Brazelton Touchpoints Center, ⁸⁴ Zero to Three, 2016a, ⁸⁵ Massachusetts Head Start Association, How to Apply; Massachusetts Head Start Association, Overview

^b Institute of Medicine (IOM) prevention categories were assigned by NREPP. These interventions were not categorized because they were reviewed after 2015, and therefore subject to the revised NREPP review criteria.

No Designation ^b	Outpatient Facility; Home; Other	Family Talk	Parents with Depression	"Family Talk, also referred to as the Clinician-Based Cognitive Psychoeducational Intervention for Families, is a program for families in which parents have depression. The program is designed to a) provide parents with information about depression and serious mood disorders, b) teach parents skills to communicate this information and their experience to their children, and c) initiate family discussions about the effects of parental depression." ⁸⁶
No Designation ^b	Other	Children in Between	0yrs-5yrs	"Children in Between (CIB) is a co-parenting, skills-training program for separating (never married) and divorcing parents that aims to decrease parental conflict (including reduced litigation), improve parent communication, and reduce stress on children." ⁸⁷

Additional Evidence Based Home Visiting Models Identified by Home Visiting Evidence of Effectiveness (HomVEE)⁸⁸

PROGRAM NAME	AGE SERVED	DESCRIPTION
SafeCare	0yrs-5yrs	Designed to prevent child abuse and neglect by providing parent education in three modules: parent-child/parent-infant interactions, infant and child health, and home safety.
Play and Learning Strategies (PALS)	0yrs-3yrs	"Play and Learning Strategies (PALS) is designed to strengthen parent-child bonding and stimulate children's early language, cognitive, and social development."
Child First	0yrs-5yrs	"The program seeks to prevent or reduce children's emotional, behavioral, developmental, and learning problems, and prevent or reduce abuse and neglect by their caregivers...Child FIRST identifies children at risk of behavioral or learning problems..." ⁸⁹
Early Head Start-Home Visiting (EHS-HV)	0yrs-3yrs	"Early Head Start (EHS) targets low-income pregnant women and families with children from birth through age 3, most of whom are at or below the federal poverty level or who are eligible for Part C services under the Individuals with Disabilities Education Act in their state. The program provides early, continuous, intensive, and comprehensive child development and family support services. EHS programs include home- or center-based services, a combination of home- and center-based programs, and family child care services (services provided in family child care homes)."
Early Intervention Program for Adolescent Mothers	0m-11m; Pregnant women	"The Early Intervention Program (EIP) is designed to help young mothers gain social competence and achieve program objectives by teaching self-management skills, techniques for coping with stress and depression, and skills to communicate effectively with partners, family, peers, and social agencies. The program targets pregnant Latina and African American adolescents who are referred to the county health department or another health services agency for nursing care."
Early Start (New Zealand)	0yrs-5yrs	"Early Start is a voluntary home visiting program designed to improve child health, reduce child abuse, improve parenting skills, support parental physical and mental health, encourage family economic well-being, and encourage stable, positive partner relationships."
Family Check-Up for Children	2yrs-17yrs ⁹⁰	"The Family Check-Up (FCU) for Children is a strengths-based, family-centered intervention that motivates parents to use parenting practices in support of child competence, mental health, and reducing risks for substance use." ⁹¹

⁸⁸ Unless otherwise identified, all information and quotes are taken directly from Home Visiting Evidence of Effectiveness (HomVEE), <http://homvee.acf.hhs.gov/models.aspx>

Family Connects/ Durham Connects	0yrs-5yrs	"Family Connects is a universal nurse home visiting program available to all families with newborns residing within a defined service area. The program aims to support families' efforts to enhance maternal and child health and well-being and reduce rates of child abuse and neglect."
Family Spirit	Pregnant mothers; Infants 0-36m	Home-visiting program culturally tailored for American Indian teenage mothers at high risk. Intervention is designed to increase mother's competence and decrease psychosocial and behavioral risk factors. ⁹²
Health Access Nurturing Development Services (HANDS) Program	0mo-23mo; Pregnant mothers	"HANDS is a voluntary home visiting program designed to prevent child maltreatment, improve family functioning, facilitate positive pregnancy and child health outcomes, and maximize child growth and development."
Healthy Beginnings	0mo-23mo; Pregnant mothers	"Healthy Beginnings was a demonstration project in Sydney, Australia, implemented from 2007 to 2010. Healthy Beginnings targeted first-time mothers of infants from socially and economically disadvantaged areas. The model aimed to prevent childhood obesity by improving children's and families' eating patterns, reducing sedentary activities such as television viewing, and increasing physical activity."
Healthy Families America (HFA)	0yrs-5yrs; Pregnant mothers	"Healthy Families America (HFA) goals include reducing child maltreatment, improving parent-child interactions and children's social-emotional well-being, and promoting children's school readiness."
Healthy Steps (National Evaluation 1996 Protocol)	0yrs-3yrs	"Universal parenting intervention implemented between 1996 and 2001...Healthy Steps (national evaluation 1996 protocol), or HS (national evaluation). HS (national evaluation) was designed to promote (1) the clinical capacity and effectiveness of pediatric primary care to better meet the needs of families with young children; (2) the knowledge, skills, and confidence of parents in their child-rearing abilities; and (3) the health and development of young children."
Home Instruction for Parents of Preschool Youngsters (HIPPPY)	3yrs-5yrs	"Home Instruction for Parents of Preschool Youngsters (HIPPPY) aims to promote preschoolers' school readiness and support parents as their children's first teacher by providing instruction in the home."
Maternal Early Childhood Sustained Home- Visiting Program (MECSH)	0yrs-2yrs; Pregnant mothers	"Based in Australia, the Maternal Early Childhood Sustained Home-Visiting (MECSH) program is designed to enhance maternal and child outcomes by providing antepartum services in addition to the traditional postpartum care women receive through Australia's universal system for maternal, child, and family health services. MECSH targets disadvantaged, pregnant women at risk for adverse maternal and/or child health and development outcomes."
Minding the Baby	0yrs-2yrs; Pregnant mothers	"The program aims to promote secure attachment; parental reflection (in which parents reflect on their own development as a parent); and physical and mental health in babies, mothers, and their families."
Nurse Family Partnership (NFP)	0yrs-2yrs; Pregnant mothers	"NFP is designed to improve (1) prenatal health and outcomes, (2) child health and development, and (3) families' economic self-sufficiency and/or maternal life course development."
Oklahoma's Community- Based Family Resource and Support (CBFRS) Program	0yrs-1yr; Pregnant mothers	"Oklahoma's Community-Based Family Resource and Support (CBFRS) program, which targeted first-time mothers, was developed to improve maternal and child health and child development."
Parents as Teachers (PAT)	0yrs-5yrs; Pregnant mothers	"The goal of the Parents as Teachers (PAT) program is to provide parents with child development knowledge and parenting support, provide early detection of developmental delays and health issues, prevent child abuse and neglect, and increase children's school readiness."



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