

Health Barriers to Learning for Children, Birth to 3rd Grade

BACKGROUND

United Way recognizes that Education, Income, and Health are interconnected. Health provides a foundation for children to be successful in school and individuals to be productive at work. As United Way strives to achieve the *Bold Goals for Our Region* and goals of the *Agenda for Community Impact*, it seeks to explore further the connection between health and other priority areas, specifically Education. United Way's 2013 Business Plan identified the need for a White Paper on *Health Barriers to Learning, Birth to 3rd Grade*, to guide strategies and investments. The Research Council took on the task and a committee was formed with the following members:

- **Keith King, Ph.D.**, Professor and Program Coordinator, Health Promotion and Education at the University of Cincinnati (co-chair)
- **Rebecca Vidourek, Ph.D.**, Assistant Professor, Health Promotion and Education at the University of Cincinnati (co-chair)
- **Jennifer Chubinski**, Director of Community Research at Interact for Health
- **Judith Harmony, Ph.D.**, Research Scientist at Mayerson Center for Safe and Healthy Children, Cincinnati Children's Hospital Medical Center
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INTRODUCTION

Health Barriers to Learning for Children, Birth to 3rd Grade provides important information on reducing barriers that prevent optimal academic achievement among children. It also presents recommendations and practical strategies for reducing health barriers to help children achieve success in school and life.

Health plays an important role in a child's education and success in school. Health factors such as child maltreatment, poor nutrition, and medical conditions such as poor vision or hearing can lead to reduced academic achievement (Dunkle & Nash, 2001). Reducing and preventing health barriers among children from birth to third grade is critically important because of the strong connection between health, learning and academic achievement. Academic achievement is directly correlated with the overall health and wellbeing of youth and is an important factor in later adult health (Harper & Lynch, 2007; National Center for Health Statistics, 2010). Social service and educational organizations are alert to the link between health and education and the need to foster health in educational settings (National School Boards Association, 2009; ASCD, 2011)

From birth to 3rd grade, or ages 0 to 9 as framed for the purpose of this paper, children reach many critical developmental milestones. The purpose of this paper is to build a greater understanding of health barriers that impact a child's ability to learn, as they approach important academic milestones such as kindergarten readiness and third grade reading. Barriers to learning are segmented based on age and components of health. Key barriers to learning are offered for 0 to 3 year olds, 3 to 5 year olds, and 5 to 9 year olds in the critical areas of physical health and social, emotional and behavioral health. For ease of use, the paper begins with specific recommendations to reduce barriers and improve children's ability to learn. This is followed by a discussion of the barriers associated with lower academic achievement.

The barriers presented in this paper are based on a comprehensive review of the literature and discussions with health and education professionals. At the outset, it is important to note the critical role that social determinants¹ play in children's health and in any assessment of barriers to learning. Indeed, it can be argued that differing social and economic conditions explain the greater part of why health and educational disparities exist in the first place. Identifying and addressing disparities linked to neighborhood dynamics, race, ethnicity, and poverty is critical to reducing health barriers and increasing academic achievement. These issues are particularly pertinent to an organization such as United Way, which attempts to mobilize individuals and organizations to work toward systemic, community impact and the recommendations offered in this paper suggest the importance of developing strategies for improving child health, offering early education, and reducing poverty.

Recognizing the role of positive health behaviors and overall health status in academic achievement is an important step. Multiple organizations, including the Centers for Disease Control and Prevention (CDC), acknowledge the influence of health on academic achievement. Academic success also is strongly associated with overall child well-being and impacts health status later in life. With this in mind, the following recommendations are offered to reduce health barriers to learning for children ages 0 to 9.

“ Reducing and preventing health barriers among children from birth to third grade is critically important because of the strong connection between health, learning and academic achievement. ”

¹ The social determinants of health, as defined by the World Health Organization, include "the circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics."

RECOMMENDATIONS

Several common health barriers to learning have been identified for children ages 0 to 9. To achieve optimal health to support academic success, children need routine access to healthcare and developmental screenings, adequate nutrition and physical activity. Children need to grow up in safe and nurturing environments and have strong parent/caregiver attachment. To help children achieve good health and academic success, we recommend the following:

Policy Recommendations

- Advocate for maximum participation of families, daycare providers and schools in federal nutrition and assistance programs.
- Develop a social media campaign to promote community norms about positive, nurturing parenting and care giving.
- Advocate for state K-12 health education standards, including health literacy and reproductive health, modeled after the CDC recommendations: <http://www.cdc.gov/HealthyYouth/SHER/standards>.
- Advocate at the state level for child health and wellbeing to be adopted as school accountability measures.
- Support the development of uniform, prioritized indicators to benchmark status and progress toward achieving community goals in the areas of child and adolescent wellbeing and learning. The Greater Cincinnati Child Wellbeing Survey released in 2000, 2005 and 2011 can provide insight.

Practice Recommendations

- Involve families to increase their capability to support the physical, social, emotional and behavioral health needs of their children within the context of their language and cultural mores. Families are front-line resources for children's development. Evidence-based strategies shown to be effective include:
 - Early (including prenatal) and periodic screening by healthcare and social service professionals for "risk" factors in the family that predispose children to delayed development and/or toxic stress coupled with timely referral to appropriate resources and interventions.

Examples of Key Interventions

- Home visitation and in-home services that begin prenatally and extend until children enter school, and that are approved by the *Maternal, Infant and Early Childhood Home Visiting Program* (MIECHV).
- Parenting education beginning prenatally and focused on developmental benchmarks, healthy nutrition and physical activity, enhancing family connectedness (parent-child bonding), social-emotional learning strategies, and authoritative parenting.
- Prevention programs and interventions for children at risk of maltreatment and their families.
- Effective outreach to families that promotes housing and income stability and parent participation in their children's education.

- Family-centered medical homes providing integrated mental and physical health care education and services in which physicians and health care professionals are partners in preparing children to learn.
- Formal and informal education programs within early childhood education and elementary school settings that accommodate all children, including those with diagnosed chronic illnesses and trauma, and that support their families.
- Increase access to quality-rated early childhood education and preschool experiences.
- Implement healthy nutrition and physical activity guidelines in daycare and early childhood centers and in elementary schools.
- Expand school-based health services (integrated mental and physical health care) to all public schools where 40% or more of students qualify for free/reduced priced lunch.
- Educate/train childcare providers and preschool and elementary educators about trauma-informed practices, which acknowledge that children who have experienced severe adversity should be treated by professionals who understand how the trauma affects a child's development and how to minimize the effects of that trauma.
- Educate/train childcare providers and preschool and elementary educators about strategies to promote healthy lifestyles, social-emotional learning, and a culture of school connectedness. Effective strategies include:
 - Required curricula and continuing education opportunities within education/certification programs that prepare educators to understand the role of social determinants, including poverty and trauma, in affecting the health of children/youth and their capacity to learn;
 - Adequate preschool and elementary school funding for age-appropriate in-school and after-school programs that promote cultural awareness and pro-social behaviors (e.g., anti-bullying, anti-discrimination programs);
 - Improved physical structures in which children are cared for and educated (eliminate poor air quality and environmental toxins, dilapidated buildings, inadequate and/or unsafe play areas).

HEALTH BARRIERS TO LEARNING: AGES 0 TO 3 YEARS

A child enters the world as a product of her/his genetic makeup and his/her prenatal environment in the womb. After birth until the age of 3 the physical and emotional health of a child, as well as the child's cognitive and behavioral development, depends on 1) nurturing provided by the primary caregiver and 2) age-appropriate, positive and stimulating experiences. These factors have a powerful influence on the robust growth and remodeling of a child's developing neural connections, with pathways for vision and hearing, language and higher cognitive function all peaking in this age range. A healthy infant/toddler will be within the normal range for height and weight and meet age-appropriate milestones in domains of movement, hand and finger skills, understanding and language, memory, curiosity and problem solving, and confidence and emotional stability. Children who are on track for all developmental milestones – cognitive, language, motor skills, and social-emotional development – by the age of three are best primed for learning and future academic success.

Physical Health: Ages 0 to 3 Years

The physical health developmental domain includes a child's growth and physical capacities such as fine and gross motor skills. Many health factors and chronic conditions can alter an infant's or toddler's ability to learn and thrive. Prime among these are timely access to appropriate health care and adequate nutrition. During the 0 to 3 stage, the health of the infant is strongly associated with the health of the mother during and following pregnancy, particularly if she is nursing her child. Therefore, it is important for both mother and child to have access to health care and proper nutrition to support healthy child development.

Access to high quality, comprehensive health care that integrates physical and mental health for prenatal services and subsequent pediatric well-child visits is essential for the overall health of mother and child. A physician or other health care provider can detect abnormal physical and mental health conditions early on,

“ After age 2, the negative consequences of inadequate nutrition (insufficient calories, vitamins and other critical nutrients) are largely irreversible. **”**

provide or refer to treatment/intervention, address health (and other) questions or concerns, and recommend medical and non-medical strategies to promote overall wellbeing. Access to health care and comprehensive well-child visits can identify and address specific health issues – such as hearing, vision

and/or lead toxicity concerns – to mitigate potential impact on learning. Unfortunately, families may seek appropriate health care only intermittently, especially when families are experiencing poverty or are uninsured or are recent immigrants, unfamiliar with our cultural norms or healthcare opportunities.

From conception to age 3, adequate nutrition is critically important for a child's physical and cognitive development. After age 2, the negative consequences of inadequate nutrition (insufficient calories, vitamins and other critical nutrients) are largely irreversible (International Food Policy Research Institute, 2008).

Inadequate nutrition can result in stunted growth, low or excessive weight, poor feeding habits and disorders such as anemia. Since specific nutrients are required for many biological processes that drive neurodevelopment, malnutrition can delay brain maturation directly, thereby indirectly impeding the development of cognitive function, motor skills and socio-emotional capacity. Children who experienced malnutrition, particularly if severe, very early in life have lower IQs and school achievement and increased behavioral problems when measured later in life, compared to children who had adequate nutrition (Grantham-McGregor, 1995).

Social, Emotional and Behavioral Health: Ages 0 to 3 Years

One of the most important predictors of how well a child develops is the strength of the emotional connection that child has with her/his parents and/or primary adult caregiver. The *National Center on Parent, Family and Community Engagement* emphasizes that creating a secure attachment with a parent/caregiver is key to a child's healthy brain development, emotional wellbeing and capacity to learn. When parents feel effective they are more engaged with their children and less stressed and depressed. For parents who can benefit from support in providing a safe, nurturing environment for their children, there are numerous, evidence-based programs and interventions designed to build their capacity to support their children. Safe, nurturing environments are loving and stimulate curiosity and learning. They minimize biological and psychological toxins or stressors, set age-appropriate behavioral boundaries, model healthy social relationships, reward pro-social behavior, and foster open communication.

Experiencing prolonged or excessive adversity during early childhood causes stress that can be toxic to brain development, impairing a child's ability to learn and to acquire social and relationship-building skills, and causing a wide range of negative biological and genetic changes that predispose a child to poor health and even premature death. Toxic stress can result from lack of parent-child bonding and nurturing, physical or sexual abuse, chronic neglect, caregiver mental illness or substance abuse, and exposure to violence. It also can result from the burdens a family living in poverty faces. Fortunately, toxic stress can be countered by a child's nurturing, responsible relationships with an adult caregiver and by reducing exposure to extremely stressful conditions.

HEALTH BARRIERS TO LEARNING: AGES 3 TO 5 YEARS

Ages 3 to 5, or the preschool years, remain a critical time for optimal health to support learning, since children develop important kindergarten readiness skills during this stage. Language skills increase and children who are developmentally on track speak in a manner that most individuals should understand. Pre-academic skills emerge, including letter and number recognition and counting. Children who are on track in all developmental areas during this stage are kindergarten-ready and primed to read by the third grade and to succeed academically.

A healthy preschooler is physically active and fine and gross motor skills such as running, hopping, jumping and climbing are developed. Children are somewhat clumsy at this age, but hand-eye coordination is improving. Healthy preschoolers are cooperative, imaginative, and use play to develop important skills needed for proper learning. Children want to please adults, incorporate parental rules into their lives, and feel guilty when they disobey. They can follow simple instructions and can play independently for 15 minutes or more.

Parents continue to play a crucial role in the development of physical, social, emotional and behavioral health that impacts a child's ability to learn effectively. Parenting behaviors during this age can set the stage for academic achievement in school. Parents serve as a child's first teachers and support the child's ability to learn effectively.

Physical Health: Ages 3 to 5 Years

A preschooler's growth and physical capacities, such as fine and gross motor skills, remain integral to healthy development. Health factors and chronic conditions can alter a preschooler's ability to learn and achieve kindergarten readiness. Prime among these are 1) routine access to health care, including vision and hearing screenings, and 2) adequate nutrition and physical activity.

Routine access to health care remains critical because of the many developmental milestones achieved during this stage. Well-child visits ensure that developmental milestones are being met and also recognize potential health issues placing a child at risk for later academic problems. Regular access to medical providers also ensures that families can be educated and guided appropriately about child development and that healthy behavior choices can be discussed and promoted. Health professionals also can play an important role by encouraging parents to read to their children daily. Children with parents who read to them experience increased reading proficiency and a greater vocabulary. Daily reading tends to decrease screen time (i.e., television viewing and computer use). According to the 2011 Greater Cincinnati/Northern Kentucky Child Well-Being Survey (CWBS), conducted with a representative sample of over 2,000 primary caregivers across our region, most parents in our region report that their child is read to regularly by someone in their household. On average, parents read to their children 5 out of 7 days per week.

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Among 3 to 5 year olds, proper vision and hearing screenings are important for early identification of issues that can impede future academic success. Poor hearing and vision are barriers to learning as children who cannot hear or see are unable to focus on the teacher or work effectively with others. Hearing and vision problems are linked to poor academic achievement and social-emotional development. Ages 3 to 5 is an ideal time to screen children and identify potential problems. Identifying problems before a child begins

school allows appropriate intervention to occur (i.e., glasses, hearing aids, etc.), reduces academic-related consequences and enhances a child's ability to learn effectively.

Adequate nutrition and physical activity is integral in this stage, as children advance in their brain development and gross motor skills. Healthy preschoolers typically grow 3 to 4 inches and gain 4 to 5 pounds in weight each year. They also begin refining gross motor skills such as running, hopping, jumping and climbing. Improper nutrition and inadequate physical activity not only impede healthy development, but are linked to poor academic achievement and overall school functioning. Children in this group also are at risk for behavioral issues associated with poor school performance.

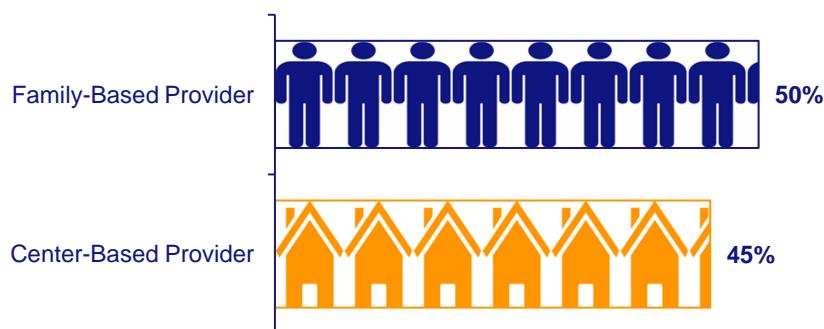
Social, Emotional and Behavioral Health: Ages 3 to 5 Years

Healthy children in the 3 to 5 year-old stage not only are learning pre-academic skills such as letter and number recognition, they also are developing critical social-emotional skills that will support academic success. In order to learn in a school environment children need social-emotional skills such as knowing how to get along with others, how to manage their emotions, how to express their needs, how to work well independently and in groups, how to pay attention, and to have a general curiosity for learning. A child who does not have these basic social-emotional skills finds it more difficult to learn and also is likely to disrupt classmates' learning.

Parents play an integral role in helping preschoolers develop social-emotional skills to support academic success. Parents should set and enforce consistent rules for behavior and use warm and caring parenting techniques. Parenting strategies such as authoritative parenting support positive social-emotional development in children. Authoritative parenting includes high levels of warmth and caring along with consistent setting and enforcing of rules and is associated with greater levels of academic achievement.

Not only do parents play an important role in supporting child development, non-parental caregivers also can play a critical role. About 50% of parents who have children ages 0 to 5 in our region use non-parental child care. Of those, 50% use a relative or friend (41%) or family-based provider (9%) for child care and 45% use a center-based provider (including child care centers, private or public preschool, and Head Start). The remaining parents report using either an in-home nanny (2%) or another type of care (4%) (2011 CWBS). Daycares and other early childhood centers can play an important role in supporting children's social, emotional and behavioral health. Childcare providers need to be equipped with the skills to support social-emotional development of children to increase future academic success. High-quality early learning programs, including center-based child care and preschool or prekindergarten, can boost children's language and literacy skills, academic success and social and behavioral development in kindergarten and in the early grades.

Type of Childcare Arrangement for Children Ages 0-5, based on parent self-report, 2011*



* Does not add to 100% because "in-home nanny" and "another type of childcare" are not included

Source: 2011 Greater Cincinnati/Northern Kentucky Child Well Being Survey

HEALTH BARRIERS TO LEARNING: AGES 5 TO 9 YEARS

During ages 5 to 9, children have begun kindergarten and elementary school and continue to develop academic skills to support the critical educational milestone of third grade reading proficiency. Healthy children in this stage typically experience slow and steady physical development, growing 3 to 4 inches per year on average. Children who are developmentally on track understand concepts of right and wrong, benefit from clear rules to guide behavior, and benefit from structure and security. A healthy child has caring parents, eats a well-balanced diet with fruits, vegetables and lean meats, engages in physical activity, and has access to quality health care.

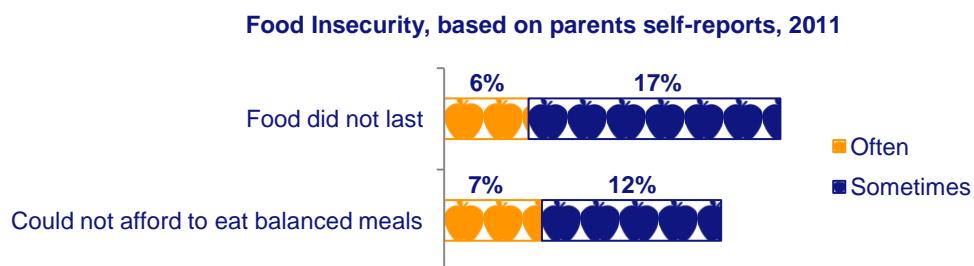
Parents and other key adults such as teachers continue to play an important role in overall development. Health barriers to learning at this stage include lack of health care, poor nutrition, lack of physical activity, and lack of connection to parents and other important adults.

Physical Health: Ages 5 to 9 Years

Physical health is an important component in a child's ability to learn. Child health professionals cite several barriers that reduce a child's ability to learn. Critical health barriers to learning in ages 5 to 9 include improper nutrition, lack of physical activity, and poor health care.

Poor nutrition and lack of physical activity contribute to reduced physical health status. Proper physical health ensures students are able to focus in the classroom and concentrate on the curriculum, reduces behavioral issues and helps teachers with classroom management. Health experts recommend that children engage in at least 60 minutes of moderate to vigorous physical activity every day. Elementary school students in Hamilton County receive an average of only 73 minutes of physical education *per week* while the nationally recommended level is 150 minutes (Hamilton County Public Health 2013). Such a lack in physical activity among youth has contributed greatly to the childhood obesity epidemic and may result in reduced academic achievement. Physical activity is linked to positive academic achievement and physical and mental well-being.

Schools, parents and the community can help to make schools healthier places and combat child obesity by teaching children how to eat in a healthy way. Parents of children ages 5 to 9, and the children themselves, benefit from education on healthy food choices, portion sizes and proper nutrition. However, 19% of parents of all-aged children stated that sometimes or often they could not afford to eat balanced meals and 23% stated that the food they bought sometimes or often did not last and that they did not have money to buy more (2011 CWBS). In the school setting, offering healthy meal choices and exposing children to a variety of healthy foods increases the opportunity for children to have a healthy diet. Schools should provide quality foods, including the right portions and more whole grains, fruits, vegetables, and low-fat dairy products. Healthy meals at home and at school are associated with higher academic achievement among students.



Access to routine health care remains critical during ages 5 to 9, especially as children begin to attend school regularly. Routine health care can prevent and provide intervention strategies for health conditions that might otherwise impact school attendance and academic achievement. Approximately one in four adults in our community lacks stable health insurance coverage (2010 Greater Cincinnati Community Health Status Survey). Consequently, a sizeable percentage of parents lack access to quality care for themselves and their children. This can serve as a barrier to obtaining proper health care for children. It is important to educate parents about organizations that can assist in locating and navigating access to community health care for themselves and their children. While a large majority of parents in our region (85%) state that their family has access to a personal doctor or nurse who knows their child and family history, nearly one in five (17%) children in our area did not see a dentist in the past 12 months and 9% have delayed or gone without health care (2011 CWBS). Poor health care can lead to health issues that disrupt a child's ability to learn. Physical pain, such as a toothache, distracts students and can lead to increased absenteeism.

Schools also can serve as an important physical health resource for children ages 5 to 9, particularly for those from disadvantaged families who may lack access to appropriate health care. Schools are a natural place in which to provide health services since students spend one-third of their time in the school setting. School health services should be integrated with community health services in a continuum of care.

Social, Emotional and Behavioral Health: Ages 5 to 9 Years

Critical milestones in social, emotional and behavioral development occur in this age group. Children generally are in school full time and develop friendships with peers. Children begin to understand social roles, take on more responsibility and seek to avoid punishment. Self-esteem tends to be based on the ability to perform in social situations. Children also are sensitive to others' opinions about them. This age is a critical time for identifying social, emotional and behavioral health concerns that could impact academic success. Health barriers to learning in this age group include rule breaking and difficulty with self-regulation, emerging mental health issues, toxic stress, and exposure to violence and substance abuse.

Parents, caregivers and teachers continue to play a critical role in supporting children's social, emotional and behavioral health. Children ages 5 to 9 benefit from clear rules to guide behavior and also benefit from structure and security. In addition, self-regulation, which involves children limiting and controlling their own behavior, is a key social-emotional characteristic of this stage. Self-regulation helps children cope with frustration, avoid aggressive behavior and make healthy decisions. Parents and teachers can support

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healthy development and establish firm rules, effectively communicate these rules and enforce rules that are broken. Mental health issues that can impede academic success may begin to emerge during this stage of development. Approximately one in five students will experience a mental health problem such as depression, anxiety and stress in their lifetime (US

Department of Health and Human Services 1999). Thirteen percent of parents of children ages 6 to 12 years in our region state that their child currently has Attention Deficient Hyperactivity Disorder (ADHD) (2011 CWBS). Two-thirds of school districts report a need for additional mental health services (Foster et al. 2005). Mental health issues prevent children from learning effectively. Children with ADHD have difficulty focusing, sitting quietly and listening to the teacher, which can challenge their ability to learn effectively.

Toxic stress experienced by children ages 5 to 9 can impede healthy development and interfere with their learning and academic performance. The brains of children in this age range are rapidly acquiring the capacity for complex, higher cognitive functions (working memory, mental imagery, decision making, and willed action) and continuing to develop language skills. Behaviors linked to toxic stress include lack of self-control and self-confidence, inability to stay calm, short attention span and difficulty in following directions,

inability to solve problems and to delay gratification, a quick temper, and aggressive behavior toward students and teachers. As a consequence, children who have or are experiencing toxic stress are more likely to have a high rate of delinquency and absenteeism and low test scores. They also are more likely to abuse drugs and alcohol and engage in risky sexual behaviors. Besides impeding their own learning, the behavioral aberrations these children exhibit disrupt classrooms and impede learning by other students.

Exposure to violence and parental substance use are related to reduced social, emotional and behavioral health among children ages 5 to 9. Many of our youth grow up in violent communities and are exposed to violence as they travel to and from school. Concerning safety of children, 60% of parents state that their child is always safe in their neighborhood or community (2011 CWBS). Involvement in violence and exposure to violence are both significantly associated with decreased academic achievement. Within the school environment, a sizeable percentage of students are afraid of violence and bullying. Such fear deleteriously affects their learning and ability to focus on academics. Strategies can be applied to improve school safety and increase feelings of comfort at school, such as developing an appreciation for diversity/inclusion (race, ethnicity, class, gender). This is important for reducing prejudice and bullying, which are barriers to learning.

SUMMARY

In summary, this paper has reviewed critical health barriers to learning for children, birth to 3rd grade. There is a strong relationship between physical health status, social, emotional and behavioral health status and learning. Physical health barriers include poor nutrition, lack of physical activity and lack of routine medical care, including oral health and vision screenings. Social, emotional and behavioral health barriers include lack of positive parenting techniques, unsafe environments, exposure to violence and chronic stress, and mental health problems. Recommendations to reduce barriers include enhancing proper nutrition, advocating for health education in schools, increasing access to regular medical care, including mental health care, and educating parents, teachers, and community members on strategies associated with healthy decision-making and high academic achievement. Healthy children are ready to learn, able to focus on school, and prepared to be successful. Overcoming barriers to learning are crucial to improving academic achievement and overall child health status.

THE HELP PARENTS NEED: A FINAL REFLECTION

As our team explored the relationship between children's health and their capacity to learn, we were struck by how vulnerable infants and young children are. They rely on their parents – even before they are born – to keep them safe from exposure to chemicals and other toxins as well as from stress and poor nutrition, all of which affect them, even in the womb. Once they are born, babies and young children rely on parents, family members, doctors, and caregivers to pay attention to them and notice if something in the way they are behaving or developing doesn't seem right.

- *They rely on us to take action to give them immunization and standard check-ups and treatments to keep them well and to provide timely interventions when they are not.*
- *They rely on us to talk to them, teach them, make them feel safe and loved, and help them trust the world around them and feel confident about trying new things, exploring and learning.*
- *They rely on us to give them a sense of security and predictability and provide nourishment for their bodies and minds. Providing food and drink, protection from the elements, offering tenderness and care – these are all more than a "good idea." They are key to children's physical, social and brain development and set the stage for their ability to learn.*
- *These small lives depend on all of us to know what is best, know how to care for them, know how to create a peaceful and loving environment in which they can thrive.*

Yet most of us learned how to parent from our own parents who learned from theirs, when our society knew so much less about how our bodies, brains, and social skills develop. There were experiences built into our lives that may have helped us develop our skills, sense of well-being, and character – from walking to school, playing outside, making up games, eating dinner as a family, having part-time jobs after school. We were a product of our times. Our children are growing up in different times, and many of us do not have the tools and are not prepared to parent effectively to help them meet this century's challenges.

- *Babies and young children are attuned to their surroundings and are affected deeply by the skills and knowledge of those who care for them. Children experience the impact of their parents' own history of growing up, fragile housing and economic circumstances, home dynamics in managing conflict and tension, access to health care, access to media and technology, and the culture of the community in which they live. Whether these combine to create toxic stress² or a safe and healthy environment is up to us.*
- *Children's bodies and minds can take in the joy of growing and learning, yet they take in all the fears and stress as well. Our knowing how to help children be physically and emotionally healthy and how to monitor the achievement of developmental milestones are key to children's chances of success in school and in life.*

We all need help from professionals, educators, health care providers, and each other to make sure we are doing all we can to give our children a healthy, happy, and hopeful start, so they can achieve all their possibilities. The obstacles are many. Identifying them is the first step to managing them.

² Stress becomes toxic when a child experiences significant, frequent and/or prolonged adversity. Continued activation of the body's stress response systems takes its toll on the body's developing brain, immune system and heart. Stress and adversity are essential for normal development, but become toxic when not buffered by sufficient supportive biological and social inputs and resources. Adverse childhood experiences that can lead to toxic stress include: abuse and neglect, family dysfunction, unfriendly and/or chaotic school environment, and traumatic events such as death of a parent or witnessing violence.

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