



WHY THE FIRST 1,000 DAYS ARE CRITICAL TO LIFELONG SUCCESS

INTRODUCTION

In 2018, the District of Columbia adopted a legislative blueprint to give every child a strong start, beginning at birth. The Birth-to-Three for All DC Act of 2018 advances policies to promote early childhood health and education in the District.

This legislation will improve school readiness, strengthen the quality of early education, raise compensation to support a skilled early education workforce, make child care more affordable, expand home visiting and community resource navigation, and provide better social-emotional health and coordinated medical services for young children and families. This fact sheet explains why a focus on the first three years of life is so important.


Approximately 9,500 babies are born in the District of Columbia each year – about one every hour.¹ These will be our future doctors and artists, firefighters and engineers, construction workers and teachers. But each child’s opportunity to thrive is profoundly affected by what happens during pregnancy and the first three years of life. This unique developmental window lays the foundation for all future learning, behavior and health, putting a child on a trajectory toward success in school and life or, in too many cases, a future in which the child does not fulfill his or her full potential.

All babies should have the opportunity to thrive, regardless of their race or their families’ socioeconomic status. But across the District, there are wide disparities across neighborhoods in terms of support for healthy births, quality child development and school readiness.

The developing brain

Over the first three years, the baby’s brain will build the foundation on which all future learning rests, every second creating more than a million neurons – the pathways by which information travels in the brain.² During that time, babies’ brains grow to 85% of their adult size. While the window for supporting healthy development doesn’t close at age 3, this is a time of growth unmatched during any other period in life.

Brain development affects the entire array of skills and abilities. There is a scaffold, with the basic senses such as sight and hearing developing first, and then more advanced abilities such as language and physical skills. Building on these, the brain also creates the structure for the “executive functioning” skills both children and adults need to



succeed, such as resilience, patience, collaboration and perseverance. According to the Center on the Developing Child at Harvard University, “Tests measuring different forms of executive function skills indicate that they begin to develop shortly after birth, with ages three to five as a window of opportunity for dramatic growth in these skills.”³

Like a muscle, the brain needs the right amount and type of nutrition and stimulation to develop. It needs enough healthy foods, interaction with other people, health care, education, time for activity, and time for rest and quiet.

If the brain is not stimulated enough or in the right way, it won’t build a sturdy foundation for adding more knowledge and skills. Nurturing personal interactions, being held and comforted, and having their needs met help babies’ brains to develop. Scientists call this interaction with others “serve and return,” and it’s essential for optimal growth. Screen time (e.g., videos and TV) won’t have the same effect.⁴

Too much or the wrong types of stimulation can also be a problem. Brain growth can be impeded by factors such as constant loud noises, repeated moves to different housing, frequent changes in caregivers and not getting their basic needs met – for food, rest, physical comfort and positive, loving interactions with others.

When young children experience significant adverse conditions – poverty, food insecurity, abuse or neglect, etc. – it strongly correlates with poor later outcomes. The Adverse Childhood Experiences (ACEs) study found that children who had more of these risk factors were more likely to experience developmental delays as well as negative adult health outcomes, such as heart disease and mental illness. According to the Center on the Developing Child at Harvard University, “Adverse fetal and early childhood experiences can lead to physical and chemical disruptions in the brain that can last a lifetime. The biological

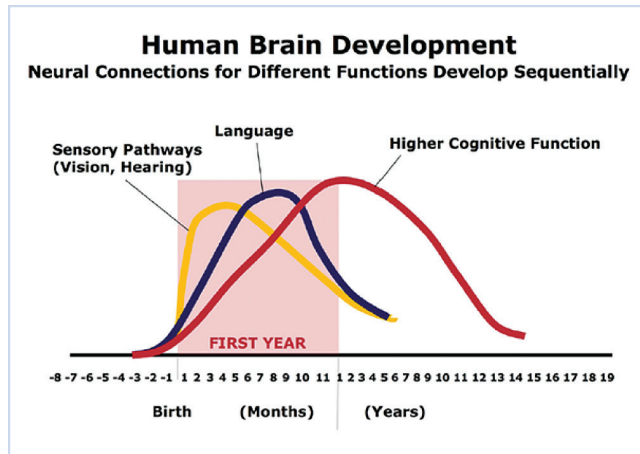


FIGURE 1 – In the proliferation and pruning process, simpler neural connections form first, followed by more complex circuits. The timing is genetic, but early experiences determine whether the circuits are strong or weak.

Source: C.A. Nelson (2000). Credit: Center on the Developing Child

changes associated with these experiences can affect multiple organ systems and increase the risk not only for impairments in future learning capacity and behavior, but also for poor physical and mental health outcomes.”⁵

The differences in brain development show up very early:

- One study found that researchers could see a difference in brain activity based on family socioeconomic status as early as 6 to 9 months old.⁶
- According to research cited by national organization ZERO TO THREE, “Within their first two years, infants from higher and lower socioeconomic status families already exhibit a six-month gap in processing skills critical to language development.”⁷
- Research organization Child Trends examined a nationally representative sample and found that “disparities in child outcomes are evident at 9 months and grow larger by 24 months of age. These disparities exist across cognitive, social, behavioral, and health outcomes.”⁸



- One study found differences in vocabulary by the time children were 18 months old,⁹ with another finding that children of more-advantaged parents heard 4 million more words than other children by age 4.¹⁰ According to the Brookings Institution, “Language is the currency of education and is associated with reading ability, income, healthcare outcomes, and high school graduation rates. Therefore, children who start out with lower language skills are projected to have lower school readiness scores and will follow a dampened trajectory through school and life.”¹¹

Factors affecting development

Parents want the best for their children, but those living in poverty face the unrelenting demands of struggling to provide adequate food, housing, health care and education for their children. When children are exposed to an extreme version of this environment, they experience a “prolonged activation of their stress response systems” – what scientists have termed “toxic stress”¹² – which can affect their growth and development.

Beyond a family’s individual situation, there’s another factor at play. A landmark study released by the Bainum Family Foundation in 2015 found that the District is a “tale of two cities” for young children. From prenatal care and job training for parents to home visiting and high-quality early learning for children, the systems that nurture and support some District infants and toddlers fail to reach or fully support others.¹³

These disparities are not random, the study concluded. Rather, they are a function of race, place and income. Support systems are much less robust for young children in Ward 7 and Ward 8 – where residents are more likely to be African-American and more likely to face poverty – than for their counterparts in more affluent parts of the District.

Giving all babies what they need to thrive

The good news is that we know what babies need to thrive, which includes caring adults who provide appropriate care and education, a supportive and safe physical environment, and good health care and nutrition.

Programs that provide these supports are essential to laying the foundation for later success as they can mitigate the effects of challenging environments. These include, but are not limited to, home visiting with mentors who help parents nurture their young children; quality early care and education with well-trained and well-compensated staff; and health care services, starting during pregnancy, that encompass physical and mental health. There is substantial evidence showing that all of these types of programs can help improve outcomes for children and their families.^{14 15 16}

And what’s good for babies and their families is also good for the entire District. The right supports will lay the foundation for these babies to thrive and become the successful adults our city needs.





Endnotes

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