

NATIONAL SUMMIT ON AMERICA'S CHILDREN



PATHWAYS FROM BRAIN RESEARCH TO POLICY: HIGHLIGHTS FROM THE NATIONAL SUMMIT ON AMERICA'S CHILDREN

EXECUTIVE SUMMARY

A knowledge revolution is transforming our understanding of how young children grow and learn, what they need to succeed in school, and how they can reach adulthood as healthy, productive and participating members of society. New findings on brain development and related research provide a clear pathway to better futures for our children. These remarkable advances direct policymakers to the nature of the environment, support and relationships that are fundamental for all children.

Many of the nation's best scientists shared their most recent research and latest knowledge with Congress at the National Summit on America's Children, hosted by Speaker Nancy Pelosi in May 2007. This Executive Summary highlights the exciting findings and critical policy implications provided at the Summit. Policymakers can use these lessons and this report as a starting point for discussions with a wide range of organizations, leaders, and families in their communities and work to build a new vision and stronger policies that support our families and build stronger communities.

The children of the 21st century deserve the best support that science tells us will give them opportunities for healthy, educated and productive lives. Through our efforts we can make that happen.

The Brain is Critical to Human Functioning. The human brain's unique role involves processing information, managing emotions and regulating behavior; the brain is the source of skill development and productivity. While genetic material provides the basic structure of the brain, the nutrition, stimulation and human interaction the brain receives create its essential characteristics and refinements.

Brain Architecture Begins Developing Before Birth. It involves billions of nerve connections, or synapses, which are shaped over time to generate human skills and functions. Shaping these connections starts prenatally and continues over time. The early formation of brain architecture provides the structure on which more complex brain functions are built.

Early Childhood is a Critical Period for Brain Development. The first three years of life are a time of extraordinarily rapid brain formation and growth. Early experiences combined with genes, not genes alone, build the brain. Everyday experiences and the environment and conditions that mold them fuel the developing brain. Early brain development is also fundamental to how the brain continues its maturation process, which proceeds into young adulthood.



Good Health and Nutrition are Key Contributors to Normal Brain Development. New evidence emerging from a 40 year longitudinal study shows links between low birth weight and child cognition, child health, educational attainment, adult health and labor market outcomes. The lasting harmful impacts of low birth weight on later health, educational achievement and workforce participation are reduced considerably when families have health care and the means to pay for it at birth.

Learning and Social Emotional Development are Intertwined. Children learn most effectively in relationships that tell them – verbally and nonverbally – that they are listened to, heard and enjoyed. Cognitive and motor skills are learned more efficiently in a healthy social environment.



Families and Caregivers Matter Most. The interaction between parents or other caregivers and infants – “the process of seeing and responding to what the other is doing” – is vital to learning, communication and language. Parents are the present, predictable, and trustworthy safe haven for young children. Next to parents, or those who substitute for them if they are unavailable, the second most important developmental relationship for young children is with caregivers in child care settings.

The Quality of Early Care and Education Has a Marked Impact on Children’s Performance. Quality experiences contribute in the short term to better cognitive and language development, social-emotional performance and school readiness; they also have many long-term benefits, including school completion, attendance at four-year colleges, and health insurance coverage, and lower rates of felony arrests, convictions and incarceration, and out-of-home placement.

Recognition of mental health needs and linkages to mental health services are critical components of quality child care, early learning and Pre-K programs. Early intervention opportunities for young children with disabilities, at home and in child care settings, are essential to their developmental progress and ability to participate in school

All Children Experience Stress – What Matters Is How It Is Managed.

Positive stress – when a caregiver provides warmth and responsiveness to relieve it – fosters normal brain development. Toxic stress – when no one responds tenderly or the response is harsh or hurtful – actually interrupts brain development by reducing or changing neural connections and can have long-term negative consequences. Research shows (and is visible on PET scans) that when parents are absent, unpredictable, compromised or unsafe, the firing of the synapses that creates healthy brain architecture can be seriously disrupted.



Exposure to Adverse Circumstances in Early Childhood Places Children at Risk for Developmental Delays and Physical and Mental Disorders.

Those adverse experiences can include extreme poverty or limited access to basic material resources or, at the extreme, abuse or neglect, or being born to parents who are undereducated, severely overburdened, seriously depressed or substance abusers. In 2005, the highest rate of child victimization – from physical, sexual or emotional abuse and neglect – occurred among children under age three. More than 60 percent of the children whom the child welfare system sees are victims of neglect or deprivation.

Income and Material Hardship Affect Children's Healthy Development. Recent research experiments have found that supplementing the earnings of low-income parents helps raise families out of poverty and improves children's school performance. Other employer-based work supports, including leave policies, child care and preventive health education, have been shown to strengthen worker productivity and improve business recruitment and retention.



Physical Environments, Especially Adequate Housing, Where Children Live, Play and Learn, Contribute Measurably to Children's Health.

Substandard housing can lead to parental stress and harsh or inattentive parenting which directly affect children's social-emotional development. A home that is free of toxins prevents damage to the developing brain and improves children's health.

Investment in Young Children is Cost-Effective. The latest brain research is powerful and exciting; early financial investment in the healthy development of children reaps both immediate and long-term fiscal as well as human benefits. Policymakers now have the chance to create effective policy based on strong science and solid economics. The children of the 21st century deserve the best support that science tells us will give them opportunities for healthy, educated and productive lives.