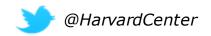


# Using Science to Improve Outcomes for Young Children and Families Facing Adversity

#### JACK P. SHONKOFF, M.D.

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What Babies and Families Need to Thrive: A Legislative Briefing and Breakfast Raleigh, NC | February 27, 2019

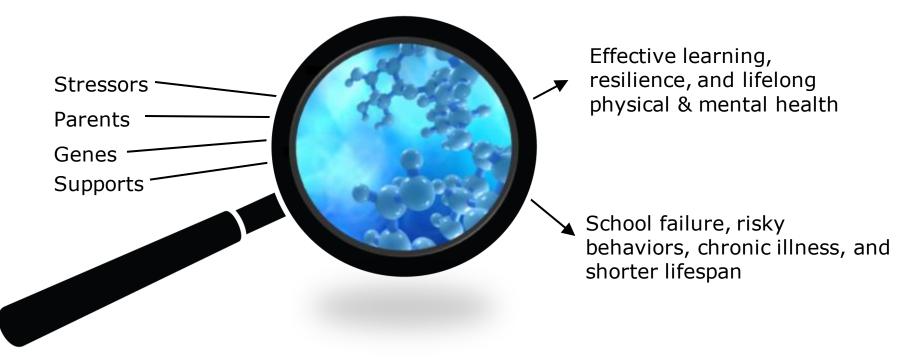


# Appreciating the Rich History and Contributions of North Carolina in the Early Childhood Field

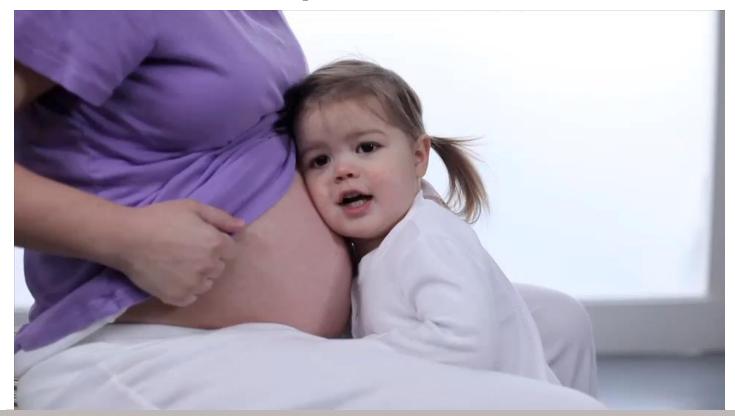


Photos: FPG Child Development Institute of the University of North Carolina at Chapel Hill; Smart Start

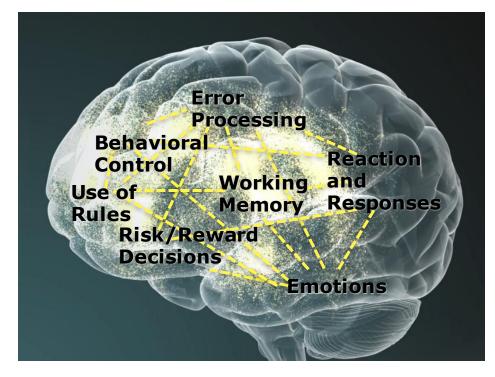
# 21<sup>st</sup>-Century Science Offers a Compelling Platform for Catalyzing Innovation in Policies & Programs



# **Responsive Relationships and Positive Experiences Build Sturdy Brain Architecture**



# **Core Capabilities for School, Work & Parenting are Built Over Time Through Modeling, Coaching & Practice**

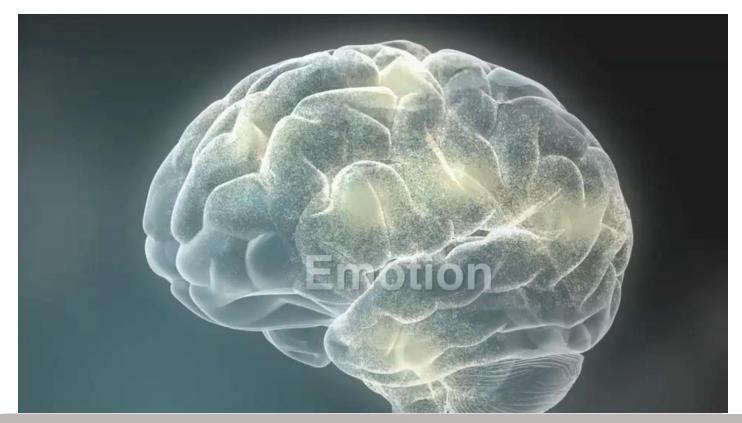


Executive function and self-regulation skills constitute a foundational set of capabilities that help us:

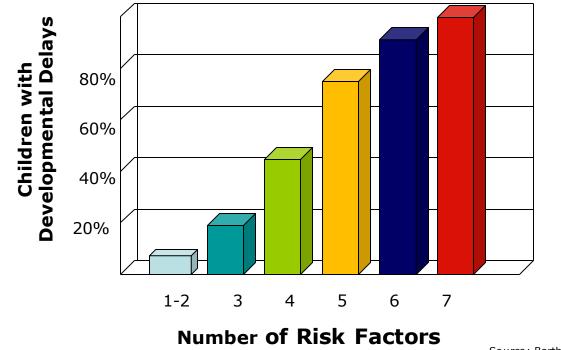
- focus and sustain attention
- set goals, make plans, and monitor actions
- make decisions and solve problems
- follow rules, control impulses, and delay gratification

These skills begin in infancy with major spurts at ages 3-5 and 15-25 years

### **Toxic Stress Disrupts the Development of the Brain and Other Biological Systems**



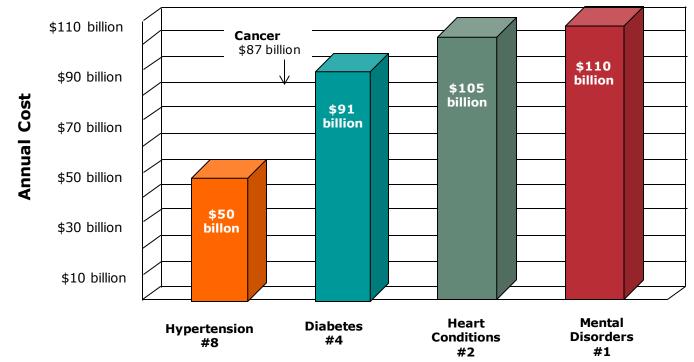
### Significant Adversity Impairs Development in the First 3 Years



Source: Barth, et al. (2008)

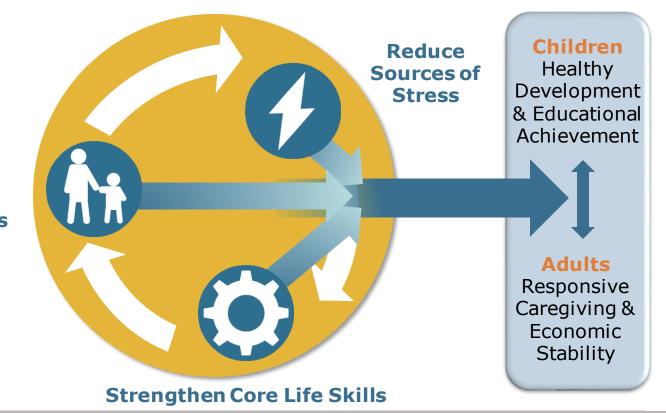
# Adult Diseases Associated With Childhood Adversity Dominate U.S. Health Care Costs

4 of Top 10 Most Costly Diagnoses = \$356 billion



Source: Agency for Healthcare Research and Quality (2014)

### Science Suggests 3 Design Principles to Improve Outcomes for Children and Parents—But the Devil is in the Details!



Build Responsive Relationships

Center on the Developing Child 😈 HARVARD UNIVERSITY

# Leveraging Science to Launch a New Era in Early Childhood Investment Requires Fresh Thinking & New Ideas



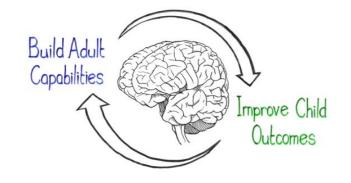
Greater attention must be focused on the prenatal period and first 2 years after birth.

Early experiences affect lifelong health, not just learning.

Healthy development requires protection, not just enrichment.

Achieving far better outcomes for young children facing adversity requires that we:

- support the adults who care for them to transform their own lives; and
- strengthen the capacity of communities to support families raising children under difficult circumstances.





About Science Incomposed Adaptive About Science Incomposed Adaptive Tipping the Scales: Tre Came Learn how the choic children and the co- become more resilie (View Come 3)	Science The frontiers of 21st-century science are a relatively us that could be used to address such threats by catalyze and services focused on the early years of life. Science tells us that early childhood is a time of bach great pro- Having responsive relationships with adults, growth-promoting a movinements for al young children helps build study <u>tesh are</u> restinged. Meenwhile, significant disadvertages can disrupt the	The science of development is a lincrease opportunities early in life starting point, the Center is workin community members to design, in	on & Application
Reaching for Breakthroughs with Scienc	to limited economic and social mobility that threatens the vitality, society.           Key Concepts         Deep Dives	practice models that achieve trans families. Key Concepts	formational change for vulnerable children and
Science Application Science tells us that early childhood is a time of both great promise and considerable risk. Assuring the watability of resonaive relationability, grown promoting experiences, and healthy environments for al young children heips build stury breas architecture and the functions of relationce.	These key concerts we the building blocks of the science of child development. Each content that is a	3	

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