



Center on the Developing Child
HARVARD UNIVERSITY

Leveraging Science to Strengthen the Foundations of Early Learning, Economic Productivity, and Lifelong Health

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First 1,000 Days
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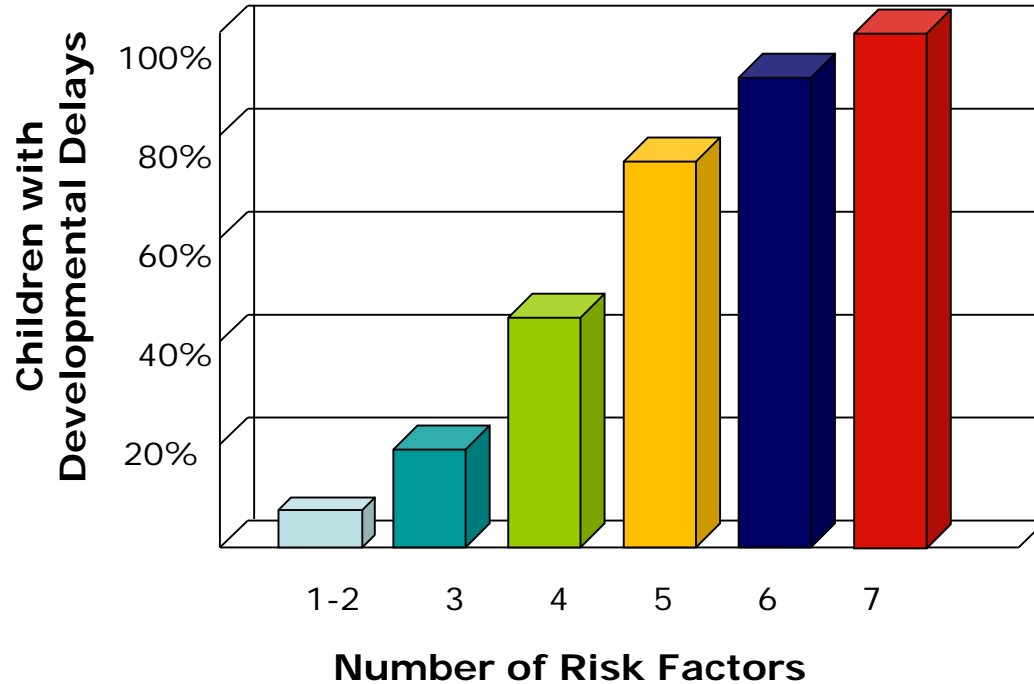
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Three Scientific Principles for Understanding the Building Blocks of Healthy Development

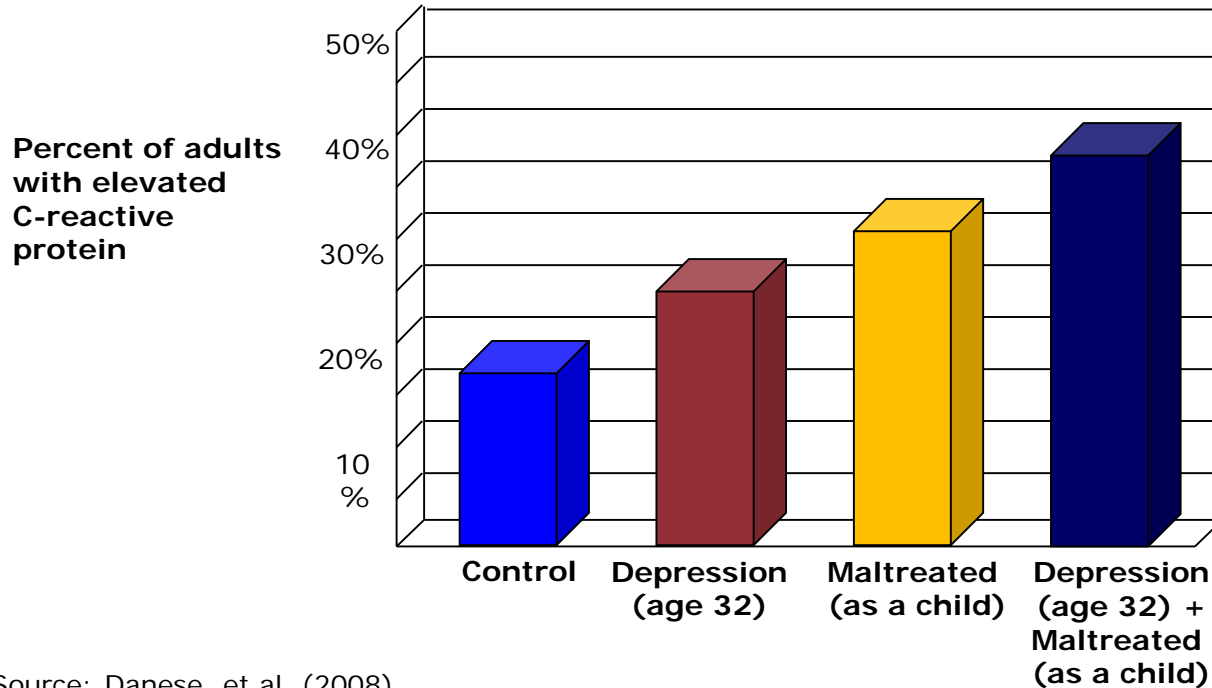
- 1 Responsive relationships** and positive experiences build sturdy brain architecture, starting in the earliest years.
- 2 Toxic stress** disrupts the process of development, with lifelong consequences for learning, behavior, and health.
- 3** The foundations of resilience can be strengthened in young children through “serve and return” interactions that **build adaptive skills.**

The Cumulative Pile Up of Adversity Impairs Development in the First Three Years



Source: Barth, et al. (2008)

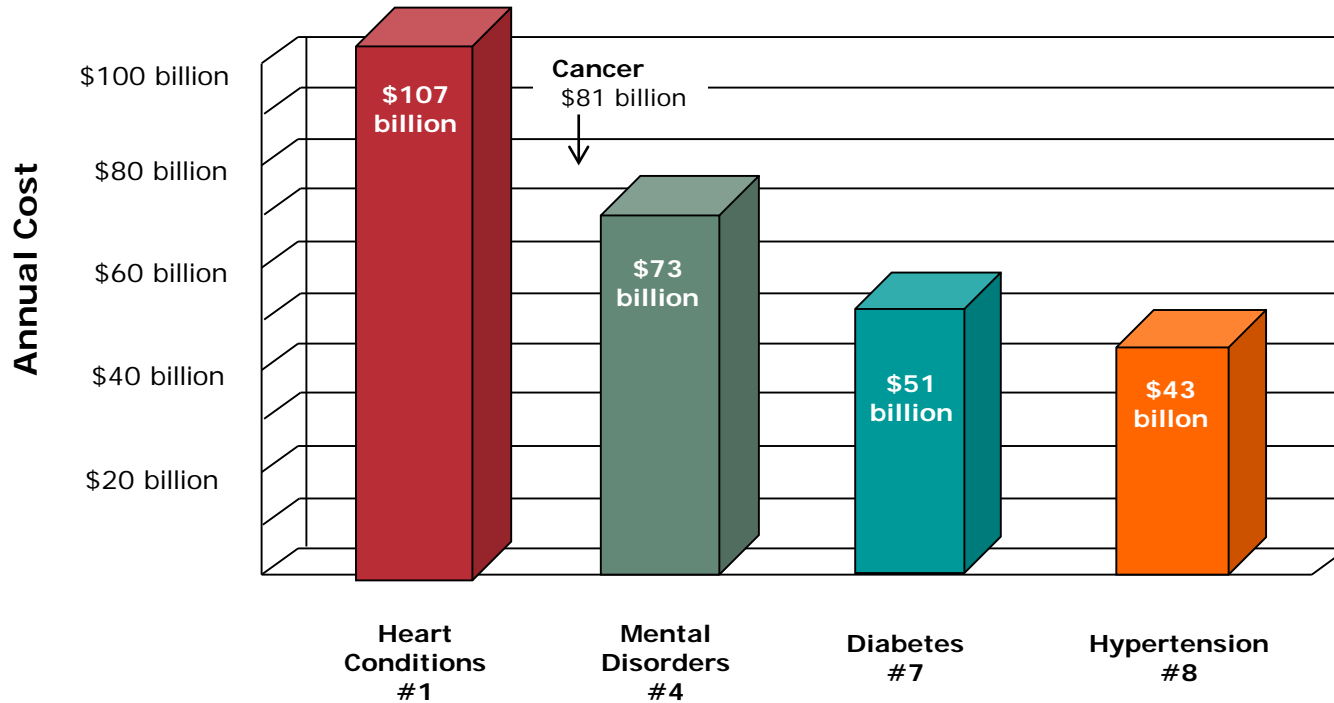
Biological “Memories” Link Maltreatment in Childhood to Greater Risk of Adult Heart Disease



Source: Danese, et al. (2008)

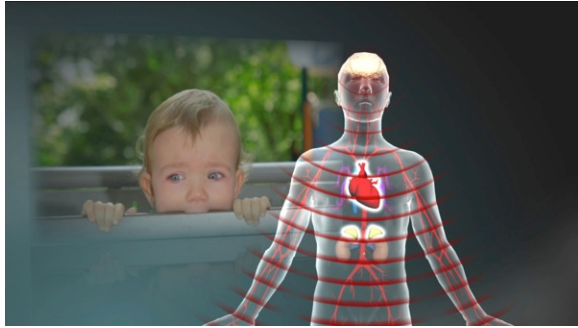
Adult Diseases Associated With Childhood Adversity Dominate U.S. Health Care Costs

Four of Top Ten Most Costly Diagnoses = \$274 billion



Source: Agency for Healthcare Research and Quality (2010)

21st Century Science Suggests New Ways of Thinking About Early Childhood Policy and Practice Across Sectors



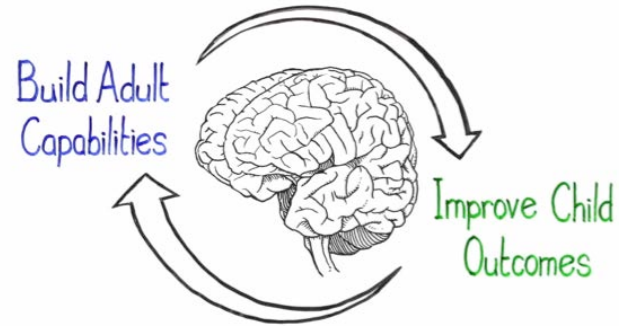
Greater attention must be focused on the prenatal period and first 2 years after birth.

Early experiences affect lifelong health, not just learning.

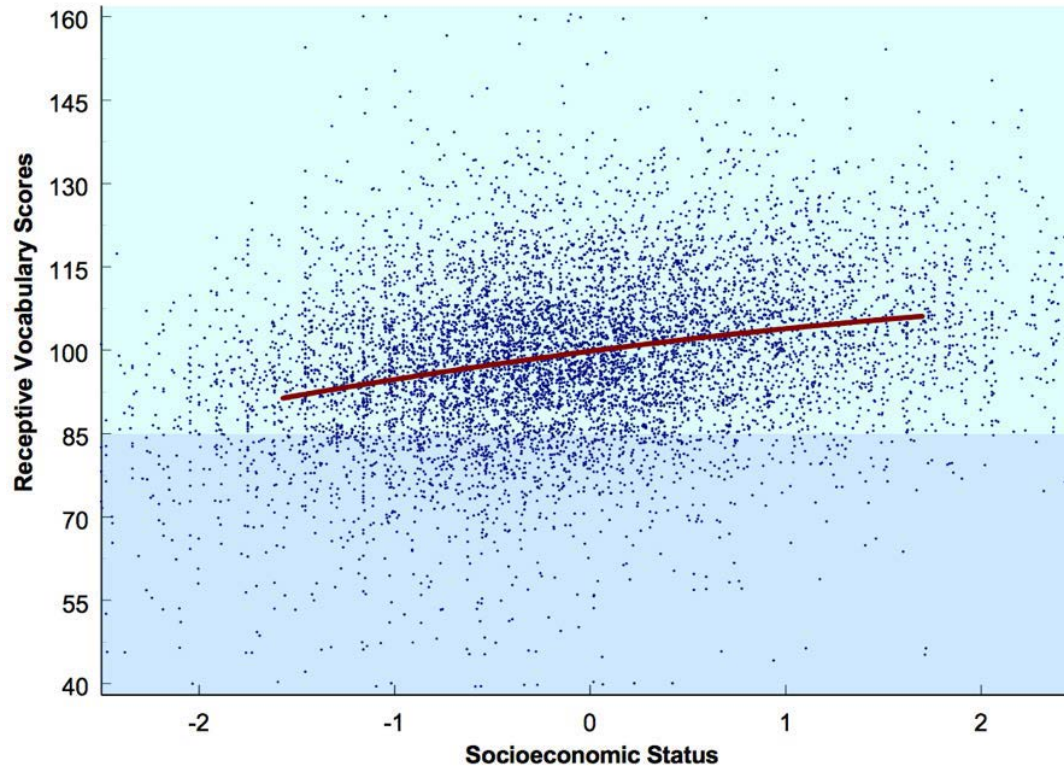
Healthy development requires protection, not just enrichment.

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.

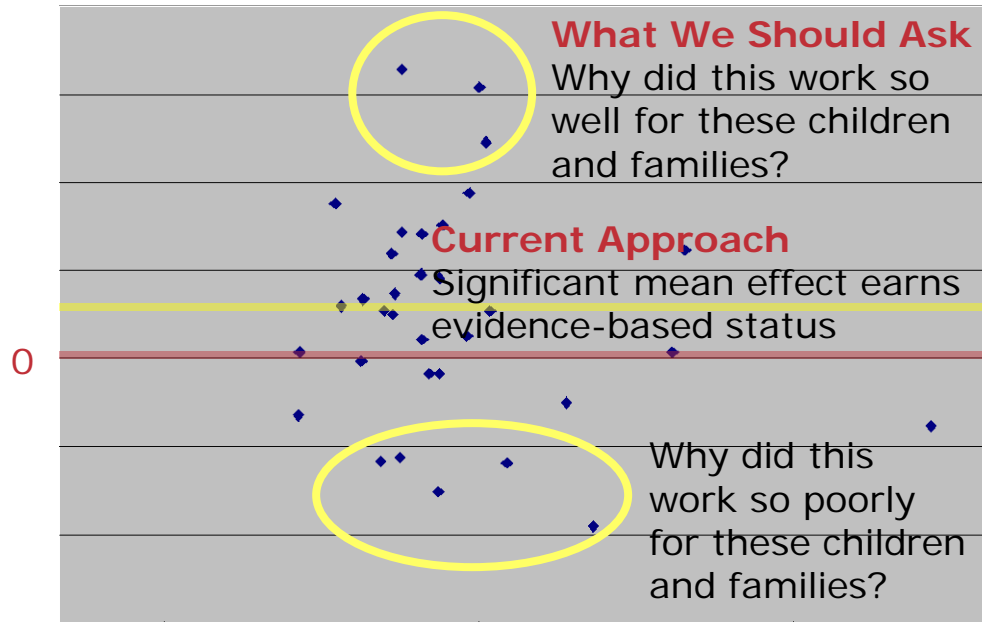


Understanding Individual Differences is the Key to More Effective Policies and Programs

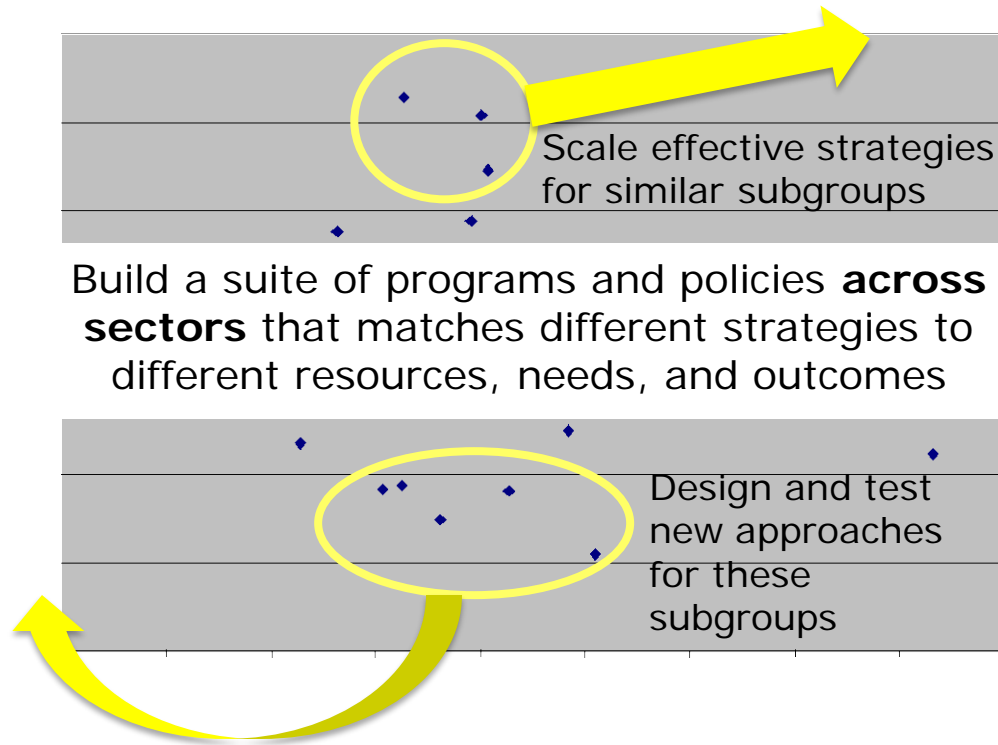


Source: NLSCY, Cycle 4 (2000-01)

Achieving Greater Impact at Scale Requires Rethinking the Criteria for Defining Evidence-Based Investments



Achieving Greater Impact at Scale Requires Rethinking the Criteria for Defining Evidence-Based Investments





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The screenshot displays the website's layout. At the top, navigation tabs include 'About', 'Science', and 'Innovation & Application'. The main banner features a circular collage of images of children and adults, with the text 'NEW REPORT From Best Practices to Breakthroughs: A Science-Based Approach to Promising Future for Young Children' and a 'Learn More' button. Below the banner, a section titled 'Reaching for Breakthroughs with Science-Based Innovation' has sub-tabs for 'Science' and 'Innovation & Application'. The 'Science' section contains a text block about 21st-century science and a 'Key Concepts' section with a balance scale icon. The 'Innovation & Application' section contains a text block about the science of development and an 'Innovation in Action' section with a photo of a child and an adult.

**Center on the Developing Child
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About Science Innovation & Application

NEW REPORT
From Best Practices to Breakthroughs
A Science-Based Approach to Promising Future for Young Children
Learn More

Reaching for Breakthroughs with Science-Based Innovation

Science Innovation & Application

Science

The frontiers of 21st-century science are a relatively untapped source of new ideas that could be used to address such threats by catalyzing more effective policies and services focused on the early years of life.

Science tells us that early childhood is a time of both great promise and considerable risk. Having responsive relationships with adults, growth-promoting experiences, and healthy environments for all young children helps build sturdy **brain architecture** and the foundations of **resilience**. Meanwhile, significant disadvantages can disrupt the developmental process and lead to limited economic and social mobility that threatens the vitality, productivity, and sustainability of society.

Key Concepts

These **key concepts** are the building blocks of the science of child development. Each page within this section provides a concise

Deep Dives

"**Deep dives**" provide in-depth scientific content that is accurate, credible, understandable to non-scientists, and useful

Innovation & Application

The science of development is a powerful source of fresh thinking about how to increase opportunities early in life for all children. Using current best practices as a starting point, the Center is working with a network of researchers, practitioners, and community members to design, implement, and evaluate innovative, science-based practice models that achieve transformational change for vulnerable children and families.

Key Concepts

Innovation in Action

www.developingchild.harvard.edu

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