

From Best Practices to Breakthrough Impacts

A science-based approach to building a more promising future for young children and families

EXECUTIVE SUMMARY

Early childhood is a time of great promise and rapid change, when the architecture of the developing brain is most open to the influence of relationships and experiences. Yet significant disadvantages in the lives of young children can undermine their development, limit their future economic and social mobility, and thus threaten the vitality, productivity, and sustainability of an entire country.

Today's early childhood landscape includes a diverse array of policies and services designed to strengthen the ability of families to face these challenges and support the healthy development of their children. A half-century of program evaluation research has demonstrated repeatedly that effective early childhood services can improve life outcomes for children facing adversity, produce important benefits for society, and generate positive returns on investments.

But the world has changed dramatically since many of these programs were first introduced. A high school diploma is no longer a pathway to the middle class in the United States. Workers with low levels of skills find it increasingly difficult to support a family. At the same time, a

remarkable expansion of new knowledge about brain development in the early years of life is now available to fuel new ideas, programs, services, and breakthrough solutions to some of the most complex challenges facing parents, communities, and nations.

Many leaders in the field are engaged in critically important efforts to improve the quality of programs, increase the effectiveness and efficiency of service delivery systems, enhance the skills and compensation of a highly diverse early childhood workforce, and encourage innovation. These efforts must be sustained—but they alone are not enough.

The time has come to raise the bar and leverage the frontiers of 21st-century science to pursue a bolder vision. This paper introduces a new approach—a concept familiar to other industries and fields, but missing until now from the early childhood field. We propose an R&D platform that will catalyze a new era in early childhood policy and practice—driven by a new way of thinking fueled by advances in science and a new way of working that embraces the culture of innovation.

Core Concepts in the Science of Child Development

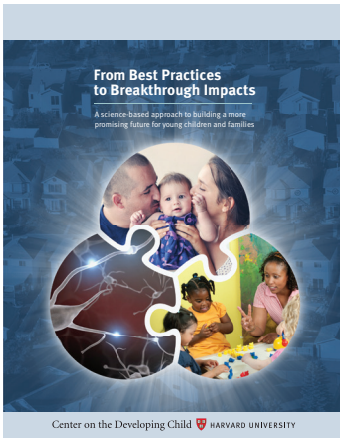
Decades of behavioral and social sciences and recent discoveries in neuroscience, molecular biology, and epigenetics combine to help explain how healthy development happens, what can send it off track, and what we can do to restore it.

- **Relationships with caring, responsive adults and early positive experiences build strong brain architecture for children.**
- **Significant stress from ongoing hardship or threat (e.g., exposure to violence, extreme poverty, or maltreatment) disrupts the biological foundations of**

learning, behavior, and health, with life-long consequences.

- **Providing the right ingredients for healthy development—including protective factors that can counterbalance the effects of adversity—from the start produces better outcomes than trying to fix problems later.**

This scientific story, as compelling as it is, does not tell us what kinds of services and policies are most effective at ensuring (or restoring) healthy developmental trajectories for children growing up in a range of challenging circumstances.



For the full *From Best Practices to Breakthrough Impacts* report, visit: <http://developingchild.harvard.edu/resources/from-best-practices-to-breakthrough-impacts/>

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Lessons from Research to Improve Programs

The body of evidence built around early childhood programs during the past five decades is extensive, yet struggles persist with inconsistencies in implementation, inefficiencies in delivery, and occasional conflicts with scientific knowledge. Notwithstanding the lack of conclusive evidence pointing toward a specific set of “best programs,” it is possible to identify five key *characteristics* that have been associated consistently with positive outcomes across a range of ages and interventions:

- **Help adults—parents, teachers, child care staff—to strengthen their skills so they can support the healthy development of the children in their care.**
- **Tailor interventions to address sources of significant stress for families, such as homelessness, violence, children’s special needs, or parental depression.**
- **Support the health and nutrition of children and mothers before, during, and after pregnancy.**

- **Improve the quality of the broader caregiving environment and increase economically disadvantaged families’ access to higher-quality care.**
- **Establish clearly defined goals and implement a curriculum or intervention plan that is designed to achieve those goals.**

These five characteristics, which could be described as current “best practices,” can guide continuous improvement in the quality of a wide array of policies and programs that have evolved in the United States over the past half-century. The well-documented impacts of flagship programs include higher educational attainment, fewer unplanned pregnancies, increased economic productivity, and reduced criminal behavior. Nevertheless, we can and must do better, particularly for children in the first three years after birth and for families whose needs are not being met by existing policies and services.

Building an R&D Platform to Produce Breakthroughs

We believe that best practices should be a critically important starting point, but they are not the final destination. History teaches us that the greatest innovations often come not from brainstorming in isolation, but from connecting existing ideas in new ways. New discoveries in neuroscience, molecular biology, and epigenetics offer a remarkable opportunity to catalyze enhanced theories of change and innovative strategies to reduce the consequences of adversity early in life. This scientific understanding of the impacts of early experiences on the developing brain suggest three fundamental shifts in the thinking that informs most current policies and programs focused on young children:

- Early experiences affect lifelong physical and mental health, not just learning.
- Healthy brain development requires protection from excessive stress, not just enrichment in a stimulating environment.
- Achieving breakthrough outcomes for children experiencing significant adversity requires that we support the adults who care for them to transform their own lives.

Simply having new knowledge, however, does not ensure improved outcomes at a population level. Substantially greater impacts will require changes in the way we design, test, evaluate, and scale promising, new strategies. The crucial components are:

- **Co-creation** in designing and testing new program strategies
- **Precision** in defining interventions and measuring outcomes
- **A rapid-cycle, iterative process** for improving programs
- A strategy for identifying **who benefits most** (and least)
- **An “active ingredients” approach** to cost-effective scaling
- Innovation that extends **beyond programs and into systems**

A highly energized research and development (R&D) dimension is an essential part of any healthy, sustainable enterprise. The absence of a science-based R&D platform in the early childhood field threatens the future of all children, families, and communities whose challenges are not being addressed adequately by existing policies and programs.

A Call to Action

The central question before us is not *whether* strategic risk-taking and fresh thinking are important prerequisites to breakthrough impacts for children and families facing adversity. The more compelling questions are: *How* can we make that happen? *What* will it take to reduce the barriers that prevent innovation and provide incentives that encourage it? *How* can we come together across multiple sectors to learn from both failure and success? The possibility for substantial

progress in our ability to dramatically improve the life prospects of all young children is real. The time to aim higher is now. We invite all who share a sense of constructive dissatisfaction with the status quo—whether from the worlds of policy, practice, research, philanthropy, or those who simply want to make their communities a better place for children—to join us on this journey.