

Three Decades Later Early Childhood Benefits Persist through Adulthood:

Home visiting programs that support mothers and families can have lasting benefits and reduce inequality.

High-quality early childhood development programs in the United States, such as home visiting, Abecedarian and Perry Preschool, have demonstrated positive economic and social effects. New research, following up on previous studies¹ of a low-cost early childhood intervention conducted in Jamaica from 1986 through 1988 by the University of the West Indies, demonstrates the continued beneficial impacts of home visiting programs, parent-child interactions and cognitive and social stimulation for infants and toddlers in closing the achievement gap and producing longterm economic gains. Now at an average age of 31, disadvantaged children treated in the Jamaican intervention are more likely to acquire a higher education diploma by 26 percentage points and had 43% higher wages and 37% higher earnings than the control group participants. The results strengthen findings from previous research that early interventions are effective for disadvantaged children in developing countries.

The Jamaican Study at age 31

This study evaluates the long-term benefits of early psychosocial stimulation and nutritional supplements for extremely disadvantaged children. Growth-stunted children between the ages of 9 and 24 months participated in a 2-year randomized controlled trial. Stunted growth is a reliable indication of severe economic disadvantage in developing countries and is associated with malnutrition and poor cognitive development. Studies have shown that early developmental disadvantages persist into adult economic disadvantage. One hundred twenty-nine Jamaican children were randomly assigned to one of four groups: 1) psychosocial stimulation; 2) nutritional supplementation (1 kg milk-based formula per week); 3) both psychosocial stimulation and nutritional supplementation; and 4) a control group that did not receive treatment. The study also surveyed a comparison group of 84 non-stunted children who lived nearby. Groups 1 and 3 participated in a home visiting program that consisted of two years of weekly one-hour sessions at home with trained community aides to develop child cognitive, language

and psychosocial skills through improved parent and child interaction and increased opportunities for learning.² Study participants were interviewed 30 years later, in the latest research, at an average age of 31, and evaluated on a number of economic indicators. This is the longest follow up of a randomized controlled trial of an early childhood stimulation in a low or middle income nation.

Early education leads to long-term cognitive gains.

Study participants experienced a range of long-term cognitive benefits as a result from the intervention. At age 31, those in the treatment group had significantly greater IQ gains and greater cognitive flexibility than the control group. They also demonstrated reduced depressive symptoms, lower instances of substance abuse and reduced risk-taking related to their health and work. These cognitive, social and emotional benefits likely had a positive impact on the educational attainment and earnings gains experienced by participants over time.

Encouraging parental investment pays off.

In addition to improving direct parent-child interaction during the earliest years, the program promoted greater parental investments later in life that contributed to improved educational attainment and later adult earnings. Children left the program with higher levels of skills and parents gained a greater understanding of the importance of formal education and passed it along to their children. For example, at age 31, treated children had 0.75 more years of schooling than the control group, increased college enrollment by 14 percentage points and a higher likelihood of acquiring a higher education degree by 26 percentage points. The program improved children's skills to the point where families were encouraged to seek greater education and employment opportunities.

Early education produces better life outcomes at age 31 and delivers better outcomes for society.

Among treated children, early childhood education compensated for early developmental delays, narrowed the achievement gap and reduced inequality later in life. Treated children showed significant long-term improvements in cognition, psychosocial skills and schooling attainment as well as fewer risk behaviors. Treated children also showed substantial gains in earnings that put them on par with peers who were not growth-stunted. Participants in the Jamaica program had increased earnings by 37%. This research confirms the significant economic returns from an early childhood intervention targeting disadvantaged families, making the case for increased investments in home visiting programs that support mothers and families.

References:

¹ Gertler, Paul, James Heckman, Rodrigo Pinto, Arianna Zanolini, Christel Vermeersch, Susan Walker, Susan M. Chang, Sally Grantham-McGregor. "Labor market returns to an early childhood stimulation intervention in Jamaica." *Science* 344.6187 (2014): 998-1001.

² Grantham-McGregor, Sally and Smith, Joanne A. "Extending The Jamaican Early Childhood Development Intervention," *Journal of Applied Research on Children: Informing Policy for Children at Risk*: (2016) Vol. 7 : Iss. 2 , Article 4. Available at: <http://digitalcommons.library.tmc.edu/childrenatrisk/vol7/iss2/4>.

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