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The Jamaica
Home Visit Intervention:
‘30-Year Study’
**of the Impact of Early
Intervention on Adult
Ability and Success.**

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Up to the mid-1980’s, the relatively high incidence of childhood stunting and low birth weight in Jamaica owing to poor nutrition, prompted a ground-breaking study by the Caribbean Institute for Health Research, formerly the Tropical Medicine Research Institute (TMRI).

This rare, decades-long study has validated the value and importance of early childhood development programmes, when children’s brains are developing rapidly at this formative stage in their lives. Proper healthcare, nutrition, psychosocial stimulation and emotional support are essential to give children the foundation they need to do well; and not to lag behind more advantaged peers even before they start school, while optimizing their chances to succeed later in life.

The Jamaica Supplementation and Stimulation Study, began in 1986-1987 and was a two-year intervention conducted with 127 children initially aged 9-24 months, living in poor neighborhoods of Kingston.

These children, who were stunted due to undernutrition, were split into four groups receiving: (i) psychosocial stimulation, (ii) nutritional supplements, (iii) both psychosocial stimulation and nutritional supplements; and (iv) the control group, which received no intervention.

All groups received access to free health care; a group of non-stunted and less disadvantaged children from the same neighborhoods was also followed.

A key outcome of the stimulation intervention was to build the capacity of parents to promote the cognitive and emotional development of their children through play and responsive interaction. The families received weekly, hour-long visits from trained community health aides. They were encouraged to praise their children and physical punishment was discouraged. Books and homemade toys were brought to each visit and exchanged the next week for other toys.

Key Outcomes:

- Each intervention improved the children's development. Children who received both interventions were able to 'catch-up' to the less disadvantaged non-stunted children.
- There was marked improvement in mother-child interaction, as evidenced by observations in the home of how mothers engaged their children in language vocabulary, play and availability of toys.
- The children, assessed at ages 7 and 11 years, showed continued gains in IQ, vocabulary and reasoning ability for children who participated in the stimulation. The nutritional supplements alone did not have any long-term effects.
- Follow-up at age 17 years, showed the same benefits as at age 11, with children in the stimulation groups, now also having better reading ability and more likely to stay in school.
- Other important benefits observed, were in relation to their mental health with the now-young adults reporting less anxiety, depression and attention problems and better self-esteem.

World Bank Support

Faced with the need for deeper understanding of how to best help disadvantaged children reach their potential, and to design programmes to improve their cognitive and emotional development for the long term, CAIHR approached the International Development Community Bank for support to build a body of evidence of what works.

The World Bank responded through its Strategic Impact Evaluation Fund, financing a critical follow-up evaluation of participants in the Study. This analysis conducted at the median age of 22 years for the participants show outstanding outcomes in IQ benefits, reduced violent behaviour and improved welfare and economic earnings for participants who received the stimulation intervention in this innovative study.

Key Findings: Follow up at Age 22

- Participants had higher IQ and better educational attainment with higher achievement in Mathematics and Reading, higher grade level completed in school and more secondary level examination passes.
- They were three times more likely to have some tertiary level education and, at the time of the survey, more likely to still be continuing their education. They had better mental health and were less likely to be involved in violent behavior.
- Children in the stimulation groups, now adults, were also earning 25% more than those who received just nutritional supplements or no intervention. In fact, they were doing so well that their earnings had caught up with earnings of their less-disadvantaged peers. They earned more money than the control group, even after the effect of relatively higher wages for those who had migrated was removed.

The World Bank also supported a new round of follow-up of the first-generation participants at age 30-31 years, in order to assess any further gains in educational attainment and gainful employment, socio-economic well-being and mental health, as well as additional outcomes such as non-cognitive skills and physical health.

Key Findings: Follow up at Age 32

- Preliminary findings show that the benefits to IQ and mental health continue, with exhibition of higher levels of cognitive flexibility, a measure of executive function skills.
- The participants also had higher levels of characteristics important for success including grit or persistence, being more reliable and calmer in demeanor, more creative and organized. These gains may have contributed to their continuing to earn more than those participants who did not receive the stimulation intervention.

Overall Impact

CAIHR's Jamaica Home Visit Intervention: '30 Year Study' of the Impact of Early Intervention on Adult Ability and Success' is one of very few research interventions, which have demonstrated the effects of early childhood interventions on adulthood, offering policymakers and development experts, a body of evidence on which to design and implement progressive early childhood development policies and legislation.

This seminal study and intervention model have influenced policy at the World Bank, Inter-American Development Bank, the WHO and other International Development Organisations; and has been replicated in several countries, including, Bangladesh, India, China, Zimbabwe, Madagascar, Turkey, Brazil, Bolivia, Colombia, Guatemala and Peru (where it is a national programme).

Remarkably, this trailblazing body of research emerging from the University of the West Indies' largest research entity, is now being implemented by the International Rescue Committee (IRC) for Syrian refugees in Lebanon and Jordan.



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