

Early Childhood Development in Colombia: An intervention pilot and baseline results by Orazio Attanasio, Emla Fitzsimmons, Sally Grantham-McGregor, Costas Meghir and Marta Rubio Codina

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There is mounting evidence that events in early childhood are critical in shaping the course of a person's life. Investments in health and human capital are more effective for those people who received similar treatments in their early childhood. Lack of early childhood development has a long term impact and sometimes leads to inter-generational poverty cycles. Cognitive deficits among the poor start appearing early on and are almost impossible to reverse. Therefore it is important to understand how policies can tackle these phenomena, whether these policies can be cost effective enough for full scale implementation and whether their positive effects can be sustained. It is also worthwhile to investigate how families react to transfers, whether in-kind, monetary or targeted to their children, and how resource are allocated within the household.

Costas Meghir presented evidence from the literature showing that early childhood development interventions in developed and developing countries have both short and long term sustainable effects. He cited the work by Grantham-McGregor et al which evaluates the Jamaican intervention studying children at 9-24 months in 1991 and follows the same children till they turn 17-18 years in age. The evidence suggested a long term sustained effect of early childhood stimulation.

Based on the protocol designed by Grantham-McGregor, Meghir and his co-researchers have set up an intervention and evaluation by randomized control trial of an early childhood development programme in 96 municipalities in three areas in Colombia. It conducts weekly home visits to mothers and their children. These visits are by trained *Madres Líderes*. Each ML visits 5 children and their mother on a weekly basis and for 1 hour each week and implements the curriculum designed. This study has been funded by Economic and Social Research Council (ESRC), Inter-American Development Bank (IADB) and International Growth Centre (IGC).

The distinguishing characteristic of this study is that it builds on local resources and is designed to be scaled up. Using local resources is cheaper, mobilises local communities and spreads information on child development. The key idea is to see how effective it can be in basing a child development programme on local resources.

The Colombian Pilot covers around 1400 children, between 12 to 24 months of age in January 2010, the baseline. It aims at an 18 month long intervention. The baseline data has been collected from January to March 2010, and the other round of data will be collected after the intervention between June and September 2011 when the children will be between 30 and 42 months old. The 96 municipalities under

consideration have been randomly allocated to four intervention groups, namely home visits only, home visits plus nutrition and nutrition only, and one control group.

The data covers extensive socio-economic, psychometric and anthropometric measures. The Grantham-McGregor Curriculum which is being used for this study emphasizes child stimulation and developmental play through several instruments like puzzles and storytelling, directly for the children as well as their mothers. The main objectives of the curriculum are to promote all aspects of child development like cognitive, socio-emotional, language and creativity, improve child self-esteem, improve mothers' child rearing skills, maternal self-esteem and perceptions of her role as a mother, strengthen mother and child interaction and improve child readiness for pre-school. Nutritional supplements include micronutrient-rich powder provided by the ML who will also monitor intake.

The data is collected through a child, mother and home visitor questionnaire. Dr. Meghir presented some results from the baseline survey. The baseline results show that the characteristics of treatment and control groups are well balanced. While self reported literacy level is quite high, level of education is quite low. Both anaemia and depression are prevalent amongst mothers, who are also overweight on average. Baseline results for child health show clear nutritional and weight deficiencies and substantial stunting relative to international standards. While around 41% of the children suffer from anaemia, around 35% children have diarrhoea. A large drop in cognition with age relative to the US benchmark is found. Thus the baseline results demonstrate health and nutritional deficits along with a decline of relative cognitive ability with age, indicating the possible impact of bad nutrition and low stimulation in the deprived population.

The randomized experiment can establish whether the programme will be effective and whether changes will occur within the household as a result of the intervention. It is important to understand whether such interventions change investments in children. An enhanced version of the Colombian intervention has been designed for implementation in India. The new intervention will include a group intervention and an incentive for mothers to participate. Funds are being raised for this experiment. There is an opportunity to learn about policies that can break the intergenerational cycle of poverty.

Q&A session:

Q1. Why do mothers not put in effort to take the right care of the child? Whether its paucity of time or lack of knowledge on part of the mother?

A1. The main factors which contribute to inadequate care by mother are prevalence of single motherhood, poverty, lack of knowledge and family problems.

Q2. How do you compare your intervention to ICDS in India? What is your opinion about possible implementation problems?

A2. There are two problems with the ICDS in India. First, inadequate number of trained personnel. Second, lack of utilisation of resources.