



Step 1

Getting children off to the right start

Problem: Failing to invest in ECD is costly, if not impossible, to compensate for later in life

The skills developed in early childhood—from birth to primary school entry—form the basis of future learning and labor market success. Early childhood development (ECD) enhances a child's ability to learn, to work with others, to be patient, and to develop a wide range of other foundational skills for formal learning and interactions in the school years and beyond.

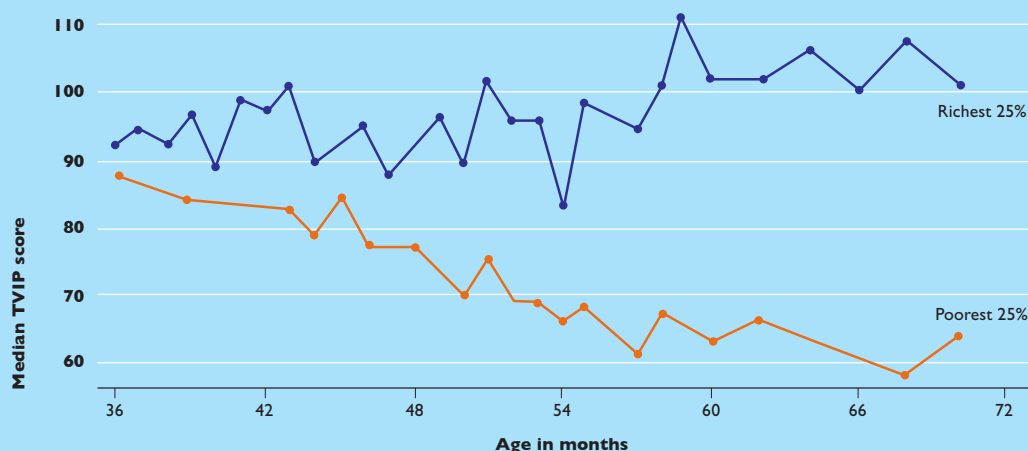
A failure to develop these skills can lead to long-term and often irreversible effects on education, health, and

productive earnings, imposing significant costs for both individuals and societies. Studies from Brazil, Indonesia, Jamaica, Peru, the Philippines, and South Africa show that inadequate nutrition between conception and age 2 leads to serious cognitive delays among school-age children.¹ And linguistic and cognitive delays can accumulate rapidly if not addressed. For example, while differences in age-adjusted vocabulary among 3-year-old Ecuadorian children are generally small, by age 6 children in less wealthy or less educated households have fallen far behind their counterparts in wealthier or more educated households (figure 3). Why? Because poor children tend to receive less child directed speech, and because the speech they hear tends to have reduced lexical richness and sentence complexity.²

Associations between poverty and cognitive, physical, and socio-emotional areas of child development were also recorded at as early as 6 months of age in Egypt, 10 months in India, 12 months in Brazil, and 18 months in Bangladesh.³

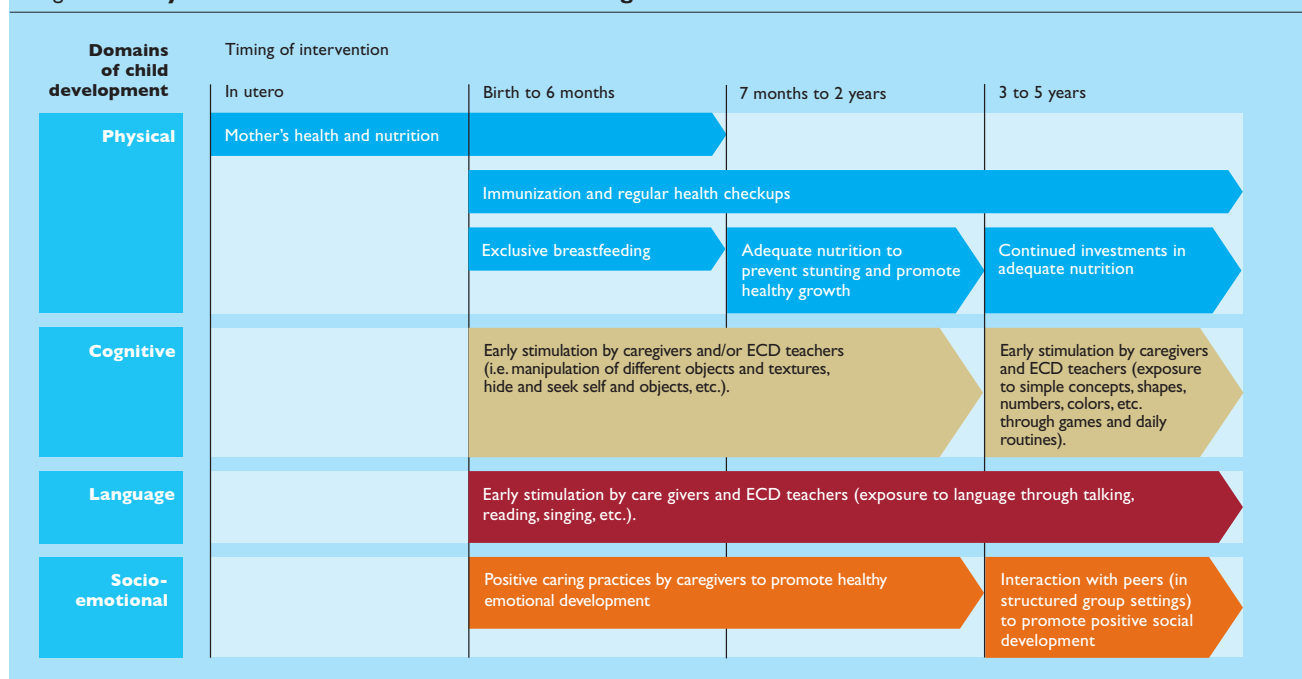
The window of opportunity is small because these foundational skills are best formed in the early years. Failing to invest in them is costly to compensate for later in life, if not impossible, as is the stunting from poor early nutrition or the excessive pruning of brain connections

Figure 3. **By age 6 Ecuadorian children in less wealthy or less educated households have fallen far behind their counterparts in wealthier or more educated households—permanently**



Source: Schady N., and Paxson C. (2005). Cognitive development among young children in Ecuador: the roles of health, wealth and parenting. World Bank Policy Research Working Paper 3605, May, 2005. Washington DC: World Bank.
Note: TVIP stands for Test de Vocabulario en Imágenes Peabody.

Figure 4. **Early childhood interventions at different ages**



from a lack of cognitive and socio-emotional stimulation. And a weak set of skills and abilities reduces the returns to investments later in life.

How to prevent these unhappy outcomes? With a range of early childhood development interventions.

Defining ECD concepts and interventions

ECD programs enhance the physical, cognitive, socio-emotional, and linguistic development of children from conception to primary school entry. Optimal investments in each area of ECD are required at each age:

- Ensuring the health and nutrition of the pregnant and lactating mother can ensure good physical development of the fetus and good breast milk. This is most important from conception to the first 6 months of life. Interventions include prenatal care, vitamin supplements, and counseling mothers in nutrition and breastfeeding.
- Immunizations and regular health checkups should start at birth and continue through age 6.
- Breastfeeding for very young infants is desired because of its nutritional and protective benefits. Depending

on the context, the longer the breastfeeding, the better for the infant, though solid foods are expected to be introduced by the age of 6 months.⁴

- With cognitive stimulation by caregivers or teachers, a child benefits from exposure to shapes, numbers, and formal ideas starting at age 3.
- For linguistic stimulation, caregivers should talk to, read to, sing to, and verbally interact with children starting at birth.
- Healthy emotional development begins at birth through the presence of and communication to the child of a caring environment long before he or she can express such emotions. Such practices include holding and touching the child, making eye contact, and communicating a safe environment.
- By age 3, children learn to interact and negotiate with their peers. If these skills are not learned in early childhood, they are difficult to learn later in life.

Delivering the whole package is most efficient since each domain supports the successful development of other domains. By age 6, the well-developed child should be

physically, cognitively, and socio-emotionally ready to enter primary school. Any areas of deficiency are difficult, if not impossible, to remedy later in life.

ECD services can be delivered through various channels, largely dependent on the dimension of the package and the context. The most common channels are:

- *Center-based.* Preschools are perhaps the best understood delivery mechanism. Those focused on child development work with children and their parents on all domains of ECD. Since centers offer peer interactions that are less available in the home, it is strongly recommended that children aged 3–6 participate in preschools. For example, the preschool program in Mozambique enrolls vulnerable children aged 3–5—those living amid high levels of poverty or affected by HIV/AIDS—and provides them with a high-quality but low-cost and fiscally scalable center-based preschool education. Community volunteers, including two teachers per classroom, focus on cognitive stimulation through games, art, and music, as well as on basic math, reading, and Portuguese to prepare the children for elementary school. The program also encourages good health, nutrition, and hygiene through parent and caregiver training.
- *Public health centers.* While these centers often focus on physical development, they also measure development in other domains and counsel caregivers on linguistic and socio-emotional stimulation and overall care.
- *Counseling.* This service may be center-based or provided in the home. The social worker provides classes for parents, usually mothers, on the proper feeding of children, the importance and process for immunizations, the provision of socio-emotional stimulation, and cognitive development. This training can begin before the child is born. For example, Mexico's Consejo Nacional para el Fomento Educativo (CONAFE) trains parents and caregivers of children aged 0–4 to improve their skills and practices in caring for children. These classes take place in preschools and public spaces. The program mobilizes a network of volunteers to teach sessions, keeping annual costs low. Preliminary evidence indicates greater attention

and support by the parents who participated in the program, and an easier-than-expected transition to preschool by their children.

- *Peer-to-peer learning.* Also a form of counseling, this intervention provides training to community members who share information about the various forms of care with community groups. In Cambodia, a new home-based ECD program in 450 communities uses mother-to-mother communication to strengthen the role of parents as prime educators and to enhance early learning of children through parental engagement at home.
- *Media campaigns.* Through radio, television, and posters, information about proper care and stimulation of children can be shared with a broad and dispersed population.

These types of interventions may be offered by the public or private sectors, be publicly or privately funded, and be implemented by any social ministry.

The lifelong benefits of quality ECD

Strong evidence from around the world shows the impact of ECD throughout the lifetime. Children who participate in quality ECD programs have higher cognitive development and overall school readiness on primary school entry, lower repetition and dropout rates in the early grades, greater learning in school, and higher school completion rates. Some examples:

- In Bangladesh, children who received center-based preschool education outperformed their peers in the control group by 58% on a standardized test of school readiness.⁵
- In Colombia, children who received a comprehensive community-based ECD intervention were 100% more likely to be enrolled in third grade, indicating lower dropout and repetition rates for program children than for those in the control group.⁶
- In Argentina, one year of preschool was estimated to increase the average third-grade test score in mathematics and Spanish by 8%.⁷
- In Turkey, children who benefited from a mother-child education program that provided cognitive enrichment to children and training and support for mothers were

more likely to be in school during their teenage years than those in the control group (86% compared with 67%).⁸

- And in the United States children who received high-quality, comprehensive ECD services were 50% more likely to finish secondary school than those who did not.⁹

These positive outcomes reach far beyond childhood and affect labor productivity. By age 27, children in the United States who took part in a center-based ECD intervention, supplemented by parental training, were 20 percentage points more likely to be earning more than \$2,000 a month than the control group. One-third of the program beneficiaries owned homes by age 27, more than twice the 13% for children in the control group.¹⁰

ECD interventions are among the most cost-effective investments a country can make in its people. OECD countries already spend, on average, 2.3% of GDP on services for families and children aged 0 to 6 years. It has been proposed that all countries should spend at least 1% of GDP on ECD to ensure quality services.¹¹ Some evidence suggests annual rates of return of 7–16%.^{12,13} Not only do quality ECD investments have a high benefit-cost ratio, they also have a higher rate of return for each dollar invested than interventions directed at older children and adults.¹⁴ So, ECD investments should be a top priority for efforts to promote employment and productivity later in life in many countries—and for the poorest and most disadvantaged groups in all countries.