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## **BOOK SYNOPSIS**

# **The Promise of Early Childhood Development in Latin America and the Caribbean Issues and Policy Options**

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# **The Promise of Early Childhood Development in Latin America and the Caribbean: Issues and Policy Options**

## **Objective**

This book aims to fill gaps in existing knowledge about early childhood development (ECD) efforts in Latin America and the Caribbean by reviewing a selection ECD programs in the region—including those in early childhood education, health, and nutrition—and distilling lessons related to their design, implementation, and institutionalization. The book surveys existing evidence on the impact of ECD programs worldwide, including in developed and developing nations, and presents a compelling evidence-based argument for greater investment in such programs in Latin America and the Caribbean. It also highlights the need for more rigorous evaluations of ECD programs in these countries, together with more accurate accounting of their costs, in order to generate better data on how to effectively design, fund, and provide quality ECD programs to all children in the region, especially those from low-income families.

## **Outline**

After developing an analytical framework for examining early childhood development outcomes, the book surveys existing empirical evidence on the impact of ECD interventions worldwide. These programs provide support to children during the period before birth through age 6. The text presents detailed findings, for example, from evaluations of programs in the United States (the Perry Preschool, Carolina Abecedarian, Chicago Child-Parent, Head Start, and Early Head Start programs), OECD countries, the Philippines, Uganda, Turkey, and Vietnam. The study then closely examines the macro and micro context of early childhood development in the countries of Latin America and the Caribbean, and proceeds to examine current ECD interventions in the region. On this basis, it builds the case for increasing ECD investments in the region, particularly programs that target poor and disadvantaged children (and their parents) at very early ages. Two of the key implications of the study are that individual countries need to develop national ECD policies before they can effectively scale up and sustain broader investments in this area, and that more rigorous evaluations and cost accounting of ECD programs is needed.

## **The Policy Argument for Investing in Early Childhood Development**

Ensuring that all individuals have equal opportunities to develop their full potential and lead a fulfilling life is fundamental for economic and social development. The 2006 *World Development Report: Equity and Development* documented that many disparities can have irreversible consequences on individuals' opportunities and outcomes, outcomes

that are then often transmitted across generations. In Latin America, social and economic inequality is especially great. As *Inequality in Latin America and the Caribbean* argues:

For as long as data on living standards have been available, Latin America and the Caribbean has been one of the regions of the world with the greatest inequality. With the exception of Sub-Saharan Africa, this is true with regard to almost every conceivable indicator, from income consumption expenditures to measures of political influence and voice and most health and education outcomes (De Ferranti and others 2003).

From a public policy perspective, inequality of circumstances, or opportunities, is of greatest concern. A recent attempt to empirically evaluate the extent of inequality of economic opportunity in Latin America (Ferreira and Gignoux 2007) found that inequality of opportunity accounts for a substantial share of observed economic inequality: between 20 percent and 50 percent (depending on the outcome variable used and the country).

Poverty and inequality in the region begin at birth: children who are born into poor families are much more likely to have parents who have low levels of education attainment, low-quality jobs, and low wages. They are also likely to have less access to public services, such as water and sanitation, health, and education. Ferreira and Gignoux (2007), for example, estimate that the proportion of variation in student test scores in reading and mathematics on the 2000 Programme for International Student Assessment (PISA) that can be explained by the educational attainment of students' parents, their occupation, and place of residence (i.e., small town, rural, large city) is between 15 and 25 percent.

In many countries in Latin America and the Caribbean, large numbers of children do not receive adequate nutrition, stimulation, or care. Many early childhood development (ECD) indicators accordingly suggest that child development in the region is inadequate. For example, the average infant mortality rate in the region is 22 percent; in Bolivia, it exceeds 50 percent. Close to 50 percent of children in the region suffer from iron-deficiency anemia, high proportions suffer from other vitamin deficiencies, and 12 percent have stunted growth (in Guatemala, the rate is over 40 percent). With a few exceptions, access to health services and health care coverage is also limited and inequitable in the region. All of these conditions are exacerbated by poverty and inequality. Regional diversity is, moreover, extensive. In some countries very few children suffer from one or more of these conditions, while in other countries, the majority do. All countries in the region, however, continue to face challenges in ensuring that all their young children receive equal opportunities to reach their highest potential.

Recent work by Nobel Laureate James Heckman and colleagues shows that human capital formation is a dynamic process that begins early in life and continues over the life cycle. These researchers have convincingly shown that factors operating during the early childhood years play an important role in the development of skills that determine outcomes later in life (see, for example, Heckman 2006; Cunha and others 2005; Cunha and Heckman 2007; Carneiro and Heckman 2003).

Other recent research on early childhood development highlights that both cognitive (e.g., language and mathematics skills) and noncognitive (e.g., social skills and self-discipline) skills are important for success in school and productivity in the labor market. One important finding is that a child's family environment is central to her or his development of skills and ability; hence, early interventions targeted at equalizing early family differences can contribute to reducing early inequalities. The parental environment and family income of a child are, moreover, far more decisive in promoting human capital and school success during early childhood than in later years.

This research has several important policy implications. First, all else being equal, returns to investments in early childhood will be higher than returns to investments made later in life simply because the beneficiaries have a longer time to reap the rewards from these investments. Second, investments in human capital have dynamic complementarities: improved early childhood development outcomes result in improved educational attainment levels, health outcomes, and labor market outcomes. Third, while education policies are important, what happens in schools is not sufficient to equalize opportunities and reduce inequality. It is crucial to invest early in both children and their families, as the family environment plays an important role in the development of cognitive and noncognitive skills.

One important policy consideration of ECD investments is that they do not involve a trade-off between equity and efficiency. Currie (2001), for example, argues that it may be more effective to reduce inequality by equalizing initial endowments through ECD programs than to compensate for differences in outcomes later in life. Not only may ECD investments be more cost-effective because they have larger benefits relative to their costs; they avoid many of the moral hazard problems inherent in programs that seek to equalize outcomes in adulthood, such as tax and income transfers, which are often seen as inequitable.

The deleterious effects of poor early childhood development outcomes can be long lasting, affecting a child's future income-earning capacity, productivity, longevity, and health. This is particularly the case of children living in poverty. Recent research on ECD programs suggests that these interventions are powerful policy levers in the fight against poverty and inequality. Most such programs are multisectoral and involve interventions in health, hygiene and nutrition, education, and poverty alleviation. Adequate ECD interventions can help equalize opportunities for low-income children, and thus hold particular promise for children in Latin America and the Caribbean.

## **Analytical Framework**

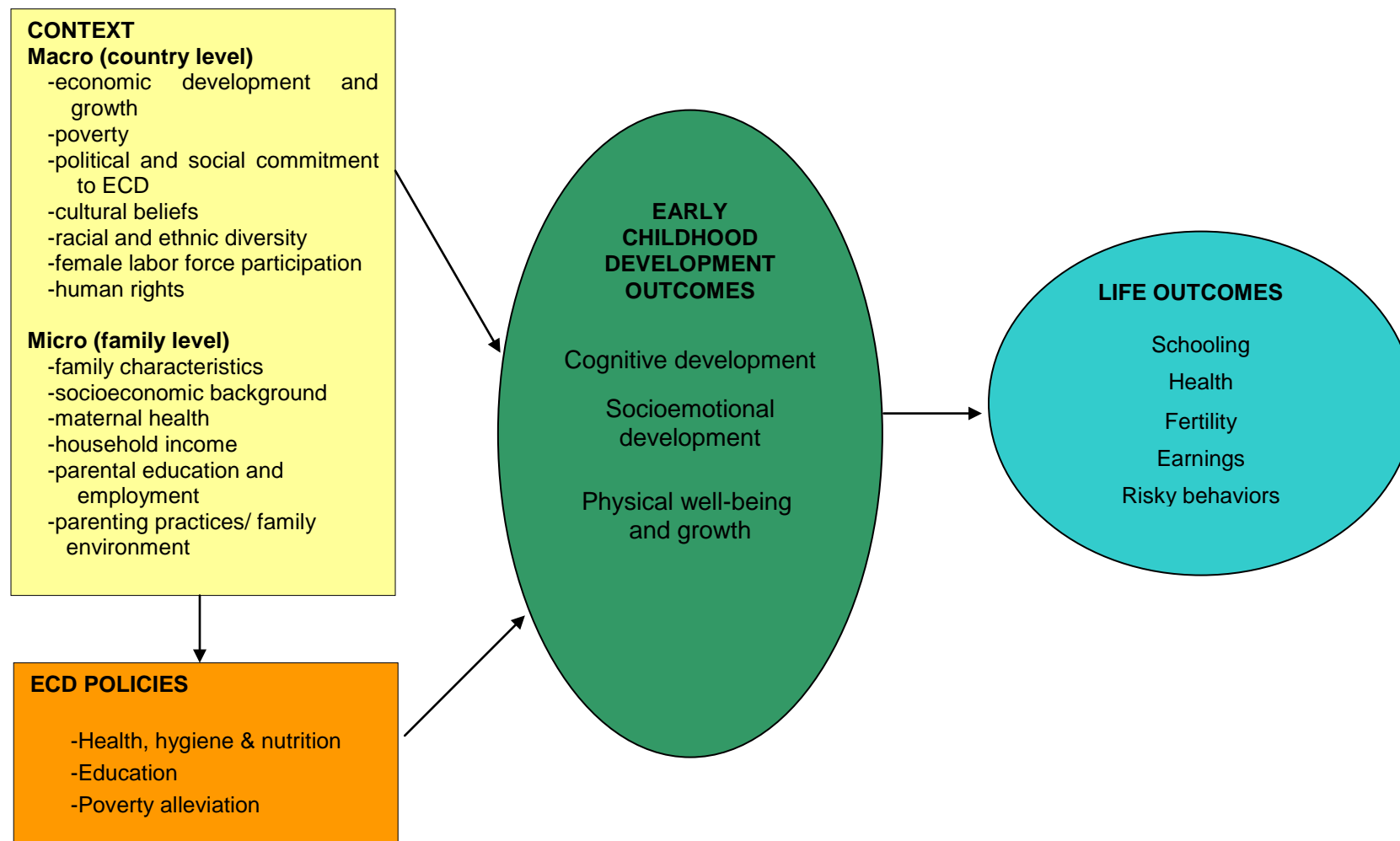
Existing research evidence indicates that three main ECD outcomes determine lifelong opportunities and outcomes: (1) cognitive development, which includes the acquisition of language and literacy; (2) socioemotional development, which includes the ability to socialize with others; and (3) physical well-being and growth, which encompasses height, weight, nutritional status, and other physical indicators. Although listed separately here,

all three outcomes are considered interdependent, especially cognitive and socioemotional development.

The framework starts by recognizing that child development does not take place in a vacuum. In any given country, the macro context (i.e., the economic, political, and social context) affects the nature and extent of social policies, which directly affect children's well-being, the type of programs made available to young children and their caregivers, and the organizations that translate these policies into programs for young children. The micro context—the interaction between a child and her or his primary caregiver during the early years—sets a child on a trajectory that affects her or his future development. In addition, the availability of programs, services, and policies directed at children, their caregivers, or both, affects this interaction and trajectory.

Figure 1 graphically presents the analytical framework that guides the book's exploration of ECD programs. In the center oval are the three key ECD outcomes: cognitive development, socioemotional development, and physical well-being and growth. The context of ECD—at both the macro level of the country and the micro level of the family—are depicted in the box at the upper left of the figure. The box on the lower left illustrates that ECD policies (e.g., including interventions in health, nutrition, education, and poverty alleviation) also impact ECD outcomes. Finally, the oval at the far right of the figure shows the main life outcomes that are influenced by ECD outcomes. These life outcomes include, among other things, schooling levels, health, fertility, earnings and other labor market outcomes, as well as the probability of engaging in risky behaviors such as crime.

**Figure 1. Early Childhood Development: Analytical Framework**



## **ECD Programs in Latin America and the Caribbean**

### *Context*

Even though Latin America continues to lag behind developed countries in socioeconomic and ECD indicators, it fares much better than other, poorer regions in the world. Regional disparities, however, are large. Poverty rates among children and youth vary widely. In Costa Rica, Argentina and Chile, for example, only a small share of the population under 6 years old lives in poverty. In El Salvador, Nicaragua and Peru, by contrast, the situation is much more dire. In some countries in the region, most children have access to basic ECD services like education, health insurance and vaccines, while in others, this is unfortunately not the case. In some countries, early childhood development indicators are closer to developed world standards, while in others (e.g., Bolivia, El Salvador, Guatemala, and Nicaragua), young children—especially those in the lowest income quintiles—are severely disadvantaged.

Table 1 summarizes some key data on the context and features of ECD programs by country.

**Table 1. ECD Programs in Latin America and the Caribbean: Context, Access, and Investment**

	Socioeconomic & demographic indicators			Access to ECD Services				Investment in ECD
	Percentage of Children Living in...			Percentage of Children who...				
	Poverty	Poor Housing Conditions	HH in bottom 3 income deciles	Attend Pre-primary education	Have Health Insurance	Receive BCG Vaccine	Receive Triple Vaccine	Pre-primary education as % of GDP
Argentina	15%	9%	46.7	72%	53%	1.0	0.8	0.3
Bolivia	45%	62%	35.4	76%	13%	n.a.	n.a.	0.2
Brasil	32%	5%	51.8	40%	n.a.	n.a.	n.a.	n.a.
Chile	8%	12%	41.4	41%	96%	n.a.	n.a.	0.4
Colombia	31%	14%	35.4	91%	n.a.	n.a.	n.a.	0.1
Costa Rica	11%	7%	39.4	71%	87%	n.a.	n.a.	0.4
D.R.	14%	35%	41.3	76%	n.a.	n.a.	n.a.	n.a.
Ecuador	32%	n.a.	41.5	91%	9%	0.9	0.9	n.a.
El Salvador	49%	35%	39.2	41%	17%	n.a.	n.a.	0.2
Guatemala	44%	n.a.	37.8	n.a.	n.a.	0.9	0.9	0.1
Honduras	39%	17%	37.9	43%	n.a.	n.a.	n.a.	n.a.
Mexico	24%	n.a.	39.1	94%	n.a.	n.a.	n.a.	0.5
Nicaragua	51%	17%	38.4	26%	15%	1.0	0.7	0.02
Panama	24%	n.a.	43.2	79%	43%	1.0	0.6	n.a.
Paraguay	31%	17%	39.5	74%	22%	n.a.	n.a.	0.3
Peru	49%	25%	40.1	60%	64%	n.a.	n.a.	0.2
Uruguay	19%	1%	52.6	55%	45%	n.a.	n.a.	n.a.
Venezuela	40%	15%	38.9	68%	n.a.	n.a.	n.a.	n.a.

*Note:* For socioeconomic, demographic, and ECD access indicators, data is derived from the most recent household survey data available. A detailed description of the surveys used is included in the Data Appendix. In Argentina, El Salvador, Honduras, Peru and Venezuela, enrollment rates are for children ages 3–6 years. In Mexico, Bolivia, Colombia, Paraguay, Panama and Costa Rica, figures are for children ages 5–6 years. In the Dominican Republic and Nicaragua, they are for children ages 4–6 years. In all other countries, the rates are for children ages 0-6. Preprimary education includes preschool and early education services.

While ECD is an important concern for national populations in the region as a whole, mounting evidence on the benefits of ECD for disadvantaged populations make a compelling case for focusing on children living in poverty. (Slightly over 10 percent of children younger than 5 years old in Latin America today live on less than \$1 dollar day, the benchmark for extreme poverty.) Empirical studies in Ecuador, Brazil, and Mexico, for example, show similar deficits in developmental outcomes among young children by socioeconomic category.

Recent research also shows that indigenous groups in the region have the least access to social welfare programs, including those targeted at preprimary school-age children. For example, a study commissioned by the Inter American Development Bank found a wide gap between the preprimary enrollment of indigenous and nonindigenous groups in Ecuador, Peru, and Colombia (Reveco and Cruz 2006).

## ***ECD Programs***

Most programs that support early childhood development in the region are independent efforts that vary in scale, services offered, and mode of delivery. In addition, coverage of ECD services across Latin America remains low: existing programs reach only a small fraction of potential beneficiary populations, especially among younger children. Most of these programs pursue common goals, such as: (i) enhancement of a child's development early in life, including his or her cognitive and socioemotional development, physical growth, and well-being; (ii) enhancement of a mother's antenatal care with services and information to strengthen the probability of delivery of a healthy baby; and (iii) education of parents and/or caregivers in better parenting, health, and hygiene practices, as well as providing them the opportunity to participate in the labor force. ECD programs in the region thus affect children from birth to age 6, their mothers, their caregivers, daycare centers, preschools, health centers, and communities.

Although conditional cash transfer (CCT) programs in Mexico have large positive effects on the physical development of young children, they do not appear to have improved cognitive outcomes for beneficiaries. Other evaluations of CCT programs in the region found that they improve the probability of young children attending preschool (Chile) and reduce developmental delays (Nicaragua).

Early education and care programs in the region also show important positive benefits. Parenting programs in Jamaica, Bolivia, Honduras, Nicaragua, and elsewhere suggest that parents do improve their childrearing and child stimulation techniques, resulting in children with improved development of cognitive, language, motor, social, and other skills. In some cases, such as Jamaica, parenting programs that have been rigorously evaluated also show benefits for mothers, such as reduced maternal depression rates. Early education and preschool programs in Argentina and Uruguay show that children's language and math test scores, behavioral skills, as well as their long-term educational attainments, benefit from preschool attendance.

Nutrition and supplementation programs in the region appear to be especially important for improving children's physical well-being and growth, in addition to improving cognitive outcomes. This finding held for subsidized milk programs for children and pregnant and lactating women in Mexico, nutrition and early child care programs in Colombia and Guatemala, and CCT programs in Mexico and Colombia). The evidence suggests that the nutrition component of ECD interventions that is targeted to low-income children is particularly beneficial. Several programs also found positive effects from programs that conditioned benefits on health controls and growth monitoring. In the case of CCT programs in Mexico, Colombia, and Honduras, for example, the condition of cash payments was children's attendance at health centers and periodic physical monitoring. Even unconditional cash transfer programs, however, appear to have positive effects on the development of children's motor skills and other developmental indicators, mainly due to better household nutrition and deworming medications (Ecuador).

Evidence from programs in Guatemala, Jamaica, Colombia, Nicaragua, and Bolivia suggest that interventions that offer nutrition supplements, together with those that combine several strategies (e.g., parenting practices, early childhood care, and nutrition) have positive effects on children’s acquisition of language, reasoning, vocabulary, and schooling.

Overall, ECD programs in the Latin America and the Caribbean region show exceptional promise for improvements in cognitive and socioemotional development, as well as the physical well-being and growth of children. Notably, these effects appear to benefit children from poorer backgrounds to a greater degree than they do children from better-off households. Despite the fact that ECD programs concern a well-defined population and have proven returns, only a few countries in Latin America and the Caribbean have begun moving towards a holistic approach to their implementation. And only a very small number, including Chile and Peru, are in the process of developing a national ECD policy championed by high-level political leaders.

## **Policy Implications**

Based on the ample evidence of the many benefits of ECD interventions in both developed and developing countries, early childhood development should be a national priority in Latin America and the Caribbean. ECD interventions offer a particularly important tool for reducing income and social gaps between poor and nonpoor populations in the region—gaps that are becoming exceedingly difficult to bridge. Moreover, such interventions appear to be more cost-effective than many interventions that attempt to improve conditions for poor people later in their lives. Finally, ECD programs are an important tool for removing the most glaring obstacles to children’s development in the region, namely, malnutrition, illness, stunting, and illiteracy.

Countries in Latin America and the Caribbean are encouraged to develop national ECD policies in order to effectively scale up investments in ECD programs. Ideally, such policies create links among different policy areas that affect young children, including such services as health, nutrition, education, water, hygiene, sanitation, and legal protection. In other words, national policies are multidisciplinary and multisectoral, providing a framework that can coordinate the work of the various government sectors needed to deliver integrated ECD services.

Some of the core “building blocks” for a national ECD policy include: (i) defining an institutional anchor and achieving intersectoral coordination; (ii) ensuring adequate funding (e.g., by creating a dedicated national fund, using existing social funds or budgets, or instituting fee-sharing schemes or earmarked taxes); (iii) defining core priorities, such as whether policies will be targeted or universal, which populations take priority, and what proportion of funds will be allocated to ECD activities; (iv) building on the success of existing interventions, based on rigorous evaluations and cost accounting; and (v) ensuring coherence with other related policies from inception.

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## Data Appendix

### Household Surveys in Latin America and the Caribbean

	Last Household Survey Available		Last Household Living Conditions Survey Available	
	Name	Year	Name	Year
Argentina	EPHC	2006	ECV	2001
Bolivia	ECH	2003-2004	ECH	2003-2004
Brasil	PNAD	2005		
Chile	CASEN	2003	CASEN	2003
Colombia	ECH	2004	ECV	2003
Costa Rica	EHPM	2004		
Dominican Republic	ENFT	2006		
Ecuador	ENEMDU	2006	EPED	1998
El Salvador	EHPM	2004	EHPM	2002
Guatemala	ENEI	2004	ENCV	2000
Honduras	EPHPM	2006		
Mexico	ENIGH	2005		
Nicaragua	EMNV	2005	EMNV	2001
Panama	EH	2004	ENV	2003
Paraguay	EPH	2005		
Peru	ENAHO	2005	ENAHO	2003
Uruguay	ECH	2006		
Venezuela	EHM	2005		