3

# **Family First**

The family is the single most important determinant of child wellbeing. It matters in myriad ways. Parents decide what to feed their children and when to take them to the doctor. The home environment in which children are raised can be nurturing and warm, or harsh and cold. By talking to children, playing with them, reading or telling stories to them—or not—parents and other family members determine how much stimulation young children receive.

All these choices have profound and long-lasting effects on child development. This chapter discusses areas in which the home environment keeps many children in Latin America and the Caribbean from reaching their full potential. It then turns to the policies and programs that governments have put in place to influence the kinds of investments that parents and other caregivers make in young children.

# The Family and Child Development

## It All Begins with a Healthy Diet

Good nutrition is critical for adequate development, and this begins at conception (or earlier, as the nutritional status of the mother before pregnancy affects the development of the fetus). Global public health organizations recommend starting breastfeeding within an hour of birth and exclusive breastfeeding during the first six months of life (WHO 2015). Exclusive breastfeeding in the first months of life has been tied to reduced child mortality and improved child outcomes.<sup>1</sup> Breastfeeding may also strengthen the bond between mother and child (Papp 2014). The differences across countries in Latin America and the Caribbean in the proportion of children who are exclusively breastfed for the first six months of life are large (see Table 3.1). In 10 out of 22 countries, the proportion of children exclusively breastfed is between 25 and 40 percent. However, exclusive breastfeeding rates are substantially higher in some countries, including Bolivia (60 percent), Peru (67 percent), and Chile (82 percent), and are very low in others, including the Dominican Republic (7 percent) and Suriname (3 percent). Figure 3.1 focuses on changes in breastfeeding rates between 2000 and 2012 for countries with multiple rounds of the Demographic and Health Surveys (DHS). In Bolivia and Peru, women in the first

Country	Exclusive breastfeeding (%)
Argentina	32.7
Barbados	19.7
Belize	14.7
Bolivia	60.4*
Brazil	38.6*
Chile	84.5*
Colombia	42.7
Costa Rica	32.5
Cuba	48.6
Dominican Republic	6.7
Ecuador	40.0*
El Salvador	31.4
Guatemala	49.6
Guyana	33.2
Haiti	39.7
Honduras	29.7
Jamaica	23.8
Mexico	14.4
Nicaragua	30.6*
Paraguay	24.4*
Peru	67.4
Suriname	2.8
Uruguay	_

 Table 3.1
 Exclusive Breastfeeding, Children 6 Months of Age or Younger

*Note*: Data refer to the most recent year available during the period 2009–13, with the exception of countries marked with a "+," where data refer to the most recent year available between 2001 and 2008.

*Source*: Data were taken from United Nations Children's Fund (UNICEF 2014); except for Chile (2006), where data were taken from Miguel Barrientos–Index Mundi–Chile–Health–Nutrition.

Figure 3.1 Median Exclusive Breastfeeding Duration, by Decade and Wealth Quintile









#### c. Dominican Republic



#### d. Haiti







Note: Values reported refer to the last born.

Source: ICF International, 2012. Demographic and Health Surveys (DHS) Program STATcompiler.

(poorest) quintile exclusively breastfeed their children for more than twice as long as women in the fifth (richest) quintile. In Colombia, the Dominican Republic, and Haiti, on the other hand, there are no clear socioeconomic gradients in the duration of breastfeeding. The average duration of exclusive breastfeeding increased substantially in Bolivia, Colombia, and Peru, but not in the Dominican Republic.<sup>2</sup>

After 6 months of age, children should receive solid or semisolid foods, even if they continue to be breastfed. In most countries in Latin America and the Caribbean, food availability and overall caloric consumption are not issues. However, a very high proportion of overall caloric intake in many countries comes from cereals, roots, and tubers, especially among poor households. This is a concern because dietary diversity, not just the quantity of food, is important for adequate child growth and development at early ages (Aboud and Yousafzai 2015; Daelmans, Dewey, and Arimond 2009). In five countries, between 11 percent (Peru) and 31 percent (Guyana) of children between 6 and 23 months of age did not consume animal products (fish, meat, eggs) in the 24 hours preceding data collection (see Figure 3.2). The situation is direr in Haiti, where fully two-thirds of all children in this age group did not eat animal products. In some countries, there are also clear socioeconomic gradients. In Bolivia, for example, the probability that a child has been given animal products is 16 percentage points lower amongst the poorest households in the survey than among the richest ones.<sup>3</sup>

#### Figure 3.2 Percent of Children 6–24 Months Whose Parents Gave Them Animal Products in the Past 24 Hours, by Wealth Quintile





a. Bolivia



### c. Dominican Republic







e. Haiti



#### f. Peru



*Note*: Values refer to Bolivia (2008), Colombia (2010), Dominican Republic (2013), Guyana (2009), Haiti (2012), Peru (2012).

Source: Authors' calculations based on Demographic and Health Surveys (DHS).

#### A House Is Not a Home

To achieve their full development potential, young children should be raised in an environment that is warm and nurturing (Caldwell 1967). But how does one measure the warmth of a home or the quality of the interactions between young children and their parents? One approach relies on direct observation by trained enumerators. A popular instrument is the Home Observation for Measurement of the Environment (HOME) scale.

The overall HOME covers six domains (see Box 3.1 for details). Two of these domains—the responsiveness scale (which measures, e.g., whether parents responded to and encouraged children in a positive way) and the punitiveness scale (which measures, e.g., whether parents yelled at or hit children)—have been applied in a number of countries in the region, including Ecuador (Paxson and Schady 2007, 2010), Nicaragua (Macours, Schady, and Vakis 2012), a group of countries in the Caribbean (Chang and others 2015b), and Peru. The responsiveness scale ranges from 0 to 6; the punitiveness scale ranges from 0 to 5; and the "total" HOME score (for these two domains only) can take on values between 0 and 11. In each case, higher scores are indicative of *worse* parenting (less responsive, and more punitive). Importantly, there is evidence of a strong correlation

# Box 3.1 The Home Observation for Measurement of the Environment Scale

The Home Observation for Measurement of the Environment (HOME) scale (Bradley 1993; Bradley and Caldwell 1977; Caldwell 1967; Caldwell and Bradley 1984) is designed to measure the nature and quality of a child's home environment. Different versions of the scale have been applied in a variety of settings since it was first proposed by Caldwell in 1967. The complete HOME scale for infants and toddlers has six domains: (1) Emotional and verbal responsivity of parent (also referred to as Responsiveness)-This measures, for example, whether the caregiver responds verbally to the child, praises her, and is physically affectionate. (2) Acceptance of child behavior (also referred to as Punitiveness, when reverse-coded)-This measures, for example, whether the caregiver yells at or hits the child during the interview. (3) Organization of physical and temporal environment-This measures, for example, whether the child's environment is physically safe and, when the main caregiver is away, whether care is provided by one of three regular substitutes. (4) Provision of appropriate play materials—This measures whether there are appropriate toys available for the child. (5) Parental involvement with child—This measures, for example, whether the main caregiver talks to the child while doing household work and keeps the child in visual range. (6) Opportunities for variety in daily stimulation— This measures, for example, whether the caregiver reads to the child and eats meals with her.

Different versions or subscales of the HOME have been applied in the region, including in Brazil (Grantham-McGregor and others 1998; Eickmann and others 2003), Chile (Lozoff and others 2010), and Costa Rica (Lozoff and others 1987). Paxson and Schady (2007, 2010) and Macours, Schady, and Vakis (2012) applied an adapted version of the *punitiveness* and *responsiveness* scales of the HOME in Ecuador and Nicaragua, respectively. These scales have also been applied more recently in an ongoing evaluation of a home visiting program in Peru, and in the Caribbean (Chang and others 2015b). Items in the punitiveness and responsiveness scales are measured by observation by enumerators (as opposed to reporting by mothers) during the course of a visit to the home for a survey (e.g., a survey to measure a child's development, which also asks questions of the mother, as was the case in both Ecuador and Nicaragua). At the end of the household visit, enumerators complete a form with 11 questions:

#### **Responsiveness:**

- 1. Did the mother or father spontaneously say kind words or phrases to the children at least twice during the interview?
- 2. At least once, did the mother or father respond verbally to a child's vocalization?
- 3. At least once, did the mother or father tell the child the name of an object?
- 4. At least twice, did the mother or father spontaneously praise one of the children?
- 5. Did the mother or father convey positive feelings toward the children when they speak to or about them?
- 6. Did the mother or father caress or kiss one of the children at least once?

#### Punitiveness:

- 1. Did the mother or father yell at any of the children?
- 2. Was the mother or father annoyed with or hostile toward any of the children?
- 3. During the interview, did the mother or father hit any of the children?
- 4. During the interview, did the mother or father scold or criticize any of the children?
- 5. Did the mother or father forbid any of the children from doing something more than three times during the interview?

Each question received an answer of "yes" or "no." Following Paxson and Schady (2007, 2010), the responsiveness scale was reverse-coded, and higher values are an indication of "colder" parenting. In the case of the second scale, higher values are an indication of "harsh" or "punitive" parenting. The total HOME score for these two scales ranges from 0 to 11, with higher values corresponding to less responsive and harsher parenting. between the HOME scores and children's mental development in a number of settings.<sup>4</sup>

There are socioeconomic gradients in the quality of the home environment in every country (see Table 3.2).<sup>5</sup> In rural Peru, the difference in the total HOME score between mothers with "high" education (complete secondary education or more) and those with "low" education (incomplete primary education or less) is 1.3 points (0.6 standard deviations). In rural Nicaragua it is 1.7 points (0.7 standard deviations). In Ecuador, where the data cover both rural and urban areas, this difference is smaller: 1 point (0.4 standard deviations). Moreover, in Ecuador, overall HOME scores are substantially lower (a better home environment) in rural than in urban areas (a difference of 0.2 standard deviations). In the three Caribbean countries (Antigua, Jamaica, and Saint Lucia), which are largely urban, there are not enough women with incomplete primary education or less to calculate a reasonable average for women in this group. However, in this sample, there is a difference of 0.6 points (0.3 standard deviations) between primary school graduates and secondary school graduates.

In a number of surveys, including the DHS and the Multiple Indicator Cluster Surveys (MICS), mothers are asked about the way in which they discipline their children, including whether they spank or hit them.<sup>6</sup> Researchers who study corporal punishment generally distinguish between "mild" corporal punishment, also referred to as spanking (striking a child on the buttocks or extremities with an open hand without inflicting physical injury), and "harsh" corporal punishment, also referred to as child abuse (including beating or hitting with an object, a closed fist, or striking a child on the face or torso) (see, e.g., Baumrind 2001; Gershoff 2002). Child development specialists agree that harsh corporal punishment of children results in lasting psychological damage, including elevated rates of mental health problems and aggression in adolescence and adulthood. No such consensus exists on the effects of spanking. Some researchers argue that spanking can be both effective and desirable, while others consider it ineffective and harmful (for competing views, see Baumrind [2001] and Straus [1994]).<sup>7</sup> In part, these debates reflect the difficulty of establishing causal effects (rather than simple associations or correlations) of corporal punishment on later outcomes (see Box 3.2).

	Ecuad	lor: urban ıral (2005)	and	Реги	ı: rural (2	014)	Carit Jamai urt	bean: Ant ica, Saint ] oan (2011/	igua, Lucia, 12)	Nicaragua: rural (2006)
		HOME			HOME			HOME		HOME
	Total	Cold	Harsh	Total	Cold	Harsh	Total	Cold	Harsh	Total
By wealth quintile										
First (poorest) quintile	2.77	2.27	0.5	3.08	2.49	0.59	3.04	2.41	0.63	4.42
Second quintile	2.45	2.09	0.36	2.71	2.2	0.51	2.65	2.26	0.39	3.90
Third quintile	2.19	1.88	0.31	2.58	2.07	0.5	2.52	1.99	0.53	3.71
Fourth quintile	2.02	1.77	0.24	2.26	1.81	0.44	2.40	2.03	0.38	3.67
Fifth (richest) quintile	1.94	1.74	0.19	2.03	1.6	0.43	2.50	1.78	0.72	3.45
Test $Q1 = Q5$	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.09	0.01	0.64	<0.01
By maternal education										
Incomplete primary or less	2.83	2.46	0.37	3.07	2.39	0.69	I		I	4.07
Complete primary or	2.39	2.03	0.36	2.48	2.04	0.44	2.99	2.35	0.64	3.53
incompiete secondary										
Complete secondary or more	1.83	1.59	0.25	1.79	1.5	0.29	2.37	1.97	0.40	2.38
Test $E1 = E3$	<0.01	<0.01	0.011	<0.01	<0.01	<0.01				<0.01
	7, 17	1, 1,		-	7		-			

 Table 3.2
 Socioeconomic Gradients in HOME Scores

as well as for the total score). The HOME was assessed in the context of household surveys in all countries except in the Caribbean, where it was administered in health clinics. In the Caribbean, one of the questions in the harshness (or punitiveness) scale was not administered. (Question 5: "Did the mother or father scores in the Caribbean sample, each household was given the average of the other 10 questions for this missing question. Also in the Caribbean, there were Source: Author's calculations based on the data in Paxson and Schady (2007, 2010) for Ecuador; Macours, Schady, and Vakis (2012) for Nicaragua; own data Notes: I he value for cold is the sum of the items for the responsiveness scale, reverse coded (so that higher values indicate a worse environment for each scale forbid any of the children from doing something more than three times during the interview?"; see Box 3.1). In calculating the HOME punitiveness and total only three mothers with incomplete primary or less, so these three observations were excluded from the analysis.

for Peru and Caribbean.

#### Box 3.2 Harsh Corporal Punishment: How Much Does It Hurt?

It is relatively straightforward to establish associations between corporal punishment and a variety of outcomes, but establishing causal effects is substantially more complicated. Many papers use cross-sectional surveys that ask adults about current behaviors and outcomes, as well as about the incidence of various forms of corporal punishment in childhood (as in Afifi and others 2012, among many others). Other papers use longitudinal data that links the incidence of corporal punishment in childhood with learning or socioemotional outcomes later on (as in Berlin and others 2009, among many others). Many of these studies show that children who are reported to have been corporally punished have worse learning outcomes thereafter, have a higher incidence of mental health problems, and are more likely to be involved in criminal activity in adolescence and adulthood (see Gershoff 2002 for a metaanalysis of available studies).

It is not clear, however, whether these associations have a causal interpretation. Omitted variables are a serious concern, for at least two reasons. First, many studies find that children of lower socioeconomic status are more exposed to harsh parenting practices, including corporal punishment (Berlin and others 2009; Gershoff 2002, and the many references therein). However, socioeconomic status has effects on adult outcomes that are not mediated by parenting practices. The child development literature has generally tried to address this concern by controlling for various "confounders" (parental education, some proxy for household income), but these are unlikely to account for all the relevant variation. Second, there is individual (e.g., genetic) variability. Children who are more difficult (irritable, "fussy," or aggressive) are more likely to be corporally punished (Berlin and others 2009; Gershoff 2002). However, these children may be more predisposed to suffer from poor outcomes in adulthood for other reasons.

In both cases, associations between corporal punishment in childhood and poor outcomes in adulthood would likely overestimate causal effects. In addition, in research based on a single cross-section, there are concerns about recall error, and of possible correlations between current mental health status and the reporting of conditions in childhood.

In sum, while it is very likely that harsh corporal punishment has long-lasting, deleterious effects, robustly showing a causal effect of punishment on later outcomes is extremely difficult. The best evidence would likely come from an intervention that significantly reduced the incidence of harsh punishment, was implemented in a randomized fashion, and evaluated changes in parenting practices as well as child development outcomes.

Harsh corporal punishment is widespread in the region (see Figure 3.3). In four countries (Belize, Bolivia, Jamaica, and Saint Lucia), the incidence of harsh corporal punishment is 40 percent or more. In another four (Colombia, Peru, Suriname, and Trinidad and Tobago), it is close to, or above, 30 percent. In all countries there are maternal schooling gradients. In both Bolivia and Peru, for example,

Figure 3.3 Incidence of Harsh Corporal Punishment, by Country and Mother's Education



*Source*: Authors' calculations based on the data from Demographic and Health Surveys (DHS): Bolivia (2008), Colombia (2010) and Peru (2012); Multiple Cluster Surveys (MICS): Argentina (2011), Belize (2011), Costa Rica (2011), Jamaica (2011), Suriname (2011), St. Lucia (2011) and Trinidad and Tobago (2006). a child of a mother with complete secondary school or more is only half as likely to be harshly punished as a child of a mother with incomplete primary school or less. In all countries boys are harshly punished more frequently than girls.

# A True Story about Early Reading

In addition to having warm, nurturing, and stable interactions with their caregivers, young children need to have a home environment that stimulates the development of language and cognition. Children who are exposed to a greater number of words, for example, when parents talk to them, read to them, or tell them stories, develop a richer vocabulary early on.<sup>8</sup> A child's early vocabulary is highly predictive of performance on test scores in the early grades of primary school. Parents reading or telling stories to their children may also enjoy other benefits, including promoting attachment.

Data on the proportion of children who are read to at home are collected in a number of surveys in the region. Because these data come from a variety of sources, comparisons across countries must be made with a great deal of caution. However, the amount of stimulation that children receive within their home appears to vary a great deal across countries (see Table 3.3). For example, among countries that applied the MICS, the probability that a child is read to is 29 percentage points higher in Jamaica than in Costa Rica. Among countries that applied the PRIDI survey, this probability is 14 percentage points higher in Costa Rica than in Paraguay.

There are also steep socioeconomic gradients within countries. Children of mothers with less education are much less likely to be read to than children of mothers with more education in all Latin American countries except Guyana, where very few children are read to, regardless of their mothers' education. For example, in the four countries that conducted the MICS survey, children of mothers who have completed secondary school are 22–23 percentage points more likely to be read to than those of mothers who did not finish primary school in Argentina, Belize, and Costa Rica. By contrast, there are very modest maternal education gradients in reading in countries in the Caribbean—Antigua, Jamaica, St. Lucia, and Trinidad and Tobago.

		Age in months range			Read bo picture-b	oks or look at ooks with child	
		[10th, 90th percentiles]			Incomplete primary	Complete primary or incomplete	Complete secondary
Country	Year		N	Mean	or less	secondary	or more
Argentina (National) <sup>a</sup>	2011-12	[38, 57]	3,574	0.766	0.633	0.679	0.862
Belize (National) <sup>a</sup>	2011	[39, 57]	719	0.807	0.695	0.8	0.912
Chile (National) <sup>b</sup>	2012	[23, 73]	67,723	0.483	0.342	0.409	0.522
Colombia (Rural) <sup>c</sup>	2010	[6, 55]	1,535	0.437	0.34	0.46	0.577
Colombia (Urban) <sup>c</sup>	2010	[7, 53]	1,544	0.552	0.427	0.472	0.603
Costa Rica (National) <sup>d</sup>	2013	[28, 55]	1,556	0.621	0.577	0.578	0.701
Costa Rica (National) <sup>a</sup>	2011	[38, 57]	877	0.594	0.493	0.544	0.725
Ecuador (Coast Region) <sup>e</sup>	2012	[55, 66]	13,340	0.419	0.304	0.397	0.498
Ecuador (National) <sup>f</sup>	2012	[63, 74]	982	0.428	0.306	0.419	0.496
Ecuador (National) <sup>g</sup>	2005	[14, 75]	8,207	0.364	0.201	0.334	0.57
Guyana (National) <sup>a</sup>	2011	[38, 57]	907	0.235	0.19	0.252	0.216
Jamaica (National) <sup>a</sup>	2011	[38, 57]	666	0.888		0.867	0.91
Nicaragua (National) <sup>h</sup>	2014	[6, 64]	9,262	0.772	0.674	0.806	0.886
Nicaragua (National) <sup>d</sup>	2013	[28, 55]	1,681	0.504	0.348	0.551	0.621
Nicaragua (Rural) <sup>i</sup>	2006	[8, 73]	3,063	0.137	0.131	0.141	0.229
Paraguay (National) <sup>d</sup>	2013	[28, 54]	1,341	0.483	0.372	0.439	0.662
Peru (National) <sup>d</sup>	2013	[27, 56]	2,407	0.575	0.4	0.567	0.622
Peru (Rural) <sup>j</sup>	2013	[3, 22]	5,714	0.257	0.173	0.257	0.38
Peru (Urban) <sup>k</sup>	2013	[10, 23]	1,875	0.491	0.326	0.46	0.524
							Continued

Table 3.3Maternal Education Gradients in Stimulation within the Home

		Age in months range			Read bo picture-b	ooks or look at ooks with child	
Country	Year	[10th, 90th percentiles]	N	Mean	Incomplete primary or less	Complete primary or incomplete secondary	Complete secondary or more
St. Lucia (National) <sup>a</sup>	2012	[38, 57]	121	0.888		0.865	0.899
Suriname (National) <sup>a</sup>	2010	[38, 57]	968	0.568	0.434	0.575	0.726
Trinidad and Tobago (National) <sup>a</sup>	2008	[38, 57]	456	0.393	0.367	0.416	0.392
Caribbean <sup>1</sup>	2011-12	[19, 21]	499	0.95		0.942	0.956

the question refers to any person, 16 years or older, who spent time reading to the child in the past three days. For Peru (rural and urban), the question refers to any person, 15 years or older, who spent time reading to the child at least once during the past seven days. For the Caribbean, the question refers to parents Notes: For Chile, Colombia, and Ecuador, the question refers to any person, 16 years or older, who spent time reading to the child in at least one of the past seven days. For PRIDI surveys, the question refers to any person, 15 years or older, who spent time reading to the child during the past three days. For MICS, who spent time with their child reading "on a regular basis." The Caribbean sample only compares mothers with complete primary or incomplete secondary to mothers with complete secondary or higher.

Source: Authors' calculations based on the following surveys. <sup>a</sup> MICS: These surveys are meant to be nationally representative. <sup>b</sup> Encuesta Longitudinal de la representative for 31 municipalities targeted for the Amor Para Los Más Chiquitos parenting program.<sup>1</sup> Households representative for six rural municipalities Primera Infancia (ELPI): This survey is meant to be nationally representative. <sup>c</sup> Encuesta Longitudinal Colombiana de la Universidad de los Andes (ELCA): Urban sample representative of all but the richest 10 percent of population, rural sample representative for four geographic subregions. <sup>d</sup> PRIDI: These surveys are meant to be nationally representative. <sup>e</sup> Sample representative of children enrolled in kindergarten in coastal region of country. <sup>f</sup> Sample nationally representative of children enrolled in kindergarten. <sup>g</sup> Families eligible or almost eligible for the Bono de Desarrollo Humano cash transfer program. <sup>h</sup> Households targeted for the Atención a Crisis cash transfer program.<sup>3</sup> Households eligible for the Servicio de Acompañamiento a Familias (SAF) home visiting program n rural areas. <sup>k</sup> Households eligible for the Servicio de Cuidado Diurno (SCD) in urban areas. <sup>1</sup> Mothers with children aged 0–18 months attending well-baby clinics in Kingston-St Andrews region (Jamaica), St Lucia, and Antigua.

Table 3.3 Continued

# Government's Hand in Family Affairs

Children in Latin America and the Caribbean are raised in very different ways, depending on the country in which they are born, and the income and education levels of their parents. These differences and the early investments made by parents and others are critical in determining a child's life chances. Governments in the region have supported various kinds of programs to encourage families to invest more, or invest differently, in children. These interventions include programs that have sought to relax the household budget constraint by transferring cash to families, and those that have directly attempted to change parental behaviors and practices.

# *Relaxing the Purse Strings: Cash Transfers and Child Development*

Chapter 2 showed that children in poorer households in the region have substantially lower levels of development, especially cognitive and language development, than children in richer households. Parents in poorer households invest less in their children. Fortunately, poverty among children in Latin America and the Caribbean has declined dramatically in the past decade (see Box 3.3).

#### Box 3.3 The Evolution of Childhood Poverty

Having more income does not improve child welfare per se. However, resources allow households to purchase more and better food; spend more on learning materials for children, such as books and toys; live in safer homes with fewer environmental risks for children; and, in some countries, use higher quality health, daycare, and education services. Poverty may also result in a higher incidence of stress and depression among a child's caregivers; this, in turn, has been linked to worse child development outcomes.

Poverty among children in the region has declined dramatically in the past decade, regardless whether poverty is measured with a poverty line of \$2.5 or \$4 per capita per day (see Figure B3.1). Focusing on the more stringent \$2.5 line, childhood poverty has fallen by almost half.





*Note*: Income adjusted with number of members. Nineteen countries were included: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica Republic, Ecuador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Peru, Paraguay, Salvador, Uruguay, and Venezuela.

*Source*: Authors' calculations based on Inter-American Development Bank Harmonized Household Surveys.

In 2000, 41 percent of children lived in poverty, while in 2013 the comparable level was only 22 percent. Many countries can boast about this progress, including some in which poverty levels were initially very high (in Bolivia, poverty fell from 51 percent to 20 percent); and others where poverty levels were low (in Chile, poverty levels fell from 14 percent to 6 percent). Improvements occurred in large countries (in Brazil, poverty fell from 45 percent to 20 percent), as well as in relatively smaller ones (in Ecuador, poverty fell from 51 percent to 18 percent). The only important exceptions are Mexico and many of the countries in Central America (Costa Rica, the Dominican Republic, Honduras, and Guatemala), where declines in poverty have been very modest.

If the association between income and child development is, at least in part, causal, cash transfers made to poor households may improve child outcomes.<sup>9</sup> Many governments in the region have designed and implemented cash transfer programs targeted at poor households. These programs have wide coverage in some countries (including in Brazil, Colombia, Ecuador, and Mexico) and can cost as much as half a point of GDP (Levy and Schady 2013). Some of these cash transfers are "conditional": they require households to engage in certain behaviors, like taking young children to preventive health check-ups or enrolling older children in school, in order to receive the transfers.

A number of cash transfer programs in the region have built in impact evaluations, often based on random assignment. The evidence on the effects of conditional cash transfers (CCTs) on child nutritional status is mixed (see Box 3.4), and has been summarized elsewhere (Fiszbein and Schady 2009; Lagarde, Haines, and Palmer 2009). Less is known about the impact of cash transfers on other domains of development, but two randomized evaluations report estimates of the impact of cash transfer programs on child cognitive and language development, among other outcomes.

# Box 3.4 The Impact of Cash Transfer Programs on Child Nutritional Status

There are a number of evaluations of the effect of cash transfer programs on child health and nutritional status (in particular, height-for-age) in Latin America. The findings are mixed. In some cases, as with the PROGRESA-Oportunidades program in Mexico (Gertler 2004; Behrman and Hoddinott 2005; Rivera and others 2004) and the Red de Protección Social (RPS) program in Nicaragua (Maluccio and Flores 2005), there is evidence of positive effects on child height. In other cases, as with the Familias en Acción program in Colombia (Attanasio and others 2005), Bolsa Alimentacao in Brazil (Morris and others 2004), the PRAF program in Honduras (Hoddinott and Bassett 2008), the Atención a Crisis program in Nicaragua (Macours, Schady, and Vakis 2012), and the Bono de Desarrollo Humano program in Ecuador (Paxson and Schady 2010), the estimated effects are small and not significant at conventional levels.

Other evaluations have estimated the effect of cash transfer programs on iron-deficiency anemia. Here, too, the findings are mixed. Some evaluations report positive effects (as in Gertler [2004] for PROGRESA-Oportunidades in Mexico; and Paxson and Schady [2010] for the Bono de Desarrollo Humano program in Ecuador) whereas others find no effects (as in Hoddinott [2010], who discusses the evidence from RPS in Nicaragua and PRAF in Mexico). Of note, too, is that all of these evaluations focus on the short-term effects of cash transfer programs. In Ecuador, the Bono de Desarrollo Humano (BDH) program made transfers equivalent to 10 percent of consumption for the mean recipient household. Transfers were not explicitly conditional on any prespecified behaviors (like health check-ups) for households with young children. Two studies consider the impact of the BDH program on child cognitive and language development in Ecuador. One study, which focused on children aged 12–35 months, found that the transfers increased the number of words young children could say, as reported by their mothers (Fernald and Hidrobo 2011). Another study, which focused on children aged 36–59 months, found that the transfers did not improve child outcomes among beneficiaries overall. However, transfers had a significant impact on cognitive and behavioral outcomes among children in the poorest households, with an effect size of 0.18 standard deviations (Paxson and Schady 2010).

In Nicaragua, the Atención a Crisis pilot program randomly assigned communities to one of three groups: a control group and two treatment groups, one of which received transfers that were substantially larger in magnitude (26 percent, rather than 15 percent of mean consumption).<sup>10</sup> Once again, transfers were not explicitly conditional. On average, the program improved the cognitive, language, and behavioral development of children 0–5 years of age by 0.12 standard deviations (Macours, Schady, and Vakis 2012).

The evaluation design in Nicaragua also allows for an analysis of the effects of bigger and smaller transfers. Comparisons between the two treatment groups show that overall consumption increased by much in the group that received the larger transfers, as expected. However, child development outcomes did not improve by much in this group, suggesting that something other than (or in addition to) the cash was at work. The Atención a Crisis program also changed various behaviors that are associated with better child outcomes (e.g., parents were more likely to tell stories, sing, or read to their children). Moreover, the changes in these behaviors are larger than what would be expected from the income transfer alone (Macours, Schady, and Vakis 2012).

In sum, rigorous evaluations show that cash transfers programs in the region have had positive, albeit modest impacts on child cognitive, language, and behavioral development, particularly when transfers are made to the very poorest households.<sup>11</sup> These results echo those

from developed countries.<sup>12</sup> The observed improvements in outcomes cannot be explained by the increase in income alone. Rather, programs appear to have changed behaviors and spending patterns in ways that benefited children. A key policy question is what characteristics of the BDH and Atención a Crisis programs account for the changes in behaviors and expenditures that are observed.

## Teaching Mom and Dad

### **Recipes for Better Feeding Practices**

A striking characteristic of the region is the vast differences across countries in breastfeeding rates. The reasons for these differences are not well understood. However, a number of interventions have been shown to be effective in increasing breastfeeding rates in some settings, both inside and outside the region.

Some strategies are hospital based. The most convincing evidence on the effects of breastfeeding on a variety of outcomes (child health, nutritional status, cognitive development) comes from a randomized control trial in Belarus (Kramer and others 2001, 2002, 2008). Maternity hospitals were randomly assigned to a treatment group (in which mothers were encouraged to breastfeed using the UNICEF/WHO Baby Friendly Hospital Initiative) and to a control group (where no such encouragement took place). Exposure to the intervention led to a substantial increase in breastfeeding rates and less diarrhea among infants. There is also some evidence of program effects on cognition, although these findings are less conclusive (Der, Batty, and Deary 2008; Oster 2015).

Hospital-based strategies to increase breastfeeding do not reach many mothers who give birth at home. The proportion of women who give birth in a hospital or health center has increased substantially in many countries, as shown in Figure 3.4. However, home deliveries are still frequent, particularly in some countries, and among the poor and in rural areas. In Bolivia (2008) and Haiti (2012), for example, 69 percent and 91 percent of all births to women in the poorest wealth quintile, respectively, took place at home. Even in middle-income countries in the region, a substantial proportion of births among the poor still take place at home. In Colombia (2010)



Figure 3.4 Percentage of Women Who Gave Birth in a Health Facility, by Decade

Note: For births in five years preceding the survey.

*Source*: ICF International, 2012. Demographic and Health Surveys (DHS) Program STATcompiler. Bolivia (1998, 2008); Colombia (2000, 2010); Dominican Republic (1999, 2013); El Salvador (2002, 2008); Haiti (2000; 2012); Honduras (2001, 2011); Jamaica (1997, 2008); Peru (2000, 2012).

and Peru (2012), 14 percent and 44 percent of all births to women in the poorest wealth quintile, respectively, are home deliveries. For these women, strategies that are not hospital-based are needed to encourage breastfeeding.

There is some encouraging evidence from within and outside the region that programs that rely on trained peer counselors can work. These were found to be successful in encouraging mothers to initiate and extend the duration of breastfeeding in periurban Mexico City (Morrow and others 1999). Similar findings have been reported in Burkina Faso, Uganda, South Africa (Tylleskär and others 2011), Bangladesh (Haider and others 2000), and India (Bhandari and others 2003).

Large-scale interventions with many components, all of which seek to encourage breastfeeding, have also been implemented in some countries. In Brazil, a multilevel behavioral change strategy that included the implementation of Baby Friendly Hospitals, International Code of Marketing of Breast-Milk Substitutes, new clinical guidelines, multisectoral coordination, a review of maternity leave benefits, health staff training, peer counseling, and social mobilization through mass media campaigns has been credited with substantially increasing breastfeeding rates since 1975 (Rea 2003; Pérez-Escamilla and others 2012). However, by their very nature, the impact of these national, multicomponent strategies is hard to evaluate.<sup>13</sup>

Many countries in Latin America and the Caribbean have spent large amounts of resources on direct food distribution to poor households or on generalized price subsidies for some food items.<sup>14</sup> Relative to cash transfers of comparable value, food transfers are generally inefficient.<sup>15</sup> Food transfers may also contribute to overweight and obesity in childhood, a growing problem in Latin America and the Caribbean.

Programs that attempt to change feeding practices are more promising than those that only transfer food. There are a number of such programs in the region. Most are community-based initiatives that focus on promoting growth (e.g., the Atención Integral a la Niñez y a la Mujer en la Comunidad program, AINM-C, in Guatemala, and similar programs in other Central American countries). Home visitors measure height and weight and, based on the outcomes of this assessment, provide nutritional counseling. An alternative approach is to provide age-appropriate counseling independently of any anthropometric measurement, as happens in Mexico. The Mexican EsIAN (Estrategia Integral de Atención a la Nutrición) is a behavioral change strategy based on interpersonal communication provided at health services and in the community. It is delivered using the conditional cash transfer platform of PROSPERA and uses mass communication as a transmission mechanism for key messages.

Most programs that seek to change feeding practices in the region do not have credible evaluations of their impact, but there are exceptions. In Brazil, nutritional counseling delivered by doctors following the Integrated Management of Childhood Illness strategy (UNICEF/WHO) improved maternal practices and children's diets (Santos and others 2001). In Peru, an intervention in which health staff disseminated key nutrition messages and demonstrated how to prepare complementary foods to caregivers of young children increased the proportion of children who were fed nutrient-dense foods, and decreased the proportion of those who failed dietary requirements for energy, iron, and zinc (Penny and others 2005). As with programs that seek to boost breastfeeding, however, interventions based around health providers do not reach parents who do not make regular use of health services. In some cases, children in these households may be at the greatest developmental risk.

In sum, there is some evidence from inside and outside the region that it is possible to change child feeding practices. Programs that are successful share some important characteristics: they focus on changing behavior rather than just on delivering nutrition information, are culturally appropriate, coach the caregiver while he or she is trying new practices, and engage other family members and community leaders in the process.<sup>16</sup>

#### Improving the Home Environment

Feeding practices and nutritional status are not the only ways in which rich children differ from poor ones in Latin America and the Caribbean. There are also large differences in terms of their cognitive and language development, in the home environment, and in the amount of stimulation that children receive at home.

Parenting programs are one policy tool available to improve parenting practices. Three delivery models are common: home visits, group sessions, and clinic appointments. In the United States, there is a long tradition of home-visiting programs that seek to improve different aspects of the home environment for families with young children, and prevent child maltreatment and neglect. One of the best-known and most successful programs is the Nurse-Family Partnership program (see Box 3.5).

In Latin America and the Caribbean, parenting programs have focused mainly (although not exclusively) on early cognitive stimulation. This seems sensible given that the biggest developmental deficits among poor children are found in language and cognition, as shown in Chapter 2. A number of countries in the region have large programs, including Argentina (Programa Nacional Primeros Años), Brazil (Primera Infancia Melhor, PIM), Cuba (Educa a tu Hijo),

#### Box 3.5 The Nurse Family Partnership Program

In 2009, the Department of Health and Human Services in the United States launched the Home Visiting Evidence of Effectiveness review (Avellar and others 2014). Forty programs where service delivery was mostly achieved through home visiting were studied. The evaluation focused on programs whose stated objective was to affect at least one of following eight outcomes: child health; child development and school readiness; family economic self-sufficiency; linkages and referrals; maternal health; positive parenting practices; reduction in child maltreatment; and reductions in juvenile delinquency, family violence, and crime.

The review identified 17 out of the 40 programs evaluated as successful. (A successful program is one with proven success in at least one of the eight outcome domains, as demonstrated by a rigorous impact evaluation.) However, none of the programs showed impacts on reductions in juvenile delinquency, family violence, and crime. In addition, Avellar and others (2014) found that few home visiting programs significantly improved economic self-sufficiency (2 programs), coordination of resources and referrals (2 programs), maternal health (4 programs), and child maltreatment (6 programs).

A rigorously evaluated and well-known example of a home visiting is the Nurse Family Partnership (NFP), which currently operates in 32 states in the United States. This is a free, voluntary program that partners low income, first-time mothers with a registered nurse home visitor. A specially trained nurse visits the mother throughout her pregnancy (starting no later than the twenty-eighth week) and until the child is 2 years of age. Visits occur weekly for the first month after enrollment and then every other week until birth. After that, the frequency varies with age, from weekly to monthly visits. Home visits typically last around one hour. The average cost of NFP per family per year has been estimated at \$4,100 (US Department of Health and Human Services 2011).

The objective of the programs is to improve pregnancy outcomes, child health, nutrition, and development, and to help mothers with family planning choices and work decisions. During the home visits, the nurse offers information and support to foster a better relationship between mother and child. The program explicitly promotes sensitive, responsive, and engaged caregiving.

The NFP has been evaluated through a series of randomized control trials that started in the late 1970s in the semirural town of Elmira (New York), and continued in the city of Memphis (Tennessee) in the early 1990s and in Denver (Colorado) in the mid-1990s. Rigorous evaluations (Kitzman and others 1997, 2000; Olds and others 1986, 2000, 2002, 2007, 2014; Olds, Henderson, and Kitzman 1994) have found (in one or more sites): greater attendance to childbirth classes, more extensive use of nutritional supplementation programs, greater dietary improvements, fewer kidney infections, lower pregnancy-induced hypertension, fewer closely spaced subsequent pregnancies, and fewer subsequent pregnancies. Moreover, at age 2 years, children were seen in the emergency room less frequently and were less likely to be hospitalized with injuries or ingestions. At age 6, they had higher intellectual functioning and receptive vocabulary, fewer behavior problems in the borderline or clinical range, and were less likely to be classified as having emotional or behavioral problems. At age 9, they had fewer internalizing problems and dysfunctional attention. There are many other positive effects for the group of mothers and children at higher risk.

Ecuador (Creciendo con Nuestros Hijos), Mexico (Programa de Educación Inicial, PEI-CONAFE), Nicaragua (Amor Para los Más Chiquitos, APLMC), and Peru (Cuna Más). These programs vary in their scope, in the age range of the children that are the target group, and in the extent to which they focus on a particular group of households (e.g., the poor). The coverage of these programs varies substantially: Argentina, Cuba, Ecuador, and Mexico have the largest programs, covering between 350,000 and half a million children each. On the other hand, Brazil, Nicaragua, and Peru serve around 40,000 children each, while Chile, the smallest, serves less than 5,000 children.

Program costs per child also vary considerably, reflecting, in large measure, differences in the frequency of home visits or group sessions and in the qualifications (and therefore the remuneration) of the home visitors or group facilitators (Araujo, López Boo, and Puyana 2013).

Home visiting programs can significantly impact child development when the programs are of high quality and follow the prescribed curriculum. However, a recent study of the quality of six home visiting programs in Latin America and the Caribbean (Leer, López Boo, and Pérez Expósito 2014) suggests that home visitors are generally successful at establishing a warm, positive relationship with families and children, but much less successful at following the curriculum, activities, and behaviors established by the program. There is also compelling evidence of the impact of a number of parenting programs based on rigorous (often randomized) impact evaluations.

The most influential study of a home visiting program carried out in a developing country took place in Jamaica. Between 1986 and 1989, 129 malnourished children aged 9–24 months in the poorest neighborhoods in Kingston were randomly assigned to one of two conditions for two years: one group of children served as the control group, while the other group received a home stimulation intervention in which families were visited one hour a week by a community health worker. The health worker demonstrated play techniques to the mother using homemade toys, and encouraged her to practice them with the child during the week following the visit. The curriculum was structured, emphasized verbal interaction between mother and child, and taught concepts such as color, shape, size, number, and position.<sup>17</sup>

The results from this study are impressive. Twenty-four months after the intervention started, the researchers found large, positive effects on a number of child development outcomes for those who received the home visits (Grantham-McGregor and others 1991). In terms of cognitive development, children in the treatment group had scores about 0.8 standard deviations higher than those in the control group. A number of additional small-scale studies of home visiting programs in Jamaica (Gardner and others 2003; Powell and Grantham-McGregor 1989) also found positive impacts on child development, although the magnitude of the effect appears to fall sharply as the frequency of the home visits was reduced. Positive effects of home visits have also been reported in Brazil (Eickmann and others 2003) and Chile (Lozoff and others 2010).

One particularly noteworthy feature of the original Jamaican study is that it has followed participants into adolescence and early adulthood. Data from these follow-up surveys have shown that the effects of the intervention on cognitive development partially faded out over time: By the time they were 11 years of age, children in the treatment group had cognitive scores that were approximately 0.4 standard deviations higher than those in the control group. However, 20 years after the intervention, those who had received the stimulation intervention continued to have higher IQ and educational attainment, improved mental health (reduced depression and social inhibition), less violent behavior, and earnings around 25 percent higher than those in the control group (Gertler and others 2014; Walker and others 2011).

The results from the Jamaica study left unanswered a number of questions that are critical from the point of view of policy design. Could a similar intervention be delivered successfully by less-qualified community members who had been trained for this purpose? Could the results be replicated with somewhat larger numbers of children and home visitors? What are the important dimensions of context that determine whether this approach is generalizable? Could a comparable intervention be delivered effectively in groups or at health centers in order to reach a larger number of children?

Recent research from Colombia (Attanasio and others 2014, 2015) sheds light on some of these questions. In this study, 1,400 children between the ages of 12 and 24 months were randomly assigned to receive psychosocial stimulation through weekly home visits, or to a control group.<sup>18</sup> The curriculum from the Jamaican intervention was adapted to Colombia, and delivered by a group of community mothers eligible for the nationwide conditional cash transfer program, Familias en Acción. Home visitors were selected (or recommended) by prominent members of the local community, and received three weeks of training. They were supervised and trained by mentors with an undergraduate degree in psychology or social work hired for the project. Each mentor was responsible for 24 home visitors.

The study found that home visits increased cognitive and receptive language development by 0.26 and 0.22 standard deviations, respectively, and improved the quality of the home environment (Attanasio and others 2014). However, the program was most effective among children who had higher levels of development at baseline and among children of mothers who had higher skills, as proxied by their schooling levels, vocabulary, and IQ (Attanasio and others 2015). Although the sample size in Colombia was substantially larger than that in the original Jamaican study, it too is best thought of as a pilot, implemented by researchers with a careful, controlled design. Less is known about the effects of programs implemented at scale. One exception is a study from Ecuador that evaluated home visits carried out by nongovernmental or community organizations, funded by the Fondo de Desarrollo Infantil (FODI). Home visitors followed guidelines developed by FODI. These guidelines focused on warm, responsive parenting, and enriching activities for the child. The modality of the intervention depended on the age of the child: individual for children 35 months and younger, and group-based for children ages 36 months and older. Visits lasted an hour each and were weekly.

The intervention was not assigned randomly. However, because the budget for the program was limited, and FODI followed a formula to score proposals and determine eligibility, it is possible to compare children covered by proposals that were just funded (the "treatment" group) with those that just missed receiving funding (the "control" group). Estimates of the impact of the FODI home visits based on this evaluation strategy suggest substantial effects on child development. Twenty-one months after the beginning of the intervention, children in the treatment group had better language (0.4 standard deviations), memory (0.6 standard deviations), and fine motor skills (0.9 standard deviations) than those in the control group (Rosero and Oosterbeek 2011).<sup>19</sup>

A recent randomized evaluation of a parenting program in clinics in the Caribbean also sheds light on alternative modes of delivery. The intervention used group delivery at five routine visits for children between 3 and 18 months of age, while mothers waited to see the nurse. The use of media combined with demonstration of age-appropriate activities was a key element of the intervention (see details in Box 3.6). Substantial benefits to children's cognition and mother's parenting knowledge were found (Chang and others 2015b). This suggests that a combination of home visits and group meetings may be a cost-effective way of delivering parenting services (Grantham-McGregor and others 2014; Aboud and Yousafzai 2015).

#### Box 3.6 A Hybrid Parenting Intervention in the Caribbean

A recent randomized evaluation in Jamaica, St Lucia, and Antigua sought to determine the effects of a pilot program on mothers' parenting styles, stimulation provided in the home, maternal depressive symptoms, and children's language and psychomotor development. The program consisted of home visits combined with a health center–based approach to parental training (Chang and others 2015b).

A parent training package was delivered in clinics while mothers waited to see the nurse. No additional staff was required in this health center intervention, which included short, locally made videos with parents and their children demonstrating positive interactions to promote development. The mothers shown on the films were of similar social background to the majority of women in the clinics, which may have helped mothers see the relevance of the behaviors and activities. The health center intervention was implemented for children from age 3 to 18 months.

The videos were reinforced by child development messages. At each one of five visits, nurses gave out message cards and play material (two books and one three-piece puzzle were given at visits at 9, 12, and 18 months of age). Community health aides (CHAs) were trained to discuss the messages and demonstrate activities. Each clinic was provided with a toy box and CHAs gave mothers opportunities to practice activities with their children. A supervisor oversaw the CHAs' work in the clinic once a month to ensure the intervention was delivered as planned and provided further coaching support to the CHAs. She also verified that the nurses were giving out message cards and materials.

The intervention showed important benefits for children's cognition (effect sizes of 0.38 standard deviations). The change observed in mothers' parenting knowledge (effect sizes of 0.40 standard deviations) suggests that the mothers remembered the messages delivered. A costbenefit calculation was conducted, and the most conservative analyses found benefit cost ratios of 5.3 (Chang and others 2015a). This hybrid model—with both home and health center–based training—is promising because it has the potential to reach large numbers of children.

In addition to parenting programs targeted at infants and toddlers, there are other programs that work with parents and others to improve child cognition and language (e.g., reading programs). Evidence from developed countries suggests that these programs can have some success (see Box 3.7), although the fact that many parents of poor children in Latin America and the Caribbean themselves have limited skills (e.g., those that are illiterate or have very little schooling) may be an important constraint in some settings.

#### Box 3.7 The Beauty of a Bedtime Story

Cognitive stimulation interventions that foster play between parents and children provide opportunities for the development of vocabulary in the first two years of life. What other strategies are available to further foster language development at home in the preschool years? One option is shared-reading practices: a parent reading a picture book with a toddler or a teacher reading a book to a class of preschoolers.

There are relatively few studies about the impact of shared reading interventions in developed countries (National Early Literacy Panel 2008). In some interventions, parents receive age-appropriate books and are trained to promote an active role of children in book-reading by asking them questions and providing feedback. There is encouraging evidence of moderate effects of these interventions on vocabulary of preschool and kindergarten children in relatively small randomized control trials.<sup>20</sup> No robust evaluations have been found of programs at scale. Moreover, most research has been conducted in developed countries, predominantly with English-speaking children (Dickinson and others 2012). The paucity of research in developing countries (for an exception, see Vally and others 2014 on South Africa) is likely to be related to parental difficulties fostering the development of their children's vocabulary when their own vocabulary is limited.

There are also a number of evaluations of interventions that focus on increasing reading and literacy during summer holidays when children from low socioeconomic background tend to lose ground on literacy achievement with respect to their more affluent peers—a phenomenon that has been described as "Summer Loss."<sup>21</sup> Researchers speculate that this setback is partly explained by lack of voluntary reading of low socio-economic background children over the summer. A series of relatively large randomized control trials of summer reading programs have been carried out. The evidence from these studies suggests that it is possible to obtain modest gains in literacy by implementing summer voluntary reading programs. Their effectiveness can be enhanced by engaging parents and teachers in the process (White and others 2014).

Successful parenting programs share a number of characteristics. Home visitors and group facilitators establish a relationship of trust with the mothers (and in some cases fathers) of the children that are targeted by the intervention; there is a clear, guiding philosophy for what the intervention is trying to accomplish, and the staff understands it well; in the case of programs that seek to improve early stimulation, home visitors and facilitators work with parents during the session on a set of structured activities and encourage them to continue these activities between sessions; and staff receives considerable training and close supervision and mentoring.<sup>22</sup>

## A Place for Government at the Family Table

Traditionally, policymakers in developing countries have regarded the family as being largely outside the realm of public policy. In this view, raising children is the business of parents, not governments, at least until children begin formal education. This view is only partially correct, at best.

Certainly, parents should continue to be the central actors shaping the lives of young children. But parents can make decisions that are not optimal for child development for a variety of reasons. Parents may have low incomes and be credit-constrained, and so be unable to purchase goods and services that are beneficial for child development. They may have discount rates that are higher than those that are socially optimal. They may not know the benefits of certain behaviors (e.g., the benefits of breastfeeding); may not know how to implement them (e.g., how to discipline children without harsh physical punishment); or may not be capable of performing certain tasks (e.g., an illiterate mother cannot read to her child). Under any of these circumstances, investments in child development will be lower than is socially desirable, or the wrong sorts of investments will be made. Shaping the environment in which parents make decisions about investments in young children is an appropriateindeed, a necessary—role for public policy.

Cash transfer programs have had some success improving child development in Latin America and the Caribbean. However, cash transfer programs have mostly focused on health, nutrition, and access to school. Poor children particularly lag behind in terms of cognitive and language development, and in these domains, the impact of cash transfers has been modest.

The impact of cash transfers on child development has been driven, at least in part, by behavioral changes among recipients that cannot be explained by the cash alone. But little is known about the reasons for these behavioral changes. Possibly, the fact that transfers are made to women is important.<sup>23</sup> Possibly, too, the fact that households are encouraged to spend the transfer on children (even in the absence of any explicit "conditions") may lead households to mentally "earmark" transfers for children, as would be suggested by behavioral economics.<sup>24</sup> Cash transfer programs could be redesigned to have a larger impact on child development outcomes if these issues were better understood.

Poor child nutrition continues to be a challenge in some countries in the region, particularly among children in poor households, in rural areas, and among the indigenous, and especially in Central America and the Andean region. A program of protein supplementation in early childhood in Guatemala had substantial positive impacts on adult outcomes.<sup>25</sup> Interventions that have focused on nutrition education, are hands-on, and are welladapted to local circumstances have been effective in changing feeding practices in a number of developing countries (Dewey and Adu-Afarwuah 2008; Imdad, Yakoob, and Bhutta 2011), although the effects they have had on child development are generally small (Aboud and Yousafzai 2015).

The biggest promise, but also the biggest uncertainty, surrounds programs that directly seek to improve parenting practices. Changing behaviors is hard. Changing behaviors about something as intimate and personal as child rearing practices is even harder. In spite of this, parenting programs have had large impacts in some settings (Aboud and Yousafzai 2015; Howard and Brooks-Gunn 2009). The long-term impacts of early stimulation in Jamaica on educational attainment, IQ, participation in criminal activities, and wages are remarkable (Gertler and others 2014; Walker and others 2011).

The two biggest challenges facing parenting programs in Latin America and the Caribbean (and in other developing regions) are scale and creating mechanisms to identify those families that are most at risk. The strongest results on parenting programs, discussed earlier, come from small, carefully controlled pilots.<sup>26</sup> Replicating these findings at scale will involve creating a human resource system that provides staff with professional development, coaching, and close supervision, as well as reasonable compensation. Otherwise, staff will be poorly motivated, and turnover will be high. In turn, this will compromise trust, continuity, and fidelity of implementation, and result in no meaningful relationship with families, and no impact on child development.

Parenting programs should be targeted at children and families who are most at risk. But identifying at-risk families and having them participate in a parenting program is not straightforward. In some cases, the challenge is developing the capacity to deliver services in very remote, rural areas. In other cases, the main concern is self-selection. Parents who are concerned and interested in learning about effective parenting styles and strategies are, almost by definition, better parents than others. Parents who are engaged in behaviors that are most harmful to child development may be most difficult to bring into a parenting intervention. Interventions for particularly at-risk children will require more skilled and bettertrained staff, but the returns to effective programs for these groups are likely to be especially high.

Developing effective, at-scale parenting programs that reach at-risk children is difficult because it is not what the public sector traditionally knows how to do. It does not involve constructing infrastructure (unlike, say, expanding the coverage of preschool), and it does not involve delivering the same service to a large population (unlike, say, a cash transfer program). Rather, it involves painstaking work in which social workers or others trained for this purpose seek to build a relationship of trust with families, and encourage them to do certain things that they would not necessarily do on their own, but which are known to have large impacts on child development.

Establishing an effective parenting program at scale involves taking the long view. It requires a government to commit to a process of design, trial, evaluation, and redesign—all the while building up the human capacity to more effectively deliver a high-quality service. The fact that rigorously evaluated parenting programs in the region have had large, positive effects on child development—and on the adults these children eventually become—suggests that this is an investment the region can ill afford not to make.

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