



Organization of  
American States



SUMMIT IMPLEMENTATION REVIEW GROUP (SIRG)

OEA/Ser.E  
GRIC/INF.7/11  
20 October 2011  
Original: Spanish/ English

TECHNICAL NOTE:  
REDUCING POVERTY AND INEQUALITY IN LATIN AMERICAN AND THE CARIBBEAN

(Document prepared by the Inter-American Development Bank – IADB)



**Technical Note:**  
**Reducing Poverty and**  
**Inequality in Latin America and**  
**the Caribbean**

## TABLE OF CONTENTS

I.	EXECUTIVE SUMMARY.....	1
II.	BACKGROUND.....	3
III.	PROGRESS OVER THE LAST DECADE.....	5
IV.	PRIORITY AREAS FOR INTERVENTION.....	8
V.	CONCLUSIONS.....	30
VI.	REFERENCES.....	31
VII.	TABLES AND FIGURES.....	37

## Acronyms

AIDS:	Acquired Immune Deficiency Syndrome
CCT:	Conditional Cash Transfer
CGD:	Center for Global Development
CSO:	Civil Society Organization
CVD:	Cardiovascular Disease
CXC:	Caribbean Examination Council
DALY:	Disability Adjusted Life Year
DIA:	Development in the Americas
DQ:	Developmental Quotient
ECD:	Early Childhood Development
ECLAC:	Economic Commission for Latin America and the Caribbean
ENCOVI:	Encuestas Nacionales de Condiciones de Vida
FONASA:	(Spanish Acronym) Fondo Nacional de Salud National Health Fund
GDP:	Gross Domestic Product
HIV:	Human Immunodeficiency Virus
IDB:	Inter-American Development Bank
IQ:	Intelligence Quotient
LAC:	Latin America and the Caribbean
MDGs:	Millennium Development Goals
MMR:	Maternal Mortality Rate
NCD:	Non Communicable Disease
NICE:	National Institute of Clinical Excellence
OECD:	Organization for Economic Cooperation and Development
PISA:	Programme for International Student Assessment
PPP:	Private-Public Partnership
PPP:	Purchasing Power Parity
SEDLAC:	Socio-Economic Database for Latin America and the Caribbean
SERCE:	(Spanish Acronym) Segundo Estudio Regional Comparativo y Explicativo Second Regional Comparative and Explicative Study
SERNAM:	Servicio Nacional de la Mujer
SES:	Socio-Economic Status
TB:	Tuberculosis
TFP:	Total Factor Productivity
TVIP:	(Spanish Acronym) Test de Vocabulario en Imágenes Peabody Peabody Picture Vocabulary Test
UN:	United Nations
WDI:	World Development Indicators
WHO:	World Health Organization
WHOSIS:	World Health Organization Information System

## **I. EXECUTIVE SUMMARY**

The objective of this technical note is to identify social policies that improve equity and reduce poverty in the region, in large part through enhancing productivity. The priority areas identified will help countries in the Region meet the Millennium Development Goals (MDGs).

This technical note focuses on investments in people, in particular on those investments that increase their human capital, ensure that families attain acceptable levels of consumption, education, health, and nutrition, and help poor households manage risks. It does so by taking a lifecycle approach. Thus, it is not an exhaustive inventory of programs and policies that can reduce inequality and poverty but rather a strategic focus on high priority investments in people. The technical note stresses that the macroeconomic context, the policymaking environment, and interactions across sectors are important determinants of the effects of policies on equity and productivity.

In the last decade, countries in Latin America and the Caribbean have made remarkable progress in social outcomes. Between 2003 and 2008, the fraction of people living on less than US \$ 2.5 per capita per day in the Region fell from 27 percent to 18 percent. The Gini coefficient, a measure of income inequality, improved in 13 out of 16 countries for which data are available. In the Region as a whole, fewer than 60 percent of people born in 1950 completed primary school, and fewer than 30 percent completed secondary school; among those born in 1985, more than 80 percent completed primary school, and more than 50 percent completed secondary school. Infant mortality for the 1980-85 period for the Region as a whole was 55 per 1,000 children born; by 2005-10, this value had declined to 20.

Despite this progress, two striking features of Latin American and Caribbean economies are the continuing and very high levels of inequality, and the low levels of productivity. Latin America and the Caribbean is the most unequal region in the world, bar none. Inequality has very serious social and economic costs—it results in higher levels of crime, lower levels of growth, and less poverty reduction. The Region also has very low levels of Total Factor Productivity (TFP)—between 1960 and 2005 TFP grew by approximately twice as much in the typical East Asian country as it did in the typical country in Latin America and the Caribbean. Productivity is a social issue because it is the key to long-term increases in real wages, as well as to increases in incomes for households outside the wage-earning sector.

To meet the twin challenges of reducing inequality and poverty, the focus is on interventions that are meant to build human capital throughout the life cycle; facilitate the insertion of workers in the labor market; and help households manage risk, including the risk of ill health, old age, loss of employment, and destitution; and ensure that all households can

attain acceptable levels of consumption, education, health, and nutrition. The technical note identifies seven areas that appear to be particularly important for the Region as a whole.

1. Investments in early childhood development (ECD): Investments in early childhood have very high returns, yet access to high-quality ECD services in the Region is low and highly unequal. Many children arrive at the threshold of formal schooling with deep deficits in cognitive and non-cognitive development.

2. Improving school quality: Latin America and the Caribbean has seen substantial expansions in school enrollment, and in the mean years of schooling attained. However, there is ample evidence that learning achievement among students in the Region is very poor. Low teacher quality appears to be a serious problem.

3. Addressing youth-at-risk: One out of every four individuals in Latin America and the Caribbean is between the ages of 15-29 years of age. Young people in the Region face a number of challenges, including low levels of skills, a difficult labor market environment, and unusually high rates of homicide and teenage pregnancy.

4. Improving the functioning of labor markets and extending the coverage of social security: Labor markets in Latin American and the Caribbean function poorly in a number of ways. One striking feature is the high levels of informality. There are a variety of reasons for informality, including rigid labor regulations, and high transaction costs. The way in which social insurance is designed and financed is also a contributing factor.

5. Addressing the double burden of the health transition: Countries in Latin America and the Caribbean face a double burden of disease: a predominance of chronic, lifestyle-related, noncommunicable diseases, conditions, and injury, and a backlog of reproductive and communicable diseases, child malnutrition and anemia which continue to disproportionately affect the poor.

6. Addressing structural poverty: Conditional cash transfers (CCTs) have been the most important revolution in social assistance in the Region in the last decade. CCTs have an impressive track record, but they face important challenges moving forward, including improving the coordination with the supply of health and education services, and ensuring that the CCT package does not discourage adult labor supply. Other programs are necessary for the transient poor and for poor households without children.

7. Fostering social inclusion: In many countries in the Region, indigenous peoples and Afro-descendants continue to attain lower levels of education, have worse health and nutrition outcomes, and higher poverty levels than the rest of the population. Women in Latin America and the Caribbean have improved their schooling levels to match or surpass those of men, but they are at significant disadvantage in the labor market.

The technical note discusses policy priorities in these seven areas, as well as a number of cross-cutting issues that are important to take into account in designing effective policies for reducing poverty and inequality in the Region. In the design and implementation of social programs the heterogeneity of the Latin America and the Caribbean is a critical dimension for consideration. There are important differences across countries as varied as

Barbados and Brazil, Haiti and Chile. Investments in the identified priority areas are likely to have high returns in many countries—but they will not be a perfect fit for any single country. In some countries, interventions outside the priority areas will be particularly important. While this note provides a framework to prioritize social policy, the implementation of the recommendations should reflect the particular conditions and needs of individual countries in the Region.

## II. BACKGROUND

### *I. Latin America: A region of profound inequalities...*

Two striking features of Latin American and Caribbean economies are the very high levels of inequality, and the low levels of productivity that are inextricably linked to poverty. Productivity is a *social* issue because it is the key to long-term increases in real wages, as well as to increases in incomes for households outside the wage-earning sector. Increases in wages and other sources of income, in turn, are *the* essential ingredient for sustained reductions in poverty in the Region.

Latin America is the most unequal region in the world, bar none (see Figure A1). The very high and persistent levels of inequality are related to historical patterns of colonization and the emergence of institutions that favored elites (Engerman and Sokoloff 2002; de Ferranti et al. 2003). One simple and intuitive measure of inequality is the ratio of the income or consumption of households at the 90<sup>th</sup> percentile of the distribution to those at the 10<sup>th</sup> percentile. Using data around 2000, and ranking countries by this ratio, 14 of the 15 countries in the world with the highest levels of inequality are found in Latin America. (South Africa is the only other country, developed or developing, that makes this list.) Differences in this ratio are very large indeed—it is 12 in Mexico, 17 in Guatemala, 6 in both the United States and Thailand, and 3 in both Taiwan and Finland (World Bank 2005).<sup>1</sup> Inequality in Caribbean countries is also high, although generally somewhat lower than that found in countries in Latin America (see Figure A1).

Inequality has serious social costs for Latin America and the Caribbean. Inequality, for example, increases violent crime (Fajnzylber, Lederman, and Loayza 2002). This is particularly a concern in Latin America because homicide rates in some countries are extremely high: The homicide rate among young males (aged 15-24) per 100,000 population

---

<sup>1</sup> The year 2000 is the latest year for which data on the 90/10 ratio are readily available for a large number of developed and developing countries—see World Bank (2005). As we discuss below, there have been declines in inequality since 2000 in a number of countries in Latin America. SEDLAC has calculated the 90/10 ratio for countries in Latin America in 2000 and 2009—see SEDLAC (2010). These calculations show reductions in the 90/10 ratio in a number of countries (including Brazil, where the ratio declined from 16 to 12; Panama, where it declined from 20 to 16; and Ecuador, where it declined from 22 to 15), but by no means all (in Colombia, the 90/10 ratio increased from 13 to 15, and in Honduras from 17 to 20). Despite some improvement, it is clear that most countries in the Region continue to be highly unequal in comparison with other developed and developing countries.

is 176 in El Salvador, 119 in Colombia, and 113 in Venezuela. In Bulgaria, Hungary, and Romania the comparable values are 3.6, 2.3, and 0.3, respectively (World Health Organization 2006a).

Much of inequality in the Region is associated with inequality of opportunities, not just outcomes. That is, a substantial fraction of the inequality in incomes that is observed is determined by characteristics such as race, place of birth, or the education levels of one's parents. Deep inequalities in wellbeing that are essentially determined at birth are an affront to basic conceptions of fairness. Inequalities of opportunities may also make it less likely that poor people will expend effort to improve their lot if they believe that the scales are heavily tipped against them—no matter what they do. The correlation between a parent's and child's schooling can be seen as an inverse measure of intergenerational mobility. Studies consistently show that countries in Latin America have the lowest rates of intergenerational educational mobility, with the highest correlations across parent's and children's education (Hertz et. al. 2007).<sup>2</sup>

Inequality also has serious economic costs for the Region. Mechanically, a worse distribution of resources means that there are more poor people than would otherwise be the case, and implies that a relatively small fraction of distributionally-neutral growth translates into higher incomes for the poor (see Figure A2).<sup>3</sup>

Modern growth theory and empirical evidence suggest that higher levels of income inequality may lead to lower levels of economic growth. This primarily happens through two channels. First, when power is concentrated in the hands of a narrow group or elite, the institutions that develop will themselves be weak and will tend to favor elites, rather than the majority of people. A poor institutional environment is a drag on economic growth. Second, higher levels of inequality mean that many people are unable to invest in critical dimensions of human capital, which in turn depresses growth rates (Galor 2009).

## 2. ... and low levels of productivity

The second striking characteristic of Latin America and the Caribbean is the low level of productivity in the region. The most recent Development in the Americas (DIA) flagship publication of the IDB, The Age of Productivity: Transforming Economies from the Bottom Up (IDB 2010) shows that between 1960 and 2005 Total Factor Productivity (TFP) grew by approximately twice as much in the typical East Asian country as it did in the typical country

---

<sup>2</sup> Whereas for Finland, Great Britain, Malaysia and Denmark the correlation is 0.33, 0.31, 0.31 and 0.3 respectively the correlations for Peru, Panama, Colombia and Nicaragua are almost double at .66, .61, .59, and .55.

<sup>3</sup> A simple illustration makes this point. Imagine a situation in which Brazil had its current average per capita GDP level, but a *distribution* of income similar to that found in Uruguay, a country in Latin America with relatively low levels of inequality by Latin American standards. Under this situation, there would be 2.4 million fewer people in Brazil living on less than US \$ 2.5 per capita per day than is currently the case (IDB staff calculations, using household survey data).



in Latin America and the Caribbean (see Figure A3).<sup>4</sup> This stylized fact holds for virtually all countries in the Region: Between 1960 and 2000, relative to the United States, TFP grew by more than 200 percent in China, and by more than 120 percent in Hong Kong. By contrast, most countries in Latin America and the Caribbean, including Argentina, Brazil, Colombia, Costa Rica, Jamaica and Mexico, among others, lost ground in productivity relative to the United States.

There are many reasons for the poor productivity (and growth) performance of Latin America and the Caribbean. But low levels of accumulation of critical dimensions of human capital are an important part of the story. The *DIA* makes this point clear: It decomposes the reasons why incomes in the Region lag behind those in the United States and concludes as follows: “A development agenda exclusively focused on physical-capital investments that eases impediments such as undue spreads in the financial system, high taxation, and uncertain property rights would be circumscribed to a margin of 12 percent (of the income gap between LAC and the US)”. To close the remaining 88 percent of the gap primarily involves making investments that allow countries to have a workforce that is more productive.

### **III. PROGRESS OVER THE LAST DECADE**

Over the last decade or so, Latin America and the Caribbean has made progress reducing poverty and improving social outcomes, including measures of schooling, health and nutritional status. More recently, there is also evidence of some reductions in inequality.

#### *Progress reducing poverty...*

Between 2003 and 2008, the fraction of people living on less than US\$ 2.5 per capita per day in the Region fell from 27 percent to 18 percent (see Figure A4). This pattern of lower poverty in 2008 than in 2003 is not confined to a particular measure of poverty: no matter what poverty measure is selected—the number of people in poverty, the poverty gap, or the severity of poverty—and no matter where the poverty line is set, poverty was lower in 2008 than in 2003 (see Figure A5).<sup>5</sup> Table A1 shows that the reduction in poverty affected virtually all countries in Latin America, as well as Jamaica, the only country in the Caribbean where time series data on poverty can be calculated.<sup>6</sup>

---

<sup>4</sup> Total Factor Productivity (TFP) measures the fraction of total output in an economy that cannot be explained by physical capital (machines, buildings) or labor, where labor is weighted by mean years of schooling. It is a measure of how well inputs are allocated and combined in production and of the quality of the inputs (e.g., while years of schooling is accounted for by the measure of labor, the quality of the education is not, and is therefore an element of TFP).

<sup>5</sup> The headcount index, the poverty gap, and the severity of poverty are commonly used measures of poverty. All are drawn from the Foster-Greer-Thorbecke family of poverty measures (see Foster, Greer and Thorbecke 1984; and Ravallion 1994). The headcount index is the number of people living below the poverty line. The poverty gap is the average distance a poor household is below the poverty line, divided by the poverty line itself. The severity of poverty, or squared poverty gap, is sensitive to inequality among the poor. It is defined as the square of the average distance a poor household is below the poverty line, divided by the poverty line.

<sup>6</sup> Table A1a shows poverty rates calculated from international poverty lines and Table A1b from national poverty lines.

Poverty in the Region is substantially higher in rural than in urban areas (Table A2),<sup>7</sup> and among children than among working-age adults or the elderly (Table A3).<sup>8</sup> Also, as we discuss below, the indigenous and Afro-descendants are over-represented among the poor in most countries.<sup>9</sup> Although there is some variation across countries, the reductions in poverty in the last decade in the Region were broad—affecting urban and rural areas, men and women, and whites, indigenous and Afro-descendants.

In Latin America and the Caribbean, as elsewhere, periods of positive economic growth tend to be associated with reductions in poverty. Growth of GDP between 1995 and 2002 was modest, an average of 2.3 percent per year, and poverty was essentially unchanged. Starting in 2003, growth accelerated, with annual growth rates in the region averaging 4.8 percent per year until 2008, and poverty declined substantially.

However, the higher rates of growth in the second half of the last decade explain only a part of the reduction in poverty. In many countries in the Region, the incomes of the poor grew by more than average incomes.<sup>10</sup> As a result, inequality declined. The Gini coefficient for the region fell by approximately 3 points between 2003 and 2008, and improved in 13 out of 16 countries for which data are available (see Figure A6).<sup>11</sup> Other measures of inequality show a similar pattern.

A variety of reasons explain the declines in inequality in the region in the 2003-08 period, but the increase in expenditures on social assistance appears to have been particularly important. Figure A7 shows that, between 1990 and 2008, expenditures on social assistance in the region increased by two-and-a-half times in real terms. Analysis of the 1987-2004 period in Brazil concludes that the entire decline in poverty in Brazil over the period can be accounted for by the taming of inflation and by the sharp increase in social assistance expenditures, in particular, increases in expenditures on the nationwide conditional cash transfer (CCT) program, Bolsa Familia, and the non-contributory pension program, the

---

<sup>7</sup> These calculations, taken from SEDLAC, do not adjust for possible cost-of-living differences between urban and rural areas. Insofar as these are important, the comparison may underestimate the extent of urban relative to rural poverty. However, there is no accepted spatial, cost-of-living adjustment in most countries in the Region.

<sup>8</sup> It is often believed that there are economies of scale in household consumption. Because the elderly generally live in smaller households than do children, as shown in Table A3, these calculations may underestimate the extent of poverty among the elderly relative to children. However, there is no widely accepted method to adjust for economies of scale, or for the possibly lower consumption needs of children relative to adults (see Deaton 1997, especially pp. 262-69). Moreover, the differences in household size between children and elderly in the Region are small.

<sup>9</sup> The technical note recognizes that the situation of Afro-descendants may be different in the Caribbean.

<sup>10</sup> This can be shown by calculating “growth incidence curves”, which measure the rates of growth of per capita income or consumption at different points in the distribution. Between 2003 and 2008, in Brazil the income of households at the 10<sup>th</sup> percentile of the distribution (in 1993) grew by 5.6 percent, while that of households at the 90<sup>th</sup> percentile of the distribution grew by 2.0 percent per year. In both Chile and Mexico similar patterns are apparent, although both the average growth rates and the differences in growth rates between very poor and better-off households are more modest (IDB staff calculations, based on data from SEDLAS 2010).

<sup>11</sup> The Gini coefficient is a widely-used measure of income inequality. The index is constructed on the basis of the Lorenz curve, which plots the proportion of the total income of the population (y axis) that is cumulatively earned by the bottom x% of the population. The Gini coefficient can range from 0 to 1. A low Gini coefficient indicates a more equal distribution, with 0 corresponding to complete equality and 1 corresponding to complete inequality.

Benefício de Prestação Continuada, or BPC (Ferreira, Leite and Ravallion 2010) (see Figure A8). A review by Fiszbein and Schady (2009) concludes that expenditures by conditional cash transfer (CCT) programs have reduced the poverty gap in Brazil, Ecuador, Jamaica and Mexico by between 8 and 19 percent—a sizeable reduction, by any measure. The generalized increase in schooling levels in the Region also appears to have contributed to the reduction in inequality (López-Calva and Lustig 2010).

*... and progress in indicators of schooling, health and nutritional status*

In addition to improving indicators of poverty and inequality, Latin America and the Caribbean has also made substantial progress in terms of education, health, and nutrition outcomes. In the Region as a whole, fewer than 60 percent of people born in 1950 completed primary school, and fewer than 30 percent completed secondary school; among those born in 1985, more than 80 percent completed primary school, and more than 50 percent completed secondary school (see Figure A9). Latin America and the Caribbean countries now generally have primary school enrollment rates that are in line with those of other countries with similar income levels, although some countries still lag behind in terms of secondary school enrollment levels (see Figure A10). In most countries, disadvantaged groups such as indigenous peoples continue to have particularly low levels of educational attainment.

Much as with schooling, indicators of child health and nutrition have improved noticeably. Infant mortality for the 1980-85 period for the Region as a whole was 55 per 1,000 children born; by 2005-10, this value had declined to 20. Most countries in the Region now have values of infant mortality and child height-for-age, a measure of long-run nutritional status, which are on par with or better-than-expected for their levels of income per capita (see Figures A11 and A12). As with educational attainment, however, there are groups, including the poor and in some countries the indigenous and Afro-descendants, which have much worse health and nutritional status than others.

Latin America and the Caribbean has made substantial progress towards meeting some of the targets within the Millennium Development Goals (MDGs). According to the 2010 UN report “Achieving the Millennium Development Goals with Equality in Latin America and the Caribbean. Progress and Challenges,” the region is on track to reach the targets related to extreme poverty, underweight, child mortality and access to safe drinking water and basic sanitation services. However, progress has been insufficient for four of the nine targets assessed, including the targets related to undernourishment (Goal 1), completion of primary education (Goal 2), gender parity in the national parliaments (Goal 3) as a principal indicator of gender equality and female empowerment, and maternal mortality (Goal 5)—see Table A4.

In sum, then, countries in Latin America and the Caribbean have much to be proud of for their accomplishments in poverty reduction, education, health, and nutrition in the past 15 years. But important challenges for social policy remain—challenges that, if not addressed

with effective policies, will negatively impact the prospects for growth and equity in the Region.

#### **IV. PRIORITY AREAS FOR INTERVENTION**

Latin America and the Caribbean has made progress reducing poverty in the last decade. But these achievements, valuable as they are, are fragile. To have a sustained impact on equity and productivity, Governments in the Region will have to address a number of important policy challenges. Table 1 identifies seven areas which represent particularly important challenges for many countries. Given the important differences across the heterogeneous region of LAC these areas will not be a perfect fit for any single country. In some countries, interventions outside these seven areas will be particularly important.

We have prioritized interventions that are meant to build human capital throughout the life cycle; facilitate the insertion of workers in the labor market; help households manage risk, including the risk of ill health, old age, loss of employment, and destitution; and ensure that all households can attain acceptable levels of consumption, education, health, and nutrition. Important gender and diversity issues are integrated into these sections, but given their central importance to a more equitable Region, they are also highlighted in the section on fostering social inclusion.

**Table 1. Priority areas**

1. Investing in early childhood
2. Improving school quality
3. Addressing youth-at-risk
4. Improving the functioning of labor markets and extending the coverage of social security
5. Addressing the double burden of the health transition
6. Addressing structural poverty
7. Fostering social inclusion with identity

Human capital is arguably *the* most important determinant of economic growth. Paul Romer, one of the world's leading thinkers on the topic, makes this point in a chapter in The Concise Encyclopedia of Economics: "It is ideas, not objects, that poor countries lack".<sup>12</sup> And Oded Galor, another leading authority on the subject, writes of "the replacement of

---

<sup>12</sup> "A traditional explanation for the persistent poverty of many less developed countries is that they lack objects such as natural resources or capital goods. But Taiwan started with little of either and still grew rapidly. Something else must be involved. Increasingly, emphasis is shifting to the notion that it is ideas, not objects, that poor countries lack... If a poor nation invests in education and does not destroy the incentives for its citizens to acquire ideas from the rest of the world, it can rapidly take advantage of the publicly available part of the worldwide stock of knowledge." (Romer 2008).

physical capital accumulation by human capital accumulation as the prime engine of economic growth” (Galor 2009). Building human capital requires investments over the entire life cycle—from the youngest ages, before children enter school, to the school years, to programs that facilitate labor market insertion and life-long learning.

### **Investing in early childhood**

It is widely recognized that development in early childhood, approximately between 0 and 6 years of age, has critical importance for success in adulthood. Nobel-prize winning economist James Heckman, among others, has argued that these investments will generally have higher returns than *any* investments made later in the life cycle (Heckman 2006; Knudsen et al. 2006).

Outcomes in early childhood are shaped by genetic endowments and by the environment, including the prenatal period. The role of the family in shaping developmental outcomes is particularly important. Biology is not destiny. Development in early childhood is malleable, but the window for interventions to have large effects is short. Remediation at later stages in the life cycle is very costly, and may not be possible in some dimensions. A series of papers published in the *Lancet* medical journal in 2008 notes that the damage done by undernutrition in early life not only leads to permanent impairment but may also affect future generations (Victora et al. 2008).

There are important knowledge gaps in the Region about development in early childhood, but partial evidence suggests there are deep deficits in some domains. In Bolivia, Ecuador, El Salvador, Haiti, Honduras, and Peru, one-quarter to one-third of children are chronically malnourished, and in Guatemala, the proportion exceeds one-half.<sup>13</sup> In Ecuador, 5-year old children in the lowest decile of the distribution of wealth are, on average, more than one-and-a-half years behind the norm on a test of vocabulary that is highly predictive of school performance (Paxson and Schady 2007) (see Figure A13)

Comprehensive interventions in early childhood generally include parental education, nutrition, and early stimulation. They can loosely be grouped into two categories: Center-based care, including daycare and preschool; and interventions that seek to affect the home environment, including parenting interventions and home stimulation programs.

Many countries in Latin America and the Caribbean have substantially increased access to center-based care in the last two decades. In Chile, the number of children aged 0-23 months in public “Salas Cuna” increased from about 15,000 to 85,000 between 2006 and 2010, and the number of children aged 24-47 months in public “Jardines Infantiles” increased from 80,000 to 130,000 over the same period (Ortiz 2010) (see Figure A14). Despite these increases in access, there continue to be large differences in the fraction of children who

---

<sup>13</sup> Chronic malnutrition, or stunting, is defined as height-for-age more than 2 standard deviations below that of a reference population of well-nourished children. Stunted children, and children with micronutrient deficiencies, have lower levels of cognitive development, perform less well in school, and eventually earn lower wages in adulthood.

attend daycare or preschool by income level, and by the education levels of parents (see Figure A15 for an example from Guatemala).

Center-based care can have substantial benefits for children. For example, careful analysis of the expansion of pre-school programs in Argentina and Uruguay shows substantial benefits to children in terms of school progression, learning and behavior (Berlinski et al. 2008; Berlinski et al. 2009). However, these benefits will only materialize if the services have acceptable quality. Low-quality services are obviously worse than high-quality services in every dimension of human development. However, quality considerations are particularly important in the case of ECD programs because low-quality services are likely to be worse for children than no services at all.

Home-based interventions are an alternative to center-based care. In these interventions, a social worker, health provider, or community member who has received some instruction visits parents at home and discusses topics such as child nutrition and early stimulation. Jamaica has been at the forefront of piloting home-based interventions, producing evidence that has been used worldwide. In one renowned pilot project in Jamaica, stunted children assigned to a home-based stimulation intervention saw dramatic improvements in cognitive development, school performance, and labor market outcomes in adulthood (Grantham-McGregor et al. and Walker et al., various years) (see Figure A16). However, home-based programs often suffer from high dropout rates. Costs are also an issue because of the one-on-one nature of the intervention.

#### Policy Priorities: Investing effectively in early childhood development

There are deep knowledge gaps about the extent to which there are deficits in different dimensions of development in early childhood (language, cognitive, socio-emotional, and motor) in the Region, who is affected by these deficits, at what ages, and what interventions can effectively improve outcomes among vulnerable children.

Among young children, ages 0-3, the main policy challenge is the design of policies and interventions that support parents and care-givers in improving the quality of the care and the parenting practices that children receive. Among older children, age 4-6, the main policy challenge is the expansion of access to preschool with quality and equity.

Specific priorities include:

- a. ensuring that poor children have access to comprehensive ECD services that include essential nutrition, early stimulation, and parental education components;
- b. identifying modalities of service that are high-quality, cost-effective, and do not suffer from high attrition. Delivering quality services is critical, but costs are an important constraint. Deluxe models are often too expensive to be sustainable and replicable;

- c. revising and, in many countries reforming, the selection, certification, and training required for preschool teachers and others involved in the delivery of ECD services; and
- d. strengthening initiatives that articulate preschool with the primary cycle, starting with a sharper focus on basic competencies in language and math in preschool, and ensuring that this focus is carried forward and better articulated through the first grades of primary.

### **Improving school quality**

Development in early childhood is an important determinant of school readiness. In turn, the returns to investments in early childhood will only fully materialize if children attend school, and if the quality of the education they receive is high.

Latin America and the Caribbean has seen dramatic expansions in school enrollment, and in the mean years of schooling attained.<sup>14</sup> Higher average years of schooling confer important benefits. Under most circumstances, more schooling results in workers who are more productive, are better able to access and use new technologies, and earn higher wages; children of mothers with higher levels of schooling are less likely to be malnourished or to die in infancy, and will have more stimulating home environments. However, the effects of schooling on all of these outcomes will be blunted and may be negligible if the amount of learning that takes place in schools is low.<sup>15</sup>

There is ample evidence that learning achievement among Latin American students is very poor. Argentina, Brazil, Chile, Colombia, Mexico, Peru and Uruguay all participated in the international Programme for International Student Assessment (PISA) exams, which tested competencies in language, mathematics, and science for 15-year olds. In all three areas tested, Latin American students had scores that placed them among the worst performers of the 57 participating countries (see Figures A17 and A18).<sup>16</sup> Although among Caribbean countries only Trinidad and Tobago participated in the PISA exams, Caribbean countries

---

<sup>14</sup> This can be seen in comparisons across cohorts: On average, for the region as a whole, the mean years of educational attainment for people born in 1950 is 6.5, and that for people born in 1980 is 9.7 (Staff calculations based on household survey data).

<sup>15</sup> A quote from a paper on the “Global Challenge of the Lack of Education” written for the Copenhagen Consensus effectively makes this point: “Getting and keeping children ‘in school’ is merely a means to the more fundamental objectives ... (of) creating competencies and learning achievement” (Pritchett 2004).

<sup>16</sup> The poor performance of Latin American students is also apparent in comparisons with countries of similar income levels: Students in Argentina scored below those in Turkey, those in Mexico had substantially lower scores than those in Hungary and Estonia, and those in Brazil had scores on par with their counterparts in Indonesia—even though the income levels of Indonesia are roughly a third of those in Brazil. PISA tests are applied to 15-year old children who are in school, and are enrolled in 7<sup>th</sup> grade or higher. Because school dropout and repetition is more common in Latin America than in the OECD, East Asia or former Soviet Union and Eastern Europe, Latin America lags even further behind in terms of the skills among the population at large.

have seen the fraction of graduating secondary-school students who pass the Caribbean Examination Council (CXC) test fall from 62 percent in 2004 to 55 percent in 2009.<sup>17</sup>

Low levels of cognitive skills, as measured by performance on standardized tests like PISA, have important implications for economic performance. One recent study (Hanushek and Woessman 2009) argues that the puzzle of low growth rates in Latin America can be *fully* explained by the low levels of cognitive skills in the Region. While the methodology used by the authors is not uncontroversial, the basic message—that the low levels of learning of Latin American students have serious implications for economic growth rates—is widely accepted.

In addition, students in Latin America appear to lack non-cognitive skills that are highly valued in the labor market. Surveys in Argentina, Brazil and Chile show that large fractions of employers report difficulties finding workers with language and communication skills, critical thinking skills, good attitude, and responsibility and commitment. (Bassi and Urzúa 2010).

There are a variety of reasons for the low cognitive and non-cognitive skills of Latin American students. One reason is the inequality of opportunities for children in the Region. Poor children frequently arrive at the threshold of formal schooling with serious nutritional deficiencies, and inadequate levels of cognitive and socio-emotional development. The disadvantages associated with low socioeconomic status carry over into the school age. In 12 out of 15 Latin American countries that participated in the Second Regional Comparative and Explanatory Study (SERCE) international test, fewer than a quarter of students in the lowest wealth quintile had a satisfactory performance in both reading and writing and mathematics in third grade (Duarte, Bos, and Moreno 2010a). Performance among children from less poor backgrounds is substantially better, although it is also low (see Figure A19).

Although inequalities in Latin America unquestionably affect student performance, so does the poor quality of the education that is provided. Critical inputs for students and teachers, including infrastructure, textbooks and other learning material, are often missing. Only 10 percent of elementary school students are in full-day schools while two-thirds spend less than 20 hours a week in school; accounting for the hours lost to teacher absenteeism and other activities would bring these numbers down further (Duarte, Bos and Moreno 2010b).

Another critical challenge is low teacher quality. Aside from student background, teacher quality is widely believed to be the most important input into student learning. And yet, teacher quality appears to be very low in many settings. In Peru, almost half (47 percent) of primary school teachers could not “perform basic arithmetical computations and reproduce routine and short procedures” on a test of mathematical competencies, and one-third (33 percent) could not find “concrete and evident data and identify the text's main theme” in a

---

<sup>17</sup> This includes test data from students in Antigua and Barbuda, Anguila, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts and Nevis, Saint Lucia, Trinidad & Tobago, and Turks & Caicos (CXC 2010).



test of reading comprehension (Ministry of Education Peru 2007) (see Figure A20). Problems of low teacher quality are also apparent in other countries.

#### Policy Priorities: Improving school quality

Equipping students with adequate cognitive and non cognitive skills requires teachers that possess these skills to be able to teach them. Improving teacher quality starts with increasing the content, pedagogical knowledge, and non-cognitive skills of teachers, through a better selection of candidates, and more rigorous pre- and in-service training. The periodical evaluation of teachers, including assessing how well teachers teach, and the introduction of incentives for improved performance are also promising. Teacher assignment policies that place the best teachers in the most vulnerable schools are needed. Simultaneously, curriculum, standards and student assessments should be aligned with the relevant cognitive and non cognitive skills. Some countries are using Private-Public-Partnerships (PPPs) to address challenges with respect to the quality of education, with programs such as Enseña Chile showing promising results for student learning outcomes.

More and better distributed key educational inputs—infrastructure, learning resources and instructional time—should be supplied through the public or private sector to create the conditions for better learning and better quality of education. Additional resources should especially be allocated to schools serving disadvantaged students—poor, rural, and ethnic minorities—in order to compensate for the shortcomings that they come to school with.

The process by which the different schooling inputs are combined to produce learning in the classroom is also important. There is a need to deepen knowledge of these processes, in particular to understand why children from different socioeconomic environments appear to learn well under some circumstances but not others.

#### **Addressing youth-at-risk**

Latin America and the Caribbean is very much a young Region: one out of every four individuals is between the ages of 15-29 years of age (2009 World Population Prospects). Young people in the Region, including those graduating from secondary school, face a number of challenges, including low levels of skills, a difficult labor market environment, and very high rates of risky behavior.

Youth with secondary education comprise the biggest share of the new workforce in Latin America and the Caribbean, but they suffer from sharply declining relative wages, for two reasons: the increase in the supply of workers with secondary education, and skill-biased demand shifts favoring workers with tertiary education (Manacorda et al. 2010) (see Figures A21 and A22). Some evidence also suggests that younger generations are entering the market with a lower quality of education than older generations, further creating downward pressure on their wages (Auguste et al. 2007). As is the case in most countries, youth in the Region suffer from much higher unemployment rates than do adults (see Figure A23). For example,

in Guyana, youth unemployment is more than two-and-a-half times higher than unemployment among older adults. In many countries, youth unemployment has been rising over time (see Figure A24).

Although tertiary education is well-remunerated relative to secondary, the Region has made few gains in building these skills in younger generations. The share of the cohort completing at least 4 years of tertiary education has increased by only 1 percentage point over the last 15 years, in comparison to 10 percentage points for the share completing secondary school (Figure A9). In large measure, this is a result of very high dropout rates among those who begin university education. The poor overall quality of secondary schooling appears to be a contributing factor to the low completion rates in university. In addition, credit constraints faced by poor households and, in some countries, an insufficient supply of high-quality options are challenges to the expansion of tertiary education in the Region. Facilitating the successful entry and completion of tertiary education is likely to become increasingly important in the future.

Concerns about the skills that young people in the Region bring to the labor market go beyond the educational system. Many training programs available for youth in the Region are poorly linked to the demand of employers (although the generation of “Jóvenes” programs in Argentina, Chile and Peru are a notable exception). Training programs mostly take the form of classroom-based vocational training, with little follow-up on whether the trainee has been placed in a job.

The labor market is not the only domain where young people in the Region fare poorly. Youth in Latin America and the Caribbean have unusually high rates of risky behavior, including violence, drug abuse, and unprotected sex. Many countries are notable outliers in terms of their youth homicide rates (which are largely driven by homicides among young males—see Figures A26 and A27). For example, Brazil and Bulgaria have similar levels of income yet the youth homicide rate in Brazil for males ages 15-24 is 20 times higher than in Bulgaria.<sup>18</sup> Within the Region, Jamaica and El Salvador exhibit the highest levels of youth homicide. The high levels of violence surrounding youth in their communities, schools, and homes have wide implications. Soares and Naritomi (2010) estimate that the excessive rates of violence in Latin America depress GDP by an average of 13 percent, including direct costs to health and mortality as well as costs to the business climate.

Latin America and the Caribbean is also an outlier in terms of adolescent pregnancy, particularly if income levels are taken into consideration (see Figure A28). For example, in Argentina the adolescent fertility rate is 57 births per 100,000 among girls ages 15-19, 67 percent above the level predicted for its income. Although fertility rates for adolescents are

---

<sup>18</sup> The broader concept of “social ills” extends beyond the youth population; some issues such as domestic violence are examined in later sections. As vehicles of behavioral change social programs can contribute to the prevention of social ills.

generally lower in the Caribbean, certain countries including Barbados, Jamaica and Trinidad and Tobago also have higher rates than expected given their income levels. Adolescent pregnancy and teen motherhood present major social and health challenges for the Region, with lifetime consequences for teens themselves, their children and their communities. The maternal mortality rate is higher for births to adolescents than for women in their 20s and 30s. Early childbearing is also associated with lower schooling attainment and ultimately lower remuneration in the labor market.

#### Policy Priorities: Youth-at-risk

Addressing the challenges faced by youth is critical to increasing productivity, reducing poverty, and reducing the unusually high levels of violence and lack of citizen security in Latin America and the Caribbean. School retention is an important priority in light of the higher costs for remedial educational activities, regardless whether these occur in the education sector or in other sectors as through training. Extending the school day has shown promising results in reducing youth crime and adolescent fertility in Chile (Berthelon and Kruger 2010). In countries with particularly high drop-out rates for males, measures beyond quality schools are needed, including providing adult, same-sex role models (Younger et al., 2005).

A prerequisite for successful labor market insertion is the provision of relevant skills through quality education and training programs. Links between private sector employers and training programs should be expanded. Apprenticeships and on-the job training better prepare youth for the workplace than learning in abstract settings. While results vary by country, impact evaluations suggest that programs that favor on-the-job training in addition to in-class instruction can yield positive results in terms of job insertion, quality of employment and wages (Ibarrarán and Rosas Shady 2009).

Specific parts of the brain continue to develop through the early 20s, particularly the pre-frontal cortex, which is responsible for impulse control and planning processes. This provides a window of opportunity for strengthening the non-cognitive skills of youth. Program evaluations can explore which types of interventions—sports, music, arts, etc.—are best suited for building these non-cognitive skills and bringing the associated declines in risky-behavior and gains in long-run labor outcomes. Better articulation across youth programming activities is also needed, so that complementarities are fostered and potential distortions avoided.

Strengthening country capabilities for policy design and implementation is critical. Youth has typically been a “residual” sector in the social portfolio, giving rise to weak institutional arrangements. It is therefore necessary to:

- a. strengthen governance and institutional settings, which are complex given the inter-sectoral nature of interventions;
- b. identify modalities to deliver interventions that are cost-effective; and

- c. set adequate standards of quality for service provision, including the training of human resources to focus specifically on youth.

Building human capital, especially among the poor, is critical for the twin goals of achieving higher productivity and greater equity in the Region. However, the increase in wages that will result from more and better education will only materialize if workers can find productive jobs. We now turn to a discussion of the challenges countries in Latin America and the Caribbean face in improving the functioning of labor markets, extending the coverage of social security, and effectively delivering health services.

### **Improving the functioning of labor markets and extending the coverage of social security**

Labor markets in Latin American and the Caribbean function poorly in a number of ways. Active labor policies to help workers find jobs remain at an incipient stage, and suffer from low coverage and poor quality. Training services are frequently provided by National Training Institutes, and financed by an earmarked tax on wages. The training delivered is sporadic, and curricula are not well-linked with the skills demanded by firms or with the educational background of workers. Employment agencies and other labor market intermediation services do not function well. This has potentially serious costs: Nobel-prize winning economists Peter Diamond, Dale Mortensen, and Christopher Pissarides have shown that policies that reduce frictions in the labor market, and improve the matches between employers looking for workers and workers looking for jobs can increase employment and productivity.<sup>19</sup>

Countries in Latin America and the Caribbean have unusually high levels of informality. Informal firms tend to have less access to credit and technology, and to be less productive. Because productivity is the main driver of long-term increases in incomes, informality also has serious costs for poverty reduction.

There are a variety of reasons for the high levels of informality in Latin America and the Caribbean and various definitions and measurements. These reasons include high costs of registration, low access to finance, high firm taxes, rigid labor regulations, and high transaction costs. Facing up to the high levels of informality requires improving access to finance as well as improving and simplifying the business environment for all firms, large and small. However, the way in which social insurance is financed also contributes to the high levels of informality (Levy 2008).

From a social point of view, what matters is whether workers are protected against risks, which are usually covered by social security. Historically, access to social insurance in

---

<sup>19</sup>Active labor market policies in the Region function especially poorly during economic crises, as unemployment rises. In response, countries resort to creating ad-hoc programs in a rush. Temporary employment programs often arrive late, lack the institutional capability to perform in critical times, and are difficult to shrink once the crisis is over.

the Region has been tied to salaried employment. Salaried workers receive a bundle of benefits, including pensions, health care and unemployment benefits (or severance payments), with family members also receiving health care and survival benefits, all of which are financed from payroll contributions. The non-wage labor costs associated with these benefits are modest in some countries—in both Jamaica and Trinidad and Tobago they are less than 20 percent of wages—but very large in others—in Argentina, Brazil, Colombia, Nicaragua, and Peru they are more than 50 percent (IDB 2010). For a variety of reasons, including liquidity constraints, myopia, inadequate information, the bundling of benefits, and the low quality of some of the programs that are offered, workers assign a lower utility to social security coverage than to the current compensation they forego to pay for their contributions.

Because of the large size of the informal sector, social security covers only a modest fraction of workers in the Region—see Figure 29. Figure 30 shows that coverage rates are particularly low among the poor. Moreover, due to high rotation between covered (formal) and uncovered (informal) jobs, particularly for low skilled workers, protection against health shocks, work accidents and unemployment is erratic and inconsistent.

This situation is compounded by insufficient savings: most workers, particularly the poorest, save little, and therefore cannot self-insure against risks. A shock like ill health or job loss can easily lead to the family falling into poverty, or turning an already bad situation into a critical one. Uncovered workers in need may engage in actions that conspire against their long-run interests—such as taking children out of school, selling productive assets, or not seeking health care when needed.

In response to the low coverage rates of social security, many countries in the Region have created free health insurance and non-contributory pension programs. Spending on these programs ranges from 0.2 to 1.8 percent of GDP, and has increased considerably in a number of countries (IDB 2010).

Free health insurance and non-contributory pensions reduce poverty, and provide some welcome risk protection to those not covered by the formal system. However, because non-contributory systems are paid out of general revenues, at no cost to workers who receive them, they reduce the incentives to participate in contributory ones.

In sum, the low valuation of social insurance by workers in the formal sector creates a tax on formal work, while the creation of non-contributory pension and health care programs for those in the informal sector is a subsidy to informal work. This can distort the choices made by firms and workers—and the costs of these distortions may be far from trivial. Even without accounting for the effects arising from the limited willingness or ability of informal firms to train, innovate or obtain credit, estimates of output losses range between 0.4 percent and 5.2 percent of GDP (IDB 2010). In addition, most workers are not well covered against risks.

The implications of this situation for pension systems are that low contribution rates and high mobility between formal and informal jobs result in low contribution *densities*, defined as the fraction of time that workers contribute towards a pension during their active work lives.<sup>20</sup> For a large proportion of workers, particularly for the least skilled, contribution densities are below the threshold needed to qualify for a retirement pension in defined benefit models, or will result in very low pensions in individual capitalization systems.

Pension systems have undergone a number of reforms—often involving a transition from unfunded, publicly managed “pay-as-you-go” systems to privately managed, fully funded defined-contribution systems of individual accounts for beneficiaries—which has increased their fiscal sustainability.<sup>21</sup> However, these reforms have not addressed the implicit liabilities associated with low coverage and low savings, which will rise as life expectancy increases and fertility rates decline, or with the fact that in contexts with high mobility of workers between the formal and informal sectors contribution densities and replacement rates will be low—typically, less than 50 percent of wages, compared to more than 75 percent in most OECD countries.

The implications of this situation for health systems are inefficiencies associated with multiple, small risk pools which rarely complement each other; lack of portability of benefits for individuals when they transit from one insurer to another; potential adverse selection as people try to move between risk pools depending on their health status; lack of transparency in the allocation of public subsidies; reduced capacity of the systems to effectively and efficiently provide quality services because of duplications in the allocation of human resources and infrastructure; lack of accountability—including in the context of decentralization of services delivery, if the national/sub-national interface does not work smoothly); and low financial protection for the individuals. In countries such as Guatemala, Jamaica, Mexico, Peru, for example, out-of-pocket expenditures still account between a third and a half of total expenditure in health.

In terms of unemployment protection, workers in the Region are ill-equipped to face the risk of job loss. Most countries mandate firms to pay severance in case of dismissal, and 12 countries in the Region have either unemployment insurance or unemployment saving accounts. But severance pay and unemployment insurance cover formal workers only, and even in the formal sector coverage is low.<sup>22</sup> Severance pay may also have potentially large

---

<sup>20</sup> In Peru, for example, salaried workers in the lowest income quintile will have contributed only 8 percent of their active lives, while this figure rises, but only to 50 percent, for salaried workers in the highest quintile (Social Protection Survey, IDB 2008). Similar results apply for most countries in the Region.

<sup>21</sup> Reforms have reduced the fiscal costs associated with pensions (Mesa-Lago 2000; Zvinienne and Packard 2004). However, in many countries pension liabilities remain high. The fiscal costs associated with pensions have averaged 4.3 percent of GDP per year in the period 1981–2004 in Chile (Tapia 2010) and 5.3 percent of GDP for the period 2005–2010 in Mexico (Banco Bilbao Vizcaya 2007).

<sup>22</sup> In Argentina, only 32.4 percent of dismissed workers report having received severance pay (González-Rosada et al. 2010). Only 12.4 percent of the unemployed receive unemployment insurance in Argentina, 6.5 percent in Brazil, 19.5 percent in Chile, and 17 percent in Uruguay.

cost in terms of employment creation (IDB 2003; Addison and Teixeira 2003). Moreover, because poor workers are over-represented among informal workers, they are less protected than others against the risk of employment loss.

Policy Priorities: Improving the functioning of labor markets and extending the coverage of social security

The functioning of various aspects of the labor market in the Region needs to be improved, including by:

- a. improving intermediation services and other systems that allow workers to transit from job to job and from unemployment to employment in a more effective way;
- b. improving the articulation between CCTs and intermediation and training programs to better leverage the earlier investments in human capital in the labor market;
- c. improving systems that smooth the consumption of the unemployed, and reduce the risk of their families falling into poverty, while preserving job search incentives;
- d. increasing human capital, as more skilled workers tend to be less exposed to unemployment than less skilled ones;
- e. improving the quality of training systems in the Region by addressing financing problems, giving incentives for firms and workers to acquire training, and raising the quality and pertinence of the training provided.

This, in turn, requires assessing skill gaps, updating training contents to better match the needs of firms, introducing standardized measurements of attainment (as is beginning to be done in formal education), and creating an evaluation culture to assess the impacts of different training policies and programs on the skills, employment prospects and productivity of workers. Governments also need to address the many shortcomings of social insurance systems in Latin America and the Caribbean in order to expand coverage, keep systems on a sound fiscal footing, and avoid costly distortions. The current dual, or “truncated” systems reduce employment creation in the formal sector, have substantial productivity costs, result in duplication, and provide unequal and sporadic coverage against risks, particularly for the poor.

A comprehensive reform of social security systems would deliver most social benefits to all workers regardless of their labor market status (formal or informal), financed from general revenues. These reforms must clearly consider the particular institutions of each country, the appropriate level of benefits, the provider of those benefits, and the alternatives for sound financing.<sup>23</sup>

---

<sup>23</sup> In the case of pensions, the recent Chilean reform (2008) suggests an example of how to create a non-contributory pillar that provides a minimum level of coverage to all workers and yet preserves incentives to participate in the contributory system. In the case of health insurance, the Region has seen important reforms that seek to reduce fragmentation and segmentation of risk pooling arrangements in an incentive compatible way—for example, in

There may also be other reforms that help to increase coverage against risks in an incentive-compatible way. Interventions that improve the quality of the benefits provided by social security, more explicitly link contributions to benefits, and increase financial literacy, all have potential. Improving the effectiveness of administration, monitoring and evaluation of social security policies and programs by improving data collection and tracking systems is also a priority.

Various efforts are underway to understand how different financing schemes for social security affect coverage, the choices made by firms and workers, employment creation, informality, and productivity. Nevertheless, there is a need to further deepen knowledge in this area.

### **Addressing the double burden of the health transition**

The problems that Latin America and the Caribbean faces in the delivery of health services are not limited to concerns about the financing of health insurance, as discussed above. The Region faces a double burden of the health transition: a backlog of reproductive and communicable diseases, child malnutrition and anemia, which still disproportionately affect the poor; and a steep rise in the predominance of lifestyle-related, chronic, non-communicable diseases and injuries.

Coverage of the most basic interventions to tackle reproductive and communicable diseases remains highly unequal, even in some of the wealthiest countries, and represents a challenge in the Regional progress towards achieving the MDGs in child malnutrition, maternal mortality and access to reproductive health. In Guatemala, only 10 percent of the poorest women giving birth are attended by skilled professionals, while 90 percent of wealthiest women receive this service (Tristao 2010). In the Mesoamerica region, for example, 2.5 million children under five years of age are still affected by chronic malnutrition. Poor communities continue to suffer from totally preventable infectious diseases. Nine million people are chronically infected with Chagas disease and 30 percent of the total population is estimated to carry intestinal worms (Hotez 2009) –a major contributor to childhood anemia and malnutrition.

A rapid demographic and epidemiological transition has led to high levels of non-communicable disease (NCD), particularly cardiovascular disease (CVD), stroke, cancers and depression. Communicable diseases such as TB, malaria, and HIV/AIDS now account for only 10 percent of deaths in the Region, although in the Caribbean the rate of HIV infection is well above the Regional average. In contrast, CVD is the leading cause of

---

Brazil, with the creation of the Unified Health System in the 1980s, in Costa Rica, with the merging of the Ministry of Health and Social Security in the mid 1990s, and in Chile with the merging of the Social Security and the National Health Service in the 1980s, the creation of FONASA, and the subsequent stages of the reform in the 1990s and 2000s.



disability and death in Latin America and the Caribbean, responsible for 35 percent of all deaths in 2004 and 68 percent of the total disease burden (WHO 2006b) (see Figure A31, which focuses on Mexico). Caribbean and Southern Cone countries are most advanced in the epidemiological transition. Diabetes is an emerging epidemic for many countries in the Region but, in particular, for Mexico, where it is the leading cause of mortality in women and the second cause in men (see Figure A32). Although the shift in burden of disease is expected given the aging demographic profile, the levels of NCD risk factors in the Region are particularly high. Among risk factors for CVD, tobacco-use and increased obesity loom largest (see Figure A33). Poor populations within countries are dramatically affected by the steep increase in the incidence of these risk factors (PAHO, 2009).

The rise in the burden of chronic diseases requires a health systems response over a continuum of care. Although there are few comparative studies of quality of care in the Region, health systems seem to perform poorly on measures of effectiveness, quality of care and financial protection. Small-scale studies suggest that there are major differences between standard clinical protocols and care actually delivered to patients. Of those diagnosed with hypertension in a state in Brazil, half were unaware of their condition, and only 10 percent were being adequately treated (Gus et al. 2004). In Costa Rica—where the public health system is thought to be accessible to 98 percent of the population—a quarter of the population over 20 years old has hypertension (Cerdas 2006). Avoidable chronic disease hospitalizations in Brazil accounted for 20 percent of all public sector hospitalizations in 2007 for adults ages 20-79 (Macinko et al. 2010).

Addressing chronic diseases requires an effective response by the health sector. However, because changing behavioral risk factors are at the core of the issue, an inter-sectoral response that can engage public and private partners outside the health sector is important. Population-level prevention policies (including food labeling, educational efforts, exercise promotion, salt restrictions, price interventions, among others) can be very effective.<sup>24</sup> Studies suggest that worksite-based interventions aimed at improving healthy behaviors have cost-effective results in Brazil and Mexico (Cecchini et. al, 2010). Combining interventions yields greater returns than the sum of individual interventions.

With the current standard of care biased towards curative care, and with little emphasis on health promotion and preventive strategies that address risk factors, direct and indirect costs of chronic conditions will likely pose important fiscal and economic challenges for the Region. In Mexico, for example, if current trends in diabetes and hypertension increase unchecked, an increase of 5-7 percent of the health budget would be required annually (Arredondo et al. 2005). Limited financial protection combined with the long-term nature of chronic conditions puts patients and their families at especially high risk of

---

<sup>24</sup> A series in the medical journal *The Lancet* identifies three highly cost-effective interventions for chronic diseases: tobacco control and salt reduction, and combined drug treatment for people at high absolute risk of cardiovascular disease (see Asaria et al. 2007, and Lim et al. 2007).

incurring catastrophic health care costs, especially those who are already poor. The prospect of impoverishment might also act as a disincentive to health-seeking behaviors and to poor treatment adherence with profound economic and productivity consequences of chronic disease-related death and disability (Samb et al. 2010).

Priorities: Addressing the double burden of the health transition

National health systems in the Region need strengthening if they are to meet the double burden of the health transition. A renewed emphasis on comprehensive primary health care, with community-based interventions that promote early detection for noncommunicable diseases and empower service users to take responsibility for their own care through self-management programs, is seen as a promising strategy. It could simultaneously address the unfinished agenda in maternal and child health and nutrition, make progress towards the MDGs, and help manage risk factors and chronic diseases in a resource-constrained environment. Comprehensive, community-oriented primary care packages have been associated with improvements in both child health (Macinko et al. 2006) and adult health status (Guanais et al. 2009). The adoption of proven cost-effective interventions would also represent progress—examples include the use of proven screening algorithms to identify highest risk patients and combined drug therapy to reduce blood pressure and cholesterol (Gaziano 2010; Bautista et al. 2010). Aligning incentives can induce changes in the performance of providers and induce change in individual behaviors associated with risk factors for chronic disease (exercise, diet, smoking cessation). Experiences in developed countries suggest that, both on the demand- and supply-side, incentives may promote healthier behaviors and stimulate providers' emphasis on prevention (Nugent et al. 2010). Several countries in the Region are already implementing pay for performance schemes, especially for maternal and child care, as means of modifying incentives in the sector in favor of health results.<sup>25</sup>

Systemic constraints to improving the availability and quality of care need to be addressed. These include the structure of incentives for improving productivity and quality of care, within-sector allocation of human and financial resources, the integration among different levels of care, the quality of the health workforce whose education and training should provide the skills required to serve the emerging health needs of the population it serves, procurement systems and supply chains for medicines and other inputs, outdated protocols and health information systems that are not designed to address emerging diseases, as well as infrastructure and equipment.

Technology and innovation in the delivery of health services are important. Given the high rates of penetration of cell phones in many countries in the Region, mobile health holds promise, in particular as an alternative to standard delivery models for reaching rural,

---

<sup>25</sup> Such Pay for Performance schemes are currently being implemented in Argentina with Plan Nacer, and in Panama and Honduras for the provision of a basic package of maternal and child care service.

outlying populations, or for services that require frequent interaction between patient and provider. Given the experimentation and innovation underway, careful piloting and evaluation important to capture lessons learned.

Given resource constraints and growing needs, governments will increasingly need to strengthen explicit priority-setting mechanisms. The latter should be based on cost-effectiveness, financial protection and responsiveness criteria, and include public consultation processes. The model for these efforts has been the UK's National Institute of Clinical Excellence (NICE), which has successfully established a scientifically rigorous and societally-validated priority-setting process for that country's National Health Service. The data and decision-making requirements to support a continuous process of priority-setting are severely lacking in the Region, and this is an important challenge going forward. In the medium term, the costs for the health systems in the Region are likely to rise even if effective clinical and population-level prevention policies for non-communicable diseases are rolled out, as more cases are detected in strengthened screening and primary care programs, and treatment lengthens the lives of those with chronic conditions (Allotey et al., 2010). Achievement of an effective, efficient and equitable system to finance these additional costs in an incentive-compatible way is a priority if greater rationing in the form of low quality of care, exclusion of the poor and a high burden of preventable mortality is to be avoided.

Efficiency gains need to be pursued. The fragmentation of health systems has led to a lack of accountability for results as well as redundant facilities and functions that have little scope to adjust to changing demand patterns—all of which contribute to increasing the costs of health care. A frequent phenomenon is the placement of a social security institute hospital across the street from a public sector hospital, while both operate at half capacity and receive subsidies from the state. Schemes that allow the public sector to make use of all available providers in the system may improve efficiency; some early experiences in allowing patient choice and cross-billing are in place in Peru and elsewhere. The private sector can also play a role in addressing supply challenges; for example some countries are using Private-Public-Partnerships (PPPs) to deliver primary health services as well as to construct and manage hospitals.

The rapidly-changing health environment in the Region means there will continue to be important knowledge gaps that need to be addressed by collecting data on outcomes, the quality of services, and the evidence of successful policies and programs aiming, for example, at changing behaviors of both providers and individuals, from impact evaluations with credible counterfactuals.

### **Addressing Structural Poverty**

Building the human capital of the poor, facilitating their entry into the labor market, and ensuring that there are effective mechanisms that help households manage risks are all important to increasing productivity and equity. Given the very high levels of inequality in

the Region, however, there is also a role for redistribution. Cash transfer and other social assistance programs have been a critical reason behind the sharp reductions in poverty and inequality in many countries in Latin America and the Caribbean, as discussed above.

Conditional cash transfers (CCTs) combine a direct cash transfer—which is meant to alleviate current consumption poverty—with a requirement that households carry out certain behaviors, like enrolling children in school or taking them for preventive health check-ups—which is meant to build up their human capital and break, or at least attenuate, the inter-generational transmission of poverty.

CCTs began on a small-scale in Mexico and Brazil in the mid-1990s, and became increasingly popular after the creation of the PROGRESA program in Mexico in 1997. Today, most countries in the Region have a CCT (or more than one) in place. In many countries, CCTs have become the most important social assistance program—including in (among others) Brazil (Bolsa Familia), Colombia (Familias en Acción), Ecuador (Bono de Desarrollo Humano), and Mexico (Oportunidades). They cover a large fraction of the population—often about 20 percent of all households in a country—and the transfers they make can be large relative to household budgets—for example, in both Colombia and Mexico, transfers account for more than 15 percent of the income of the average recipient household. In countries with the largest programs, CCTs account for approximately half a percentage point of GDP.

CCTs have an impressive track record—see Fiszbein and Schady (2009) for a review. Because they are well targeted to the poor, and because they often make substantial transfers, they have had a sizeable effect on poverty. CCTs have also increased school enrollment and school progression, in particular in those age groups (or grades) in which enrollment rates were low in the absence of the program, and they have resulted in increases in the use of preventive health services (including vaccination rates and growth controls for children). Moreover, because of their emphasis on transparent and verifiable mechanisms to assign benefits, and the importance they have given to careful, credible impact evaluation, CCTs have set a new standard for public sector management.

Despite these notable successes, CCTs face a number of important challenges moving forward. First, it is important to ensure that CCTs do not discourage adult labor supply. Impact evaluations conducted when programs were young showed that the transfers generally did not have this undesired effect. Since then, however, programs have matured, and a number of changes have taken place that make it more likely that CCTs could discourage labor supply of adults in some settings.<sup>26</sup>

---

<sup>26</sup> Two factors are particularly important. First, is the increase in the size of the transfer in many programs. For example, the BDH program in Ecuador doubled the magnitude of the transfer in 2007; in Mexico, the average transfer increased by 25 percent in real terms between 2006 and 2008. Second, is the process of “recertifying” households for eligibility; these recertification processes may have the perverse incentive of encouraging households to stay poor (or at least appear to be poor).

The second area of concern for CCTs is that, despite the large increase in the utilization of services (school enrollment, use of preventive health services), CCT impacts on final outcomes in education (for example, learning) and health (for example, child height-for-age) are less clear. The reasons for the mixed results on final outcomes in health and education are many, but two are most important: the low quality of education and health services, and the fact that the combination of cash and conditions, as currently conceived by most CCT programs, may not be enough to promote long-term, sustainable changes in household behaviors.

The third area of concern for CCTs is how to address issues of long-term sustainability and the “graduation” of individuals and families. CCTs take a life-cycle approach to investments in human capital—from the earliest ages, to the school cycle. However, as children age out of programs, families generally stop receiving the cash transfer. This raises two challenges. The first is whether families that have received generous cash transfers for a sustained period of time will have invested these resources in a way that ensures that they can escape poverty; the evidence on this is mixed (Gertler et al. 2006 on Mexico, and Maluccio 2010 on Nicaragua). The second is whether young people, who have higher schooling levels as a result of the program, will be able to find more productive jobs and earn higher wages. These outcomes depend critically on how well the labor market functions, and are therefore intimately linked with the capacity of the labor market to generate jobs, the level of informality, and how well vocational education, training and intermediation systems function. The design of CCTs can therefore not be done in isolation, but should be consistent with other social programs.

#### Policy Priorities: Poverty-alleviation programs

CCTs can be improved by focusing on:

- strengthening synergies with the supply of high-quality services, including the promotion of complementarities with ECD;
- strengthening inter-sectoral planning and accountability mechanisms to ensure that additional resources devoted to improve the supply of services reach CCT beneficiaries;
- designing the structure of payments and the selection of beneficiaries in ways that minimize perverse incentives for households to reduce their labor market participation; and
- experimenting with conditions that aim not only at boosting service utilization, but also promote sustainable improvements in key outcomes through behavioral changes. For example, it may be useful to make payments that are conditional on performance in school (not just enrollment), perhaps as a “bonus” payment. Alternatively, or in addition, incentivizing providers with Pay for Performance schemes may hold promise;

- strengthening coordination with programs that seek to help young people make the transition from school to the labor market, and with programs that seek to increase productive investments by poor households.

CCTs were implemented in many countries to replace a variety of programs that directly transfer food or other commodities, or subsidize the prices of food and energy (electricity or kerosene subsidies). However, this has not always happened.<sup>27</sup> Price subsidies and food transfers will generally be inferior to a properly designed and implemented CCT for a variety of reasons, including:

- they are often regressive, so that, contrary to their stated aims, the non-poor often capture the bulk of the benefits;
- they tend to be administratively expensive (for example, in terms of the cost of food transport and storage);
- they give households fewer choices than cash transfers of a similar value, which generally reduces welfare; and
- they can introduce inefficiencies and increase the scope for corruption on the producer side of the market.

Phasing out the remaining in-kind transfers and price subsidies, unless a compelling case can be made why they are superior to equivalently-valued cash transfers, is an important policy priority in some countries.

### **Policies to foster social inclusion with identity**

As detailed previously, Latin America is the most unequal Region in the world. This inequality is a result, among other factors, of inequality in access to opportunities—some of which are determined at birth by race, ethnicity, and gender (Paes de Barros et al. 2009). Race, ethnicity and gender-based inequalities have potentially large productivity costs. For example, micro-simulations done for Chile show that if the female labor participation rate were close to the Regional average, about 15 percent of total poverty and 20 percent of extreme poverty would be eliminated, and average per capita income would increase by 10 percent (IDB, World Bank, SERNAM 2007). The costs of inequalities by race are likely even higher in many countries.

#### **Indigenous and Afro-descendants**

---

<sup>27</sup> In Mexico, PROGRESA replaced subsidies for bread, tortillas, and energy—see Levy and Rodriguez (2004) and Levy (2006) for a discussion. In the Dominican Republic, the introduction of a large-scale CCT was used as a tool to reduce large fuel subsidies. In Ecuador, the CCT was introduced as a way of phasing out kerosene subsidies, but these subsidies have not been phased out (or reduced). In Peru, the budget of programs that make in-kind food transfers, including the municipal Vaso de Leche milk distribution program and the school feeding programs, is almost double that of the CCT. The various feeding programs accounted for 0.27 percent of GDP in 2008, and the CCT program Juntos for 0.14 percent (Ministry of Finance, Peru, 2010).

Indigenous peoples and Afro-descendants continue to be substantially more likely to live in poverty than the overall population in many countries in the Region. In Panama, for example, 80 percent of indigenous peoples are poor, while among the non-indigenous population only 25 percent are poor (see Figure A34). In Brazil, there is still a significant gap between the poverty rates for blacks and whites at 18.3 percent and 8.4 percent, respectively (see Table A5).<sup>28</sup>

The wage gaps between Afro-descendant and indigenous individuals, on the one hand, and other ethnic groups, on the other hand, are very large for the seven countries of the Region with household data disaggregated by race and ethnicity. On average, Afro-descendants and indigenous individuals earn 62 percent of the wages of other ethnic groups. In part, this is explained by the much lower education levels of indigenous and Afro-descendants (Atal, Ñopo and Winder 2009). In Bolivia, for example, non-indigenous adults age 25-29 have an average of 10.9 years of school, compared to 5.9 years for indigenous adults in this age group, and in Panama the difference in education levels between indigenous and others is more than 6 years. Moreover, as Figure A35 shows, the gap in education levels between the indigenous and others has not been falling over time in most countries. (Chile is an important exception).<sup>29</sup> And even when indigenous peoples attend schools, their academic performance is lower than the population as a whole in most countries (SERCE 2010). Another important determinant of the wage gap is the segregation of Afro-descendants and indigenous into low-paying occupations (Atal, Ñopo and Winder 2009).

Non-monetary measures of well-being such as health status —critically important because of the increasing emphasis among indigenous peoples on sustainable welfare measures such as “living well” (buen vivir)—also paint a disturbing picture for indigenous and Afro-descendant populations:

- recent evidence suggests that indigenous Mexicans receive lower quality care than the population as a whole, regardless of income (Barber, Bertozzi and Gertler 2005) (see Figure A36);
- indigenous women have maternal mortality rates (MMRs) that are three times the regional average, with particularly large gaps in Ecuador, Peru, Bolivia, and Guatemala (UN 2009); and
- Afro-Brazilian women are three times more likely to die in childbirth than their white counterparts due in part to low-quality pre-natal care (Ministry of Health Brazil 2004).

---

<sup>28</sup> Censuses and household surveys in Brazil have traditionally collected self-reported information on color and race.

<sup>29</sup> It should be noted that common constructs such as “Afro-descendant” or “non-indigenous” may be inadequate to capture the diversity of demographic conditions in the Caribbean. For example, the bivariate categorization of ethnicity used in Figure A36 would not adequately capture the diversity of race and ethnicity in Guyana. However, the Amerindian population in Guyana has the lowest educational attainment of all demographic groups (IDB staff calculations based on the 2005 household survey).

## Policy Priorities

Reducing poverty for indigenous and Afro-descendant populations requires a continued emphasis on poverty alleviation programs such as CCTs, among others, but with greater focus on the quality of services provided in the regions where large indigenous and Afro-descendant communities are found. However, CCTs should not be the sole approach used. Several countries of the Region, including Bolivia, Colombia and Panama, are experimenting with transfers to local indigenous governments rather than (or in addition to) transfers to individuals, in an attempt to preserve social capital.

Improving educational outcomes for indigenous and Afro-descendant populations requires concrete measures to improve retention of students over time, along with concerted efforts to improve quality and access to educational services. Inter-cultural, bilingual education is an important tool for closing educational performance gaps and for cultural preservation. Parental and community involvement in schools, including the creation of parent associations, is another important element.

Closing educational gaps is necessary but not sufficient to close wage gaps. Increasing the earnings potential for indigenous people and Afro-descendants can be promoted through better intermediation strategies for job-seekers to more stable and better paid formal sector positions. Especially in urban areas, employers should be seen as partners in this effort and should receive training in workforce diversity, existing national employment legislation to promote diversity, and specific measures to decrease workplace discrimination and increase equality of opportunity. In rural areas, income earning opportunities can be generated by the sustainable management of renewable natural resources in ways that are consistent with cultural identity.

Improving indigenous and Afro-descendant health entails addressing the social, economic and geographical barriers that hinder equitable access to quality health services. A specific cultural perspective (“inter-cultural health”) is essential to improve the quality of care for indigenous and Afro-descendant patients receiving care through national health systems.

## Gender

Women in Latin America and the Caribbean have improved their schooling levels to match or surpass those of men in most countries (see Figure A37). However, they are at significant disadvantage vis-à-vis men in the labor market, where they continue to have lower earnings, higher unemployment rates and higher rates of informality:

- for cohorts born between 1940 and 1980, schooling attainment increased by 4.6 years among women, and 3.5 years among men (Duryea et al. 2007). On average, men earn 10 percent more than women, but when the comparison is made between male and females of the same age and education level, the female



earning gap actually increases to 17 percent, a reflection of women's higher educational achievement (Atal, Ñopo and Winder, 2009);

- the remaining gender wage gaps can be explained by women's care responsibilities, vertical and horizontal segregation, and wage discrimination. In 16 of 17 countries in the Region, women are significantly overrepresented in the informal sector of the economy, forgoing wages and benefits in search of flexibility to accommodate their family and household responsibilities.

Women in Latin America and the Caribbean have made progress in terms of reproductive health outcomes, but maternal mortality and adolescent pregnancy are above those observed in other countries of similar income levels. Violence against women continues to be endemic in the Region: numerous studies report lifetime prevalence of physical violence between intimate partners between 20 and 50 percent of women (Morrison, Ellsberg and Bott 2004).

Male gender issues are increasingly important in the Region. In the more populous Caribbean countries (Jamaica, Trinidad and Tobago), for example, girls' gross enrollment rates in secondary schools exceeded boys' rates by 4 percent and 7 percent in 2009, respectively (UNESCO 2011). As noted in the section on youth-at-risk, youth homicide rates in the Region far exceed those found elsewhere—and the vast majority of these homicides are committed by young males against other young males. (Policy responses to these male gender issues are discussed in the youth-at-risk section.)

### Policy Priorities

To improve female labor market outcomes, policies should promote women's access to higher productivity, higher paying jobs, encouraging flexibility at the workplace, promoting gender equality in companies through certification systems, improving the quality of labor policies, employment services and training, and enforcing antidiscrimination laws (Pages and Piras 2010). Some countries in the Region are investing in the expansion of childcare services, but there is still much to be done in this area both in terms of improving access and quality. Elderly care is an increasing problem for a Region that is undergoing a demographic transition, with significant implications for women's labor market participation.

In terms of reproductive health there are challenges related to access, which are particularly important in the case of indigenous women. This requires explicitly addressing geographic, economic and cultural barriers that hinder equitable access of indigenous women to good quality services (IDB 2010). Policies to address violence against women must balance their services to survivors with prevention efforts, employing a multi-sectoral approach and working at the individual, community and institutional levels (Morrison, Ellsberg and Bott 2004).

Promoting gender equality is approached transversally with the understanding that some of the priority areas for action identified here—such as violence against women—may

be best tackled by stand-alone investments in violence prevention and treatment services (also known as “direct investment”). Labor market insertion issues, child and elderly care, and access to reproductive and other health services, on the other hand, probably are best tackled by ensuring that these gender issues are addressed effectively in the context of labor, social protection and health projects. In either case, development effectiveness is enhanced by recognizing the strong links between gender equality, human capital and productivity.

## V. CONCLUSIONS

This technical note identifies seven strategic areas for action as well as policy recommendations with the objective of reducing poverty and inequality in Latin America and the Caribbean. The note focuses on increasing productivity through investments in people, taking a lifecycle approach. Rather than being an exhaustive inventory of programs and policies the focus is on strategic areas with high returns. In light of the heterogeneity of situations observed across the Region, country-specific conditions should be taken under consideration to achieve appropriate implementation.

The priority areas are i) investing in early childhood; ii) improving school quality; iii) addressing youth-at-risk; iv) improving the functioning of labor markets and extending the coverage of social security; v) addressing the double burden of the health transition; vi) addressing structural poverty; and vii) fostering social inclusion with identity.

In a number of the priority areas there are important knowledge gaps. Addressing knowledge gaps will require important investments by governments and partners in the Region, and is a critical part of implementation. Careful monitoring and impact evaluation are important to ensure that resources are spent effectively, and to help ensure the sustainability -- including the political sustainability -- of effective programs.

## VI. REFERENCES

- Addison, J. T. & P. Teixeira, 2003. "What Have We Learned About the Employment Effects of Severance Pay? Further Iterations of Lazear et al," *IZA Discussion Papers* 943, Institute for the Study of Labor (IZA).
- Arredondo, A., A. Zuñiga, and I. Parada. 2005. "Health care costs and financial consequences of epidemiological changes in chronic diseases in Latin America: evidence from Mexico." *Public Health* 119(8):711-20
- Asaria P, D. Chisholdm, C Mathers, M Ezzati, R Beaglehole, 2007. "Chronic disease prevention: health effects and financial costs of strategies to reduce salt intake and control tobacco use," *The Lancet*, vol. 370.

- Atal, J., H. Nopo, and N. Winder. 2009. "New Century, Old Disparities: Gender and Ethnic Wage Gaps in Latin America." *RES Working Papers* 4640. Inter-American Development Bank, Research Department.
- Auguste S., M. Echart, and F. Franchetti. 2007. "The Quality of Education in Argentina." *Research Network Paper*. IDB Research Project, Inter-American Developing Bank.
- Banco Bilbao Vizcaya. 2007. "Hacia los sistemas de Pensiones en México: Visión y Propuestas de Reforma." Estudios Previsionales.
- Barber, S., S. Bertozzi, and P. Gertler. 2005. "Variations in Prenatal Care Quality in Mexico Mirror Health Inequalities." World Bank. Washington, DC. Processed.
- Barro, R. and J. Lee. 2010, "A New Data Set of Educational Attainment in the World, 1950-2010." NBER Working Paper No. 15902
- Bassi, M. and S. Urzúa. 2010. "Producing Cognitive and Non-cognitive Skills: The Role of Education." *Unpublished manuscript*, Inter-American development Bank.
- Bautista, L., J. Casas, J. Miranda, and D. Ferrante D. 2010. "Cost-Effectiveness of Combination Pharmacotherapy in Latin America." Under review at *Health Affairs* (prepared under IDB RG-K1041)
- Berlinski S., S. Galiani, and M. Manacorda. 2008. "Giving Children a Better Start: Preschool Attendance and School-Age Profiles." *Journal of Public Economics* 92: 1416-1440.
- Berlinski S., S. Galiani, and P. Gertler. 2009. "The Effect of Pre-Primary Education on Primary School Performance." *Journal of Public Economics* 93: 219-234.
- Berthelon, M., and D. Kruger. 2010. "Risky Behavior Among Youth: Incapacitation Effects of School on Adolescent Motherhood and Crime in Chile." Forthcoming, *Journal of Public Economics*.
- Caribbean Examinations Council. 2010. Annual Report. Available in: <http://www.cxc.org/media-centre/annual-reports>
- Cecchini, Michele, Franco Sassi, Jeremy Lauer, Yong Y Lee, Veronica Guajardo-Barron and Daniel Chisholm. 2010. "Tackling of unhealthy diets, physical inactivity, and obesity: health effects and cost-effectiveness," *The Lancet*, Vol. 376.
- Center for Global Development (CGD). 2010. "Turning Recommendations into Reality: CGD's Impact on Drug Resistance Beginning to Take Shape." By Rachel Nugent. Available in: <http://www.cgdev.org/content/article/detail/1424386>
- Cerdas, M. 2006. "Epidemiology and Control of Hypertension and Diabetes in Costa Rica." *Renal Failure* 28(8):693-696. December.
- Crouch, L. 2005. "Political Economy, Incentives, and Teachers' Unions: Case Studies of Chile and Peru." In *Incentives to Improve Learning : Lessons from Latin America*, Emiliana Vegas, ed., The World Bank, Washington, D.C.
- De Ferranti, D. et al. 2003. *Inequality in Latin America and the Caribbean: Breaking with History?* World Bank Latin American and Caribbean Studies. The World Bank. Washington D.C.
- Deaton, A. 1997. *The Analysis of Household Surveys: A Microeconomic Approach to Development Policy*. The Johns Hopkins University Press.
- Duarte J., S. Bos, and M. Moreno. 2010a. "Inequity in School Achievement in Latin America: Multilevel Analysis of SERCE results according to the socioeconomic status of students." Inter-American Development Bank, *Working Paper* # 180, Washington D.C.

- Duarte J., S. Bos, and M. Moreno. 2010b. "Los Docentes, las Escuelas y los Aprendizajes Escolares en América Latina: Un Estudio Regional Usando la Base de Datos del SERCE." Inter-American Development Bank, EDU/SCL, *Nota Técnica* #8, Washington D.C.
- Duryea, S., S. Galiani, H. Ñopo and C. Piras. 2007. "The Educational Gender Gap in Latin America and the Caribbean." *RES Working Papers* 4510, Inter-American Development Bank, Research Department
- ECLAC. 2009. Population and Development No. 87.
- Engerman, S. and K. Sokoloff. 2002. "Factor Endowments, Inequality, and Paths of Development among New World Economics." *Economia* 3(1):41-88.
- Fajnzylber, P., D. Lederman, and N. Loayza. 2002. "Inequality and Violent Crime." *Journal of Law & Economics* 45(1):1-40.
- Ferreira, F., P. Leite, and M. Ravallion. 2010. "Poverty reduction without economic growth?: Explaining Brazil's poverty dynamics." *Journal of Development Economics* 93(1):20-36.
- Finucane, M. et al. (2011). "National, regional, and global trends in body-mass index since 1980: systematic analysis of health examination surveys and epidemiological studies with 960 country-years and 9.1 million participants". *The Lancet*, 337(9765):557-567.
- Fiszbein, A. and, N. Schady. 2009. *Conditional Cash Transfers. Reducing Present and Future Poverty*. World Bank Policy Research Report. Washington DC.
- Foster, J., J. Greer, and E. Thorbecke. 1984. "A Class of Decomposable Poverty Measures." *Econometrica* 52 (3):761-766
- Galor, O. 2009. "Lawrence R. Klein Lecture –Comparative Economic Development: Insights from Unified Growth Theory." *Working Papers* 2009-10. Brown University, Department of Economics.
- Gaziano, T. 2010. "Chronic Diseases Management in Latin America and Caribbean." Background paper prepared for RG-K1041 Prevention and Management of Chronic Disease. Unpublished manuscript, Inter-American Development Bank.
- Gertler, P., S. Martínez and M. Rubio-Codina. 2006. "Investing cash transfers to raise long-term living standards." Policy Research Working Paper 3994, World Bank, Washington, D.C.
- Global Competiveness Report 2009-2010. World Economic Forum. 2009
- Gonzalez-Rosada, M. L. Ronconi and H. Ruffo. "Protecting Workers Against Unemployment in Latin America and the Caribbean: Evidence from Argentina". October 2010. Mimeo. Washington DC.
- Grantham-McGregor, S., C. Powell, S. Walker, S. Chang, and P. Fletcher. 1994. "The Long-Term Follow-Up of Severely Malnourished Children Who Participated in an Intervention Program." *Child Development*, Vol. 65, No. 2.
- Grantham-McGregor, S., C. Powell, S. Walker, and J. Himes. 1991. "Nutritional Supplementation, Psychosocial Stimulation, and Mental Development of Stunted Children: the Jamaican Study." *The Lancet*, 338:1–5.
- Grantham-McGregor, S., S. Walker, S. Chang, and C. Powell. 1997. "Effects of Early Childhood Supplementation with and without Stimulation on Later Development in Stunted Jamaican children." *American Journal of Clinical Nutrition* 66: 247-253.
- Grantham-McGregor, S., Y. B. Cheung, S. Cueto, P. Glewwe, L., Richter, Strupp, B. and the International Child Development Steering Group. 2007. "Developmental potential in the first 5 years for children in developing countries." *Lancet*, 369(9555): 60-70.
- Guanais, F., J. Macinko. 2009. "Primary Care and Avoidable Hospitalizations: Evidence from Brazil." *Journal of Ambulatory Care Management*, 32(2): 115-122.

- Gus I, E. Harzheim, C. Zaslavsky, C. Medina, M. Gus. 2004. "Prevalence, Awareness, and Control of Systemic Arterial Hypertension in the State of Rio Grande do Sul." *Arq Bras Cardiol* 83:429-33.
- Hanushek, E., and L., Woessmann. 2009. "Schooling, Cognitive Skills, and the Latin American Growth Puzzle." *NBER Working Papers* 15066, National Bureau of Economic Research, Inc.
- Heckman, J. 2006. "Skill Formation and the Economics of Investing in Disadvantaged Children." *Science*. (5782): 1900-1902.
- Hertz, T., T. Jayasundera, P. Piraino, S. Selcuk, N. Smith and A. Vershchagina. 2007. "The Inheritance of Educational Inequality: International Comparisons and Fifty-Year Trends," *The B.E. Journal of Economic Analysis and Policy*, 7(2) article 10: 1-46.
- Hotez, P. 2009. "Mass Drug Administration and Integrated Control for the World's High-Prevalence Neglected Tropical Diseases." *Clinical Pharmacology and Therapeutics* 85: 659-664.
- Ibarraran, P, and D. Rosas. 2009. "Evaluating the impact of job training programmes in Latin America: evidence from IDB funded operations." *The Journal of Development Effectiveness* 1(2):195-216.
- Inter-American Development Bank. 2003. *Good Jobs Wanted. Labor Markets in Latin America*. Washington, DC.
- \_\_\_\_\_. 2004. *Toward Sustainable and Equitable Development: Sector Strategies for Latin America and the Caribbean*. Washington, DC.
- \_\_\_\_\_. 2009. *Honoring the past, Building the Future: Fifty Years of Development in Latin America and the Caribbean*. Washington, DC.
- \_\_\_\_\_. 2009. GN-2489. "Development Effectiveness Framework: Implementation Progress Report." Policy and Evaluation Committee. Inter-American Development Bank. Washington, DC.
- \_\_\_\_\_. 2010. AB-2764. "Report on the Ninth General Increase in the Resources of the Inter-American Development Bank." Board of Governors. Inter-American Development Bank. Washington, DC.
- \_\_\_\_\_. 2010. *The Age of Productivity: Transforming Economies from the Bottom Up*. Ed. C. Pages-Serra. April. Washington, D.C.
- Inter-American Development Bank, World Bank and SERNAM. 2007. *Como Capitalizar el Potencial Económico de Chile Ampliando las Opciones Laborales de las Mujeres*.
- Jamison D, A. Measham, G. Alleyne, M. Cleason, D. Evans, P. Jha, A. Mills, and P. Musgrove. 2006. *Disease Control Priorities in Developing Countries*. Oxford University Press and The World Bank: New York, 2006
- Knudsen, E., J. Heckman, J. Cameron, and J. Shonkoff. 2006. "Economic, neurobiological and behavioral perspectives on building America's workforce." *Proceedings of the National Academy of Sciences* 103(27): 10155-10162.
- Levy, S. 2006. *Progress against poverty: sustaining Mexico's Progres-Oportunidades program*. Brookings Inst. Press.
- \_\_\_\_\_. 2008. *Good Intentions Bad Outcome: Social Policy, Informality, and Economic Growth in Mexico*. Brookings Institution Press 2008.
- Levy, S. and E. Rodriguez. 2004. "Economic Crisis, Political Transition and Poverty Policy Reform. Mexico's Progres-Oportunidades program." *Policy Dialogue Series*.

- Lim SS, TA Gaziano, E Gakidou, et. AL. 2007. "Prevention of cardiovascular disease in high-risk individuals in low-income and middle-income countries: health effects and costs", *The Lancet*, vol. 370.
- López-Calva L. and N. Lustig. 2010. *Declining Inequality in Latin America: A Decade of Progress?* Brookings Institution Press and United Nations Development Programme 2010.
- Maluccio, J. 2010. "The impact of conditional cash transfers on consumption and investment in Nicaragua." *Journal of Development Studies* 46(1): 14-38.
- Manacorda, M., N. Schady, and C. Sanchez. 2010. "Changes in Returns to Education in Latin America: The Role of Demand and Supply of Skills." *Industrial and Labor Relations Review*, 63:307-326.
- Mesa-Lago, C. 2000. *Market, Socialist and Mixed Economies: Comparative Policy and Performance—Chile, Cuba and Costa Rica*. Baltimore, Johns Hopkins University Press
- Ministry of Health. Brazil. 2004. "Pacto Nacional Pela Redução da Mortalidade Materna e Neonatal". Brasília: Ministério da Saúde [as cited in Martins AL. 2004. Diferenciais raciais nos perfis e indicadores de mortalidade materna para o Brasil. In: XIV Encontro da Associação Brasileira de Estudos Populacionais. Caxambu: Associação Brasileira de Estudos Populacionais.]
- Ministry of Education Peru. 2007. "Evaluación Censal 2007. Docentes de Educación Básica Regular: Resultados Generales".
- Ministry of Finance Peru. 2010. "Presupuesto Ejecutado por el Gobierno Central". Dirección General de Asuntos Económicos y Sociales.
- Macinko, J., F. Guanais, M. de Fátima, M. de Souza. 2006 "Evaluation of the impact of the Family Health Program in Brazil, 1990-2002." *Journal of Epidemiology and Community Health* 60(1): 13-19.
- Monteiro, C., W. Conde, and B. Popkin. 2004. "The Burden of Disease From Undernutrition and Overnutrition in Countries Undergoing Rapid Nutrition Transition: A View From Brazil." *American Journal of Public Health* 94(3): 433–434.
- Morrison, A., M. Ellsberg, and S. Bott. 2004. "Addressing Gender-Based Violence in Latin America and the Caribbean: A Critical Review of Interventions." *World Bank Policy Research Working Paper* 3438, October.
- Nugent, R., E. Back, A. Beith. 2010. *The Race against Drug Resistance: a Report of the Center for Global Development's Drug Resistance Working Group*. Washington, DC: Center for Global Development, 2010.
- Ortiz, M. 2010. "De la Cuna al Mundo: La Experiencia Chilena para Igualdad desde la Infancia", presentación realizada durante el taller: Modelos de atención a la primera infancia – lecciones de gestión y política para la Región Andina, July. Available in: <http://www.mineduacion.gov.co/cvn/1665/article-241199.html>
- Pages-Serra, C., and C. Piras. 2010. "The Gender Dividend: Capitalizing on Women's Work." Edited by Nancy Morrison, Inter-American Development Bank
- Paes de Barros, R. et al. 2009. *Measuring Inequality of Opportunities in Latin America and the Caribbean*. Washington DC, United States and London, United Kingdom: World Bank and Palgrave.
- Paxson, C., and N., Schady. 2007. "Cognitive Development among Young Children in Ecuador: The Roles of Wealth, Health, and Parenting." *Journal of Human Resources* 42(1):49-84.
- Pritchett, L. 2004. "Towards a New Consensus for Addressing the Global Challenge of the Lack of Education." *Working Papers* 43, Center for Global Development

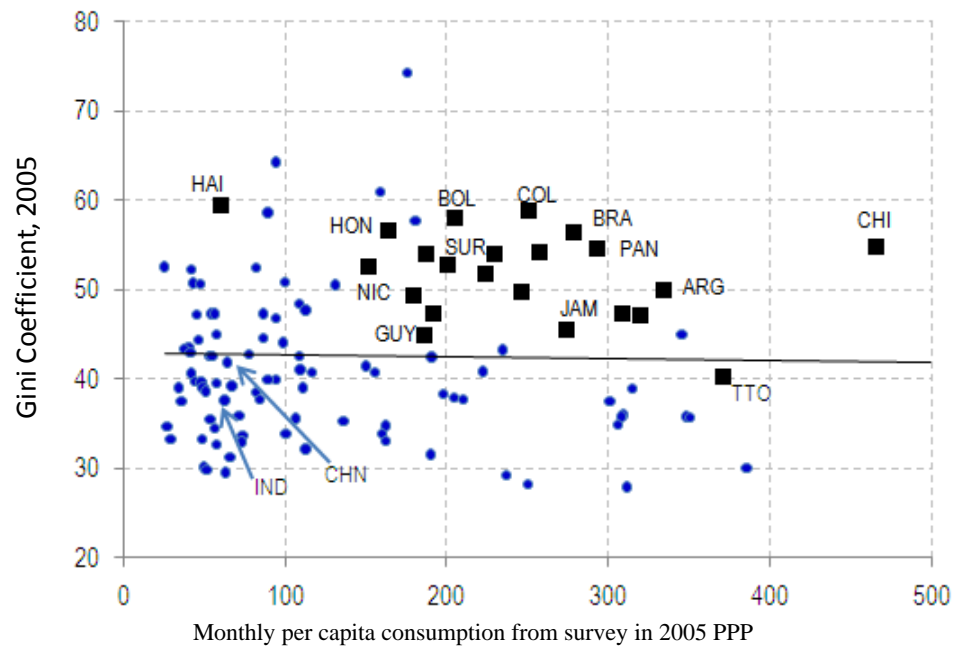
- Ravallion M. 1994. "Poverty Comparisons: A Guide to Concepts and Methods." *LSMS Working Paper* 88. The World Bank, Washington D.C.
- Robalino, D., H. Ribe, and I. Walker. 2010. *Achieving Effective Social Protection for All in Latin America*. World Bank Publications. Washington DC.
- Romer, P. 2008. The Concise Encyclopedia of Economics: Economic Growth. Available in: <http://www.econlib.org/library/Enc/EconomicGrowth.html>
- Segundo Estudio Regional Comparativo y Explicativo (SERCE). 2010. Factores asociados al logro cognitivo de los estudiantes de America Latina y el Caribe. UNESCO (Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura) and LLECE (Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación)
- SEDLAC 2010. Employment and Inequality Stats. <http://sedlac.econo.unlp.edu.ar/eng/statistics.php>
- Soares, R. and J. Naritomi 2010. "Understanding High Crime Rates in Latin America: the Role of Social and Policy Factors." *The Economics of Crime: Lessons for and from Latin America*, 2010, pp 19-55. National Bureau of Economic Research, Inc.
- Social Protection Survey. 2008. Database collected by the Inter-American Development Bank.
- Tapia, W. 2010. "Impacto Fiscal de las Reformas de los Sistemas de Pensión a Largo Plazo." *Mimeo* Inter-American Development Bank.
- United Nations. 2007. "Crime, Violence, and Development: Trends, Costs, and Policy Options in the Caribbean". Report No. 37820.
- UNESCO, 2011. EFA Global Monitoring Report 2011: The hidden crisis: armed conflict and education. New York: UNESCO.
- <http://www.unodc.org/documents/data-and-analysis/Caribbean-study-en.pdf> United Nations.
2009. World Population Prospects: The 2008 Revision Population Database. <http://esa.un.org/UNPP/> Database accessed August 15, 2010.
- Victora C.G., L. Adair, C. Fall, P.C. Hallal, R. Martorell, L. Richter, H.S. Sachdev. 2008. "Maternal and child undernutrition: consequences for adult health and human capital." *Lancet*, 371(9609): 340-357.
- Walker, S., S. Grantham-McGregor, C. Powell, and S. Chang. 2000. "Effects of growth restriction in early childhood on growth, IQ, and cognition at age 11 to 12 years and the benefits of nutritional supplementation and psychosocial stimulation." *The Journal of Pediatrics*. 137(1):36-41.
- Walker, S., S. Chang, C. Powell, and S. Grahtam-McGregor. 2005. "Effects of early childhood psychosocial stimulation and nutritional supplementation on cognition and education in growth-stunted Jamaican children: prospective cohort study." *The Lancet*. 366(9499): 1804-1807.
- World Bank. 2005. *World Development Report 2006: Equity and Development*. September 2005. Washington, D.C.
- World Health Organization Statistical Information System (WHOSIS). 2010. Registered deaths database. [http://apps.who.int/whosis/database/mort/table1\\_process.cfm](http://apps.who.int/whosis/database/mort/table1_process.cfm)
- World Health Organization (WHO). 2006a. *The World Health Report 2006 - Working Together for Health*. WHO Press. Printed in France.
- World Health Organization (WHO). 2006b. *Preventing Chronic Diseases: a Vital Investment*. Geneva: WHO, 2006. [http://www.who.int/chp/chronic\\_disease\\_report/en/](http://www.who.int/chp/chronic_disease_report/en/)
- Younger, Mike et. Al. 2005. "Raising Boys' Achievement." Research Report RR636. Cambridge University: Department of Education and Skills.
- Zvinien, A. and, T. Packard. (2004), "A Simulation Of Social Security Reforms in Latin America: What Has Been Gained?" Background paper for regional study on social

security reform, Office of the Chief Economist, Latin America and Caribbean region, The World Bank, Washington.

## **VII. TABLES AND FIGURES**

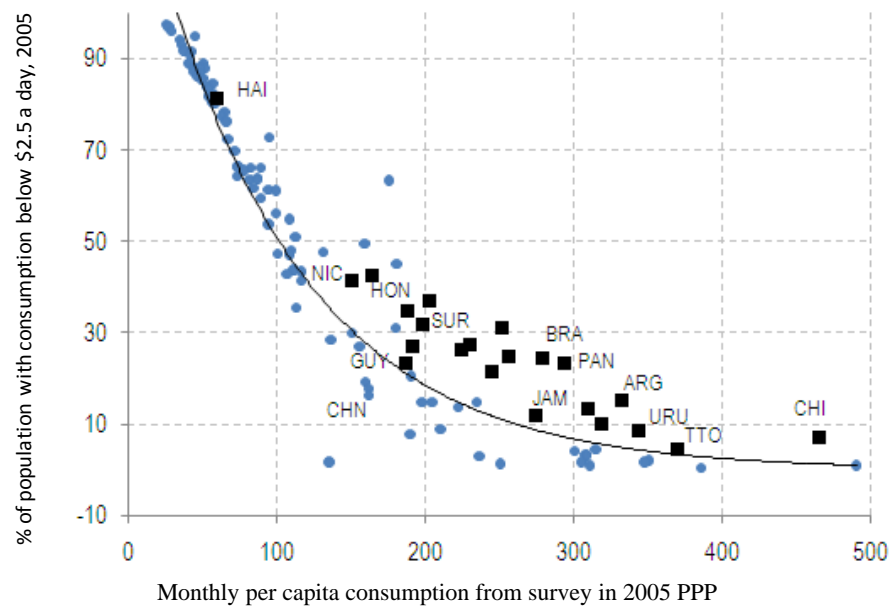
**Figure A1: Latin America and the Caribbean is the most unequal region in the world...**





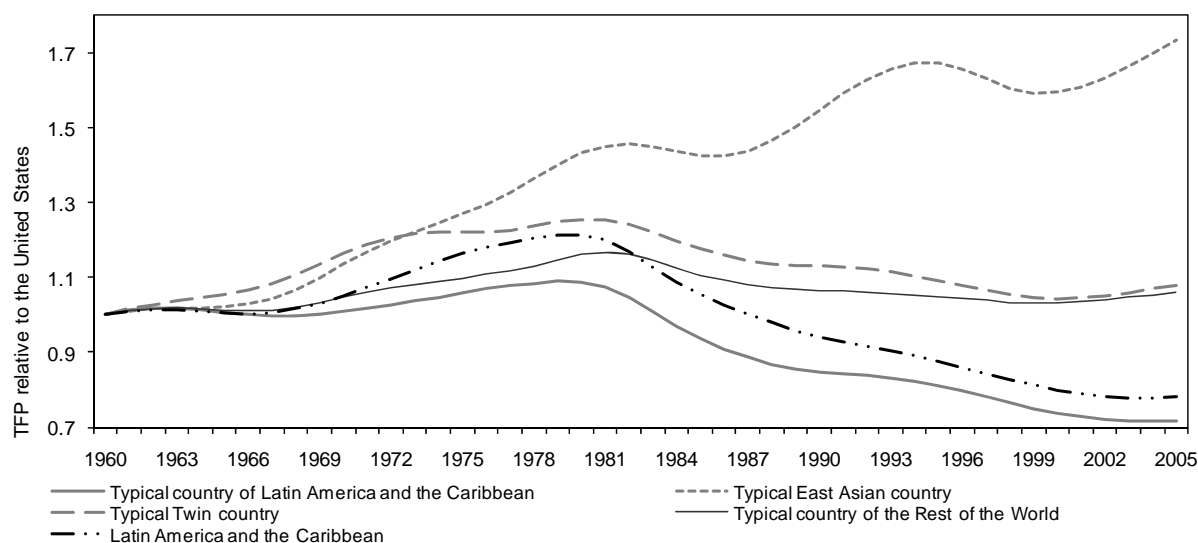
Source: IDB staff calculations, World Bank /WDI

**Figure A2: High levels of inequality mean that there are many more poor people in the Region than would otherwise be the case**



Source: IDB staff calculations, World Bank /WDI

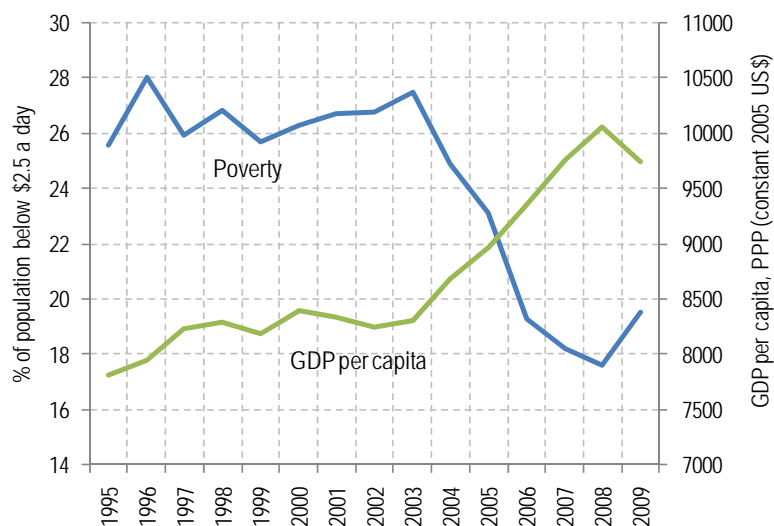
**Figure A3: Productivity in Latin America and the Caribbean is low, and has been falling relative to comparator countries**



**Note:** Productivity index relative to the United States. The reference year is 1960. LAC included in sample are: Jamaica, Chile, Costa Rica, Dominican Republic, Argentina, Uruguay, El Salvador, Mexico, Brazil, Colombia, Panama, Venezuela, Nicaragua, Ecuador, Bolivia, Peru and Honduras

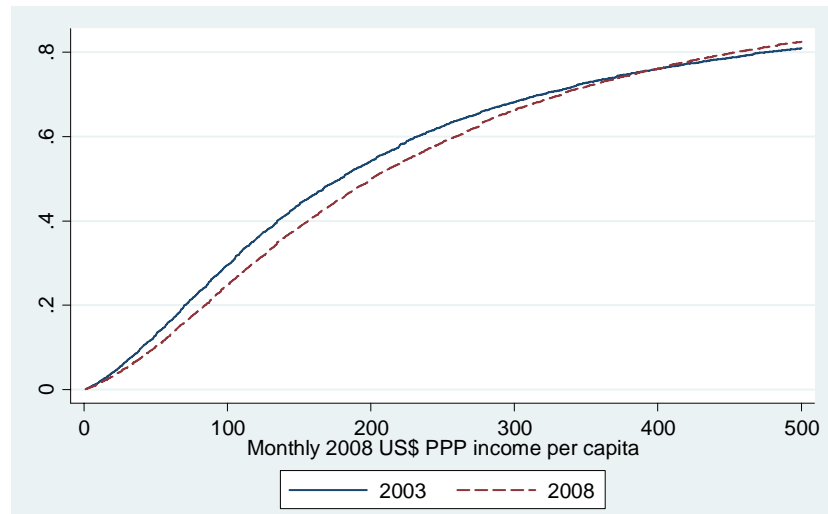
**Source:** IDB (2010)

**Figure A4: Poverty in Latin America and the Caribbean fell during most of the last decade**



**Source:** SEDLAC, ECLAC World Bank

**Figure A5: There was less poverty in Latin America and the Caribbean in 2008 than in 2003, no matter what poverty line or poverty measure is used to make this comparison**



**Note:** CIRCA 2008: Argentina, Costa Rica, Peru and Uruguay: 2009. Brazil, Colombia, Dominican Republic, Paraguay and El Salvador: 2008. Bolivia, Honduras, Mexico, Panama, Venezuela: 2007. Chile: 2006. CIRCA 2003: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, República Dominicana, Honduras, Panamá, Perú, Paraguay, Uruguay and Venezuela 2003. Guatemala: 2002. Mexico and El Salvador: 2004  
**Source:** IDB staff calculations based on Households surveys.

**Table A1a: Poverty in Latin America and the Caribbean (USD-2.5-a-day poverty line)**

	Total										
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Argentina	12.1	14.2	18.7	23.4	22.2	17.2	13.4	10.4	9.0	8.4	8.1
Bolivia	39.5	43.5	38.6	40.1			35.0	33.5	33.5		
Brazil	27.3		27.4	26.1	26.7	24.9	22.9	19.5	18.2	15.7	15.1
Chile		9.1			8.1			5.2			4.3
Colombia	24.6	26.9	28.6		27.7	31.9		29.2	28.2	25.2	24.6
Costa Rica	14.0	14.7	15.1	14.9	14.3	13.6	12.2	11.6	8.2	7.6	8.1
Dom Rep		15.8	15.9	17.6	21.8	27.8	26.1	18.7	17.9	18.4	16.4
Ecuador		46.8			31.5	28.8	25.6	20.0	20.2	19.6	19.4
El Salvador	29.0	29.7	29.4	30.1	28.4	26.0	27.1	19.9	18.8	21.1	
Guatemala		34.6		47.7	41.3	46.7					
Honduras	47.2		41.8	45.2	49.1	42.8	42.1	33.9	34.9		39.4
Mexico		20.2		17.4		15.1	15.4	12.2		14.0	
Nicaragua			47.5				42.7				
Panama			28.6	25.2	23.9	22.5	22.5	22.2			16.1
Paraguay	27.1		25.2	35.1	28.4	24.6	22.5	25.9	21.2	19.4	20.6
Peru	35.7	30.9	35.2	31.6	30.3	26.9	28.8	25.1	24.4	20.4	20.0
Uruguay		3.3	4.2	5.2	6.0	8.5	7.3	4.8	4.7	3.4	
Venezuela	31.3	30.6	28.5	38.6	44.4	38.2	30.3	19.8			
Bahamas			3.9								
Barbados											
Belize	38.1										
Guyana											
Haiti			78.8								
Jamaica	32.1		48.3	43.1							
Suriname	45.1										
Trinidad & Tobago											

**Source:** SEDLAC - Socio-Economic Database for Latin America and the Caribbean (<http://sedlac.econo.unlp.edu.ar/eng/statistics.php>)

**Table A1b: Poverty in Latin America and the Caribbean – % of people whose income is below the National Poverty Lines**

	Total										
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Argentina	26.7	28.9	38.3	57.5	54.7	44.3	38.9	31.4	23.4	17.8	13.9
Bolivia	63.5	66.4	63.1	63.3		63.1	59.6	59.9	60.1		
Brazil	35.3		35.2	34.4	35.8	33.7	30.8	26.8	24.2	22.6	21.4
Chile		20.2			18.7			13.7			15.1
Colombia	54.9			53.7	51.2	51.0	50.3			46	45.5
Costa Rica	23.7	23.1	22.9	23.5	21.4	23.9	23.8	22.8	19.0	20.7	21.7
Dom. Rep		27.2	28.1	27.6	35.3	42.5	40.9	37.6	35.8	35.2	33.5
Ecuador	52.2							38.3	36.7	35.1	36.0
El Salvador	49.8		48.9			47.5			40.1	46.4	
Guatemala				56.2				51.0			
Honduras	65.9	64.4	63.9	63.5	64.3	65.8	62.1	60.2	59.6	58.8	60
Mexico		53.6		50.0		47.2	47.0	42.6		47.4	
Nicaragua			45.8				48.3				
Panama					36.8					32.7	
Paraguay	37.3	36.8		49.7	44	41.3	38.6	43.7	41.2	37.9	35.1
Peru	47.5	48.4	54.8	54.3	52.2	48.6	48.7	44.5	39.3	36.2	34.8
Uruguay	15.3	17.8	18.8	24.3	31.3	31.9	29.2	34.4	30.5	22.4	20.9
Venezuela	48.7	46.3	45.4	55.4	62.1	53.9	43.7	36.3	33.6	32.6	28.5
Bahamas			9.3								
Barbados											
Belize				33.5							
Guyana											
Haiti		48	77								
Jamaica	16.9	18.7	16.9	19.7	19.1	16.9	14.8	14.3	9.9		
Suriname											
Trinidad & Tobago											

Source: SEDLAC (2011)

**Table A2: Poverty by geographic location (USD-2.5-a-day poverty line)**

Country	Urban	Rural
Argentina	8.4	...
Bolivia	21.5	56.8
Brazil	12.7	30.8
Chile	4.9	7.6
Colombia	30.8	57.3
Costa Rica	5.3	11.9
Dom Rep	17.7	40.9
Ecuador	10.8	33.1
El Salvador	8.5	36.2
Guatemala	29.6	61.0
Honduras	21.2	52.2
Mexico	8.8	32.2
Nicaragua	25.3	64.6
Panama	9.9	43.8
Paraguay	10.2	32.5
Peru	6.5	45.9
Uruguay	3.7	1.9
Venezuela	19.8	...

Source: SEDLAC based on most recent household survey

**Table A3: Poverty and household size for youth and elderly**

Country	% youth in bottom quintile*	% elderly in bottom quintile**	household size for youth*	household size for elderly*	% of households with a member older than 60
Brazil	32.6%	3.9%	4.7	4.0	28.3%
Argentina	32.6%	5.9%	5.1	3.7	34.8%
Uruguay	30.9%	6.3%	4.6	3.1	40.9%
Panama	29.6%	10.7%	5.8	5.3	30.1%
Peru	26.1%	12.2%	5.6	5.0	33.4%
Chile	24.2%	12.5%	4.9	4.2	38.1%
Guyana	26.6%	14.5%	5.6	5.2	19.5%
El Salvador	22.5%	14.7%	5.5	5.1	31.4%
Costa Rica	28.7%	15.3%	4.9	4.2	27.4%
Venezuela	24.6%	15.5%	5.8	5.7	26.8%
Jamaica	16.3%	15.6%	5.7	4.6	34.0%
Honduras	24.0%	16.0%	6.1	5.8	29.0%
Guatemala	24.4%	17.3%	6.5	5.9	24.2%
Paraguay	23.2%	19.2%	5.9	5.3	29.5%
Ecuador	25.5%	19.3%	5.5	4.8	30.3%
Colombia	24.6%	19.6%	5.1	4.7	26.8%
Mexico	26.2%	19.7%	5.5	5.0	28.5%
Dom Rep	26.7%	21.5%	5.0	4.6	26.9%
Bolivia	20.0%	23.1%	5.5	4.8	23.4%

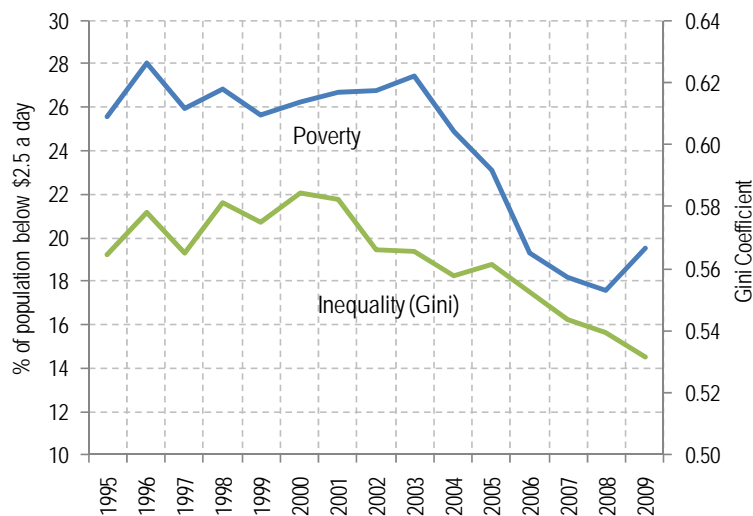
**Note:** \*Youth are household members aged <=18

\*\* Elderly are household members aged >=65

Income quintile is based on per capita household income

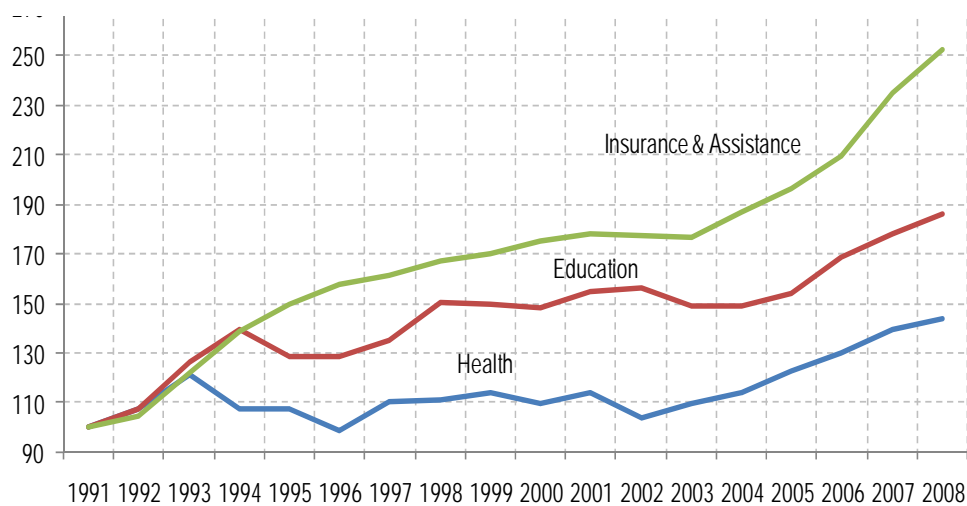
Source: IDB staff calculations based on the Sociometro database for LAC (IDB)

**Figure A6: Inequality in Latin America and the Caribbean has also decreased since 2001, but continues to be very high**



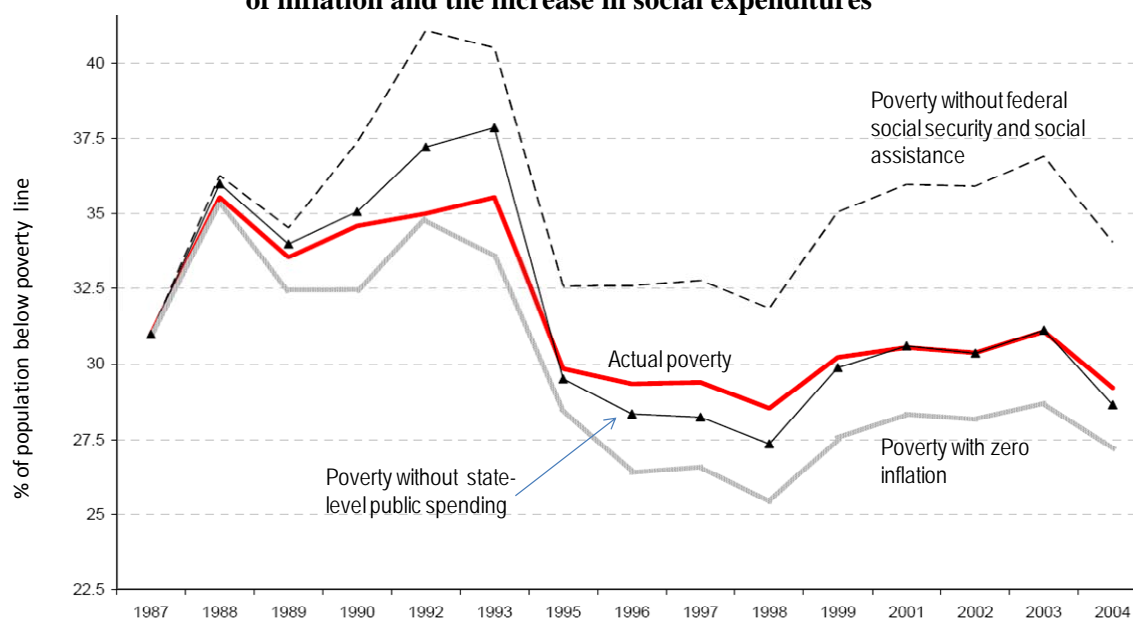
Source: SEDLAC, ECLAC World Bank

**Figure A7: Expenditure on education, health, and social insurance and assistance in LAC, between 1990 and 2008**



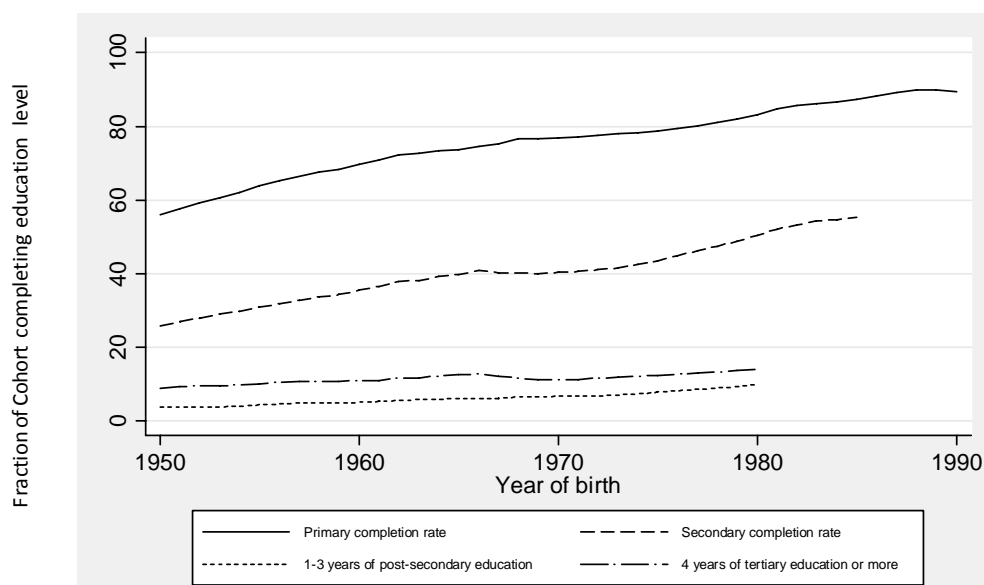
Source: ECLAC

**Figure A8: Poverty reduction in Brazil between 1987 and 2004 is fully accounted for by the taming of inflation and the increase in social expenditures**



Source: Ferreira, Leite and Ravallion (2010)

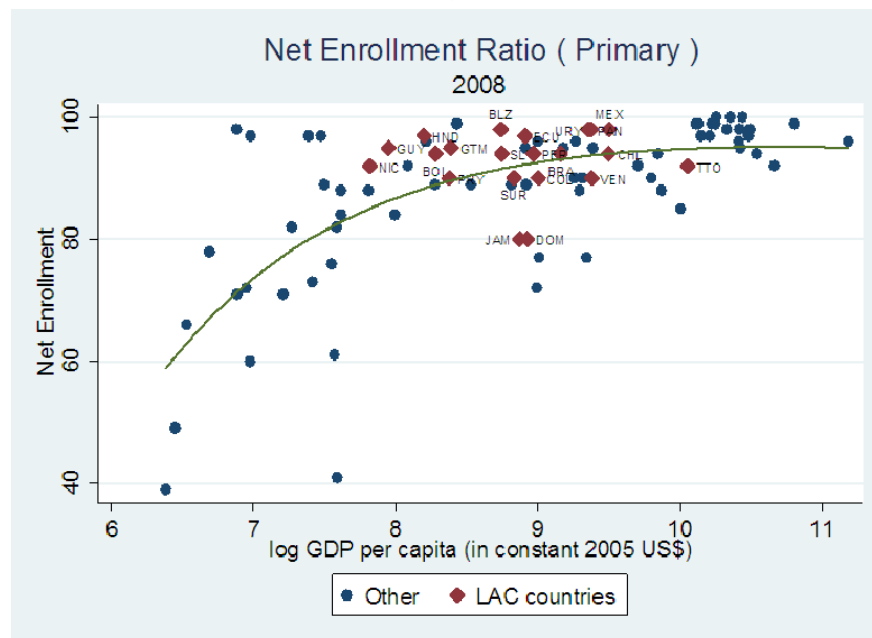
**Figure A9: The fraction of people who have completed primary and secondary school has gone up dramatically in the Region**



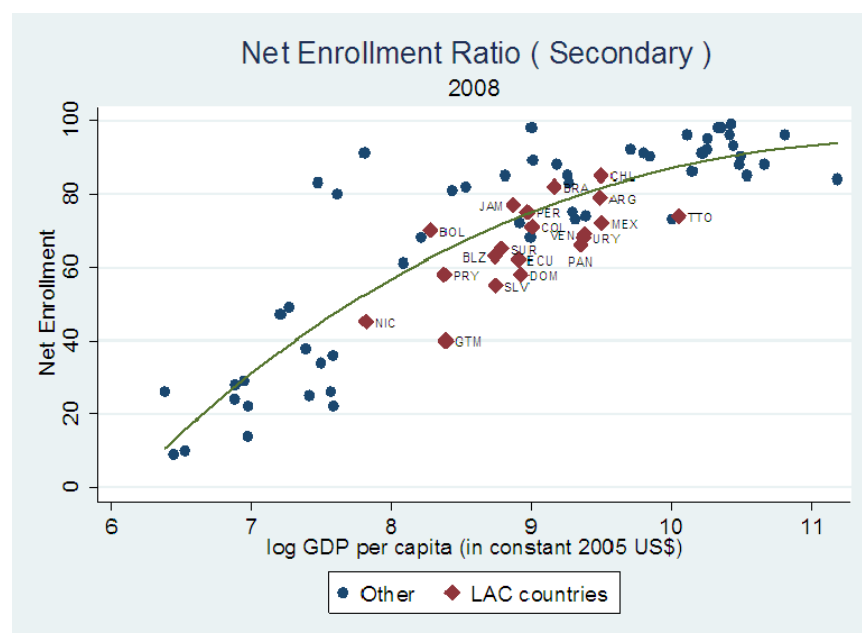
Note: Three year population weighted moving average

Source: IDB staff calculations based on household surveys for Argentina (2008), Belize (2007), Bolivia (2007), Brazil (2008), Chile (2006), Colombia (2008), Costa Rica (2009), Dominican Republic (2008), Ecuador (2007), Guatemala (2006), Guyana (2005), Honduras (2008), Mexico (2008), Panama (2008), Peru (2009), Paraguay (2008), El Salvador (2008), Uruguay (2009) and Venezuela, R.B. (2007)

**Figure A10: School enrollment rates in Latin America and the Caribbean is approximately what would be expected given income levels**



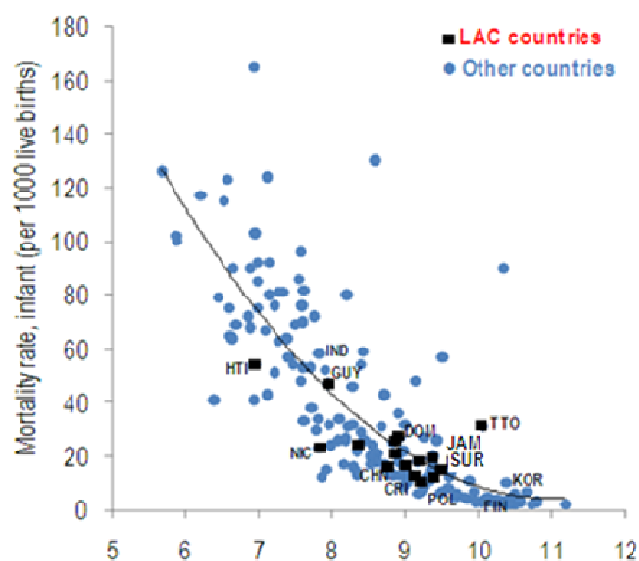
**Source:** IDB staff calculations based on WDI (2010). LAC countries included are: Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay and Venezuela<sup>3</sup>



**Source:** IDB staff calculations based on WDI (2010). LAC countries included are: Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay and Venezuela



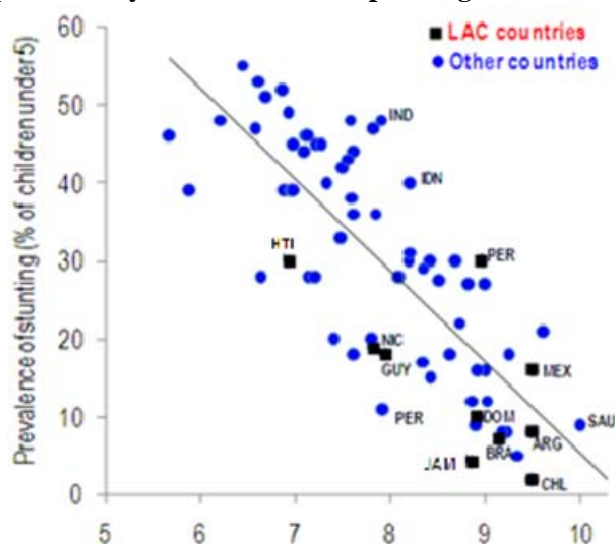
**Figure A11: Infant Mortality in Latin America and the Caribbean is approximately what would be expected given income levels**



**Note:** Infant Mortality Rate 2008. GDP per capita, PPP (log, constant 2005\$)

**Source:** IDB staff calculations based on World Bank/WDI

**Figure A12: Stunting (low height-for-age for children age 0-5) in Latin America and the Caribbean is approximately what would be expected given income levels**



**Note:** Prevalence of stunting (circa 2007). GPP per capita, PPP (log, constant 2005 \$)

**Source:** IDB staff calculations based on World Bank/WDI

**Table A4: Progress of Millennium Development Goals in Latin America and the Caribbean**

Goals and Targets	Advances	Present degree of compliance with the target	Progress towards the target if prevailing trends
<b>GOAL 1: Eradicate extreme poverty and</b>			
Reduce extreme poverty by half 1/	10.5 (1990) - 6.0	Moderate poverty	Sufficient
Productive and decent employment 2/	12.7 (1991) - 8.5	Moderate deficit in decent	Insufficient
Reduce hunger by half 3/	12 (1990) - 9 (2007)	Moderate hunger	Insufficient
<b>GOAL 2: Achieve universal primary</b>			
Universal primary schooling 4/	85.8 (1991) - 94.9	High enrolment	Insufficient
<b>GOAL 3: Promote gender equality and</b>			
Equal girls' enrolment in primary school 5/	0.98 (1991) - 0.97	Parity	Already or very close
Women's share of paid employment 6/	36.3 (1990) - 42.4	High share	Sufficient
Women's equal representation in parliaments	11.9 (1990) - 22.7	Moderate representation	Insufficient
<b>GOAL 4: Reduce child mortality</b>			
Reduce child mortality by two thirds 8/	52 (1990) - 23 (2009)	Low mortality	Sufficient
Measles immunization 9/	76 (1990) - 93 (2008)	High coverage	Already or very close
<b>GOAL 5: Improve maternal health</b>			
Reduce maternal mortality by three quarters	140 (1990) - 85 (2008)	Moderate mortality	Insufficient
10/			
Access to reproductive health 11/	62.0 (1990) - 72	High access	Insufficient
<b>GOAL 6: Combat HIV/AIDS, malaria and</b>			
Halt and reverse spread of HIV/AIDS 12/	0.3 (1990) - 0.6 (2008)	Moderate prevalence	Insufficient
Halt and reverse spread of tuberculosis 13/	17 (1990) - 5 (2008)	Low mortality	Already or very close
<b>GOAL 7: Ensure environmental</b>			
Reverse loss of forests 14/	52 (1990) - 47 (2010)	High forest cover	Insufficient
Halve proportion without improved drinking	85 (1990) - 93 (2008)	High coverage	Already or very close
Halve proportion without sanitation 16/	69 (1990) - 80 (2008)	Moderate coverage	Insufficient
Improve the lives of slum-dwellers 17/	37.7 (1990) - 23.5	Moderate % of slum-	Insufficient
<b>GOAL 8: Develop a global partnership for</b>			
Internet users 18/	0.1 (1995) - 28.8	High usage	Already or very close

1/ % of people living on less than \$1.25 purchasing power parity (2005 PPP) per day (updated using trends ECLAC estimates)

2/ Employed people living below \$1.25 (PPP) per day, percentage of total employment

3/ % of undernourished in total population

4/ Net enrolment ratio in primary education: Primary- and secondary-level enrollees per 100 children of primary-education enrolment age

5/ Ratio of girls to boys gross enrolment ratios in primary

6/ % of employees in non-agricultural wage employment who are women

7/ % of parliamentary seats occupied by women (Single or Lower House only)

8/ Deaths of children before reaching the age of five per 1,000 live births

9/ % of children 12-23 months who received at least one dose of measles vaccine

10/ Maternal deaths per 100,000 live births

11/ % using contraception among women aged 15-49 who are married or in union

12/ Estimated adult (15-49) HIV prevalence (%)

13/ Number of deaths per 100,000 population (excluding HIV infected)

14/ % of land area covered by forest

15/ % of population using an improved drinking water source

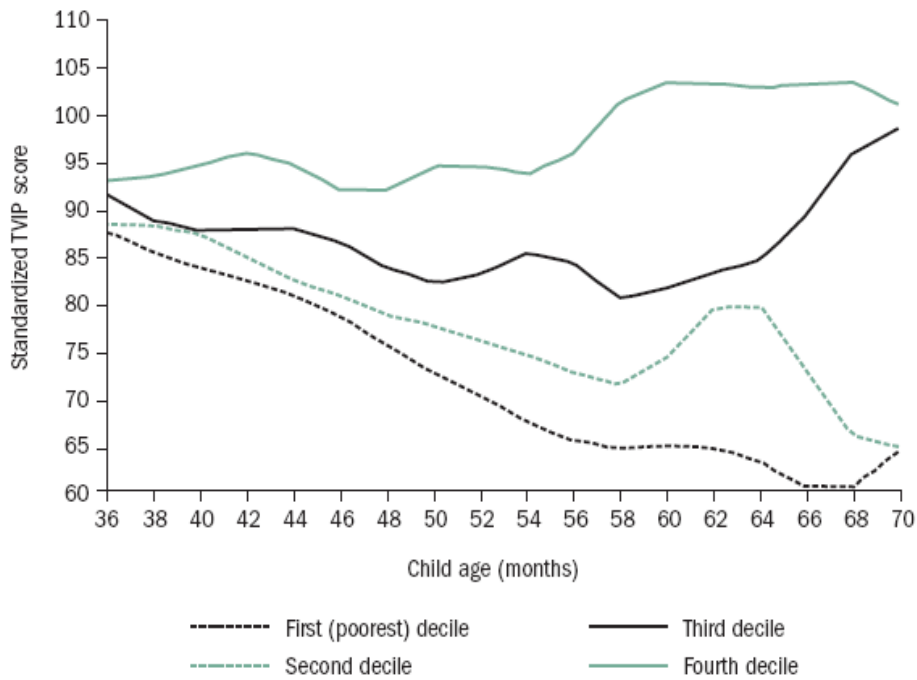
16/ % of population using an improved sanitation facility

17/ % of urban population living in slums

18/ Number of Internet users per 100 population

Source: Based on UN "MDG Report 2010", UN "MDG Report Statistical Annex 2010", and UN "MDG Progress Chart 2010".

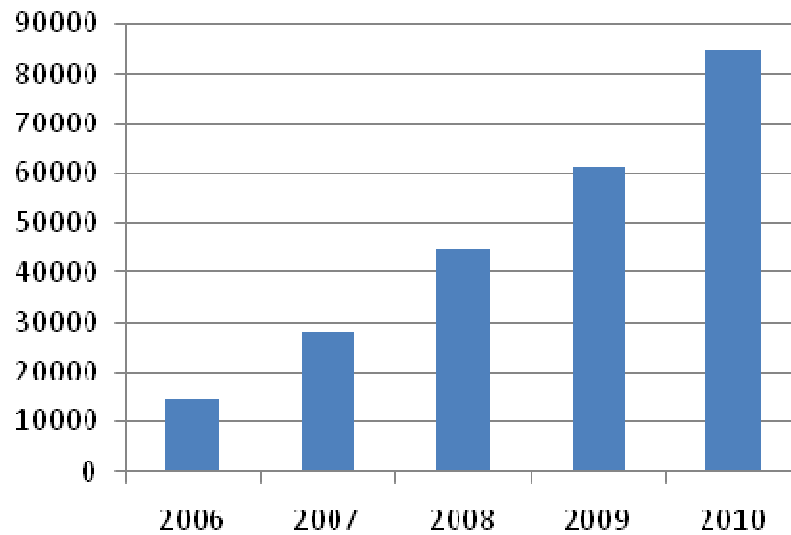
**Figure A13: By the time they are about to begin formal schooling, the poorest children in Ecuador are very far behind in terms of their cognitive development**



**Note:** TVIP=Test de Vocabulario en Imágenes Peabody. Each line corresponds to one decile from the national distribution of wealth, from the first (poorest) decile, to the fourth. The test is coded so that a score of 100 corresponds to the average performance in a reference population, and the standard deviation is 15.

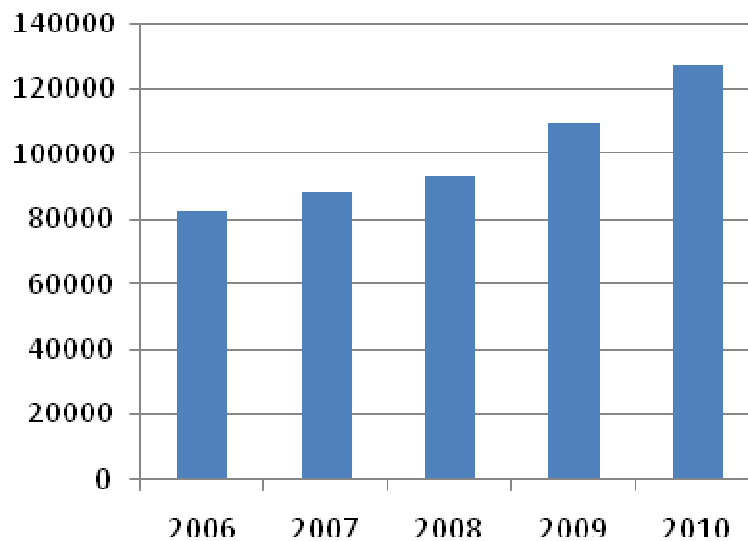
**Source:** Paxson and Schady (2007)

**Figure A14: Chile has dramatically expanded the number of children 1-23 months, in “Salas Cuna”...**



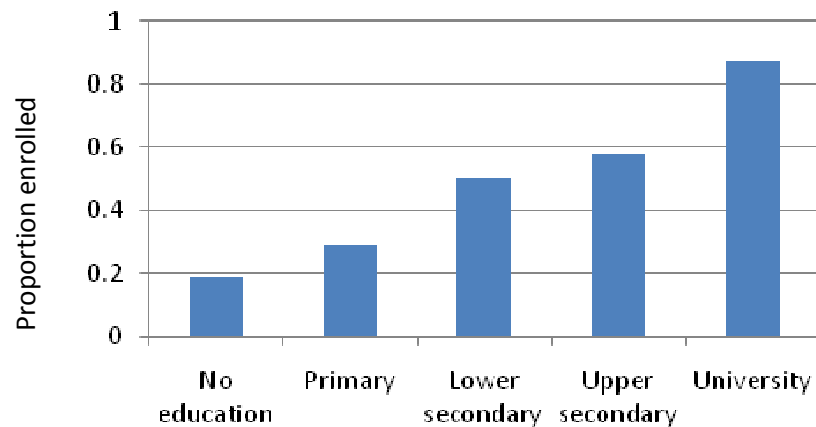
**Note:** Number of children, aged 1-23 months, in “Salas Cuna”  
**Source:** Ortiz (2010)

**... and the number of children, aged 24-47 months, in “Jardines Infantiles”**



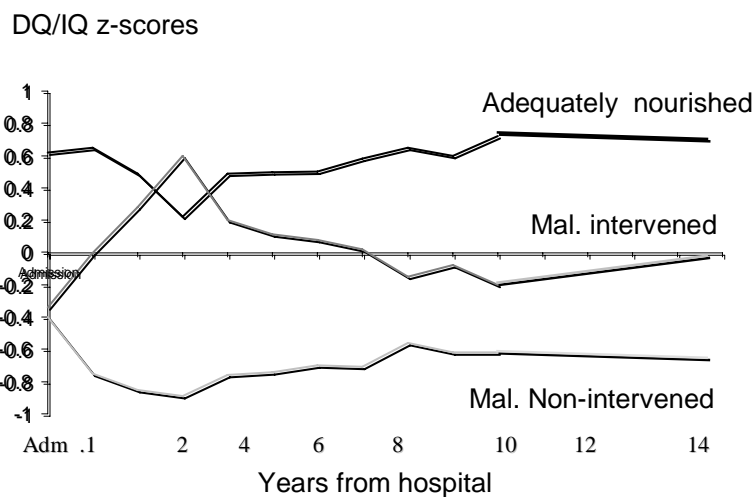
**Note:** Number of children, aged 1-23 months, in “Salas Cuna”  
**Source:** Ortiz (2010)

**Figure A15: In Guatemala, children age 4-6 are much more likely to be enrolled in preschool if their mothers have higher education levels**



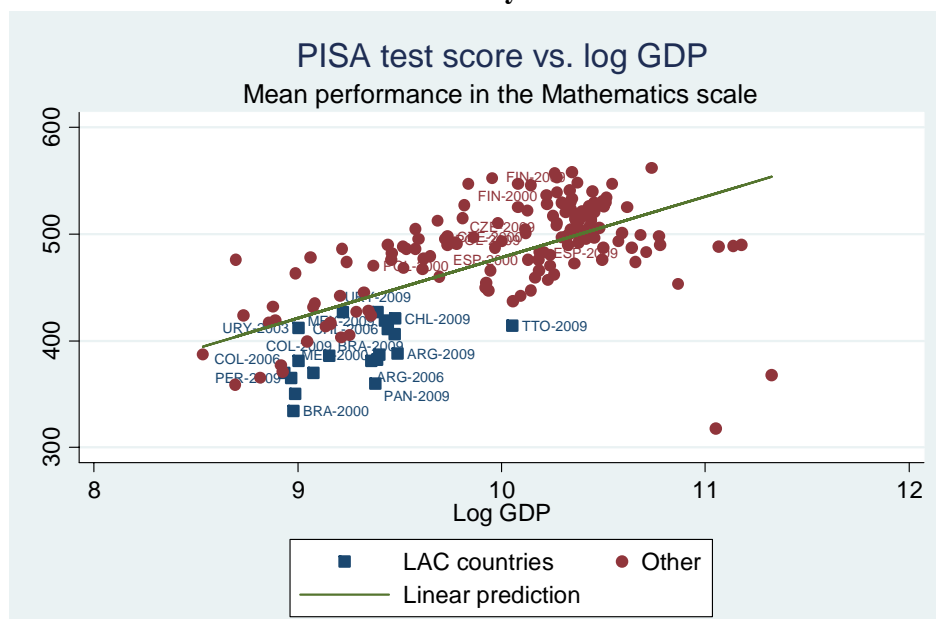
**Note:** Access to preschool for children aged 4-6, by maternal education  
**Source:** IDB staff calculations, based on ENCOVI (2006)

**Figure A16: A home-based parenting and stimulation intervention in Jamaica had large effects on the development of malnourished children, although it did not fully close the gap with children who were not malnourished at baseline**



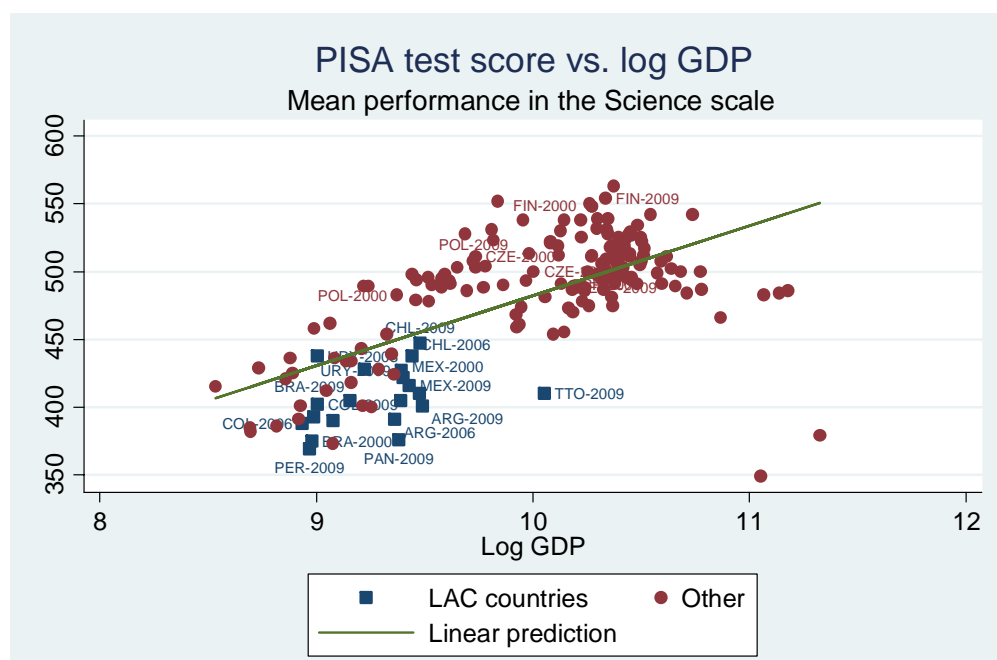
**Note:** Developmental levels of severely malnourished Jamaican children until adolescence  
**Source:** Grantham-McGregor et al. (1994)

**Figure A17: Latin American students have very low scores on the PISA standardized test**



**Note:** GDP per capita PPP adjusted, constant 2005 US\$

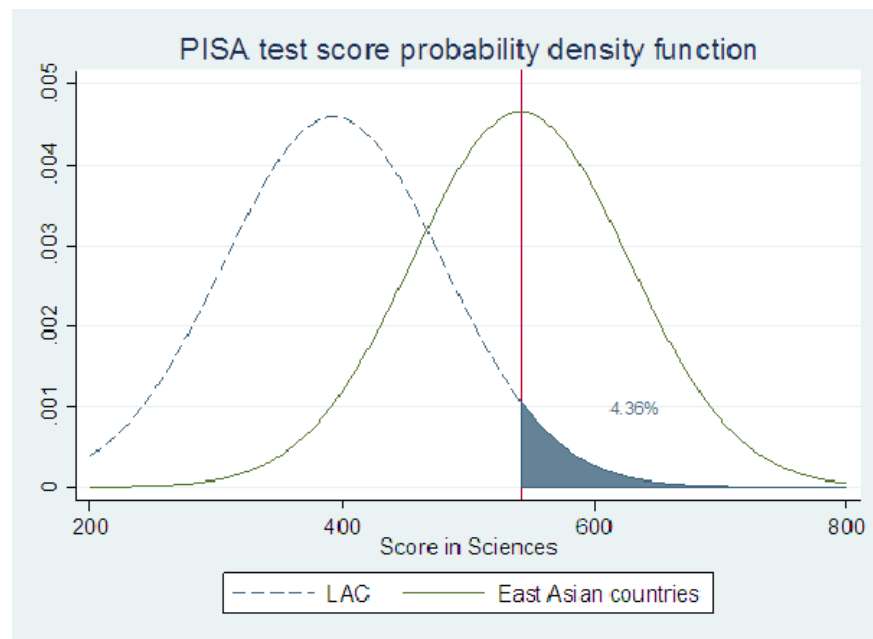
**Source:** PISA-OECD and World Bank Database



**Note:** GDP per capita PPP adjusted, constant 2005 US\$

**Source:** PISA-OECD and World Bank Database

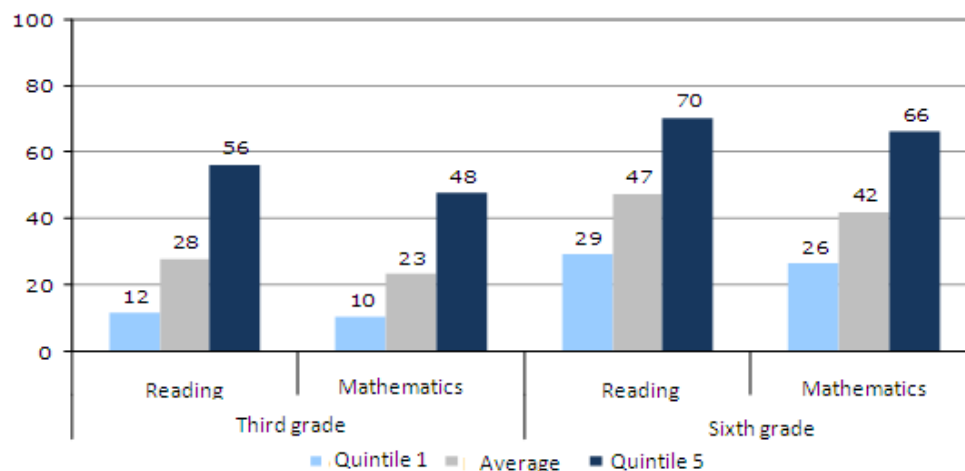
**Figure A18: Less than 5 percent of students in Latin America have PISA scores above the mean score of students in the East Asian “tigers”**



**Note:** Average test score in science

**Source:** PISA-OECD, IDB staff calculations using data for Argentina, Brazil, Colombia, Chile, Mexico and Uruguay versus South Korea, Hong-Kong, Taipei China

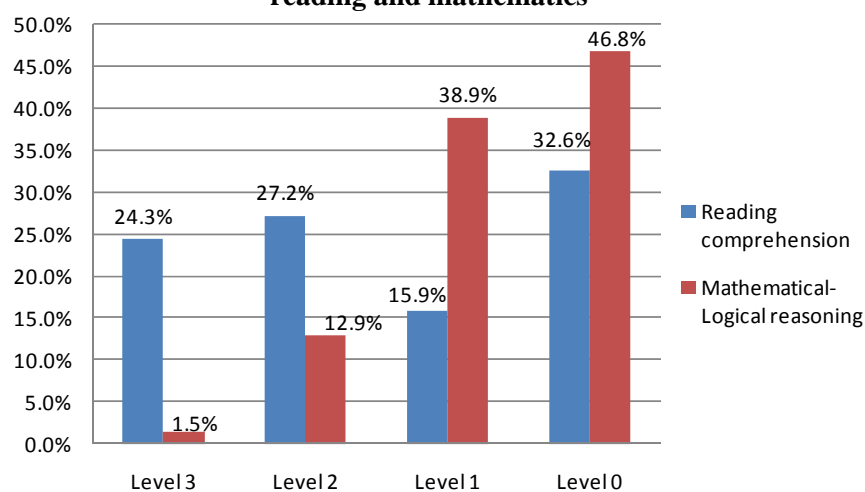
**Figure A19: Poorer students in the Region have much worse performance than less poor students on the SERCE regional exam**



**Notes:** Averages for 15 countries in Latin America and the Caribbean (México, Guatemala, El Salvador, Nicaragua, Costa Rica, Panama, Ecuador, Peru, Chile, Argentina, Paraguay, Uruguay, Brazil, Dominican Republic, Cuba). Quintiles are based on a composite measure of SES, constructed from measures of parental education, housing conditions, access to public services, and availability of educational material in the household. Satisfactory achievement means attaining level III and IV in the SERCE 2006 tests. The reported probability is adjusted for gender, age, and enrollment condition in the appropriate age.

**Source:** Duarte, Bos, and Moreno (2010a)

**Figure A20: A substantial fraction of teachers in Peru have alarmingly low levels of performance in reading and mathematics**

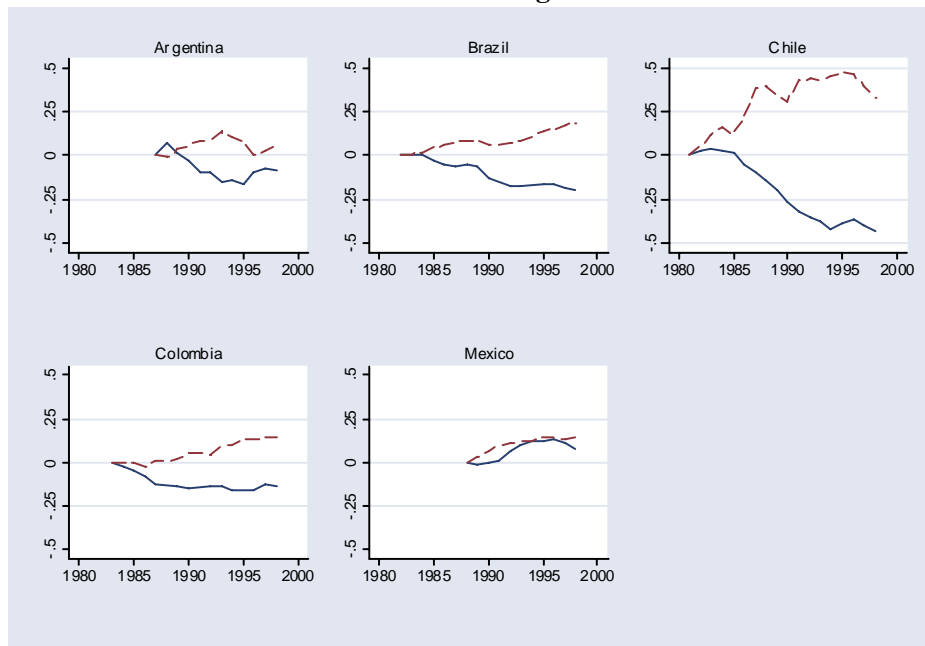


**Notes:** Performance Levels in Reading Comprehension: Level 0: can only answer some of the level 1 questions. Level 1: can find concrete and evident data and identify the text's main theme. Level 2: can make basic inferences from the text's ideas. Level 3: can contrast and integrate the text's ideas, and can make complex inferences. Performance Levels in Mathematical-Logical Reasoning: Level 0: can only answer some level 1 questions. Level 1: can perform basic arithmetical computations and reproduce routine and short procedures. Level 2: can establish mathematical relations and adapt routine and simple procedures and strategies. Level 3: can solve problems of different stages elaborating adequate strategies.

**Source:** Ministry of Education Peru (2007)



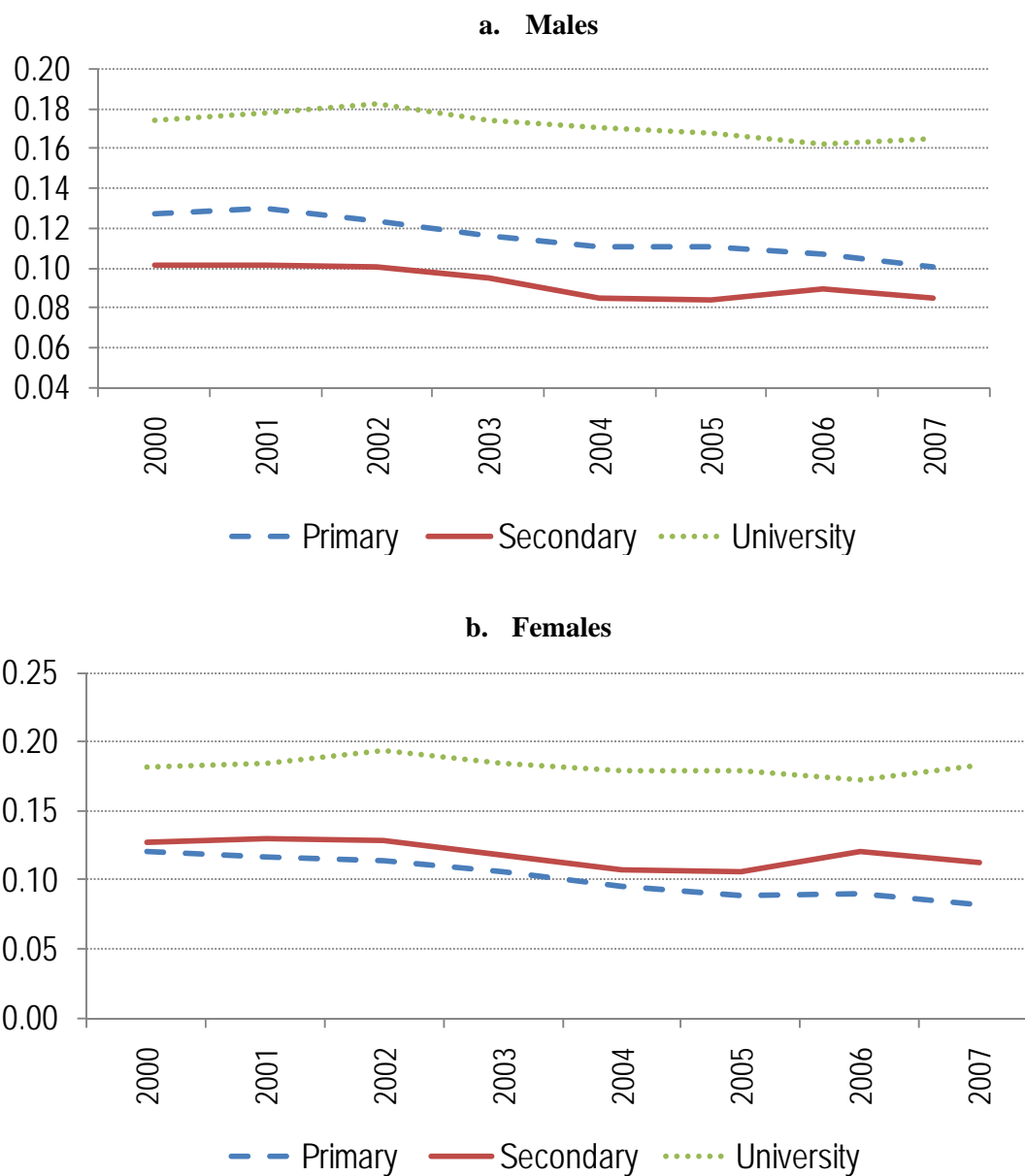
**Figure A21: The relative wages of workers with secondary education deteriorated dramatically relative to both those with university education and those with primary education in the 1980s and 1990s in the Region**



**Notes:** the Figure reports the wage returns to tertiary versus secondary school workers (dashed line) and secondary versus primary school workers (solid line) by year, for male full-time employees in each country. The series are obtained from year-and country-specific regressions of log wages on a constant, a dummy equal one if the individual has at least completed secondary education, a dummy equal one if the individual has at least completed tertiary education, age and age squared. The series in the figure are the coefficients on the two educational dummies. All series are standardized to the first year of observation and are smoothed using a three year moving average.

**Source:** Manacorda, Sanchez and Schady (2010)

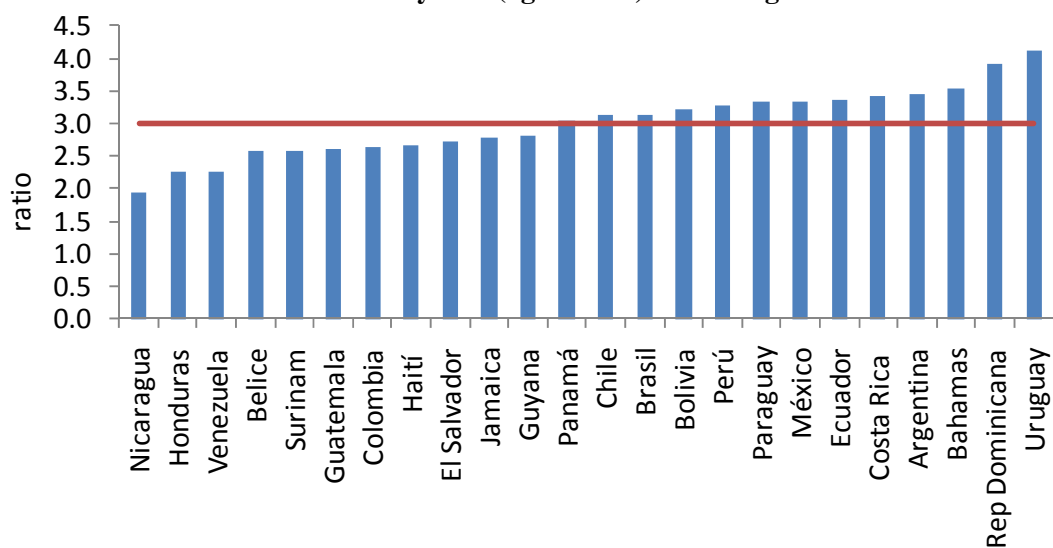
**Figure A22: The returns to secondary education did not recover in the last decade, and continue to be low – especially for males**



**Note:** Population weighted Mincerian returns to education by each level for Latin American countries (Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Mexico, Panama, Peru, Paraguay Uruguay and Venezuela)

**Source:** IDB staff calculations based on data from the Sociometro (IDB)

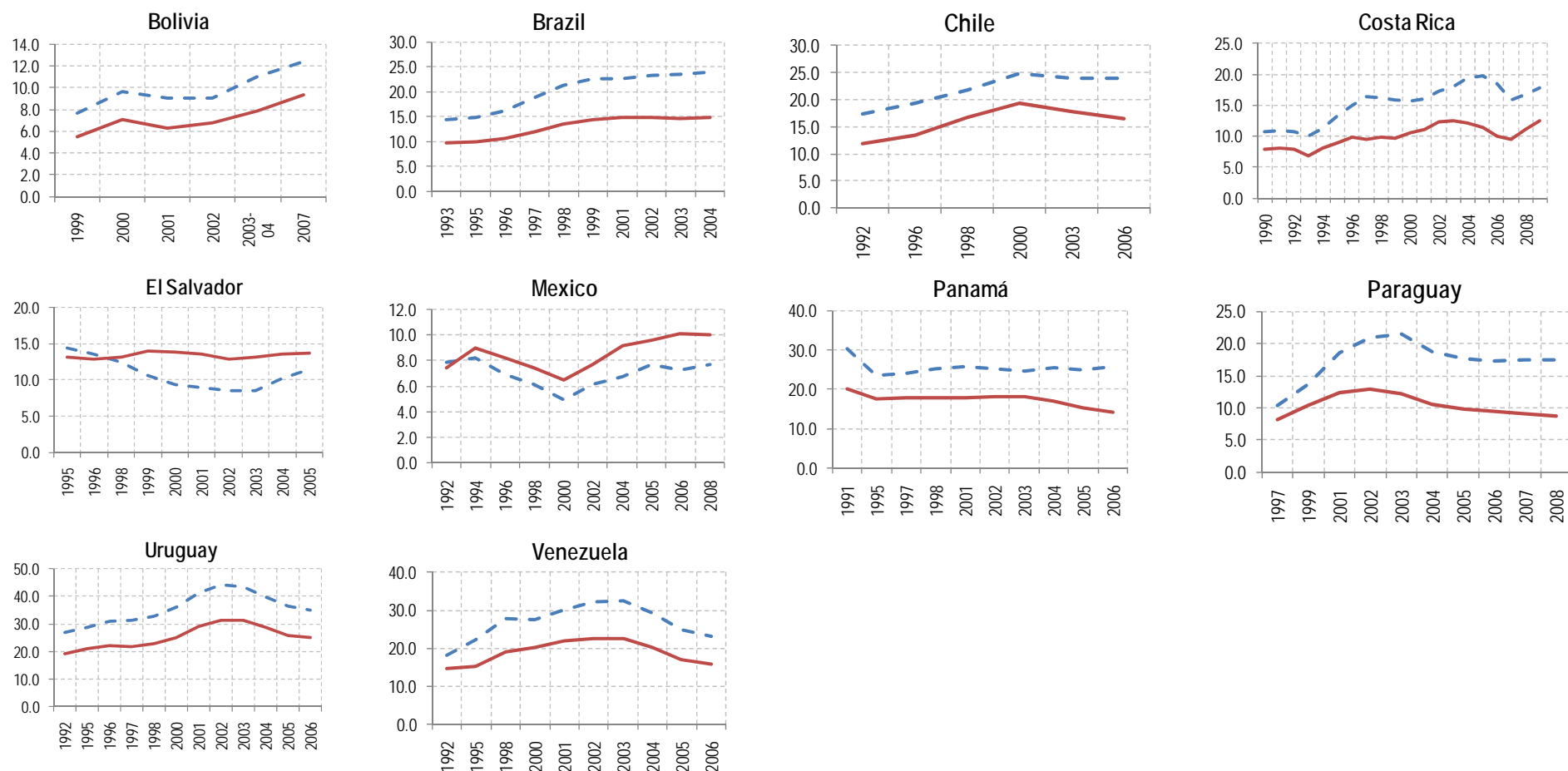
**Figure A23: Average unemployment rate for youth (15-24 years-old) are three times as high as those for non-youth (ages 25-65) in the Region**



**Note:** Ratio unemployment rate for youth 15-24 years-old / unemployment rate for youth 25-65 years-old

**Source:** IDB staff calculations based on data from SEDLAC

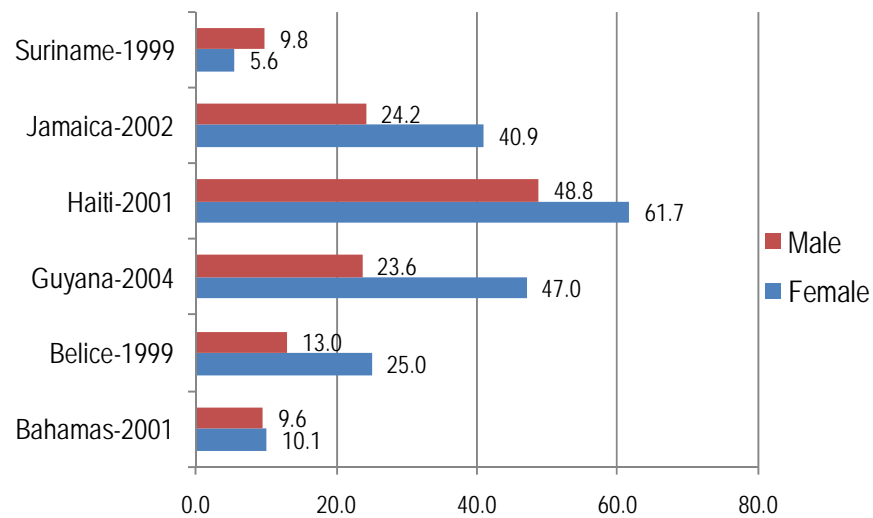
**Figure A24: In many countries in the region, youth unemployment has been increasing sharply**



**Note:** dashed line corresponds to females, solid line to males. Three year–moving average of the unemployment rate.

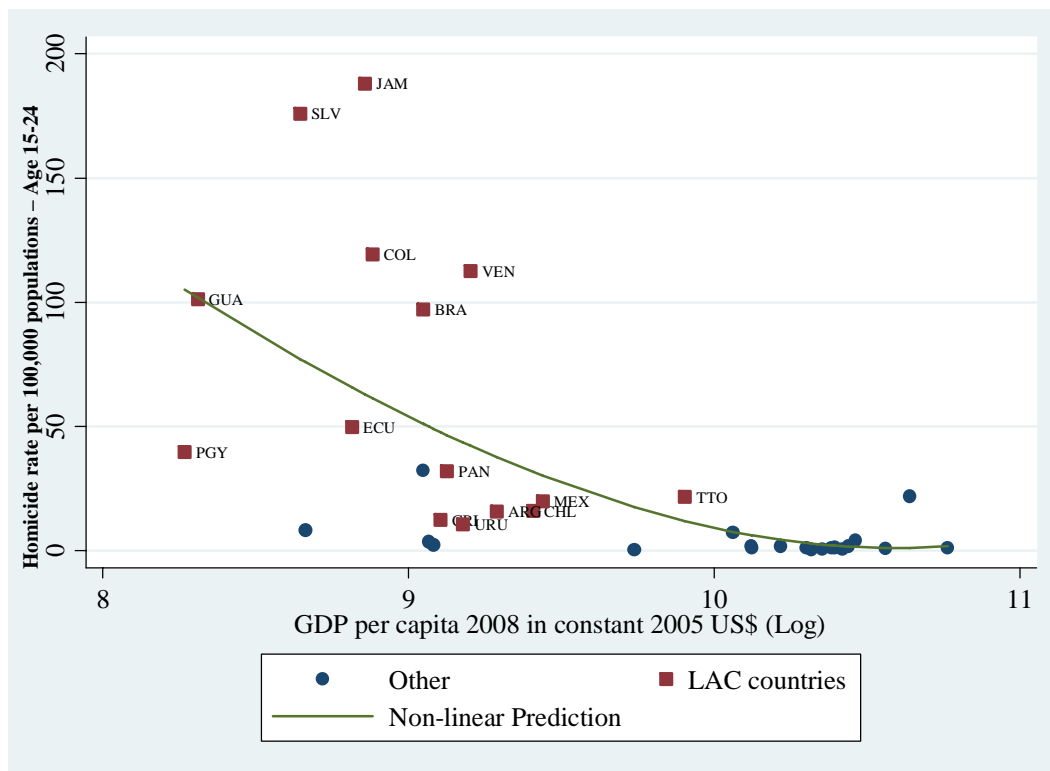
**Source:** IDB staff calculations based on data from SEDLAC

**Figure A25: Youth unemployment (15-24 years-old) in Caribbean countries**



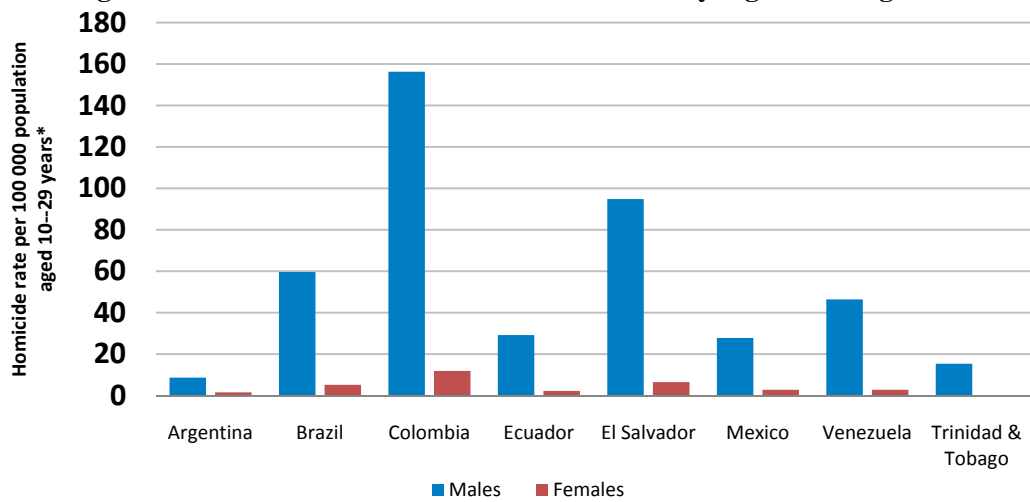
Source: IDB staff calculations based on data from SEDLAC

**Figure A26: Latin America and the Caribbean has very high youth-male homicide rates for its income level**



Source: WHO (WHOSIS data circa 2005) and UN (2007) for JAM and TTO. Gdp per capita from WDI (2008).

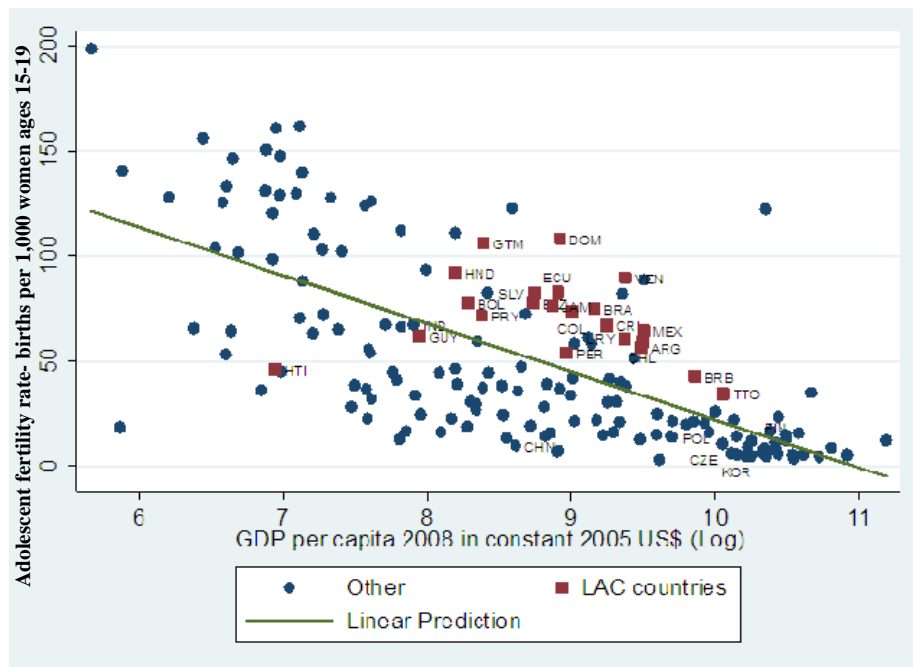
**Figure A27: Youth homicide rates are substantially higher among males**



**Note:** Data refer to most recent year available (1993-1996)

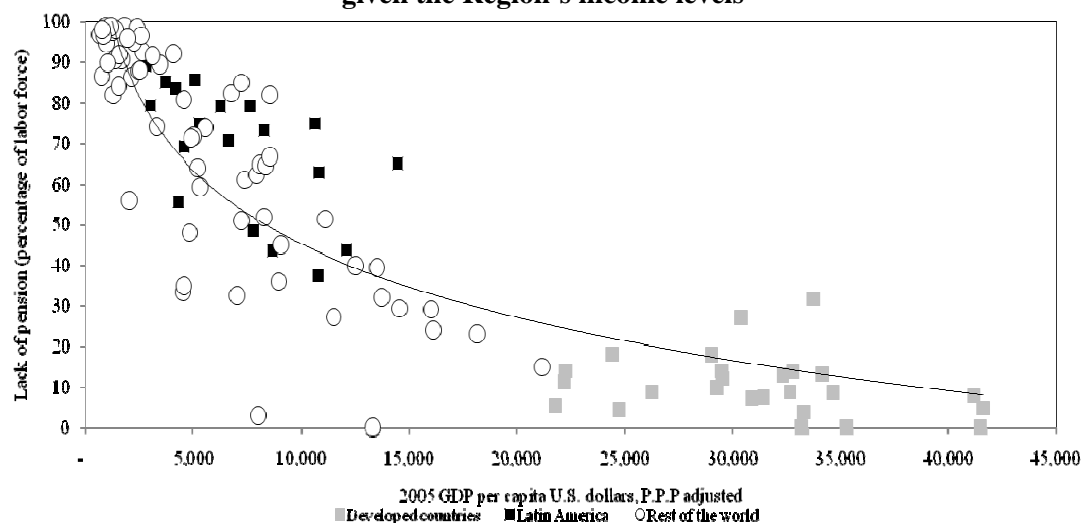
**Source:** WHO (2002)

**Figure A28: The Region also has very high levels of teenage pregnancy for its income level**



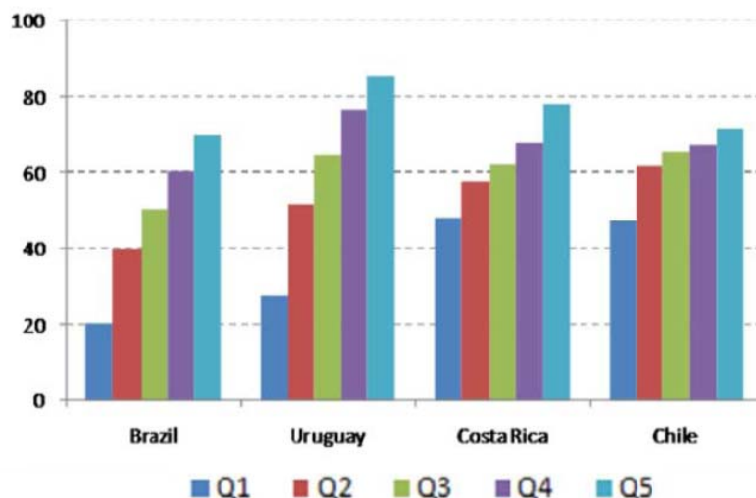
**Source:** IDB staff calculations based on WDI

**Figure A29: Most workers in Latin American and the Caribbean are not covered by formal pensions, health insurance and unemployment insurance, and the levels of coverage are very low given the Region's income levels**



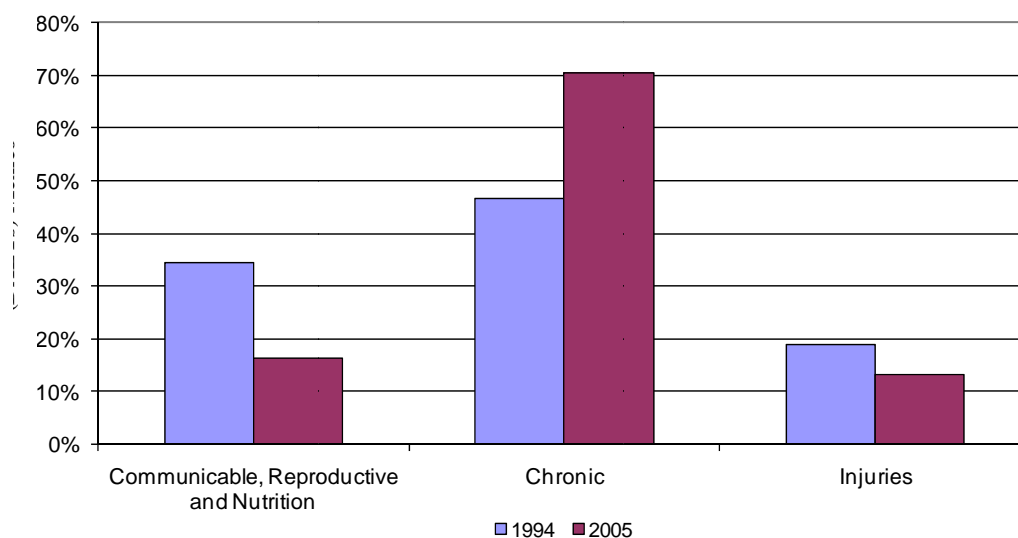
**Notes:** Self-employment is measured as the percentage of self-employed workers with respect to total active population. Lack of pensions corresponds to the share of the labor force not covered by a pension scheme. LAC countries included are: Jamaica, Nicaragua, Ecuador, Venezuela, Uruguay, Costa Rica, Mexico, Dominican Republic, El Salvador, Honduras, Peru, Guatemala, Panama, Argentina, Paraguay, Brazil, Colombia, Chile and Bolivia  
**Source:** IDB (2010)

**Figure A30: The coverage of contributory old-age pensions is particularly low among the poor**



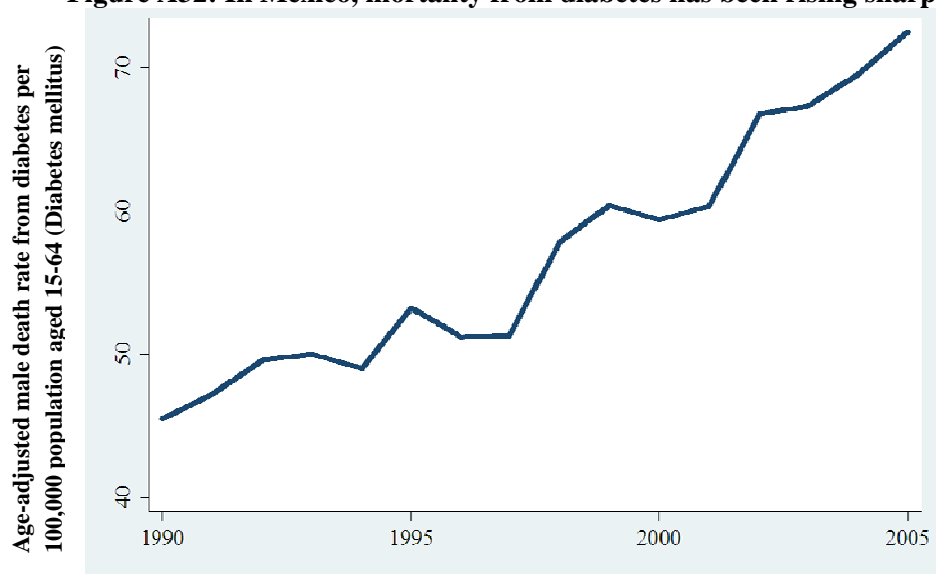
**Note:** Each bar within a country represents 20 percent of the working age-population, from the poorest (Q1) to the richest (Q5)  
**Source:** Robalino, Ribe and Walker (2010)

**Figure A31: In Mexico, chronic (rather than communicable, reproductive and nutrition-related) diseases account for the largest share of the disease burden – and this share has been increasing over time**



Source: WHO 2006a

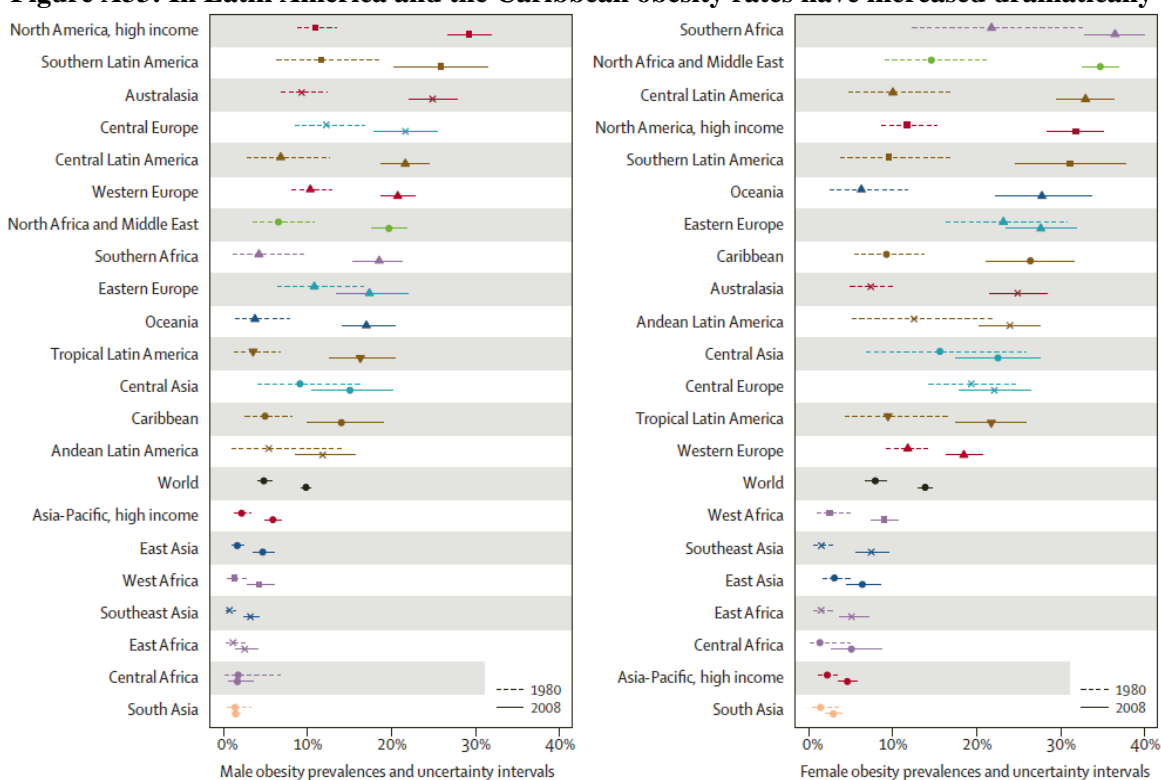
**Figure A32: In Mexico, mortality from diabetes has been rising sharply**



Source: WHO 2006a

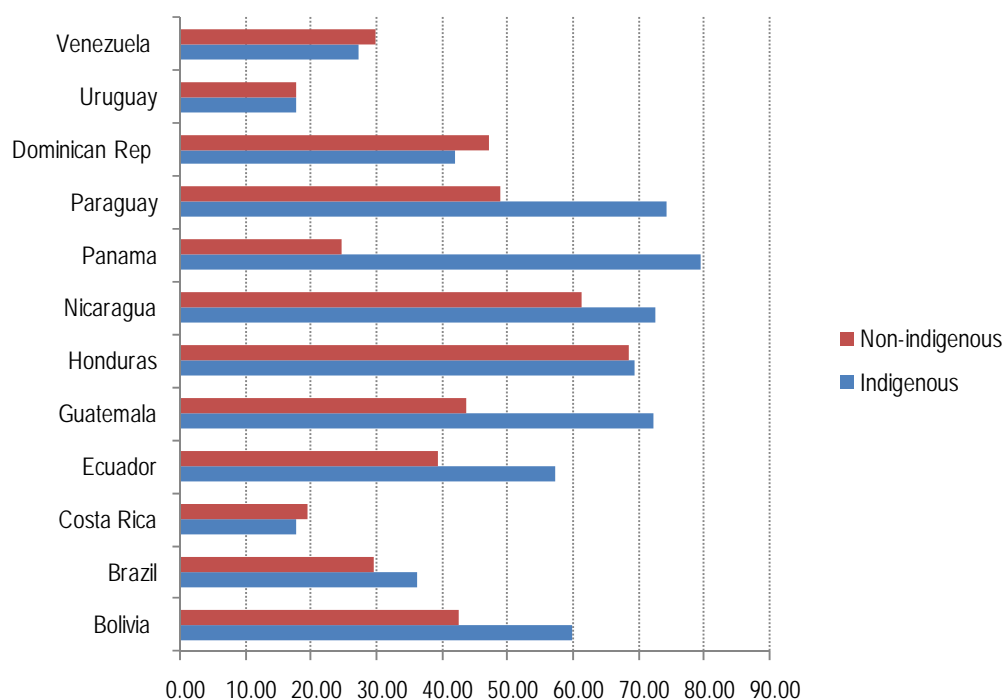


**Figure A33: In Latin America and the Caribbean obesity rates have increased dramatically**



Source: Finucane et. al. The Lancet 2011.

**Figure A34: Poverty in Latin America 2007**



Note: Poverty measured using ECLAC's methodology. Indigenous includes Afro-descendants

Source: ECLAC

**Table A5: In Brazil, poverty is highly correlated with self-identified color/race**

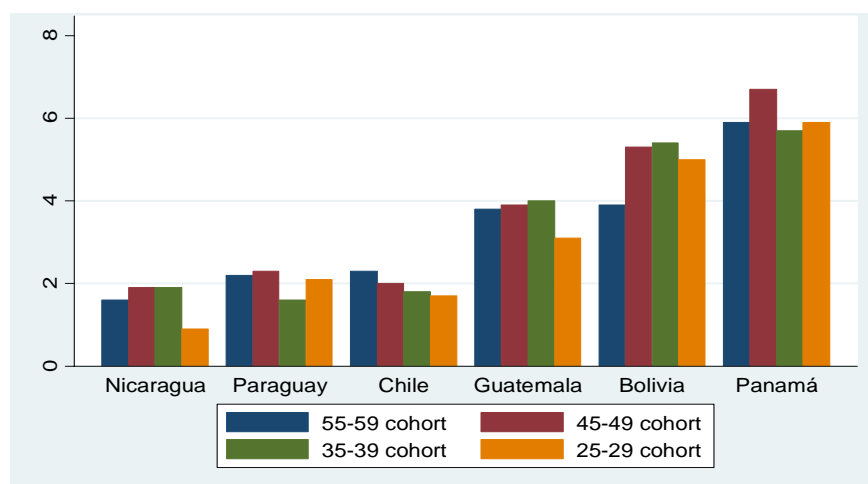
	Total	Male	Female	Indigena	Branca	Negra	Amarela
1999	29.8	29.5	30.0	48.6	19.5	42.2	12.47
2002	25.1	25.3	24.9	34.3	16.0	35.7	13.24
2003	23.2	23.4	23.0	36.0	14.7	33.6	11.97
2004	22.0	22.0	21.9	31.4	13.8	31.0	11.76
2005	20.2	20.2	20.2	32.0	12.5	28.2	8.38
2006	16.9	17.0	16.8	23.7	10.2	23.7	9.20
2007	15.8	15.9	15.7	24.3	9.6	21.8	12.55
2008	13.5	13.4	13.5	24.6	8.4	18.3	8.90

**Note:** Percent of population below \$2.5 a day

Categories as reported by Brazilian household survey instrument which has traditionally inquired about color and race in one question. The categories include: indigena (indigenous), branca (white), parda (brown), preta (black), and amarela (yellow). The category negra above combines parda and preta.

**Source:** IDB staff calculations based on household surveys

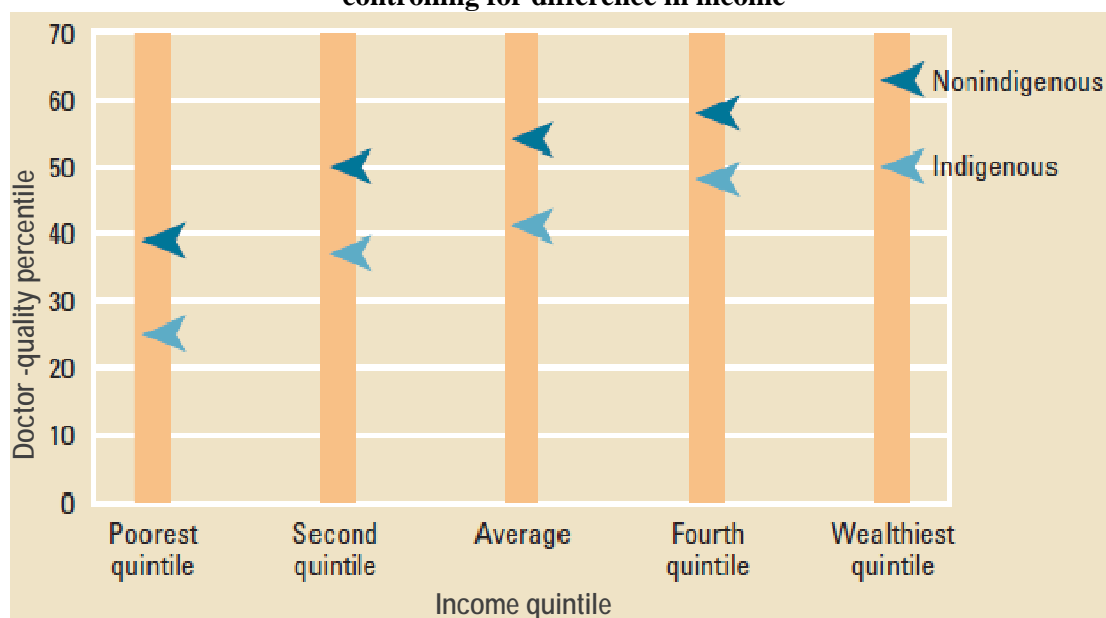
**Figure A35: The indigenous have much lower schooling levels than the non-indigenous, and in many countries this gap has not been shrinking over time (across birth cohorts)**



**Note:** Each bar represents the difference in mean years of schooling between indigenous and non-indigenous, by country and birth cohort

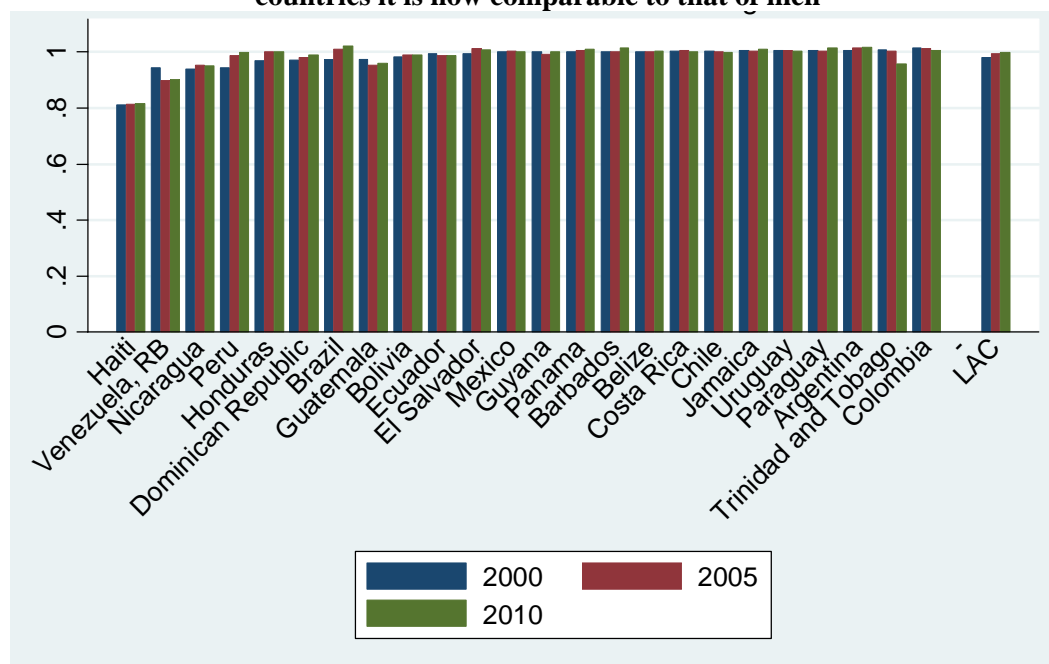
**Source:** IDB staff calculations, based on household survey data

**Figure A36: The indigenous receive lower quality care than non-indigenous in Mexico – even after controlling for difference in income**



Source: Barber, Bertozzi, and Gertler (2005)

**Figure A37: The education of women has been increased throughout the Region and in most countries it is now comparable to that of men**



**Note:** each bar represents the mean years of schooling of women, relative to national average

**Source:** IDB staff calculation based on Barro-Lee data (2010)