



CHAPTER 11

Nutrition and Equality

Brazil's Success in Reducing Stunting among the Poorest

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RAPID ADVANCES IN economic development and healthcare in Brazil have contributed to significant improvements in child health and nutrition in recent decades. Brazil met Millennium Development Goal 1—halving the proportion of people whose income is less than \$1 a day and halving the proportion of people who suffer from hunger, and Goal 4—reducing by two-thirds the under-five mortality rate. Beyond significant advances in reducing poverty and improving food and nutrition security throughout the country, Brazil has also been successful in reducing socioeconomic inequality in malnutrition.¹ What lies behind this success? This case study examines the policies, approaches, and process that contributed to the reduction in child stunting and other key indicators of malnutrition.

Child stunting levels provide dramatic evidence of Brazil's progress toward eradicating hunger. The overall prevalence of child stunting was reduced by more than 80 percent between 1974/1975 and 2006/2007 (from 37.1 to 7.1 percent). This decline accelerated over time from 4.2 percent per

year between 1974/1975 and 1989, to 5.4 percent between 1989 and 1996, to 6.0 percent between 1996 and 2006/2007.² Brazil has demonstrated similar success in breastfeeding. In Brazil's 27 state capitals, the prevalence of exclusive breastfeeding in infants under six months of age (as recommended by UNICEF) increased from 26.7 to 41.0 percent between 1999 and 2008.³ In addition, partial breastfeeding practices also improved from a median duration of 2.5 months in the 1970s to 7 months in 1996, and reached 14 months in 2006/2007.⁴

At the same time, Brazil also has made great strides in reducing the socioeconomic and geographic inequalities in child stunting across the country. Children from families in the lowest wealth quintile were 7.7 times more likely than children in the highest quintile to have stunted growth in 1989. By 2007/2008, they were only 2.6 times as likely to suffer stunting.⁵ Historically, stunting prevalence has been much higher in Brazil's poorest region, the northeast, than in the wealthier southeast region. In 1996, stunting was four times

more common in the northeast than in the southeast. But with the reduction in prevalence of stunting in the northeast from 22.2 percent in 1995 to 5.9 percent in 2006/07, little difference remained between the northeast and wealthier regions.⁶

A Multisectoral Approach

The 2013 *Lancet* Maternal and Child Nutrition Series provided a new framework for understanding how to achieve optimal fetal and child growth and development. Positive changes to enhance growth and development can be understood by examining the dietary, behavioral, and health determinants of optimum nutrition, growth, and development and how they are affected by food security, caregiving resources, and environmental conditions. This framework highlights the potential effects of nutrition-sensitive interventions that address the underlying determinants of malnutrition and shows how to build an enabling environment to support interventions that enhance health and nutrition outcomes.⁷ Brazil's multisectoral approach to reducing poverty, inequality, and food insecurity targeted income redistribution and universal access to education, health, and sanitation services. Using the *Lancet's* framework, we examine the policies and programs likely associated with improvements in several nutrition-relevant domains: maternal schooling, family purchasing power, maternal and child healthcare, and water supply and sanitation services. Brazil has made significant progress in these underlying determinants. However, their precise contribution to reductions in stunting cannot be directly measured.

Improvements in Women's Educational Status

The single most important factor associated with the decline in child undernutrition was the transformation in women's education that took place between 1996 and 2007.⁸ Brazil implemented a range of policies designed to ensure universal access

to primary education and to improve the quality of primary and secondary schools across all municipalities. Brazilian mothers became more educated than ever before.⁹ In addition to substantial investments in public education, Brazilian policies also sought to reduce the significant disparities between poor and rich municipalities.¹⁰ Starting in 1996, Brazil modified the way it was funding primary education. Moving from a formula based on population density to a system based on minimum per-pupil allocations helped reduce the bias toward large cities and made funding for education more equitable. A set percentage of revenue from federal, state, and municipal taxes was dedicated to basic and secondary education. In order to raise all elementary schools to the minimum per-pupil funding allocation, the government provided additional federal funding to states with fewer resources.¹¹

At the same time, Brazil took steps to encourage parents to send their children to school and reduce child labor. In 2001, Brazil established Bolsa Escola, a conditional cash transfer program that provided income subsidies to parents who sent their children to school and took them for regular health checkups. Although the program didn't succeed in increasing enrollment in schools, it did raise the poorest families above subsistence level and improved school attendance rates among the children who were enrolled.¹²

Increased Purchasing Power in the Poorest Populations

Although Brazil experienced significant economic growth in the 1970s under the military regime, socioeconomic and geographic inequalities widened and the poor benefited little. Democracy was restored in the mid-1980s, during a period of economic instability, but it wasn't until the late 1990s and early 2000s that economic growth resumed and Brazil began to improve social protection.¹³ Recent trends toward improved income distribution and



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A woman holds up her Bolsa Família card, which gives families cash if their children go to school and get regular medical checkups.

reduced poverty in Brazil are reflected in a significant increase in purchasing power of Brazilian families between 1996 and 2007.¹⁴ Gains in family incomes—resulting from the reactivation of economic growth in the country, as well as a decline in unemployment, increases in the official minimum wage for unskilled workers, and expanded coverage of cash transfer programs for poor families—were especially evident in poorer households.¹⁵

The initiation of Brazil's national food security policy framework, Fome Zero ("zero hunger"), in 2003 marked an important shift toward the integration of economic and social policies to fight hunger and poverty. In 2004, the government consolidated its cash transfers for health and nutrition, including Bolsa Escola, to create a broader social protection program, Bolsa Família, which

encompassed up to 54 different instruments, programs, and initiatives under the umbrella of Fome Zero.¹⁶ As the largest conditional cash transfer program in the world, Bolsa Família is a key element of the country's food security strategy. The program reached approximately 46 million people (25 percent of the Brazilian population) in all 5,564 municipalities in Brazil in 2006.¹⁷

In the agriculture sector, Brazil has been successful in linking supply from smallholder farmers to demand from food-based social protection programs through its Food Acquisition Program and National School Feeding Program. Because smallholder farmers typically have low incomes, the integration of programs that increase their purchasing power with health and nutrition programs likely has helped Brazil increase food and nutritional

security, expand agricultural production, and raise rural incomes. With the development of the Food Acquisition Program in 2003, Brazil began to purchase food for stockpiling, price regulation, and food assistance for vulnerable groups, while providing market access for farmers' food crops. Although the National School Feeding Program had been established in the 1950s, it was only in 2009 that the Brazilian government began to integrate its investments in school meals with its smallholder agricultural policies, aiming to simultaneously promote food and nutrition security, improve attendance and performance in school, and strengthen smallholder agriculture.¹⁸ Alongside these programs to support demand, Brazil also redefined its National Program for the Strengthening of Family Farms (PRONAF) to improve production through technical assistance, increased access to credit, marketing support, and improved infrastructure to assist smallholder farmers and improve the quantity and quality of food produced.

Expanded Coverage of Maternal and Child Health Services

Brazil's strong civil society movement campaigned for health reform in the 1980s, ultimately leading to the creation of a universal tax-funded national health service in 1988.¹⁹ Real reform of the health-care system, however, did not begin until 1994 when a new administration strengthened decentralization and community participation at all administrative levels and launched the Family Health Program. The health sector embarked on a radical decentralization process in the country, allowing for greater stakeholder participation in the decision making process and guaranteeing that each level of government supports national health policy implementation.²⁰

The Family Health Program established family healthcare teams of doctors, nurses, and community health workers in specific geographical areas with

the goal of reaching the poorest areas of the country. By 2006, over 26,000 family health teams working in over 90 percent of municipalities were able to provide coverage to 86 million individuals, most of whom were from low-income families.²¹ The program was successful both in its targeting of the poorest rural municipalities and peri-urban slums as well as in its contribution to reducing child mortality.²² Although the health system still struggles to ensure equitable and universal access, it has significantly increased access to healthcare, achieved universal coverage of vaccination and prenatal care, and invested in the expansion of human resources and technology across the country.²³

Brazil also took significant action to promote optimal breastfeeding practices during this time. In 1981, it established the National Program for the Promotion of Breastfeeding, which included needs assessments, advocacy campaigns to sensitize decision makers and the general public about the relationship between breastfeeding and maternal and child health, training for health workers on lactation, and the engagement of civil society organizations, such as the International Baby Food Action Network, to increase community awareness.²⁴ Brazil enacted laws in 1988 that led to the enforcement of the International Code of Marketing of Breast-milk Substitutes.²⁵ Maternity leave was extended from two months to four months in 1998 and eventually to six months in 2006, enabling working mothers to choose breastfeeding. The exclusive breastfeeding rate increased from 4 percent in 1986 to 48 percent by 2006/2007. And between 1974/1975 and 2006/2007, the median duration of breastfeeding also increased from 2.5 months to 14 months.²⁶

Expanded Public Water Supply and Sewage Services

Although Brazil has met the water and sanitation target of Millennium Development Goal 7 (halving

the population without sustainable access to safe drinking water and basic sanitation), public investments in the water supply and sewage systems have been consistently inadequate. Access to improved sources of drinking water increased from 83 to 92 percent of the population between 1990 and 2012, while access to improved sanitation facilities increased from 71 to 81 percent over the same period.²⁷ These coverage improvements are likely to have contributed to reductions in child mortality from diarrhea over this time period.²⁸ In addition, expansion of sanitation services in the last decade has benefited the poor more than the more affluent, despite remaining gaps in coverage.²⁹

Rising Obesity Levels: A New Challenge

Although Brazil has had tremendous success in reducing undernutrition and stunting, new nutrition challenges have recently emerged in the form of overweight and obesity. Consumption of foods rich in salt, fat, and sugar, sweetened beverages, and ready-to-eat meals are all increasing, while consumption of traditional food items such as rice, beans, fruits, and vegetables declines.³⁰ Although obesity rates have remained low and relatively stable among children under five, they have been increasing rapidly among older children, adolescents, and adults.³¹ As the risk of obesity overtakes that of undernutrition in adults, lower-income women, in particular, are significantly more exposed than their higher-income counterparts to both undernutrition and obesity, indicating a critical risk for maternal health.³²

Regulatory policies to restrict food advertisements in Brazil have only targeted food products manufactured to replace human milk, leaving the aggressive marketing of soft drinks, high-energy snacks, and other food and drink products of limited nutritional value unregulated. Despite several

government and legislative attempts to regulate marketing of less nutritious foods, particularly those aimed at infants and children, heavy food industry lobbying has prevented any additional regulations.³³ Faced with a steadily increasing prevalence of obesity, Brazil did launch new dietary guidelines in November 2014 that provided its citizens with strong, clear recommendations that diets be based on freshly prepared and minimally processed foods and that people should avoid ultra-processed food and drink products.³⁴

Key Factors in Brazil's Success

Brazil has successfully framed the country's nutrition challenges in terms of a national poverty reduction agenda and integration of its economic and social policies. Between 1996 and 2006, Brazil's food security framework was transformed into national law, complete with institutional structures designed to facilitate the realization of the human right to adequate food. The current government's *Brasil sem Miséria* initiative builds on this inclusive development model with the ultimate goal of eliminating extreme poverty throughout the country.³⁵ In addition to the strong and consistent political will to combat malnutrition, Brazil's success has been driven by its pro-poor policies, multisectoral approach, and active civil society involvement.

Pro-Poor Policies

While reducing child stunting across the country, Brazil also significantly reduced the inequality in malnutrition that existed across regions and income levels. By expanding and better targeting the country's pro-poor social assistance programs, Brazil helped accelerate the country's progress in reducing poverty.³⁶ This spending likely contributed to the reduction in malnutrition. The extensive social protection programs also promoted more inclusive growth throughout the country by helping people

build assets, reducing inequality, facilitating economic reform, and more effectively allocating public resources.³⁷

Multisectoral Approach

Brazil's success in alleviating poverty and reducing undernutrition was also supported by the multisectoral approach to program delivery that focused on income redistribution as well as improving access to education, healthcare, and sanitation services. Minimum wage increases and cash transfers were introduced alongside smallholder farmer credit and agricultural input procurement programs. And access to public services was improved across the country. Brazil's multisectoral approach, however, went beyond just implementing policies and programs across the education, health, agriculture, social development, and finance sectors.

Programs also were funded in such a way that they promoted intersectoral cooperation among the different ministries *at the local level*. Under Bolsa Família, for example, to ensure that conditions were being met for the cash transfers, the health and education ministries had to share data on school attendance and health checks and coordinate their actions with the Ministry of Social Development, responsible for administering the program. The school lunch program, Programa de Alimentação Escolar, was similarly designed to promote intersectoral coordination. Because the Ministry of Social Development was responsible for allocating money to food supply companies that bought from local producers, it needed to work with both the Ministry of Agriculture, which oversees food production, and the Ministry of Education, which eventually provided the school lunches.³⁸ The Food



Reuters/N. Doce

Expanded health services for mothers and children played a large role in Brazil's approach.

Security and Nutrition Law, which strengthened Brazil's legal framework for food security and nutrition, institutionalized this cooperation in 2010 by establishing institutions to facilitate collaboration among ministries and within the different levels of government.

Civil Society Support

Brazil's strong civil society and social movements played a proactive role first in bringing food and nutrition security to the national agenda in the 1990s and later in the design and implementation of the country's nutrition policies. With two-thirds of its members representing civil society and one-third from the government, the National Food and Nutrition Security Council (CONSEA) provided a mechanism for civil society involvement in the policy process.³⁹ CONSEA is highly institutionalized, with an explicit multisectoral mandate and its own budget allocation, formal structure, and legal standing.⁴⁰ The government has worked closely with CONSEA to implement an information system to monitor food security and nutrition, guide policy

decisions, and document progress. The information system includes over 50 indicators across six key dimensions of food security: food production; food availability; income and living conditions; access to adequate food and water; health, nutrition and access to related services; and education.⁴¹

Conclusion

Brazil's significant reduction of both stunting and geographic and socioeconomic inequality in malnutrition can serve as a powerful example for other countries in the region and around the world. The country has demonstrated the power of investing in human and social capital through its conditional cash transfers and health and nutrition programs.⁴² Sustaining the gains in nutrition security now depends on maintaining economic growth and income redistribution policies, universalizing access to elementary and secondary education, and ensuring adequate healthcare and sanitation services while simultaneously addressing new challenges, including rising obesity.

