

Country brief

Trends, drivers and determinants

of young children's diets in Paraguay

Highlights



Diets are low in diversity. Overweight among young children is a more pressing public health problem in Paraguay than undernutrition. Yet, the prevalence of stunting is high in indigenous children under five years of age.



Only 3 out of 10 children are exclusively breastfed during the first 6 months of their lives.



Major barriers to adequate diets include poverty, the price of healthy products versus processed foods and the introduction of sugar-sweetened beverages at young ages.



The double burden of malnutrition (undernutrition and overweight) must be prioritized on the public agenda.

rigid scheme and should consider the variability of each child, in such a way that it progressively incorporates foods from all groups at the end of the first year of life.

This period presents a critical window in a child's development. If the diet is inappropriate with respect to the age and needs of the child, there is an increased risk of undernutrition, micronutrient deficiencies, overweight or a combination of deficiencies.<sup>1</sup> At the same time, this is the age when children's food preferences and dietary habits are shaped for the rest of their lives. It is the time when they learn to listen and respond to cues of hunger and satiety, which are essential for upholding healthy diets and weight throughout life.

**This brief presents findings from a country study on the trends, drivers and determinants of children's diets in Paraguay,** as part of a broader regional landscape analysis.

The country study included a desk review of available data, reports and scientific literature. In addition, semi-structured interviews were conducted with five key informants representing the government, UN institutions and local nutrition researchers.

**The complementary feeding period is a critical junction for children's diets.** Between 6 months and 2 years of age, children's diets transition from exclusive breastfeeding to complementary foods. One of the primary objectives during this period is to provide nutritious, varied and sufficient foods that respond to the infant's needs. This should not follow a

**The major nutrition problem of young children between 6 and 60 months in Paraguay is not undernutrition, but overweight.** One in eight children under five are overweight (12.4 per cent), which is much higher than the regional average of 7.5 per cent.<sup>2</sup>

Rates of undernutrition (stunting and wasting) are lower than the regional average. However, in indigenous children under 5 years of age, the prevalence of chronic malnutrition remains high (31.5 per cent).<sup>3</sup>

In terms of infant and young child feeding practices, Paraguay performs slightly poorer compared to other countries in the region. For example, only 31.3 per cent of children under six months are exclusively breastfed and 21 per cent of children continued with complementary breastfeeding until 2 years of age. In terms of the mothers, we have the lowest rate of breastfeeding in the region, since only 12.5 per cent of mothers breastfeed.<sup>4</sup>

Similar to other countries in the region, dietary diversity is a major problem for children between 6 and 23 months, with only 52 per cent of children in this age group meeting the minimum requirements.

As a result, 60 per cent of children aged 6-23 months do not meet the requirements for a minimum acceptable diet (see

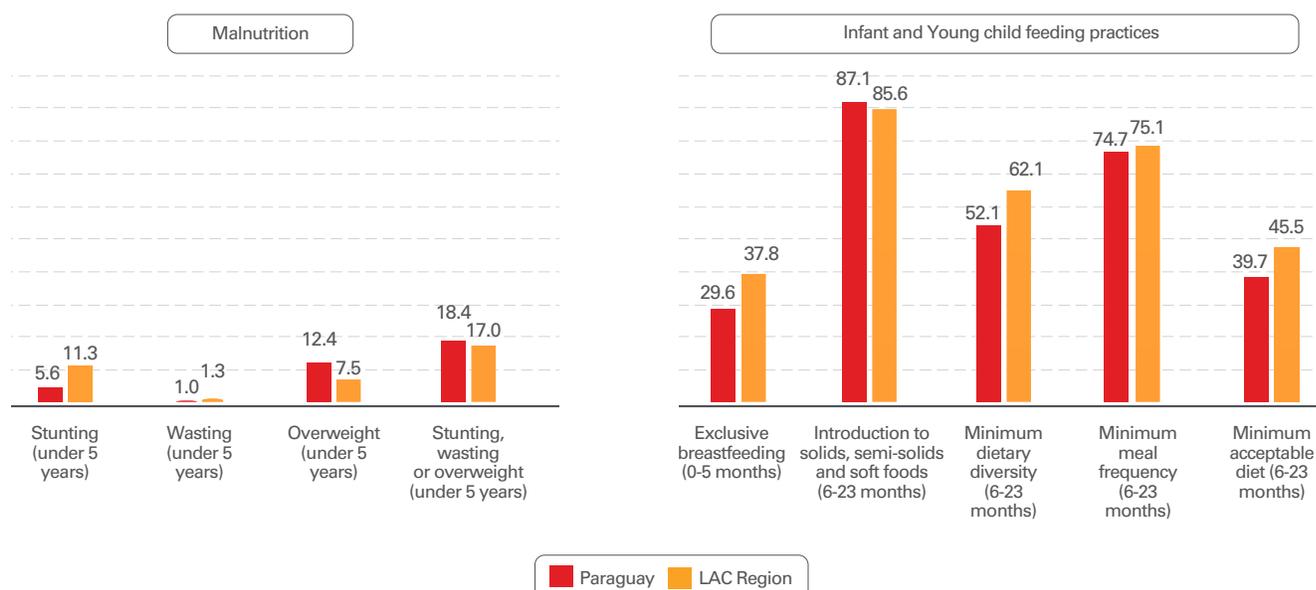
Figure 1). Although there is no national data on micronutrient deficiencies, there is recent data on iron, zinc and copper deficiencies in children 1 to 4 years of age, belonging to the areas of Asuncion, Central, Caaguazú and Alto Paraná, whose main results were 45.2 per cent prevalence of anemia, 43.6 per cent with zinc deficiency and 14 per cent with copper deficiency.<sup>5</sup>

## National policy framework

An important contributor to Paraguay's improvements in terms of undernutrition was the establishment of the National Comprehensive Nutritional Food Programme (PANI) in 2010. This programme targets vulnerable children under the age of five suffering from or at risk of malnutrition, underweight pregnant women, women regardless of their nutritional status living in poverty and the indigenous population.

It consists mainly of comprehensive care of the child, monitoring their nutritional status and development, promoting appropriate dietary practices, and supporting the delivery of fortified milk to complement children's diets. Another key health strategy in Paraguay has been the development and implementation of food-based dietary guidelines (*Guías Alimentarias del Paraguay*).

Figure 1. Country and regional estimates (%) for malnutrition, and infant and young child feeding practices, Paraguay and LAC region



Sources: Joint Malnutrition Estimates, UNICEF, OMS, World Bank, April 2021 <<https://data.unicef.org/topic/nutrition/malnutrition/>>. UNICEF, Infant and young child feeding database, <<https://data.unicef.org/topic/nutrition/infant-and-young-child-feeding/>>.

There are two of these: one for children under two years of age, and another for those that are older than two years of age. The dietary guidelines present the composition of a diverse diet, accompanied by several key messages for appropriate feeding practices.<sup>6</sup> These food-based dietary guidelines are used as a reference for educational purposes at all levels of the health sector, but still do not reach all people, especially in rural and remote areas.

In 2012, the Law on Nutritional Guarantee was enacted aiming to prevent and address malnutrition in children under five and in pregnant women in vulnerable situations, by legally formalizing PANI and expanding access. This pulled a greater number of caregivers towards health services including vaccinations and the promotion of healthy dietary practices.

Motivated by the low exclusive breastfeeding rates, Paraguay enacted a Law on the Protection of Breastfeeding in 2015 which expanded maternity leave from three to four months.<sup>7</sup> The Law on the Marketing of Breastfeeding Substitutes is in place since 1999, but only deals with some provisions of the full International Code of Marketing of Breastmilk Substitutes.<sup>8</sup>

Paraguay implements iron supplementation programmes targeted at children from 6-59 months. In addition, the country has universal fortification policies in place for salt with iodine, and wheat flour with a mix of micronutrients.<sup>9</sup> Paraguay has the National Strategy for the Prevention and Control of Obesity 2015-2025, a national public policy

that promotes multisectoral integration in search of the prevention of overweight and obesity, as well as the strengthening of comprehensive care throughout the cycle vital, involving the public and private sectors, as well as civil society.<sup>10</sup> However, the country lacks policies to tax and regulate sugar-sweetened beverages and energy-dense nutrient-poor products and fast food.<sup>11</sup> In this context, the food industry opposed recent efforts.

## A framework for action

In response to the global problems of undernutrition, micronutrition deficiencies and overweight, UNICEF has developed an action framework to improve the diets of young children during the complementary feeding period. The framework is a tool to facilitate action-oriented programming based on the identification of context-specific drivers. It recognizes the foundational role of situational analysis of determinants of children's diets: adequate food, adequate services and adequate practices, to prioritize strategic actions. The action framework reinforces the need to deliver context-specific strategic actions through multiple systems that have the potential to deliver nutrition interventions: the food system, the health system, water and sanitation system and the social protection system.

This framework was applied to Paraguay. Through a country-specific situational analysis, key barriers for healthy diets and policy actions were categorized by the three determinants of children's diets.



Figure 2. Action framework to Improve the diets of young children during the complementary feeding period



Source: United Nations Children's Fund, *Improving Young Children's Diets During the Complementary Feeding Period: UNICEF Programming Guidance*, UNICEF, New York, 2020.

## Determinants and drivers of children's diets

The country case study identified the following drivers of children's diets in Paraguay.

Determinants	Drivers and factors influencing the determinants
<b>Adequate food</b>	<ul style="list-style-type: none"> <li>• <b>Low economic access to food:</b> Insufficient economic means, particularly in rural areas, among indigenous populations and the urban poor causes difficulties in accessing adequate food.</li> <li>• <b>High availability of ultra-processed foods:</b> The food environment in Paraguay is characterized by high intakes of nutrient-poor, caloric-rich foods, increasing risks of overweight and obesity. Meat consumption among the general population is above the world average.</li> <li>• <b>High cost of healthy foods:</b> fruits and vegetables are considered relatively expensive.</li> <li>• <b>Early introduction to sugar-sweetened beverages:</b> Children are introduced to sugar-sweetened beverages (such as artificial juice drinks) at very early ages.</li> </ul>
<b>Adequate services</b>	<ul style="list-style-type: none"> <li>• <b>Barriers for access to healthcare services</b> include distance, as well as the lack of trained personnel in primary care facilities.</li> <li>• <b>Limited coverage of social protection programmes</b>, that have limited coverage due to budgetary restrictions. Key programmes (PANI and Tekopora) mainly target poor households and hence exclude the middle class.<sup>12</sup> In addition, a proper household registry is missing.</li> <li>• <b>Inequalities in access to WASH services.</b> While 95% of households in Paraguay have access to an improved source of drinking water, and 83% has access to an improved sanitation facility, there are large inequalities by area of residence, income level and for indigenous groups.<sup>13</sup></li> </ul>

<b>Adequate practices</b>	<ul style="list-style-type: none"> <li>• <b>Food culture:</b> The culture and the type of food (nutrient-poor, caloric-rich) in Paraguayan society results in a diet that is high in fat and carbohydrates.</li> <li>• <b>Limited support regarding infant and young child feeding:</b> Limited nutritional information and assistance resulting in poor caregivers' knowledge about how to feed young children.</li> <li>• <b>Early introduction to complementary foods:</b> Children are introduced to complementary food at too early ages, according to a key informant.</li> </ul>
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## Priority actions

Based on the country case study, and the determinants of children's diets, the following set of priority actions have been identified. These actions should be implemented across the relevant systems.

Relevant systems	Strategic Actions
<b>Food system</b>	<ul style="list-style-type: none"> <li>• <b>Implement or expand interventions to improve access to healthy foods</b> by more vulnerable households, including those in rural and remote areas, indigenous populations, and households living in poverty. Monetary poverty continues to be a barrier for households to access healthy foods which could for example be relieved by expanding cash transfer programmes, putting cash into the hands of households and strengthening their capabilities to manage it properly.</li> <li>• <b>Invest in training programmes for families to strengthen local food consumption.</b> Improve knowledge about the diversity of ways of consuming fruits and vegetables to take advantage of the high nutritional values that they contain.</li> <li>• <b>Continue the fight against ultra-processed foods.</b> As ultra-processed food consumption continues to rise, they need to be properly regulated to reduce their impact on the diet of the population. This can be achieved by setting up appropriate regulations, food labelling laws and/or taxes for certain food items.</li> <li>• <b>Invest in diversifying the food environment,</b> including value chain interventions to improve the supply of nutrient-rich foods. The agricultural sector, and in particular family farmers who make up a large body of the agricultural sector, play a major role supplying nutritious and fresh produce, including animal-sourced foods, which are key for certain micronutrients.</li> </ul>
<b>Health system</b>	<ul style="list-style-type: none"> <li>• <b>Invest in training health staff and improving human resources at the primary care level.</b> Health care personnel should remain up-to-date on the latest developments and knowledge regarding infant and young child feeding. The Food Guides should serve as a reference for feeding practices.</li> <li>• <b>Increase the number of Family Care Units</b> to improve coverage in the underserved regions.</li> </ul>
<b>WASH system</b>	<ul style="list-style-type: none"> <li>• <b>Invest in water, sanitation and hygiene supply and services in underserved areas and population groups,</b> including rural areas, poorest households and indigenous groups. Combine water, sanitation and hygiene services with counselling to improve knowledge and change WASH related behaviours.</li> </ul>
<b>Social protection system</b>	<ul style="list-style-type: none"> <li>• <b>Expand coverage of social protection services to non-poor</b> households and use social protection as a key entry point for nutrition-sensitive programming. For example, by integrating nutritional counselling in <i>Tekopora</i>.</li> </ul>
<b>Overarching actions</b>	<ul style="list-style-type: none"> <li>• <b>Intensify awareness campaigns on breastfeeding and complementary feeding.</b> Campaigns should be strengthened, and communication channels evaluated for their effectiveness. Campaigns can also be integrated into other social programmes, for example social protection programmes to address monetary poverty and poor nutrition knowledge simultaneously. Campaigns should consider local beliefs, food preferences and socio-cultural contexts.</li> <li>• <b>Improve the coordination of nutrition interventions</b> between line ministries and non-state actors and put nutrition higher on the political agenda.</li> <li>• <b>Invest in data collection and regular monitoring of Infant and Young child feeding (IYCF)</b> indicators and micronutrient deficiencies. According to key informants, a National Nutrition Survey is planned by the government, yet funding is lacking to implement the survey.</li> </ul>

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Cover photography: © UNICEF/UN0395102/Silvera

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**December 2021**

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