



Case Study Santiago, Chile



Front cover photos:

© UNICEF/UN0567929/Carrillo

© UNICEF/UN0565500/Pazos

© UNICEF/UN0565512/Pazos

© UNICEF/UNI208759/Carrillo

Case Study
Santiago,
Chile



Introduction

Chile is one of the countries with the highest prevalence of overweight and obesity in the world. At the national level, 75 per cent of adults¹ and 33.5 per cent of children and adolescents aged 5-19 years have excess of weight (overweight and obesity)², and 9.8 percent of young children under the age of 5 are overweight.³ In the metropolitan region of Santiago, overweight and obesity affect 31.7 per cent of children under the age of 6,⁴ and 52 per cent of school-age children.⁵

Overweight and obesity have increased significantly in the country in the last three decades, mainly due to the rapid economic growth experienced during the 1990s. Poverty reduction and economic growth had positive effects in terms of safe water and sanitation coverage; as well as the decrease in infectious diseases, malnutrition and infant mortality rates. However, this growth led to the adoption of lifestyles characterized by increased consumption of fast foods and ultra-processed products (UPP) coupled with decreased physical activity.⁶

Currently, Chilean children are growing up and developing in obesogenic food environments that do not consider their nutrition rights and needs when determining what foods are produced, processed, packaged and marketed. Obesogenic environments that promote the consumption of unhealthy foods, ultra-processed products and sedentary behaviours are the main drivers of the childhood overweight epidemic. In urban settings and in low-income households, the situation is more acute. Urban food environments are characterized by increased availability of unhealthy or ultra-processed products; the higher cost of healthy foods compared to more affordable unhealthy products; and aggressive and persuasive marketing techniques (directed to children, adolescents and their parents/caregivers) influence eating patterns and encourage the consumption of unhealthy foods. As a result of changes in the current food environment and according to recent findings, only 5 per cent of the Chilean population follows a healthy diet. The sugary beverages category registered the highest consumption per family (23.4 litres per month per family, equivalent on average to 7.1 litres of sugary beverages per month per person), while families consumed fewer fruits and vegetables (7.3 kg per month per family, compared to the 11 kg per person per month recommended by WHO).⁷ In addition, physical inactivity is very high among children (83.5 per cent of children aged 5-17 years do not meet the 60 minutes of physical activity per day recommended by WHO),⁸ and among adults (81.3 per cent do not meet the recommended physical activity guidelines).⁹

In the prevention of childhood overweight, UNICEF recognizes the central role of the following systems: food; health; water, sanitation and hygiene (WASH); education; social protection and urban systems. In addition, it recommends measures related to improving the environment through formulating policies, regulatory frameworks and strategies; implementing interventions throughout the life cycle, especially during pregnancy, early childhood (under the age of 5), school age (aged 5-9 years) and adolescence (aged 10-19 years); and generating and using evidence, including intervention monitoring and reporting.^{10, 11}

UNICEF promotes and supports actions with governments towards the adoption of the necessary policies and regulatory frameworks to create healthy food environments and positively influence the accessibility, availability, affordability and acceptability of healthy foods, as well as to protect

children from unhealthy foods from an early age. As this document shows, UNICEF is also beginning to work with cities committed to improving urban food environments and preventing childhood overweight and obesity.

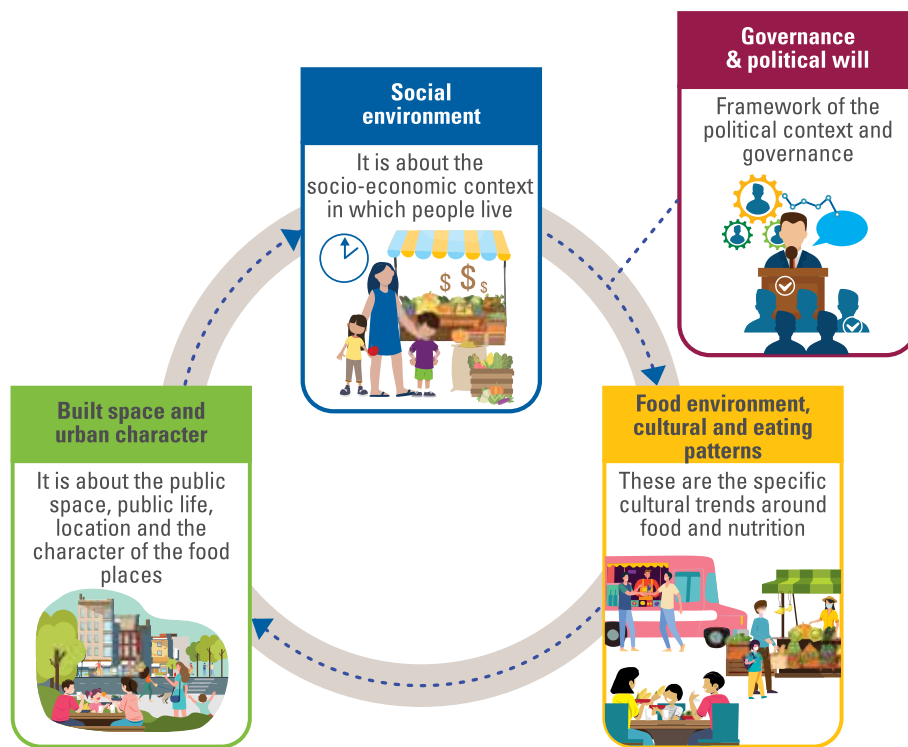


Methodology

In September 2021, the Latin America and the Caribbean Regional Office commissioned [Gehl](#) (an urban design and research consultancy), to carry out a series of activities in selected cities of the region for a diagnosis and elaboration of recommendations directed to UNICEF and key stakeholders to improve urban food environments and prevent childhood overweight and obesity.

In order to study the foodscapes* of selected cities of Latin America and the Caribbean a practical framework was developed by the consultant team, including some elements of the [Innocenti Framework on Food Systems for Children and Adolescents](#). In the development of this framework, the following four pillars were prioritized: governance and political will; built space and urban character; food environment, cultural and eating patterns; and social environment.

Figure 1. Framework for studying and redesign foodscapes in Latin America and the Caribbean



*The foodscape is one's surrounding environment and defines the food experience of neighbourhoods and communities. It is comprised of three main components: public space, public life, and food places. Public space is the city network of streets, squares, parks, city spaces between buildings in which public life takes place. The quality of public space often determines the perception of public safety, helps promote community cohesion and establishes a framework for activities or programmes, and invites people outside. Public life is what people create when they connect with each other in public spaces. It is about the everyday activities that people naturally take part in when they spend time with each other outside the home, car or workplace. Food places are the direct interface between the food system and the consumer, such as grocery stores, restaurants or cafes, food banks, farmers markets, convenience stores and street vendors.⁹

In the first phase of the investigation, two cities in the region were selected that met the following criteria: high prevalence of childhood overweight, availability of data on childhood overweight and obesity, institutional capacity, political will and interventions in place at the national and local levels to prevent and control childhood overweight. During this phase Santiago was selected as a strategic city to study and include in the second phase of strategic engagement with key informants and the community.

In the second phase, interviews with key informants and community activities were carried out. The consultant team interviewed nine key informants from local government (1), parliament (1), civil society (4) and academia (3) to identify: (a) the main causes of overweight and obesity in children and adolescents in the city; (b) the main challenges to address childhood overweight and obesity; (c) the opportunities to improve the current situation; (d) how the built environment can help improve this problem; e) projects that informants believe can be implemented to stop childhood overweight and obesity in the city. A local partner of the consultant team [*Ciudad Emergente*](#) carried out a series of activities with the community, including 34 interviews with children and parents/caregivers of the neighbourhood of Juan Antonio Ríos in Independencia. During these activities, information was collected about the influence of the built environment on children's nutrition at home and at school, as well as physical activity.

Results were analysed to identify key challenges and opportunities, and recommendations were developed for UNICEF and key stakeholders to improve urban food environments and contribute to the prevention of childhood overweight and obesity in Santiago, Chile.

Main findings based on interviews with key informants and activities with the community in Santiago, Chile

■ **Main causes of childhood overweight and obesity, challenges and opportunities to improve urban food environments and prevent childhood overweight and obesity**

The food system in Santiago is characterized by a **lack of linkages between food producers and consumers, and there is not enough information that compares the benefits of fresh foods to the risks of ultra-processed products**. Social protection policies implemented to reduce malnutrition strengthened the belief in Chilean society that very thin children came from families that could not provide adequate food for their children, which in turn stigmatized being thin.

Despite the comprehensive package of interventions established by the national government in the last decade (front-of-package labeling, taxes for sugary drinks, restrictions on the marketing of unhealthy foods and non-alcoholic beverages high in calories, sodium, sugars, fats and/or saturated fats to children, and the ban on the sale and marketing of unhealthy foods in school settings), **there is still an oversupply of ultra-processed products, which remain more affordable and readily available than healthy foods**. Families face many challenges in accessing healthy diets as **fresh foods are more expensive, and there are additional limitations on the access to food and its preparation at home**.

During the interviews and strategic engagement with the community, it was frequently reported that **one of the main challenges to accessing healthy diets was related to the operating hours of fresh produce markets**. These markets are generally closed when people return from work, and the only stores open at this time are those that sell ultra-processed products. On the other hand, the main determining factor of family purchases is the taste preference of young children, and therefore, the food environment provides easy, convenient and more affordable access to ultra-processed foods, compared to healthier options.

In general, low-income neighbourhoods are the most affected **since parents/caregivers travel long distances between home and work** (60 to 120 minutes per trip or commute), **and this reduces the time available for food preparation and playing with their children at home. Regarding physical activity, it was reported that opportunities were limited in the educational system and in the community, and that the city lacks attractive public spaces that encourage exercise**. This was compounded by the negative effects of the COVID-19 pandemic, with 75 per cent of children and parents/caregivers reporting that they they did not engage in any physical activity during the confinement. In terms of dietary intake, informants reported consuming more sugary drinks than water, as well as approximately the same amount of snacks and sweets as fruit, the previous day.

In terms of challenges, **Chile has a centralized government system that leaves very little space for local governments to implement projects or establish local regulations**. Likewise, civil society organizations do not appear to influence decision-making or participate in accountability processes related to the prevention of childhood overweight, according to key informants.

In terms of opportunities, the creation of a regional government offers great potential to position child well-being and health at the centre of the governance agenda. The new government that came to power in March 2022 could change the discourse and contribute to the prevention of childhood overweight and obesity through the **empowerment of local governments and the allocation of financial resources to implement and evaluate interventions that improve urban food environments.** At the local level, the main opportunities observed **include increasing the territorial coverage, operating hours and infrastructure of fresh produce markets. Municipalities can support the improvement of infrastructure around schools and school feeding programmes.** Likewise, governors and local authorities can **promote welfare policies by developing smaller-scale projects with municipalities that could later be scaled to the city level and national levels.** The education sector also has a fundamental role in **the expansion of school feeding programmes to promote healthy diets,** particularly in the most vulnerable neighbourhoods. Lastly, **local influencers can serve as advocates for the development of networks of healthier community.**




Recommendations and roadmap to transform food systems, improve urban food environments and prevent childhood overweight and obesity in Santiago, Chile

To have a positive impact on the health and well-being of Chilean children and adolescents and contribute to the transformation towards a healthier food that accounts for the rights of children to adequate nutrition and health, it is necessary to implement a series of coordinated actions at the local level. It is important to note that schools are essential places to provide healthy and nutritious foods, as well as to promote healthy lifestyles that include physical activity. For this reason, several of the recommendations proposed below focus on school settings and their surroundings.

I. Governance and political will



Recommendation	Aimed at
<p>Support and create coordination mechanism for food system transformation. The coordination mechanism for the transformation of the food system should involve all levels of government including key actors that are responsible for children’s nutrition.</p> <p>EXAMPLE OF BEST PRACTICE: Food Security and Nutrition Coordination (COSAN), São Paulo, Brazil.</p>	<p>UNICEF</p> <p>Regional government</p>
<p>Promote partnerships with local producers of nutritious foods to increase the supply of fresh food.</p> <p>EXAMPLE OF BEST PRACTICE: Huertas de Abastecimiento (information in Spanish), Medellín, Colombia.</p>	<p>UNICEF</p> <p>Regional or local government</p> <p>Ministry of Agriculture</p> <p>Food businesses</p>
<p>Ensure compliance with established regulations on the commercialization and marketing of ultra-processed products in and around schools, including food outlets and street vendors near these locations. For this It is recommended to have public authorities in public space, such as inspectors who monitor, control and impose fines when necessary; or use digital tools and cameras, as many cities do to control vehicle speed on roadways.</p> <p>EXAMPLE OF BEST PRACTICE: Evaluation report of the implementation of the Law on nutritional composition of food and its advertising (2017), (information in Spanish) Chile; The Netherlands Nutrition Centre Canteen Scan.</p>	<p>Regional or local government</p> <p>Ministry of Education</p> <p>Ministry of Health</p> <p>Municipal inspectors</p>

<p>Create a framework for the design and management of public spaces for children, beyond parks and playgrounds. This could be achieved by building public and private partnerships (without conflict of interest, avoiding any type of partnership or collaboration with the unhealthy or processed and/or ultra-processed food and beverage industry) to rehabilitate vacant lots in communities where large concentrations of children lack access to decent public spaces. Where space is limited, sections of the street should be redesigned to include play facilities or simply painted to encourage children to have fun and explore the city in a different way.</p> <p>EXAMPLE OF BEST PRACTICE: Guide to public spaces of the Ministry of Housing and Urbanism (information in Spanish) Santiago, Chile; KABOOM Plays Everywhere, USA.</p>	<p>Regional or local government</p> <p>Ministry of Housing and Urban Planning</p>
<p>Implement the “Schools on the Move” model to promote healthy diets and physical activity. Classrooms and school canteens may be transformed by incorporating elements of this model to encourage healthy diets, active learning, reduced sitting time and daily physical activity as part of the curriculum.</p> <p>EXAMPLE OF BEST PRACTICE: Schools on the Move, Finland.</p>	<p>Regional or local government</p> <p>Ministry of Education</p>
<h2 style="margin: 0;">II. Built space and urban character</h2> 	
<p>Recommendation</p>	<p>Aimed at</p>
<p>Redesign public spaces adjacent to schools by implementing measures to reduce traffic on surrounding streets, including services and play areas to encourage children to move and have fun in an urban environment.</p> <p>EXAMPLE OF BEST PRACTICE: Streets for Kids, Santiago, Chile.</p>	<p>Regional or local government</p> <p>Ministry of Housing and Urban Planning</p>
<p>Design areas where children and parents/caregivers learn to ride a bicycle with the support of experts in “cycling areas” or “biking playgrounds”. It is important to ensure that no one is left behind and guarantee equitable access for all, providing low-cost or recycled bicycles to participants who do not have access to new bicycles; and to ensure that educational activities on safety for drivers and cyclists are offered. It is recommended to install playgrounds in areas frequented by families, such as residential areas around parks, plazas or schools. It is recommended to offer the programme in key public spaces on weekends to attract more people, rotating spaces to ensure coverage throughout the city.</p> <p>EXAMPLE OF BEST PRACTICE: Dejá tus rueditas (information in Spanish), Buenos Aires, Argentina; Biking Playgrounds, Copenhagen, Denmark.</p>	<p>Regional or local government</p> <p>Ministry of Housing and Urban Planning</p> <p>Ministry of Transportation</p> <p>Private sector</p>

<p>Create safe biking routes (bike lanes) for children to bike to school. It is recommended to add measures to reduce the traffic, and traffic lights and signs to improve the safety of public spaces/streets; and promote greater participation by providing bike racks, indoor bike rooms, lockers and bike repair shops in and around the schools. This initiative should be offered on weekdays. Educators and parents/caregivers should promote the use of helmets and reflective clothing in children for maximum safety.</p> <p>EXAMPLE OF BEST PRACTICE: Bicibús (information in Spanish), Barcelona, Spain.</p>	<p>Regional or local government</p> <p>Ministry of Transportation</p> <p>Ministry of Education</p> <p>Private sector</p>
---	--

<p>Launch a supervised walking routes programme for children to and from school.</p> <p>EXAMPLE OF BEST PRACTICE: Senderos Escolares (information in Spanish), Buenos Aires, Argentina.</p>	<p>Regional or local government</p> <p>Ministry of Transportation</p> <p>Ministry of Education</p>
---	--

III. Food environment, cultural and eating patterns



Recommendation	Aimed at
----------------	----------

<p>Ban marketing of unhealthy foods and drinks on public transport. It is recommended to prohibit marketing of unhealthy foods and drinks (high in fat, sugar and/or salt) in the transport system (including buses, metro, and train) in cities. This intervention has proven successful¹⁰ in London, where consumption of unhealthy foods has decreased banning the marketing of these products on the public transport.</p> <p>EXAMPLE OF BEST PRACTICE: Ban marketing of unhealthy food and beverages across the public transport in London, UK.</p>	<p>Regional or local government</p> <p>Ministry of Transportation</p> <p>Public Health Organizations</p> <p>Private sector</p> <p>Universities</p>
---	--

<p>Offer seasonal foods and programmes in public spaces to promote mindful and healthy eating. It is recommended to promote seasonal foods, mindful and healthy eating through programmes and campaigns aimed at children in public spaces and through activities organized by the city. Improve nutrition literacy through free nutritional classes and fun activities directed to children and parents/caregivers. Market fresh, healthy and seasonal foods at the events/activities organized by the city.</p> <p>EXAMPLE OF BEST PRACTICE: Estaciones saludables (information in Spanish), Buenos Aires, Argentina; Splash Jam, Lexington, USA.</p>	<p>Regional or local government</p> <p>Ministry of Housing and Urban Planning</p> <p>Private sector</p>
---	---

<p>Install free and safe drinking water fountains in and around schools and in public spaces.</p> <p>EXAMPLE OF BEST PRACTICE: Refill revolution, London, UK.</p>	<p>Regional or local government</p> <p>Ministry of Housing and Urban Planning</p> <p>Ministry of Education</p> <p>Private sector</p>
<p>Improve the infrastructure of local fresh food markets. For this, it is recommended to provide financing mechanisms to improve the infrastructure, installations and operating hours of local fresh produce markets, adapting the operating hours of these markets to the daily routine/schedule of parents and caregivers.</p> <p>EXAMPLE OF BEST PRACTICE: Mejora del Mercado Agrícola de Montevideo (information in Spanish), Uruguay.</p>	<p>Regional or local government</p> <p>Ministry of Housing and Urban Planning</p> <p>Local fresh food markets</p> <p>Private sector</p>
<p>Deploy mobile farmers markets in remote areas. Create a subsidy or grant programme for local food vendors to distribute fresh and healthy produce on wheels. This can be done by retrofitting old vehicles or buses with colourful and consistent branding, food displays, and folding tables to reach neighbourhoods in need of fresh and healthy food. It is recommended to deploy the buses to strategic locations with a bi-monthly rotation and collect feedback from vendors and consumers to replicate and improve the experience.</p> <p>EXAMPLE OF BEST PRACTICE: Ferias de abastecimiento barrial programme (information in Spanish), Buenos Aires, Argentina</p>	<p>Regional or local government</p> <p>Ministry of Social Development</p> <p>Ministry of Housing and Urban Planning</p> <p>Local fresh food markets</p> <p>Private sector</p>

IV. Social environment



Recommendation	Aimed at
<p>Offer pop-up classes on healthy eating and cooking in key city locations. This can be done by creating a mobile school that travels around the city offering nutrition education and cooking classes in strategic locations of the city. It is recommended to install an electric stove and kitchen items in a retrofitted truck or bus. Chefs and health professionals/nutritionists drive around the city preparing seasonal, easy-to-make and affordable foods, while children watch and learn.</p> <p>EXAMPLE OF BEST PRACTICE: Cocina Uruguay programme (information in Spanish), Montevideo, Uruguay.</p>	<p>Regional or local government</p> <p>Ministry of Health</p> <p>Ministry of Social Development</p> <p>Civil society organizations</p>

<p>Develop low-cost recipe books with seasonal foods and disseminate them widely in spaces where children gather (school events, social media, health care centres and public spaces). For this it is recommended to promote partnerships between central markets and the agricultural sector to provide a list of fresh seasonal produce to local chefs for the compilation of a simple and innovative cookbook for the whole family.</p> <p>EXAMPLE OF BEST PRACTICE: Recetario Picadas de verano (information in Spanish), National Food Institute, Uruguay.</p>	<p>UNICEF</p> <p>Civil society organizations</p> <p>Ministry of Health</p> <p>Ministry of Social Development</p>
<p>Promote the development of applications for children and parents/caregivers on healthy foods and nutrition literacy.</p> <p>EXAMPLE OF BEST PRACTICE: Escáner nutrimental (information in Spanish), Mexico; Yuka; Héroes en tu plato (information in Spanish), Spain.</p>	<p>UNICEF</p> <p>Ministry of Health</p> <p>Ministry of Social Development</p> <p>Food businesses</p>
<p>Duplicate the capacity of influencers to promote change.</p> <p>EXAMPLE OF BEST PRACTICE: Bite Back 2030, UK.</p>	<p>UNICEF</p> <p>UNICEF Ambassadors</p> <p>Influencers without conflicts of interest</p> <p>Civil society organizations</p> <p>Regional or local government</p>

In the process of redesigning the foodscape in Santiago, it is recommended to follow the **measure-test-refine approach** and to empower local communities and stakeholders for the successful implementation of interventions. For this approach the following steps are recommended:

- 1. Data collection:** Information gathering is essential to understand the local context of daily life and ensure a multi-stakeholder planning process.
- 2. Understand the user experience:** Instead of evaluating things and objects, consider and share experiences, stories and narratives.
- 3. Develop a healthy food strategy:** Based on the stories observed and the participation of key informants and the community, the aim is to develop a series of strategies that have a “lasting impact” on a neighbourhood. Coordination with local authorities is recommended in this step.
- 4. Test with pilot projects:** Test interventions on a small scale at the neighbourhood level. Pilots provide the opportunity to make necessary adjustments and improve interventions before making larger, longer-term investments.
- 5. Evaluate and define success criteria:** Evaluate the success of local projects with key performance indicators, together with local stakeholders.
- 6. Scale strategy and policy advocacy for citywide impact:** The success criteria and results of the pilot project will be used to attract further investment in infrastructure and scale the strategy and policies citywide.

UNICEF is currently on the development of a healthy food strategy in Santiago, Chile. To advance the redesign of the foodscape in this city, it will be necessary to involve key stakeholders and local authorities.

Where to start in Santiago, Chile?

As a starting point, the projects/programmes and recommendations included in this document as best practices should be tested through pilot projects in some of the most vulnerable neighbourhoods and public spaces surrounding the following three schools:

1. Nueva Zelandia school, Independencia
2. Juana Atala de Hirmas school, Renca
3. Pedro Aguirre Cerda school, Cerrillos



A typical day for a child in a community of Santiago, Chile (a specific case based on interviews and observations in the neighbourhoods of Independencia and Renca)

Figure 2. A typical day for a child in a community of Santiago (at the time of the evaluation)



What should a typical day look like in a healthy environment for children of the community studied in Santiago, Chile?

Figure 3. A typical day for children in a community of Santiago, Chile after implementing recommendations and interventions



References

1. Ministerio de Salud, Subsecretaría de Salud Pública, División de Planificación Sanitaria, Departamento de Epidemiología, *Informe Encuesta Nacional De Salud 2016-2017: Estado nutricional*, MdS, Santiago, 2018.
2. United Nations Children's Fund, *The State of the World's Children 2021: On my mind - Promoting, protecting and caring for children's mental health*, UNICEF, New York, October 2021.
3. United Nations Children's Fund, World Health Organization, International Bank for Construction and Development, World Bank, *Levels and trends in child malnutrition: Key findings of the 2021 edition of the joint child malnutrition estimates*, UNICEF, WHO, World Bank, New York, 2021.
4. Ministerio de Salud, *Vigilancia del estado nutricional de la población bajo control y de la lactancia materna en el Sistema Público de Chile*, MdS, Santiago, 2018.
5. Mapa nutricional, Junta Nacional de Auxilio y Becas, Ministerio de Educación, 2020, <www.junaeb.cl/wpcontent/uploads/2021/03/MapaNutricional2020_.pdf>, accessed April 2022.
6. Albala, Cecilia, et al., 'Nutrition transition in Chile: Determinants and consequences', *Public Health Nutrition*, vol. 5, February 2002, <www.cambridge.org/core/journals/public-health-nutrition/article/nutrition-transition-in-chile-determinants-and-consequences/8E8D19641CB774D363AF168536A0E26C>, accessed April 2022.
7. Ministerio de Desarrollo Social y Familia, Elige Vivir Sano, 'Radiografía de la Alimentación: Estudio revela alto consumo de pan, bebidas azucaradas y dulces en hogares de Chile', 21 de enero de 2021, <<http://eligevivirsano.gob.cl/noticias/radiografia-de-la-alimentacion-estudio-revela-alto-consumo-de-pan-bebidas-azucaradas-y-dulces-en-hogares-de-chile>>, accessed April 2022.
8. Ministerio del Deporte, *Encuesta Nacional de Actividad Física y Deporte en menores de 5 a 17 años*, MdD, Santiago, 2019.
9. Ministerio del Deporte, *Encuesta Nacional de Hábitos de Actividad Física y Deporte 2018 en Población de 18 años y más*, MdD, Santiago, 2018.
10. United Nations Children's Fund, *Child overweight: A Call for prevention in Latin America and the Caribbean*, UNICEF, Panama City, 2021.
12. GEHL, 'What does a healthy foodscape looks like?', GEHL Blog, 21 August 2021, <[Gehlpeople.com/blog/healthy-foodscapes/](https://gehlpeople.com/blog/healthy-foodscapes/)>, accessed April 2022.





© United Nations Children's Fund (UNICEF)

July 2022

Latin America and the Caribbean Regional Office
Bldg. 102, Alberto Tejada St., Ciudad del Saber
Panama, Republic of Panama
P.O. Box 0843-03045
Phone: + 507 301 7400
www.unicef.org/lac

