unicef
for every child



© UNICEF/UNI502893

ADOLESCENT NUTRITION AND MENTAL HEALTH STUDY IN EL SALVADOR AND PERU

Final Version | June 2025

UNICEF Report
Adolescent Nutrition and Mental Health Study in El Salvador and Peru

Authors:

UNICEF: Paula Véliz, Nutrition Specialist (UNICEF LACRO); Michelle Alvarez, Food Systems Specialist (UNICEF LACRO); Andria Spyridou, Mental Health and Psychosocial Support Specialist (UNICEF LACRO)

Consultant Team: Allison Cantor, Alejandra Martinez, Marianne Eelens, Marta Medina, Francisco Diez Canseco

Technical collaboration: Karen Panameno (UNICEF El Salvador), Alba Rivera (UNICEF El Salvador), Trinidad Granados (UNICEF El Salvador), Maria Elena Ugaz (UNICEF Peru), Carlos Orlando Zegarra (UNICEF Peru), Juan Quezada (UNICEF Peru), Mariela del Pilar Tavera (UNICEF Peru), Guisella Ascate (UNICEF Peru), Rosario Rodriguez (UNICEF Peru)

Latin America and Caribbean Regional Office
Bldg. 102, Alberto Tejada St., City of Knowledge
Panama, Republic of Panama
P.O. Box 0843-03045
Phone: +507 301 7400
www.unicef.org/lac
Twitter: @uniceflac
Facebook: /uniceflac

ADOLESCENT NUTRITION AND MENTAL HEALTH STUDY IN EL SALVADOR AND PERU

unicef | for every child

TABLE OF CONTENTS

1 Introduction 9

2 Context 11

3 Methodology 17
3.1 The behavioural drivers model 17
3.2 Desk review 18
3.3 Primary data collection 19
3.3.1 Focus group discussions with adolescents 19
3.3.2 Adolescent key informant interviews 20
3.3.3 Key informant interviews with experts 20
3.4 Data analysis 20

4 Results of the Desk review 21
4.1 How do obesogenic and socio-cultural environments influence adolescent self-perception, body image and weight stigma in LAC? 21
How do obesogenic and socio-cultural environments influence adolescent mental health in LAC? 22
4.2 How do obesogenic and socio-cultural environments influence diet and physical activity among adolescents in LAC? 23
4.3 What are Protective and risk factors influencing diet and physical activity? 24

5 Results of the primary data collection 26
5.1 Food preference, peers and School environments promote unhealthy eating, despite national policies 26
5.2 Availability of food, socioeconomic factors, and cultural norms within families shape diet 28
5.3 Engaging in physical activity contributed to positive mental health 29
5.4 Junk food marketing and idealised bodies on social media drive poor eating habits and body dissatisfaction 30
5.5 Bullying by peers and familial attitudes influence body image and self-esteem 32
5.6 Self-perception and body image are associated with disordered eating, mainly in girls 34

6 Youth-focused Recommendations 36
6.1 Ensure Adolescents are Visible in Health Policy 36
6.2 Improve School Food Environments 37
6.3 Counter Harmful Social Media Messaging 37
6.4 Expand Access to Regular, Safe, and Inclusive Physical Activity 38
6.5 Address Weight Stigma and Mental Health in Schools 38
6.6 Support Families to Be Positive Role Models 39
6.7 Design context-responsive interventions that reflect diverse cultural and socioeconomic realities 39
6.8 Ensure meaningful adolescent particicipation in policy and programme cycles 40

7 Conclusions 41

8 References 42

LIST OF TABLES

Table 1. Focus Group Discussions' sample by age and gender 19
Table 2. Adolescent Key Informant Interviews' sample by age and gender 20

LIST OF FIGURES

Figure 1. Phases of the Nutrition Transition (source: Popkin and Ng (2021)) 8
Figure 2. BDM level 1 drivers of the study themes, framed within the SEM 17
Figure 3. PRISMA51 flow chart 18

ABBREVIATIONS

BDM	Behavioural Drivers Model
BMI	Body Mass Index
CO	Country Office
CSO	Civil Society Organisation
FGD	Focus Group Discussion
KII	Key Informant Interview
LAC	Latin America and the Caribbean
LACRO	Latin America and Caribbean Regional Office
NGO	Non-Governmental Organisation
MPHSS	Mental Health and Psychosocial Support
PAHO	Pan American Health Organization
SEM	Socio-Ecological Model
SSB	Sugar Sweetened Beverage
UNICEF	United Nations Children's Fund
UPF	Ultra-Processed Food
WHO	World Health Organization

GLOSSARY OF KEY TERMS

Term	Definition	Source
Adolescents	Children and young people between 10 and 19 years of age.	United Nations Children's Fund (UNICEF), 'Prevention of overweight and obesity in children and adolescents: UNICEF programming guidance', New York, August 2019.
Coping	An individual's effort to adapt to or reduce distress in response to stressful events.	Li, W., and P. Rukavina. 'A Review on Coping Mechanisms against Obesity Bias in Physical Activity/ Education Settings.' *Obesity Reviews*, vol. 10, no. 1, 2009, pp. 87–95.
Behavioural drivers model	The behavioural drivers model (BDM) is a conceptual framework that draws on existing research and theories to build a transtheoretical model from which to better understand social behavioural change. The BDM recognises that multiple determinants within the socio-ecological model shape behaviour.	Petit, Vincent, 'The behavioural drivers model: a conceptual framework for social and behaviour change programming', United Nations Children's Fund (UNICEF), 2019.
Body Image	Body image refers to the inner view individuals have of their outer self, which can feel as real as the body itself. It is a deeply personal perception of one's body, not necessarily aligned with how others perceive it, and can be dynamic, flexible, stable, or fixed.	'Aims and Scope - Body Image | ScienceDirect.Com by Elsevier.' n.d. Accessed October 21, 2024. https://www.sciencedirect.com/journal/body-image/about/aims-and-scope.
Body mass index	The diagnosis of overweight and obesity is made by measuring people's weight and height and by calculating the body mass index (BMI): weight (kg)/height^2 (m^2). Overweight and obesity are defined as follows for children aged between 5-19 years: • overweight is BMI-for-age greater than 1 standard deviation above the WHO Growth Reference median; and • Obesity is greater than 2 standard deviations above the WHO Growth Reference median	World Health Organization (WHO). Obesity and Overweight, 7 May 2025.
Body neutrality	Body neutrality recognizes that: Our feelings about our body change constantly so are best mindfully observed without judgement; A central focus on what our body allows us to do and appreciating this will lead us to respect and care for our body; and Our self-worth encompasses both intrinsic qualities and extrinsic passions and de-emphasises our appearance.	Pellizer, Mia L., and Tracey D. Wade, 'Developing a definition of body neutrality and strategies for an intervention', *Body Image,* vol. 46, 16 July 2023, pp. 434-442.
(Food) marketing	Any form of commercial communication or message that is designed to, or has the effect of, increasing the recognition, appeal and/or consumption of particular products and services. It comprises anything that acts to advertise or otherwise promote a product or service.	United Nations Children's Fund (UNICEF), 'A child rights-based approach to food marketing: a guide for policy makers, April 2018. In: World Health Organization (WHO), 'Set of recommendations on the marketing of foods and non-alcoholic beverages to children', 15 June 2010.
Food environment	Food environments are spaces where children and their families interact or engage with food. Depending on how they are structured, they may either help or harm children's nutrition.	United Nations Children's Fund (UNICEF), 'Policy Brief: Sugar-sweetened beverages taxation',

Term	Definition	Source
Food environment (unhealthy)	An unhealthy food environment is a food environment with low availability, accessibility, desirability and affordability of healthy foods; and high availability, affordability and promotion or marketing of unhealthy foods. Unhealthy food environments lead to increased consumption of unhealthy foods and beverages. It is increasingly recognized that unhealthy food environments violate multiple child rights.	'Policy Brief: Sugar-Sweetened Beverage Taxation.' n.d. UNICEF.
Food system	A food system gathers all the elements (environment, people, inputs, processes, infrastructures, institutions, etc.) and activities that relate to the production, processing, distribution, preparation and consumption of food, and the output of these activities including socioeconomic, and environmental outcomes.	United Nations Children's Fund (UNICEF). 'Prevention of Overweight and Obesity in Children and Adolescents: UNICEF Programming Guidance.' *Nutrition Guidance Series,* 2019. UNICEF.
Gender stereotypes	The set of social and behavioural norms that are considered socially appropriate for men and women in the context of a specific culture and history period.	Monge-Rojas, Rafael, Tamara Fuster-Baraona, Carlos Garita, Marta Sánchez, Vanesa Smith-Castro, Oscar Valverde-Cerros, and Uriyoán Colon-Ramos., 'The Influence of Gender Stereotypes on Eating Habits among Costa Rican Adolescents', vol. 29, no. 5, 2015, pp. 303–10.
Latin America and the Caribbean	All countries that form part of the UNICEF Region of Latin America and the Caribbean	'UNICEF Latin America and Caribbean.' n.d. Accessed October 21, 2024. https://www.unicef.org/lac/en.
Nutrition transition	The global trends towards a more "Western" diet (i.e., diets high in saturated fat, sodium, sugar, and refined carbohydrates and low in fiber) and decreased physical activity. *(see Figure 1)*.	Popkin, Barry M., and Shu Wen Ng. 'The Nutrition Transition to a Stage of High Obesity and Noncommunicable Disease Prevalence Dominated by Ultra-Processed Foods Is Not Inevitable.' *Obesity Reviews,* vol. 23, no. 1, 2021, e13366.
Obesity in adolescents	Severe overweight (above +2 SD) is referred to as obesity, and a BMI-for-age above +3 SD is referred to as severe obesity.	United Nations Children's Fund (UNICEF). 'Prevention of Overweight and Obesity in Children and Adolescents: UNICEF Programming Guidance.' *Nutrition Guidance Series,* 2019. UNICEF.
Obesogenic environment	An environment that promotes high energy intake and sedentary behaviour. This includes the foods that are available, affordable, accessible and promoted; physical activity opportunities; and the social norms in relation to food and physical activity.	United Nations Children's Fund. 'Childhood Overweight on the Rise: Is It Too Late To Turn The Tide in Latin America and the Caribbean?'.2024. Available at: https://digitalcommons.fiu.edu/srhreports/health/health/129/.
Overweight in adolescents	BMI-for-age above 1 SD (standard deviation) of the WHO Growth Reference median for children of the same age and sex.	United Nations Children's Fund (UNICEF). 'Prevention of Overweight and Obesity in Children and Adolescents: UNICEF Programming Guidance.' *Nutrition Guidance Series,* 2019. UNICEF.
Protective factor	Any attribute, characteristic or exposure that that reduce risk factors, or independently act to increase positive outcomes	United Nations Children's Fund (UNICEF).'BRIEF ON THE SOCIAL ECOLOGICAL MODEL.'n.d.
Risk factor	Any attribute, characteristic or exposure that increases the risk of developing an adverse mental health outcome	United Nations Children's Fund (UNICEF). 'BRIEF ON THE SOCIAL ECOLOGICAL MODEL.'n.d.

Term	Definition	Source
Self-perception	Where an individual treats themselves as objects to be viewed and evaluated based upon appearance.	Rollero, Chiara, and Norma De Piccoli, 'Self-objectification and personal values. An exploratory study, *Frontiers in Psychology,* vol. 8, no. 1055, June 2017.
Social Ecological Model	The social ecological model illustrates the importance of networks of people and structures that surround a child or adolescent, safeguarding their well-being and sense of agency, and supporting their optimal development.	United Nations Children's Fund (UNICEF). n.d. 'BRIEF ON THE SOCIAL ECOLOGICAL MODEL.'
Sugar-sweetened beverages	Sugary drinks are defined as all types of beverages containing free sugars and these include carbonated or non-carbonated soft drinks, fruit/vegetable juices and drinks, liquid and powder concentrates, flavoured water, energy and sports drinks, ready-to-drink tea, ready-to-drink coffee, and flavoured milk drinks. Free sugars refer to monosaccharides (such as glucose, fructose) and disaccharides (such as sucrose or table sugar) added to foods and drinks by the manufacturer, cook or consumer, and sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates.	World Health Organization. 'Taxes on Sugary Drinks: Why Do It?'. 2017.
Ultra-processed foods	Ultra-processed foods are convenient (durable, ready to eat) industrially manufactured foods with added ingredients or additives (e.g. modified starch, hydrogenated oils) that are typically not available for food preparation at home or at artisanal restaurants or companies. Examples are soft drinks, sweet or savoury packaged snacks, processed meat, pre-prepared frozen or shelf-stable dishes, and sweetened breakfast cereals.	'Ultra-Processed Foods Are Associated with Increased Risk of Cancer and Cardiometabolic Multimorbidity.' n.d. Accessed October 21, 2024. https://www.iarc.who.int/news-events/ultra-processed-foods-are-associated-with-increased-risk-of-cancer-and-cardiometabolic-multimorbidity.
Weight stigma	Social devaluation and denigration of people perceived to carry excess weight and leads to prejudice, negative stereotyping and discrimination toward those people.	Tomiyama, Janet A., 'Weight stigma is stressful. A review of evidence for the cyclic obesity/weight-based stigma model', - 1 November 2014, pp. 8-15.

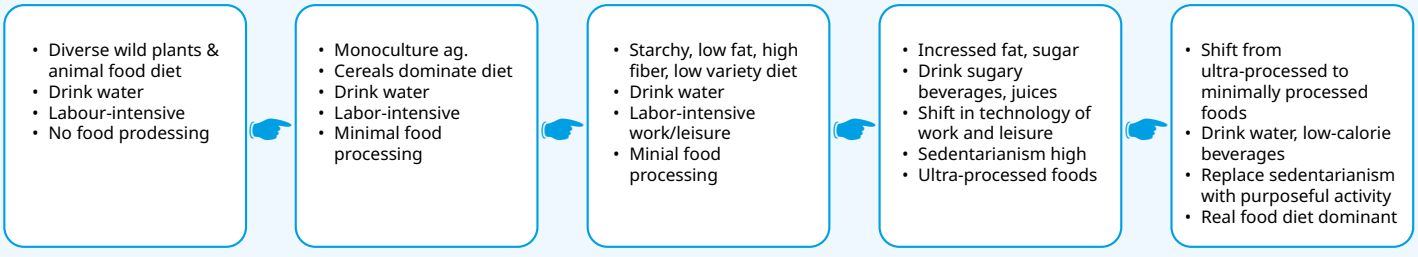


Figure 1. Phases of the Nutrition Transition (source: Popkin and Ng (2021))

1. INTRODUCTION

This report presents an overview of nutrition, mental health, and physical activity trends and their associated links among adolescents in Latin America and the Caribbean (LAC), as well as a summary of the scientific evidence from the last 10 years on the influence of obesogenic and sociocultural environments in the region. It also summarises key findings from a study commissioned by United Nations Children's Fund (UNICEF), carried out in El Salvador and Peru in 2025. The objective of the study was to generate evidence to fill a knowledge gap regarding adolescent mental health and nutrition in the region, in the context of emerging global and regional trends which favour obesity and shifting sociocultural environments.

This document is accompanied by a policy brief that includes evidence-based public policy recommendations addressed to decision-makers and legislators to contribute to the development and implementation of effective public policies to promote healthy environments for adolescents, enhancing visibility around issues that affect this population. This document will also serve as an input for the preparation of a scientific paper that will be submitted by UNICEF to a selected journal.

This study contributes to UNICEF's regional and global priorities outlined in the Nutrition Strategy 2020–2030, as well as the organization's growing commitment to adolescent well-being and mental health. UNICEF Latin America and the Caribbean Regional Office (LACRO) commissioned this study as part of its strategic commitment to protect and fulfil the rights of every child and adolescent. In a region marked by rapid urbanization, shifting sociocultural norms, and increasingly obesogenic environments, adolescents face growing risks to both their physical and mental health.



© UNICEF/UNI657690

2. CONTEXT

Prevalence and Health Impacts of Overweight and Obesity

Overweight and obesity among children and adolescents* aged 5-19 years in LAC is a multi-faceted public health issue. This has risen dramatically in recent years from 21.5 per cent (35 million) in 2000 to 30.6 per cent (49 million) in 2016, the most recent year for which comparable data are available in the region among this age group.[1] These figures are considerably higher than the global prevalence of 20 per cent,[2] with 13 countries in the region having a prevalence of overweight above 30 per cent. By gender, there is a slightly higher percentage of girls with overweight (30 per cent) than boys (29.6 per cent).[3] The highest percentages are found in Argentina (36.4 per cent), Chile (35.5 per cent) and Mexico (35.5 per cent).[3] The rates for the countries included in the study are 30.7 per cent for El Salvador (33.5 per cent girls and 28 per cent boys) and 27 per cent for Peru (27.9 per cent girls and 26.2 per cent boys).[3]

Overweight and obesity has a myriad of health consequences for children and adolescents, including risks for cardiovascular disease, hypertension, type 2 diabetes, respiratory problems, joint problems, gallbladder disease, mental health problems (e.g., anxiety and depression),[4] lower self-esteem and lower self-reported quality of life, and social problems such as bullying and stigma.[5] Additionally, obesity in childhood and adolescents serves as a primary risk factor for the onset of non-communicable diseases in adulthood such as coronary heart disease, hypertension, stroke, certain types of cancers, and type 2 diabetes, among others. It also increases the likelihood of disability and premature death overall.[6]

Obesogenic Environments

Obesogenic environments are a key driver of childhood and adolescent obesity. Obesogenic environments promote high energy intake and sedentary behaviour, which includes the foods that are available, affordable, accessible and promoted, physical activity opportunities and the social norms in relation to food and physical activity. Obesogenic environments encourage the consumption of unhealthy and ultra-processed foods (UPFs) (high in sugars, fat and/or salt, food additives and preservatives) and limit options for physical activity.[1] Research has demonstrated that the availability, affordability, and accessibility of food, but also social norms and opportunities for physical activity , play an important role in maintaining either a healthy or unhealthy lifestyle.[7]

Studies point to factors such as increased participation of women in the labour market,[8] rapid urbanization,[9] the expansion of the food retail and food services sector, and growing use of private transportation as key influences on diet and physical activity.[10] For example, in terms of urbanization, LAC has become the second most urbanized region in the world, with 81 per cent of the total population living in urban areas, leading to unplanned and disorderly development that has affected the availability, access and consumption of nutritious food and promotion of healthy lifestyles.[11,12] Other factors contributing to obesogenic environments include shifting food systems, digital environments and the marketing and promotion of UPFs.

* Adolescents are defined by UNICEF as individuals aged 10-19 years. Throughout the report, the term "adolescents" is used to refer to this age group, unless otherwise indicated explicitly in the text.

In Latin America, school food environments play a critical role in shaping adolescents' dietary habits. Many public schools are located in urban areas where informal food vendors and convenience stores are common, making UPFs and SSBs easily available and accessible to students.[13] Despite the existence of policies in countries such as Mexico, El Salvador or Peru aimed at regulating food marketing and improving the nutritional quality of foods offered in and around schools, enforcement remains a challenge. As a result, adolescents are frequently exposed to unhealthy food choices during the school day, contributing to poor dietary patterns.[13,14]



Food Systems and Dietary Shifts

A substantial change has occurred in food purchasing in LAC countries.[15] Supermarkets, previously responsible for just 10–20 per cent of retail share in 1990, accounted for 50–60 per cent by 2000.[16] Today, multinational chains dominate the food market. Fast-food restaurants have also grown significantly. For example, one of the world's biggest fast food chains increased their presence from 100 restaurants in LAC in 1995 to nearly 2,400 in 2023.[17,18] In Latin America, the cost of a healthy diet is higher than other regions of the world, with the cost of consumption for one person per day of US$3.89, compared to the world average of US$3.541. This results in the prioritization of "junk" foods by families over healthier and more nutritious options.[19] The rise in UPFs consumption has been rapid. A World Health Organization (WHO) and Pan American Health Organization (PAHO) study conducted in 13 countries—including Brazil, Chile, and Mexico—found that from 2000 to 2013, retail sales of UPFs (such as fast food and sugar sweetened beverages (SSB)) increased in nearly all countries. Notably, a separate study found that higher UPF consumption was also more common among younger populations, suggesting that adolescents are particularly vulnerable to these dietary shifts.[20] This increase parallels the rising burden of chronic diseases (i.e. diabetes, hypertension).[21] The recent nutrition transition, coupled with shifting socioeconomic trends, has increased access to unhealthy food options for youth, including UPFs and SSBs.[22] This nutrition transition is marked by a rise in energy, fat, protein, animal product, and SSB intake, and a decrease in vegetable and legume consumption—factors directly linked to rising obesity levels.[23,24,25]



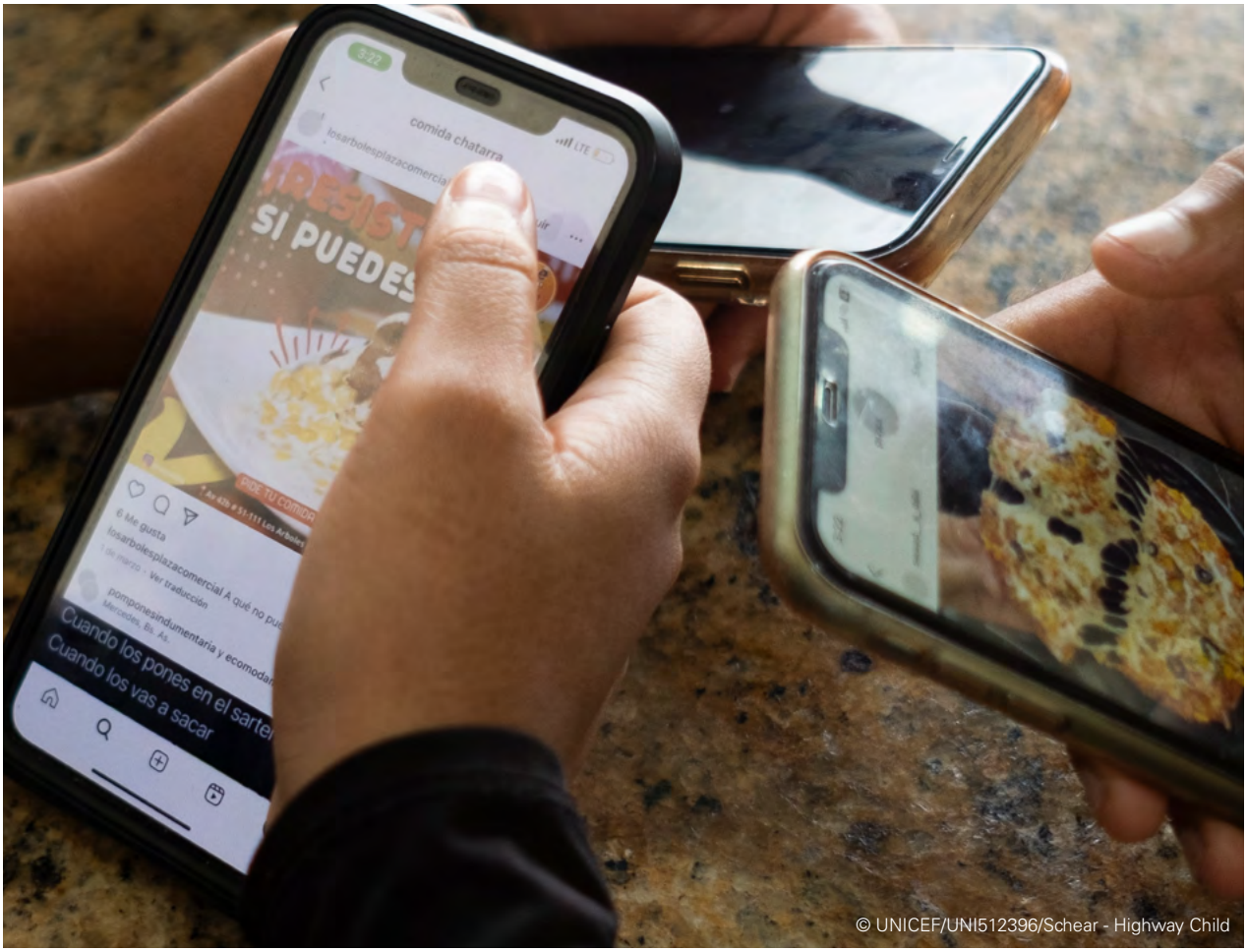
Physical Inactivity

LAC holds the highest global rate of physical inactivity among adolescents: 84.3 per cent of those aged 11 to 17 years fail to meet the recommended 60 minutes of daily moderate-to-vigorous activity.[26] Gender and socioeconomic disparities exacerbate the problem, particularly among girls and those from low-income backgrounds, where access to safe recreational spaces and time for exercise is limited.[27] Inadequate urban infrastructure, including unsafe roads and lack of pedestrian-friendly areas, limits opportunities for physical activity . This lack of activity has broader implications. A recent study in Argentina, Colombia and Peru found that adolescents who engaged in physical activity were significantly less likely to report symptoms of depression and/or anxiety. They also found gender differences, with girls having greater odds of experiencing depression and anxiety than boys.[28]



Media Influence, Social Norms, and Mental Health

The digital environment has become increasingly influential in shaping diet and physical activity behaviours of children and adolescents. Engaging with digital environments and "screen time" regularly promotes a sedentary lifestyle[29] and the use of social networking sites has further raised concerns regarding unhealthy dietary habits and body image.[30] Significant positive correlations have been demonstrated between the use of social media and anxiety, body dissatisfaction, depressive symptoms



© UNICEF/UNI512396/Schear - Highway Child

and disordered eating patterns among adolescents 10 to 19 years of age.[31,28] Children are estimated to represent one-third of global internet users, particularly in developing countries.[32] In Latin America, internet access rose from 67.1 per cent in 2013 to 80.6 per cent in 2023, making up 9.4 per cent of global users.[33] Weight stigma is also conveyed in various ways through social media, and a vast array of correlations between weight stigma in social media and psychological components exist, including body dissatisfaction, physical appearance, self-esteem, eating behaviours, psychological well-being and lifestyle choices.[34]

In addition, UNICEF study[35] on social media and adolescent health in Chile, El Salvador, and Jamaica found that 42.6 per cent of adolescents reported heavy use (more than four hours per day), with Facebook, Instagram, and WhatsApp being the most popular platforms. When asked about emotional support, 84.4 per cent named WhatsApp, followed by Facebook (51.2 per cent) and Instagram (44.6 per cent). But the same platforms were also named as sources of anxiety—Facebook (58.1 per cent), Instagram (50.9 per cent), and WhatsApp (46.4 per cent). Given their age, adolescents are particularly vulnerable to marketing, due to their inability to differentiate between factual content and content promoting unhealthy habits. Influencers promote specific dietary habits on social media[36] and have links with specific brands and products.[37] Some researchers note that they have considerable power in shaping cognition, attitudes and behaviour.[36] Further, regulatory environments which limit the marketing of unhealthy products targeting children and adolescents' are often absent.[37]

16 million



About 16 million adolescents aged 10-19 years in LAC or about 15 per cent - live with a mental disorder, with anxiety and depression accounting for almost 50 per cent of these disorders.

Other sociocultural factors can enhance or inhibit the relationship between unhealthy environments and diet and physical activity behaviours that impact body weight. Gender norms and family dynamics play a role in adolescents' eating behaviours and body image perceptions, although the impacts vary. In many contexts, gender expectations influence eating patterns, body satisfaction, and parental control over diet.[38] Families can act as both protective and risk factors: while some provide guidance and promote healthy eating habits,[40] others may inadvertently encourage poor dietary behaviours, shaped by cultural preferences or misconceptions about health and nutrition. For example, some researchers have found that in the LAC region, mothers may often prefer a heavier child, associating good health with high caloric intake.[39] A separate study in Colombia, Guatemala and Mexico similarly found that young children's eating behaviours are strongly shaped by parental influence, such as being introduced to sugary drinks or coffee at an early age, and by community norms that associate eating out with financial well-being.[7]

These social and cultural dynamics, including gendered expectations around food preparation, reinforce perceptions of what is normal or desirable in terms of diet and body size. Body dissatisfaction and self-objectification are heavily influenced by sociocultural factors, such as pressure from family members (adults, older siblings and cousins) and peers, and media influence,[41] and linked with emotional distress (e.g., somatic symptoms, anxiety and insomnia, and social dysfunction).41 While most research tends to explore this trend among girls, others have noted that boys also experience pressure from peers to lose weight.[7]

About 16 million adolescents aged 10-19 years in LAC - or about 15 per cent - live with a mental disorder, with anxiety and depression accounting for almost 50 per cent of these disorders. Tragically, over ten adolescents die by suicide each day, ranking it as the third leading cause of death among adolescents aged 15–19 years in the region in 2019.[42] In the LAC region, mental health investment and services gaps are key challenges for advancing adolescent health. Historically, countries in LAC have invested less in mental health care compared to other sub-regions.[43] Resources are also distributed unevenly. On average, more than 60 per cent of the mental health budget is allocated to psychiatric hospitals, leaving little resources for primary healthcare.[44] While there continues to be a lack of updated data from many countries in the region, a study using community-based surveys of mental health disorder from Argentina, Brazil, Chile, Colombia, Guatemala, Mexico and Peru found a treatment gap for children and adolescents over 50 per cent.[43] Further, gaps in the mental health workforce exacerbates these challenges.[44]

Overweight and obesity are linked with mental health conditions and weight stigma can further exacerbate these issues.[45,46,47] The topic of weight stigma is complex, especially given cultural context in countries with both under and over nutrition present in the sample population. For example, a study among reproductive-age women in Guatemala, including 15 to 20-year-olds, found that weight-related teasing focused on both underweight and overweight, and was a significant psychosocial stressor regardless of weight status.[48] The study also found that the risk for teasing was higher among women who were already vulnerable, such as those who were younger, poorer or more food insecure.

Policy Responses and Knowledge Gaps

Adolescent mental health and nutrition are recognized as a priority for UNICEF as part of their mandate to achieve long-term goals linked to children's rights under the Convention on the Rights of the Child through the implementation of the Strategic Plan 2022–2025.[94] In 2022, UNICEF and WHO launched the Joint Programme on Mental Health and Psychosocial Well-being and Development of Children and Adolescents, which aims to accelerate country-level action and improve access to mental health promotion and services for young people.[95] Additionally, UNICEF has developed a Global Multisectoral Operational Framework for Mental Health and Psychosocial Support (MPHSS) of Children, Adolescents and Caregivers Across Settings,[96] which supports people working in relevant sectors to scale up MPHSS quality interventions and become more MPHSS-sensitive when working with children and adolescents.

In response to the rising rates of overweight and obesity, several LAC countries have adopted regulatory measures. In 2014, PAHO launched the Plan of Action for the Prevention of Obesity in Children and Adolescents, which was signed by 19 countries. The plan includes policies such as front-of-warning package labelling, taxes on sugary drinks and energy-dense foods, food marketing regulations, and improvements in school nutrition and physical activity environments.[49]

Despite the evidence linking overweight and obesity with the unhealthy and sociocultural environments, more research is warranted to better understand the ways that these environments influence self-perception regarding body image, mental health, and nutrition and physical activity -related choices among adolescents in the LAC region. Further learning on the critical risk and protective factors for adolescent overweight in the region would also contribute significantly to advocacy and technical efforts to help safeguard children's and adolescents physical and mental health and well-being. This exploratory study, commissioned by UNICEF LACRO, aims to fill this knowledge gap by exploring these topics through primary data collection in El Salvador and Peru, and secondary data collection through a desk review focusing on the LAC region.

Finally, while this section provides an overview of key global and regional trends that shape adolescent health and well-being, including social, cultural, and environmental influences, several of the themes introduced here are examined in greater detail in the Desk Review section. There, the focus shifts to a deeper analysis of the existing evidence and literature, particularly in relation to the LAC context.



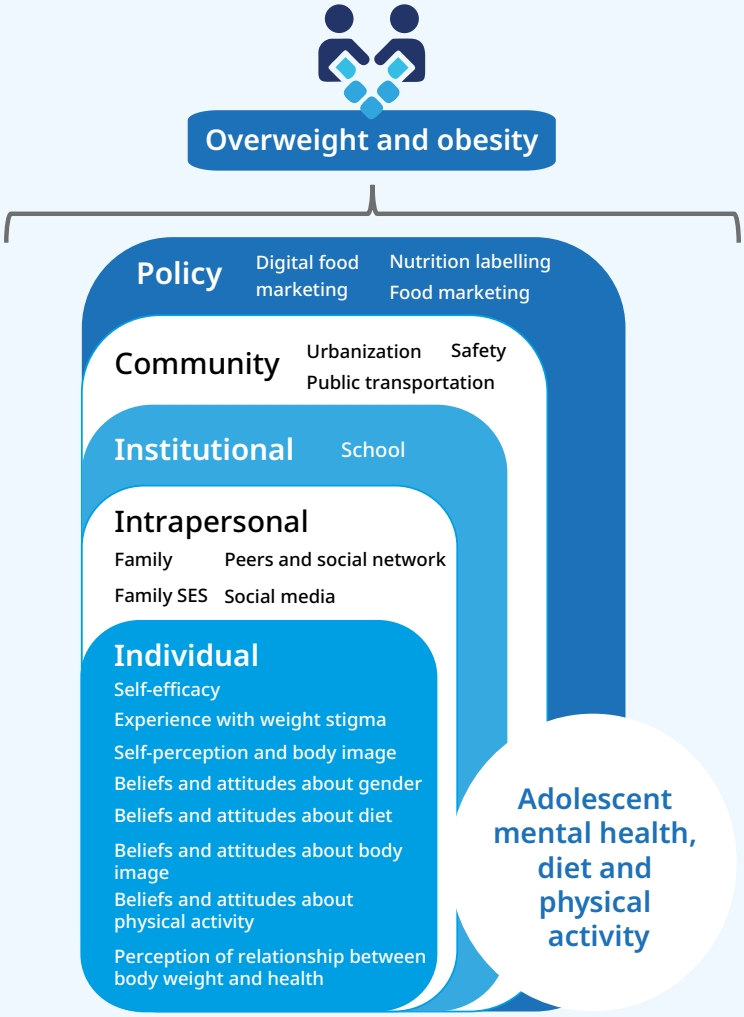
© UNICEF/UNI542121/Marques

3. METHODOLOGY

This report presents the results of a study on adolescent nutrition and mental health in the LAC region. This includes findings from the two components of the study; a) the desk review and b) the primary data collection in El Salvador and Peru. The research focused on examining how obesogenic and sociocultural environments influence adolescents' self-perception, body image, mental health, dietary habits, and levels of physical activity. It also explored the key protective and risk factors associated with diet and physical activity, and investigated the role of food marketing, gender norms, and social media in shaping these behaviours. Additionally, the study considered how adolescents cope with overweight and obesity, including the impact of weight stigma.**

3.1 The behavioural drivers model

The behavioural drivers model (BDM) was used to guide the desk review and primary data collection for this study. BDM is a conceptual framework that draws on existing research and theories to build a model from which to better understand social behavioural change.[50] The BDM recognises that multiple determinants within the socio-ecological model (SEM) shape behaviour, cross-cutting psychological, sociological and environmental influences.[50] In this study, the BDM was used to organise and interpret findings from the desk review. These results shaped the design of the research and the development of the data collection tools. For the analysis, a deductive coding framework was developed using the BDM. This connected the research questions, data collected and thematic analysis on adolescent mental health, diet, and physical activity in LAC by identifying key influences, framed by aspects of the model. These influences were further broken down to explore more specific drivers of behaviour within obesogenic and sociocultural contexts.



Source: The research team designed this figure from information provided by Petit, Vincent. 'The Behavioural Drivers Model

Figure 2. BDM level 1 drivers of the study themes, framed within the SEM

** These countries were chosen by UNICEF LACRO based on high rates of overweight and obesity and mental health issues among adolescents.

3.2 Desk review

The literature (scientific and grey literature) of the last ten years (2014-2024) was reviewed to address the key research questions. The desk review was conducted using a multi-faceted approach, which integrated the study objectives with the level 1 drivers of the BDM[50] three-step method was used for the identification and preliminary review of the literature. Relevant electronic databases (e.g. Google Scholar, Pubmed/Medline) as well as key reports published by global, regional or sub-regional authorities were reviewed. The web-based review was conducted using a keyword-based search in both English and Spanish, with generic search terms and Boolean operators. Simultaneous cross-referencing was also conducted to identify other relevant studies.

Overall, 287 sources were identified *(see Figure 3)*, and 44 sources were excluded for not meeting the inclusion criteria. Criteria for inclusion were: references published from 2014 to 2024; studies with a focus on LAC (except in cases where key global studies were relevant or where there was a gap in LAC-specific literature); studies that focused on the main themes of the research (sociocultural and obesogenic environmental factors related to childhood overweight in the LAC region, perception of body image, mental health, nutrition-related lifestyle choices, physical activity, UPFs, social media, marketing, key risk and protective factors); published in English or Spanish; and peer-reviewed articles or grey literature (when relevant). The remaining 243 sources were imported into MAXQDA for coding. Of these, an additional 82 were excluded for not meeting the inclusion criteria or were duplicates. The researchers used the "memo" function of MAXQDA to document this process, indicating why a source was excluded. All selected documents were coded and analysed using MAXQDA.

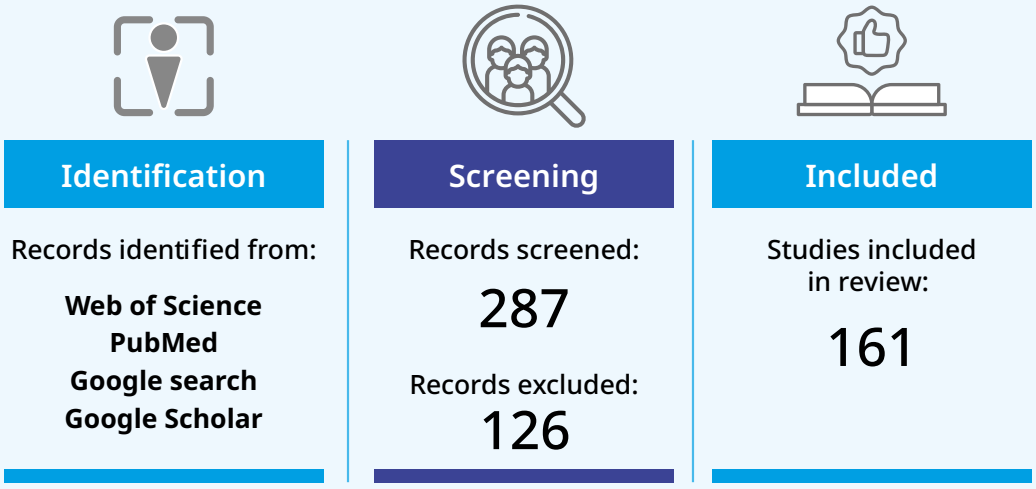


Figure 3. PRISMA[51] flow chart



© UNICEF/UNI502886/Romani

3.3 Primary data collection

In-depth qualitative data were collected in Peru and El Salvador through key informant interviews (KIIs) and focus group discussions (FGDs) with adolescents. These countries were identified by UNICEF as priority countries due to the high rates of overweight and obesity among adolescents, as well as the increasing mental health concerns. Additionally, remote interviews were conducted with regional and country level subject matter experts in the fields of adolescent nutrition, health, and/or mental health to further inform the study's findings.

3.3.1 Focus group discussions with adolescents

FGDs were conducted with adolescents in Peru (n=10) and El Salvador (n=11) through participatory methods. In Peru, the adolescents invited to participate were from schools in northern Lima currently working with the UNICEF country office (CO), while in El Salvador adolescents from youth, community and church groups in San Salvador and nearby municipalities were invited to participate either through local Non-Governmental Organisations (NGOs) or the CO. Each FGD lasted approximately one hour and included 3-12 adolescents*** between the ages of 12-18 years. The groups were stratified by age (12-14 and 15-18 years) and gender *(see Table 1)*. The FGDs engaged adolescents in a participatory way through dynamic activities designed to discuss nutrition knowledge and practices, directly addressing the relevant research questions, and foster discussion on this. Each FGD concluded with an activity entitled "Are You Sugar Savvy?", in which adolescents were asked to rank beverages according to their sugar content.[52] The FGDs were kept confidential and verbal informed consent was always sought from all participants prior to commencing an FGD. FGDs were recorded only with the permission of all participants.

Table 1. Focus Group Discussions' sample by age and gender

Gender	Age	FGDs in El Salvador	Participants	FGDs in Peru	Participants	Total Participants
Girls	12-14	3	17	2	22	39
	15-18	3	18	3	29	47
Boys	12-14	2	6	2	24	30
	15-18	3	15	3	30	45
Total		**11**	**56**	**10**	**105**	**161**

*** In the case of El Salvador, one FGD was conducted with only two participants due to logistical challenges during the fieldwork.

3.3.2 Adolescent key informant interviews

Due to the sensitive nature of discussing concepts like body image and weight stigma, KIIs were conducted with adolescents aged 12-18 years to allow for private, individual discussions on body image and mental health *(see Table 2).* A total of eight KIIs were conducted in El Salvador and fifteen in Peru. Interviews incorporated the photo elicitation technique, presenting key informants with images depicting individuals of both healthy and overweight body types. This approach facilitated the collection of culturally relevant insights into perceptions of healthy and unhealthy weight and body image. To safeguard participants' wellbeing, the research team, supported by UNICEF COs, developed a referral protocol to ensure that adolescents could be directed to appropriate mental health services should any concerns arise during the interviews.

Table 2. Adolescent Key Informant Interviews' sample by age and gender

Gender	Age	El Salvador	Peru	Total
Girls	12-14	1	3	4
	15-18	2	4	6
Boys	12-14	2	3	5
	15-18	3	5	8
Total		**8**	**15**	**23**

3.3.3 Key informant interviews with experts

Semi-structured virtual KIIs were conducted with regional subject matter experts (n=8) as well as in-country experts in Peru (n=9) and El Salvador (n=8) to answer the study questions and provide context on study themes from regional and local perspectives. This included stakeholders from UNICEF, PAHO/WHO, thematic experts (e.g., authors of key studies on the research topics, including academics and researchers from non-academic institutions), psychologists, government actors, and national and international NGOs (including civil society organisations (CSOs)) working on topics relevant to the study themes. Semi-structured interview guides were developed based on the research questions and study themes. Their flexible format allowed for adaptation to each participant, enabling the use of probing questions to further deepen the response. All KIIs, except for one, were conducted remotely by a member of the research team using Teams. The interviews were kept confidential and verbal informed consent was always sought prior to commencing an interview. KIIs were recorded with the permission of participants.

3.4 Data analysis

Qualitative data from document reviews, KIIs, and FGDs was transcribed using Trint software, with all transcripts manually verified. Transcripts were uploaded to MAXQDA for coding. A coding framework aligned with the study's research questions was developed and refined throughout the process. Once coding was complete, the team members reviewed and compared each other's coding to ensure consistency. Subsequently, patterns and frequencies were identified, triangulated and summarised in this report.

4. RESULTS OF THE DESK REVIEW

This section provides a condensed summary of key findings and insights from the desk review on the effects of sociocultural and obesogenic environmental factors on adolescent self-perception regarding body image, mental health and healthy lifestyle-related choices. While the desk review focuses on the LAC region, much of the available literature originates from elsewhere. Therefore, some global studies are included to fill the gaps in the topical literature and to contextualise the findings where appropriate.

4.1 How do obesogenic and socio-cultural environments influence adolescent self-perception, body image and weight stigma in lac?

Body image is highly related to culture and ethnicity[53] and a crucial element for self-acceptance during adolescence.[54] Body image dissatisfaction affects individuals across all ages in Latin America and is linked to desire for thinness and the development and persistence of eating disorder symptoms, depressive symptoms, and unhealthy weight control behaviours.[55] A study of Lima high schoolers aged 13 to 17 years found those dissatisfied with their body image were 3.7 times more likely to report depressive symptoms.[56] Numerous global studies also highlight the influence of sociocultural factors such as beauty ideals, media, peer and family pressure, and acculturation.[41]

A large study of eighth- and ninth-grade students from six LAC countries examined attitudes and perceptions of body image across socioeconomic backgrounds.[57] A strong link emerged between BMI and body satisfaction, with many adolescents—especially those with higher BMIs—wishing to be thinner. About 89 per cent of those with higher BMIs wanted to lose weight, despite many not perceiving themselves as overweight. Strikingly, only 10 per cent of males and 2 per cent of females with high BMI considered themselves heavy. The study underscores the importance of **self-perception**, as shown in Bonaire, where only 56 per cent of adolescents accurately identified their weight.[58]

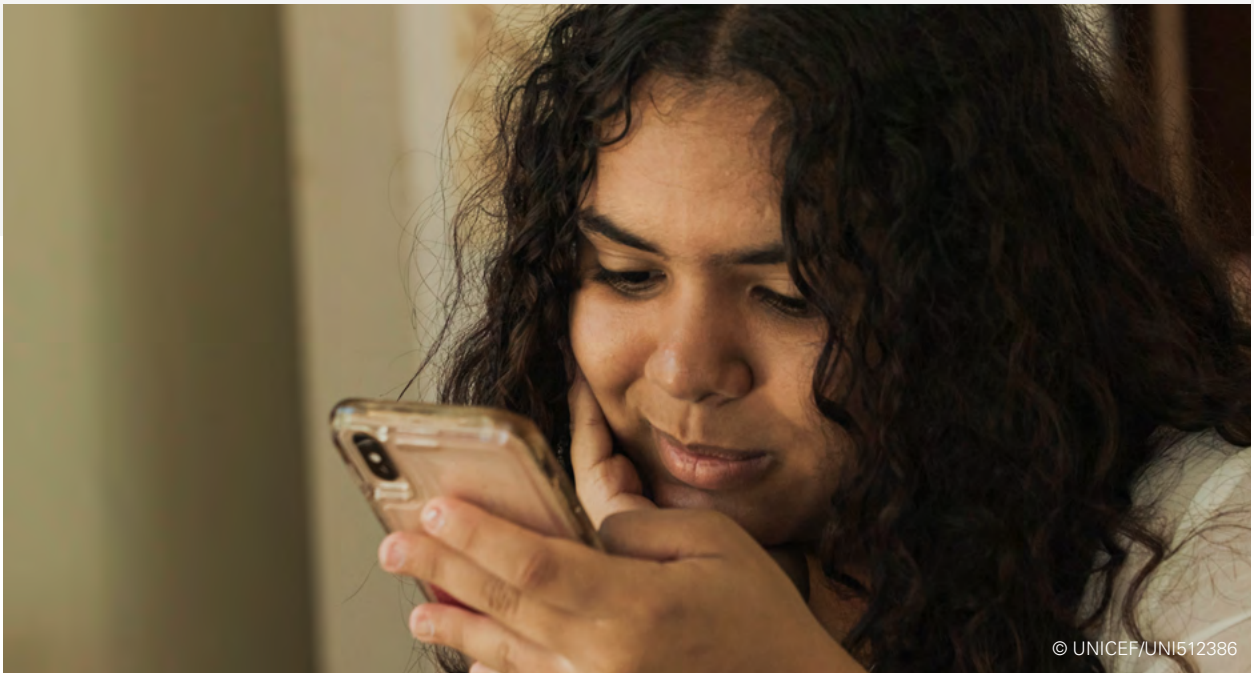
The use of **social media** impacts how adolescents communicate, explore their identity, and build relationships.[59] Overall, the literature demonstrates a strong global association between social media use and negative body image among adolescents,[60] with some evidence indicating similar trends in Latin America.[55] Frequent social comparisons, negative self-evaluations, and internalization of appearance ideals play key roles in linking online activities on Facebook to poor body image in adolescent girls.[61] Globally, youth anxiety and depression rates have increased by up to 70 per cent over the past 25 years, with social media contributing to this rise and influencing habits and eating behaviours.[37] In recent years, social media movements promoting body positivity and acceptance have challenged appearance ideals and shown benefits like improved body satisfaction, self-esteem, and mood.[35,45] However, numerous studies highlight negative effects, such as increased self-objectification—especially among girls where they tend to perceive and regard themselves as an object to be assessed based on physical appearance, rather than as a complete individual —and the promotion of unrealistic beauty standards.[35,45] A Chilean study found that adolescents were heavily influenced by TikTok filters, beauty stereotypes, and the need for peer acceptance, with little focus on promoting healthy behaviours such as a healthy diet.[62] A qualitative study conducted in Peru further indicated that the stereotypical "perfect" bodies portrayed in social media caused frustration, anxiety and constant comparison among females aged 19-23 years.[63] Stress-related eating, eating in response to certain

emotional states, is identified in studies outside of LAC as one coping strategy employed by children who are living with overweight or obesity, though unhealthy eating can also be a coping reaction to stress in general, including individuals who are not living with these conditions overweight or obesity. This has also been identified as a response to bullying and victimisation.[64] Social media can contribute to the stigmatisation of those who do not conform and create social exclusion.[65] Despite concrete global evidence of the harms **weight stigma** can cause, there is a dearth of empirical research on weight stigma and discrimination emerging from LAC. To help bridge the gap in empirical evidence on weight stigma and discrimination in LAC, *The Lancet Regional Health – Americas* will publish a dedicated thematic issue on this subject in 2026.[66]

HOW DO OBESOGENIC AND SOCIO-CULTURAL ENVIRONMENTS INFLUENCE ADOLESCENT MENTAL HEALTH IN LAC?

Research in Latin America suggests a complex relationship between unhealthy environments—such as high availability, access, promotion and consumption of UPFs and sedentary lifestyles—and adolescent **mental health.** Evidence indicates a bidirectional link between poor diet and depressive symptoms, with physical activity and water intake offering some protection.[67] Surveys in countries like El Salvador[68] and Brazil[19] highlight high rates of depression and anxiety symptoms among adolescents, often co-occurring with obesity-related factors such as less physical activity or a higher body image dissatisfaction. Gender differences are also noted, with girls being more affected by both UPFs consumption and related mental health issues.[19]

Factors like bullying—both in-person and online— pose a risk to adolescent mental health, including the development of symptoms of anxiety and depression, eating disorders, and even suicidal ideation.[35,69] The Global School-based Health Survey revealed a clear association between obesity and suicide ideation, especially in girls.[70] Despite growing awareness of the addictive and neurological effects of UPFs, their role in adolescent mental health is still underexplored in the region, and behavioural interventions often neglect how UPFs can trigger the brain's reward system, leading to more cravings and increased consumption.[71]



4.2 How do obesogenic and socio-cultural environments influence diet and physical activity among adolescents in lac?

The obesogenic environment in LAC is shaped by globalization, urbanisation, and socioeconomic inequality, with **diets** changing due to the increasing accessibility and availability of unhealthy foods like UPFs.[22] Healthy diets in LAC are more expensive than the global average, leading financially constrained families to prioritise cheaper, less nutritious UPFs over healthier options.[1] In addition, the region has become the global lead in SSBs consumption, contributing to rising obesity and related health issues.[72]

In many cases, food marketing targets children directly, exploiting their sensitivity to rewards and underdeveloped self-control, whilst making UPFs more attractive and accessible than healthier options.[73,74] Aggressive food marketing—often unregulated in Latin America— commonly targets youth through digital platforms and influencers, promoting unhealthy products and exploiting adolescents' limited ability to distinguish between advertising and factual content, thereby contributing to poor dietary habits and health disparities.[75,37] Gender norms and stereotypes such as the consumption of moderate quantities of healthy foods being associated with femininity and male homosexuality, while consumption of larger portions of unhealthy foods was associated with masculinity and male heterosexuality influence consumption behaviours.[38] Cultural values and parental beliefs—often underestimating a child's weight—further shape dietary patterns and weight outcomes.[38,76,22,77,39] School environments significantly affect adolescent nutrition, with unhealthy foods and SSBs often more available than nutritious alternatives.[77] Despite policy measures like restrictions or taxes on SSBs and front-of-package warning labelling, implementation and enforcement vary across Latin American countries like Brazil, Chile, Mexico and Peru.[77,78] In countries like Chile, comprehensive regulations such as front-of-package warning labels, marketing restrictions, and school sales bans, have significantly reduced children's exposure to unhealthy food advertising.[79]

Global and regional studies highlight that peer relationships significantly influence adolescents' motivation to engage in **physical activity,** with social judgment often deterring participation.[80] Despite its health benefits, LAC has the highest global rate of physical inactivity among adolescents, with 84.3 per cent of those aged 11 to 17 years not meeting the recommended 60 minutes of moderate-to-vigorous physical activity per day.[81] School-based physical education classes remain a critical source of physical activity yet implementation in some countries is hindered by resource and staffing shortages. Integrated school interventions combining physical education and nutrition education can help address rising obesity rates, though more research in LAC is needed.[82]

Gender disparities in physical activity are notable, with girls being less active than boys across low- and middle-income countries, including in LAC.[83] Evidence from an analysis of national-level household surveys, with a sample of over 200,000 children and adolescents (5-17 years), found that boys were more likely to meet physical activity guidelines than girls, although the gender inequities varied by country.[84] The largest inequities were found in Barbados, Brazil, Chile, Costa Rica, Paraguay and Uruguay. Researchers contextualised these findings with others, which attributed lower physical activity levels among girls to lower participation of girls in sports and other socio-ecological factors at the individual, family, school and environmental levels. Urban environments, with poor infrastructure and safety concerns, are associated with higher adolescent obesity.[85] In school settings, gender norms and body image pressures further discourage girls' participation in physical activity.[86] While the influence of physical activity health promotion interventions in some settings has been shown to be effective, there is still a dearth in the literature for the LAC region, especially for adolescents.

4.3 What are protective and risk factors influencing diet and physical activity?

Family can play a **protective** role in adolescent nutrition, with higher parental socioeconomic status and education linked to healthier diets, greater dietary diversity and developing cooking skills.[40,87] However, evidence from Peru, for example, highlights that wealthier households can also exhibit higher rates of overweight and obesity, underscoring the complex and context-specific relationship between socioeconomic status, diet, and physical activity in LAC.[40] In addition, school-based obesity prevention interventions,[88] adequate infrastructure (e.g., public squares, bike paths) close to home[89] and community and family contexts support healthy dietary behaviours by promoting consumption of healthy foods and fostering cooking skills, which are generally considered to be key factors that promote healthy diet and physical activity.[40]

Research highlights several key risk factors contributing to poor diet among adolescents in Latin America and the Caribbean. These include widespread food marketing targeting young people, the easy availability of unhealthy foods and sugary drinks, and personal beliefs that healthy eating is mainly relevant for older adults, athletes, or men. Social media and digital networks used by adolescents also play a role by promoting unrealistic body and food ideals, which can contribute to body dissatisfaction and disordered eating. Additionally, mental health challenges such as stress or low mood can influence unhealthy dietary choices. Similarly, several factors contribute to low levels of physical activity among adolescents. Excessive screen time, limited access to safe or suitable spaces for exercise, and the belief that physical activity is only necessary for specific groups (such as adults with health issues or professional athletes) all reduce participation. Mental health difficulties may further decrease motivation and energy for regular physical activity.[83,90,91,92] In addition, urbanisation has also been associated with unhealthy behaviours in the region.[93]



© UNICEF/UNI657679/Izquierdo



© UNICEF/UNI542154/Velez

5. RESULTS OF THE PRIMARY DATA COLLECTION

This section presents the main findings of the FGDs and KIIs in El Salvador and Peru. This includes the way in which unhealthy and socio-cultural environments shape diet and physical activity, key aspects of the relationship between self-perception, body image and mental health among adolescents, and the links between mental health and diet.

5.1 FOOD PREFERENCE, PEERS AND SCHOOL ENVIRONMENTS PROMOTE UNHEALTHY EATING, DESPITE NATIONAL POLICIES



Overall, school environments were perceived by both adolescents and experts to contribute to unhealthy eating among adolescents due to easy access to unhealthy foods, limited healthy options, and socioeconomic constraints, despite national policies aimed at improving school nutrition in both El Salvador and Peru.

In both settings, many adolescents preferred unhealthy foods over healthy foods due to the way they taste, indicating that unhealthy foods tasted better to them. They also reported the habit of eating unhealthy foods as something they were accustomed to. Knowledge of healthy and unhealthy eating was not found to be a protective factor among adolescents. While the majority of them could correctly identify healthy and unhealthy foods, as well as elements of a healthy diet, including acceptable portions of each food group (in the case of schools in Peru where UNICEF had nutrition interventions), almost all reported they still consumed unhealthy foods because of their taste, convenience, and availability. The influence of peers was also mentioned. For their part, experts noted that the need for social acceptance during adolescence makes them highly vulnerable to adopting the dietary and physical activity habits of their group, even when those habits are unhealthy.

> *"If you are in an environment where all your friends eat unhealthy foods and drink sugary drinks, there is a high probability that you will consume them too"* (Regional Expert, Guatemala).

This was confirmed during FGDs, where adolescents, especially boys, mentioned that unhealthy foods such as pizza or street food are what is preferred during day-to-day interactions with friends, as well as the preferred food in parties or celebrations, since it is more affordable and liked by everyone.

Across the sample, adolescents highlighted the economic drivers of food choice in general, as unhealthy food options were generally perceived as cheaper and more affordable than healthy options. Convenience also played a role, as one adolescent noted.

"Because sometimes it is easier to eat street food than to make healthy food" (Girl, aged 15-18 years, El Salvador)

These trends were aligned with the overall finding that the school environment plays an important role in shaping diet and nutrition among adolescents. In both settings, adolescents described eating lots of chatarra or "junk foods" in school. In El Salvador, adolescents talked about easy access to foods such as pupusas (corn tortillas stuffed with beans, meat and/or cheese and cooked on a griddle), hot dogs and hamburgers, while other foods, such as fruits and vegetables were generally limited at school. This is similar to what Peruvian adolescents reported, indicating that the school kiosks tend to sell more "junk foods" than healthier foods. When healthier food options are available, such as fruits, they are more expensive. Some Peruvian boys aged 15–18 reported bringing money to buy food because their parents didn't have time to prepare a healthy packed lunch, leaving them to choose from whatever options were available.

"Although at school we do eat more unhealthy food"
(Boy, aged 12-14 years, El Salvador)

Experts agreed that although the school environment is recognized as a critical setting for promoting improved nutrition and health behaviours among adolescents, existing policies and their implementation remain insufficient. In both Peru and El Salvador, school feeding programmes exist at the national level and there are policies that limit sale of UPFs in and around schools. Despite this, adolescents in this study reported higher consumption of unhealthy foods in and around school than healthy foods. Some experts at the regional level and country noted that adolescents are often an "invisible" population when it comes to national priority-setting and developing subsequent policies, including nutrition policies.

"Adolescents should no longer be made invisible, is something that must be very clear. Adolescents have always been made invisible.....some of them are healthy because they are not attended by the health systems, but adolescents are sick, yes, they are obese, they have a high percentage, with hypertension, with diabetes, with metabolic syndrome. In other words, the adolescent is sick. The fact that he/she does not go to the health services does not mean that he/she is healthy....health and nutrition programs should focus not only on preschool and school children, which is where all the surveys are oriented. They forget to include adolescents everywhere, they forget to include the adolescent population when breastfeeding is promoted, when physical activity is promoted from childhood and adolescence."
(Researcher, Costa Rica)

While policy regulation is seen by experts as a key protective factor through laws such as banning junk food inside schools, enforcement is poor, especially in low-resource settings or private schools. For example, adolescents in the FGDs reported that they still access SSBs or UPFs just outside school premises, despite policies, a fact that was confirmed by the research team when conducting field work in Peru. Other policies such as food labelling, sugar taxes or restrictions on food marketing were also seen as important protective factors by experts, but they also highlighted structural and political barriers to implementation, noting delays in regulation and opposition from the food industry, as well as limited oversight, lack of political will, and logistical challenges.

5.2 AVAILABILITY OF FOOD, SOCIOECONOMIC FACTORS, AND CULTURAL NORMS WITHIN FAMILIES SHAPE DIET



Adolescents agreed that meals and foods available and consumed by the family, as well as the parents' own eating habits influenced their own eating practices. Of the adolescents that discussed this, the sample was split, with half indicating that family influenced healthy eating, while the other half described eating unhealthy foods in their home environments. For example, healthy foods at home included salads and balanced meals, while unhealthy meals at home included a lot of fried foods.

Regional experts emphasised the fact that parents model behaviours for their children. For examples, unhealthy practices, such as consumption of SSBs, are common among adults, who then share or model them for their children. One regional expert noted,

> *"Sometimes what we parents do is to train our children to overconsume, right?"* (Nutrition and Overweight and Obesity Researcher, Mexico).

This was echoed by some of the adolescents.

> *"There are children as young as seven, eight years old, who want to eat a lot because of their parents. They see the father who is eating and they want to match him, they want to eat the same. For example, I used to like soda very much. So, I was angry that sometimes I bought soda and my parents drank more than me. Or I was angry that they didn't divide the amount in the same proportion...Before, when I weighed a lot, my parents filled themselves with 27 tacos. But for the same reason, wanting to equal myself, or to be better, to think I was better, I ate 37. I was very happy with my record. But then I realized that it was wrong to eat too much* (Boy, aged 12-14 years, El Salvador).

Parent modelling can also have a positive impact on adolescent diet. Perspectives of both adolescents and experts highlighted the importance of caregivers as a protective factor to promote a healthy diet through modelling these behaviours, preparing healthy meals or encouraging adolescents to adopt healthy habits. Adolescents commonly reported that the nutritional quality of their diet was closely linked to their parents' (often mothers') decisions, with some adolescents describing that their mothers set clear limits around junk food, while others reported that they ate healthy food because their mothers cooked and encouraged vegetables and other balanced foods during meals. Supportive supervision, such as monitoring food choices and limiting sugar or processed foods, was often seen as "annoying but helpful." For example, an adolescent mentioned,

> *"My mom is the one who tells me 'you are gaining weight, you should eat healthier, don't start your day eating bread'... She tells me this because she goes to the gym and she is very strict with healthy food"* (Girl, aged 15-18 years, Peru)

According to experts in Peru, as socioeconomic conditions improve in some areas (e.g., access to basic services such as water) there are often increases in overweight and obesity associated with increased access to store-bought poor-quality foods. They also noted that in some contexts, families may have access to healthier foods like fruit earlier in the week, while financial constraints often limit their ability to maintain these

choices, leading to reliance on cheaper, packaged alternatives later in the week. Additionally, according to an expert interviewed in a Costa Rican context, when parents work, they tend to bring in food for dinner, including a lot of fried foods, such as empanadas or fried chicken.

Some experts also emphasized that healthy food options must be both affordable and culturally acceptable. In Peru, while traditional diets were described as flavourful but high in carbohydrates and calories, they often involve large portion sizes, which contributes to overweight and obesity. Adolescents in Peru also noted that typical foods served at home were often high in carbohydrates and that portion sizes were sometimes big. For example, one adolescent commented that in her family, they serve her young cousin portion sizes as if he were an adult.

Other regional cultural factors contribute to sharing unhealthy eating habits. For example, grandparents often show their love by making food or using unhealthy foods (e.g., fast foods or junks foods) as rewards for good behaviour.

> *"What we have been able to see here is that what the parents eat is what the children eat, right? As in any part of the world, let's say, but food has other meanings as well. Here it does not only mean calorie intake, it means relationships, affection, love. There are even some beliefs like that are still maintained, no? The child that is skinny, is a child that is not healthy and the child, chubby or plump is a child. Oh, how chubby he is, how healthy when he may be overweight and that this harms his weight later on. So here are those elements.* (Child and Adolescent Mental Health Expert, Peru).

Notable age and gender differences emerged, particularly in how family influences and social pressure shaped eating behaviours, with younger girls and older boys referencing parental impact more frequently

5.3 ENGAGING IN PHYSICAL ACTIVITY CONTRIBUTED TO POSITIVE MENTAL HEALTH



Both girls and boys in the sample, reported that they or their peers engage in various types of physical activity, including calisthenics, volleyball, stretching, dancing, basketball, walking and soccer. Volleyball was mentioned exclusively in Peru, where the sport is popular, among both boys and girls. While more boys than girls talked about playing soccer in Peru, in El Salvador, soccer was discussed in almost the same number of data collection sessions (three sessions with girls and four sessions with boys). For some adolescents, there were barriers to engaging in specific activities.

To participate in volleyball, dance and taekwondo, for example, adolescents need to enrol in an academy, which is cost prohibitive for some. In Peru, others explained that if students are not interested in soccer or volleyball there are a lack of facilities to do other sports, such as basketball, which prevents them from being physically active.

Notably, adolescents linked physical activity with positive mental health. They described physical activity as something that makes them feel good, something they can use to manage stress and

demonstrated that it can help with self-confidence. For example, adolescent described the way that sports inspire them or help them to destress.

"I get a lot of inspiration from sports. I mean...when I can't do it anymore, I insist my body to try harder. I mean, if my body talks to me and tells me, you can't do it anymore, but in my mind I tell it, I can do it, I can do it, to continue" .
(Boy, aged 12-14 years, Peru)

"I play soccer, but I used to play more. Now it's less because, let's say I've been concentrating a lot on studying and so I haven't had time. So what I do to de-stress, I exercise with my mom, either dancing or doing videos with a trainer guiding me".
(Girl, aged 15-18 years, El Salvador)

Social stigma and mental health challenges might also shape how adolescents engage with physical activity. One adolescent girl reported experiencing negative comments that discouraged her from engaging in physical activity.

"I used to play soccer in the street, but I stopped because (my neighbours) would insult me [...] every time I did not do something right when playing they would make me feel inferior".
(Girl, aged 15-18 years, Peru)

The focus of adolescents was different than the perspectives of experts, who emphasised the lack of physical activity among adolescents at the regional and country level. Experts also highlighted the gendered dimensions of physical activity. For example, lack of promotion of physical activity among girls (compared to boys), the objectification of girls' bodies (which prevent them from doing exercise) and the lack of resources for girls' participation in sports (compared to boys). In addition, while schools have incorporated physical activity as part of the curriculum, some experts argue that it is often deprioritized in favour of academic subjects. In many schools, physical education is reduced to a single hour per week and lacks consistent professional instruction.

5.4 JUNK FOOD MARKETING AND IDEALISED BODIES ON SOCIAL MEDIA DRIVE POOR EATING HABITS AND BODY DISSATISFACTION



Social media was linked with eating practices among some adolescents, including being associated with factors that influence unhealthy eating (e.g., promoting consumption of junk food by influencers and Youtubers and creating craving unhealthy foods) and diet-related behaviour (e.g., not eating to live up to body image ideals, not paying attention to food or meals while on social media, including eating very quickly). Adolescents also actively discussed the influence of food marketing, including for name brands which offer high-fat and high sodium snack foods, cookies, SSBs and fast foods. In the FGDs, adolescents added to this by describing unhealthy foods as more "attractive" in terms of their presentation, colour, smell, and packaging, in comparison with healthy foods. Food marketing targets adolescents through platforms such as Tik Tok and YouTube, as well as through context posted by specific influencers.

Experts also described the links between food marketing and the promotion of UPFs.

"Food marketing is bombarding adolescents with UPFs in social media and having an influence in consumption habits [...] they have promotions all the time saying "consume this or that", and salads seem to be more expensive than a hamburger combo, same case of water with soda"
(Researcher, El Salvador).

Experts emphasized that there is lack of counter-messaging geared towards adolescents to promote fruits, vegetables or hydration, leading to a one-sided information ecosystem dominated by corporate marketing. Further, exposure to idealised body images on social media platforms like Instagram, TikTok and YouTube leads many adolescents, especially girls, to feel dissatisfied with their own bodies and desire to emulate the "perfect" physiques they see (e.g., the hourglass body shape). Among girls, this trend was observed in both age groups in both countries. Among boys, the trend was similar (except for boys aged 12-14 in El Salvador), although they focused different body features, such as muscular body types.

Both girls aged 15-18 and boys aged 12-14 identified surgical interventions as a possible response to body dissatisfaction.

"One of the reasons today why, also following COVID, is that as I was saying, because of the perfect bodies that we see on social media. And that mostly are because of operations, not just of a healthy food.....And I think that has also affected young people, because when we see many applications such as Facebook, TikTok, YouTube. So, other apps we, I mean, you become addicted to having the perfect body. And you want the same as that girl, although you are not old enough to have surgery."
(Girl, aged 15-18 years, Peru)

The way adolescents talked about these links clearly revealed the negative impacts on mental health, including shame, anxiety, and low self-esteem. For example, one boy said they felt "mortified" when they see influencers that have very musculature bodies that are not like theirs. Several boys also identified this pattern in their female friends, reporting that girls were more likely to have more pressure to look good and to receive comments regarding their body. For example, one boy between the ages of 15 and 18 years observed that girls experience anxiety over not meeting the perceived expectations of the female beauty. Many girls in both age groups and countries, reported feeling intensified pressure regarding their physical appearance, often expected to be thin, curvy or to "fit" within a female body stereotype. While most adolescents did not explicitly discuss how they protected themselves from body dissatisfaction, some had advice and recommendations about body image and self-perception for others. This included seeking out emotional support (from friends and family), "accepting yourself", and psychological counselling when necessary.

While social media was often cited as a source of stigma and comparison, some adolescents also described positive influences from online influencers in TikTok and Instagram who promote self-care and exercise, while others described that seeing these influencers prepare healthy food, share workout routines or post motivational quotes about body positivity encouraged them to change their habits.

5.5 BULLYING BY PEERS AND FAMILIAL ATTITUDES INFLUENCE BODY IMAGE AND SELF-ESTEEM



Across the sample (in both FGDs and KIIs), adolescents discussed the ways that bullying by peers and family attitudes about body norms affected them. In Peru, bullying was more frequently mentioned among boys than girls, and most often among boys (15-18 years). In El Salvador, the trend was different, as this was discussed more frequently among girls than boys, with boys (12-14 years) only discussing bullying once.

Both boys and girls described bullying as something that occurred often and for many reasons, not just related to body norms. Teasing and negative comments about physical appearance and/or being overweight or underweight led to experiences of weight stigma.

> *"I think I would fit in, but this generation—obviously both men and women—criticize everything. People criticize even over the smallest things. There are even parents who criticize their kids, saying, 'Oh, don't let her eat, she's so fat!' or 'Ugh, you're just a blob lying there.' Even if you don't believe it, it hurts."*
> (Girl, aged 15-18 years, Peru)

While adolescents sometimes made a distinction between how they speak to their friends versus how bullying or teasing occurs in public, the implication was that body weight was a topic of discussion in both spheres.

> *"Yes, we have a chubby friend, but we don't say bullying things to him—just stuff like friends do. There wouldn't be enough time in an hour to say everything we tell him. But to everyone—skinny guys get called 'dried stick' or 'African,' and the chubby ones get called 'meat taco,' 'fatso,' 'chunk of [...]t,' stuff like that. That's the kind of things we say to each other."*
> (Boy, aged 12-14 years, El Salvador)

While this quote reflects peer interactions as reported by adolescents, it contains language that is stigmatizing and potentially harmful. Its inclusion is intended to illustrate the normalization of weight-based teasing among youth and to inform the design of interventions that promote body acceptance and respectful communication

For some, the bullying or teasing resulted in behaviour change or motivated diet and lifestyle choices. During a FGD in Peru, an adolescent girl between the ages of 15 and 18 years described a case where someone was teased so much about being too thin that they started eating junk foods to try and gain weight. Other adolescents spoke about bullying as a motivation for maintaining a healthy diet and lifestyle. For example,

> *"A person with obesity feels overwhelmed—like, overshadowed—because people with more physically fit bodies start insulting them. And well, since the obese person feels bad, they change the way they think, and in that way, they get motivated to have a better-looking body."*
> (Boy, 15-18, Peru)

Adolescents linked bullying with mental health problems, including feelings of insecurity, low self-esteem, depression, sadness and suicidal ideation or death by suicide. Experts also discussed these concerns, noting that not only is there the health issue of overweight and obesity occurring more among adolescents, but there is also discrimination associated with this, exacerbating the problem. A major concern among mental health experts was that adolescents who aren't diagnosed with a mental disorder aren't receiving the support they need in these contexts.


© UNICEF/UNI512394

"From a clinical point of view, not this good [the relationship between body image and disordered eating]. I have been able to perceive that it is present in both [boys and girls]. It is not that it is a problem exclusive to women, it is present in both. There are more and more boys that have these types of circumstances where their body image is being questioned, and of course, if it reaches an extreme, they fall into the range of a clinical disorder—like anorexia or bulimia, let's say. But there's another group. I mean, that's just the tip of the iceberg, but underneath, there's also a whole group of adolescents who, without having a full-blown disorder, for which there is a lot of concern."
(Psychiatrist, Peru)

Social media also contributes to weight stigma and related mental health conditions, as some content is centred around making fun of overweight or obese people. Some girls felt that this type of bullying affects girls more than boys. For some girls, weight stigma was inextricably linked with beauty ideals, as they considered women who were not overweight to be beautiful and believed that beautiful women receive more attention.

Adolescents in El Salvador and Peru also discussed the ways that their family's attitudes regarding body norms affected them. This was more commonly reported among adolescents in Peru than El Salvador. In Peru, this was mostly discussed by girls and was not mentioned at all among boys, 12-14 years. In El Salvador this was discussed by both boys and girls, 15-18 years, but not among the younger adolescents (12-14 years). Family members, including aunts and parents, openly commented on and critiqued the bodies of adolescents (including weight) or they observed this behaviour directed towards other children or adolescents in their family.

"And also sometimes the families are the same ones that harm you because they tell you that you are fat, that you are overweight, that you have to lose the weight and that pushes you not to eat.
(Girl, aged 12-14 years Peru)

"My father, well, last year I was a little bit thinner. My dad used to tell me, well, I should feed myself, I am very skinny, like this. But now that I've put on weight, my dad tells me, ah, you are very fat, you have to do your exercises, like this, I mean, he criticizes. And I feel that if I were someone else, well, I would be like this, like this.... I mean, you take it... because it's my body, it's not his, I take it, my body, if I want to do something with my body, it's mine, it's not his... That is, they have nothing to do with it"
(Girl, aged 12-14 years, Peru)

5.6 SELF-PERCEPTION AND BODY IMAGE ARE ASSOCIATED WITH DISORDERED EATING, MAINLY IN GIRLS



Both male and female adolescents reported witnessing or experiencing bullying related to body size or appearance within their social environments. Adolescents often reported that this was more prevalent during the earlier years of adolescence (11 to 15 years of age), a period marked by significant body changes. They face criticism whether they are perceived as overweight or too skinny, reinforcing unrealistic beauty standards and creating a sense that, regardless of their appearance, they cannot be accepted. Such criticism originated primarily from peers, although parents were also identified as a source. Overall, they coped with the reported weight stigma by altering their diet (either by eating more to gain weight or eating less or healthier to lose weight) or increasing their exercise.

Emotional eating was commonly reported, with adolescents showing varied responses to negative emotions. During two of the FGDs, girls in El Salvador and Peru referred to unhealthy foods as being "addictive" and that engaging in emotional eating to "fill the emptiness" turns into an "addiction". One adolescent even compared addiction of unhealthy foods to being addicted to drugs.

Some adolescents reported eating more when feeling angry, frustrated, anxious, or stressed, with emotional distress often leading to increased appetite and episodes of overeating. Others reported a loss of appetite and increased hunger. This highlights the need for comprehensive interventions that promote healthier emotional regulation strategies that promote physical, mental, and social well-being.

> *"It could also be because some adolescents are dealing with anxiety. In my case, I did have anxiety, and I liked eating junk food—I would eat, eat, then drink something and throw up. And I think that because I had anxiety, I ate chips."*
> (Girl, aged 15-18 years, Peru)

The pressure for both boys and girls to live up to unrealistic gendered body stereotypes, was translated in behaviours such as overeating, restrictive food intake, engaging in disordered eating and dieting as a direct response to stigma or social comparisons. Disordered eating was more frequently reported in Peru than El Salvador, and in Peru was discussed amongst both boys and girls in the sample. In several cases, girls shared that they had skipped meals, vomited, or taken dietary measures—sometimes leading to health consequences like anaemia or requiring psychiatric intervention. While boys were not exempt from body image concerns, with several boys reporting wanting to be more lean or muscular, they often expressed these concerns less openly than girls. Regional and country experts reinforced these findings, noting that girls are more likely to strive for slim or idealized body standards, especially as they become more aware of societal expectations during adolescence through their peers or influencers. Eating disorders related to body image among adolescents was also a concern for many consulted experts, including anorexia nervosa and bulimia nervosa particularly among adolescent girls.



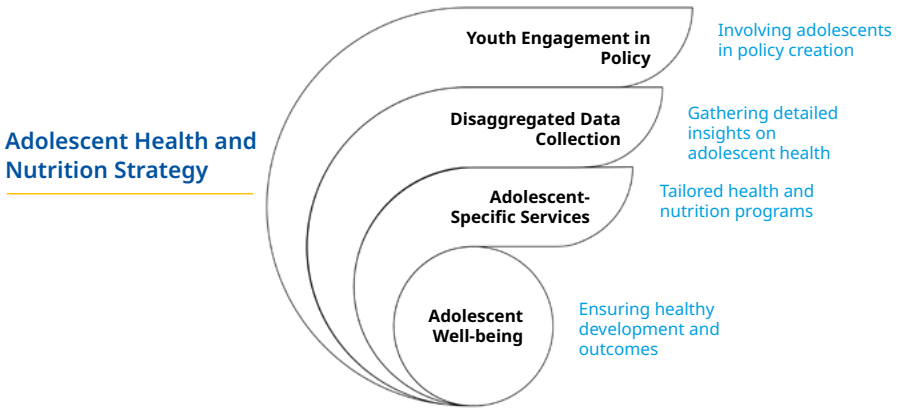
© UNICEF/UNI493261

6. YOUTH-FOCUSED RECOMMENDATIONS

The recommendations presented here are intended for policymakers, decision-makers, community leaders, and community-based organisations.

6.1 ENSURE ADOLESCENTS ARE VISIBLE IN HEALTH POLICY

Governments must ensure that adolescents are explicitly included in national health and nutrition strategies. This includes developing adolescent-specific services, collecting disaggregated data, and ensuring meaningful youth engagement in policy design. According to regional and country experts, adolescents have remained largely absent from national nutrition and mental health strategies. Policies often prioritize early childhood or subsume the adolescents in policies for young children, overlooking the growing burden of obesity, mental distress, and risky coping behaviours in adolescence.



Specific recommendations:

- Evidence generation through qualitative data insights.
- Develop multi-sectoral policies that address the complexity of the processes underlying adolescents' health-related behaviors. This includes specific mental health and nutrition programs and services, as well as policies to address the influence of digital networks on health.
- Meaningfully engage adolescents at every stage of the health and nutrition policy design, implementation, and evaluation of policies that cover this target population. This includes creating inclusive platforms for youth participation, prioritising the voices of marginalised groups, and co-developing interventions that reflect young people's needs and experiences, considering all the youth environment.
- Collect and monitor adolescent-specific data through national surveys and programme evaluations.

6.2 IMPROVE SCHOOL FOOD ENVIRONMENTS

Governments and schools must enforce existing policies that protect children and adolescents from unhealthy environments. This includes equipping schools with the necessary tools and resources to promote healthy habits and engage students, families and communities in these processes. Despite existing policies, adolescents in this sample reported frequently consuming unhealthy and UPFs at school. Adolescents report easy access to junk food on campus, especially in school kiosks and surrounding vendors.

Specific recommendations:

- Enforce and expand comprehensive regulations that promote healthy food environments for children by restricting the availability, access and promotion of unhealthy food and promotes the availability access and consumption of healthy diets. For example, front-of-warning package labelling, regulations on marketing, UPF taxation, and school nutrition policies.
- Equip schools to implement comprehensive health education and nutrition curricula tailored to adolescent needs.
- Incentivize and train vendors to offer healthier, culturally relevant options in schools.
- Include adolescents and families in designing and evaluating school food offerings.
- Develop a comprehensive approach to promoting the physical, mental, and social well-being of students through coordinated actions across school policies, environment, curriculum, and community engagement.

6.3 COUNTER HARMFUL SOCIAL MEDIA MESSAGING

Families, governments, schools and communities should protect adolescents from the negative effects of social media. Adolescents are heavily influenced by online content that glorifies unhealthy diets and unrealistic body standards. Adolescents report that influencer-driven food marketing and body ideals on TikTok, Instagram, and YouTube directly shape their behaviours and self-image. While most of the results show the tendency is towards influencing unhealthy behaviours, some adolescents reported that this can influence them to engage in healthy behaviours.

Specific recommendations:

- Promote youth-led digital campaigns that challenge body stereotypes and celebrate healthy, diverse bodies.
- Develop regulatory frameworks that restrict digital marketing of UPFs to adolescents.
- Support influencer partnerships to encourage healthy eating.
- Involve families in dialogue and education on the negative mental health impacts of digital environments and social media on adolescents, including how to mitigate the effects.
- Develop regulatory policies on social media use among children and adolescents.
- Support youth centered digital campaignes that promote healthy eating, hydration, and body positivity. This should include youth in the design of these campaigns.

6.4 EXPAND ACCESS TO REGULAR, SAFE, AND INCLUSIVE PHYSICAL ACTIVITY

Governments, schools and communities have a responsibility to ensure safe spaces for adolescents and to promote healthy lifestyles through physical activity. This includes funding for these activities and spaces as well as context appropriate offerings. Barriers to physical activity are especially high for girls, low-income youth, and adolescents in urban areas. Adolescents value physical activity for stress relief and mental health but are constrained by social norms and lack of options.

Specific recommendations:

- Invest in gender-sensitive public infrastructure (e.g., sports fields, community centres) that are safe and accessible to all genders.
- Fund consistent, quality physical education in all schools, including alternatives to traditional sports. Include physical activity as part of the curriculum.
- Support youth-led initiatives and extracurricular programs that increase physical activity and social support.
- Involve adolescents in the development of context-specific strategies for physical activity, considering diverse contexts.

6.5 ADDRESS WEIGHT STIGMA AND MENTAL HEALTH IN SCHOOLS

Schools play a crucial role in fostering adolescent growth and development during a critical time in the life course. Schools should ensure that adolescents have mental health support. Weight stigma, bullying, and family criticism were consistent themes linked to poor self-esteem, anxiety, and disordered eating. Some adolescents also linked bullying with suicidal ideation. Adolescents need safe, judgment-free spaces to discuss body image and mental well-being.

Specific recommendations:

- Train teachers and staff to recognize and respond to weight-related bullying and mental health concerns. This should include warning signs associated with suicidal ideation. Teachers and staff should also be trained in local protocols for connecting youth with appropriate and accessible services.
- Create safe spaces for adolescents to discuss body image, anxiety, and social pressures without judgment.
- Integrate peer support, stigma-reduction and mental health literacy into school activities and curricula.
- Integrate peer support, stigma-reduction and mental health at community environments as church, adolescent teams as sport groups.
- Produce success stories with adolescents to share information at social media about healthy food and mental health and healthy style life.
- Support the development and adoption of school policies and protocols.

6.6 SUPPORT FAMILIES TO BE POSITIVE ROLE MODELS

Communities and schools should support families to be positive role models. Parental modelling emerged as a powerful factor, both positively and negatively, in adolescent eating and body image. Adolescents absorb behaviours and attitudes from family, including disordered eating, criticism, and body-shaming.

Specific recommendations:

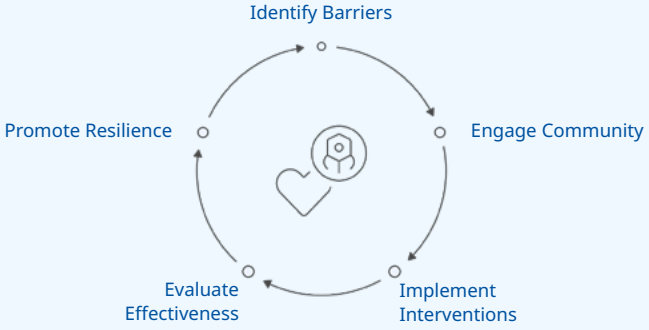
- Offer community-based strategies including: workshops, parenting guides, and social media campaigns designed by youth that emphasise mindful eating, shared meals, social media supervision, promoting healthy digital engagement, and body-positive dialogue.
- Encourage family-cantered interventions that focus on shared meals, cooking skills, and mindful eating.
- Equip families with accessible information on healthy eating standards and support their active role in advocating for implementation in schools and community environments.

6.7 DESIGN CONTEXT-RESPONSIVE INTERVENTIONS THAT REFLECT DIVERSE CULTURAL AND SOCIOECONOMIC REALITIES

Decision-makers should ensure that policies and programmes are grounded in local contexts by engaging communities in the design and adaptation of interventions, with particular attention to cultural practices, structural inequities, and the lived experiences of marginalized children and adolescents. Adolescents and families face economic barriers that undermine healthy behaviours, even when knowledge is present. Adolescents often know what's healthy but choose UPFs due to cost, convenience, or cultural norms.

Specific recommendations:

- Recognize and address barriers to healthy eating (e.g., cost, time, availability) in low-income and working households, such as home cooking skills using low-cost ingredients.
- Include community leaders, churches, and local organizations in the participatory design, implementation, and evaluation of interventions to ensure their cultural relevance.
- Promote resilience strategies that address emotional eating, food insecurity, and coping with stress.



6.8 ENSURE MEANINGFUL ADOLESCENT PARTICIPATION IN POLICY AND PROGRAMME CYCLES

Decision-makers should institutionalize mechanisms for adolescents, including those from marginalized groups, to actively participate in the design, implementation, monitoring, and evaluation of policies and programmes that affect them. Participation should be safe, inclusive, age-appropriate, and sustained throughout all stages of the policy cycle. Adolescents have unique insights into what works (and what doesn't) but are rarely consulted in programme planning. Youth engagement leads to more relevant, effective, and sustainable interventions.

Specific recommendations:

- Involve adolescents in co-designing school menus, physical activity offerings, and mental health initiatives, and in their monitoring and evaluation.
- Involve adolescents in co-designing for political frameworks around food environments, food marketing and digital food marketing on social media.
- Increase the continuity of research and data insight about nutrition and mental health to advocate at diversity of level of interventions with national data.



7. CONCLUSIONS

This study highlights the profound and intertwined relationships between obesogenic and sociocultural environments and adolescent nutrition, physical activity, and mental health in LAC. Notably, despite widespread awareness of healthy behaviours, adolescents in the sample remain surrounded by environments that normalize poor dietary choices, discourage physical activity, and foster harmful body image ideals, especially through social media and peer interactions. Additionally, food preference and familial relationships shape their decision-making regarding nutrition and physical activity. Adolescents reported links between body image, emotional distress and disordered eating although it was not possible to determine cause and effect pathways. These findings point out the need to address critical information gaps on these issues in LAC.

Although the desk review revealed a great amount of evidence on these topics, most studies were conducted outside of the LAC region (particularly in the United States and Europe). Several gaps were noted in the research specific to the LAC region, including limited research on the effects of weight stigma on adolescents; the rural and urban areas differences in food environments; and the role of UPFs in adolescent mental health. Furthermore, there seems to be a methodological gap in the evidence base for the LAC region, marked by a lack of longitudinal studies examining the influence of sociocultural and obesogenic environmental factors on adolescents, as well as limited use of participatory action research that centres around adolescents' perspectives.

Adolescents in both Peru and El Salvador demonstrated awareness of healthy behaviours, but their behaviours were constrained by structural inequities, including economic challenges, inadequate school nutrition policies, limited access to safe recreational spaces, and a digital ecosystem saturated with unhealthy messaging. Weight stigma, reinforced by families, peers, and media, emerged as a significant driver of emotional distress and maladaptive coping behaviours, particularly among girls. Experts and youth alike pointed to the school setting as a critical platform for intervention, and some cited school-based programs, UNICEF-led workshops, and community faith groups as valuable supports. Empowerment-based, peer-supported, and culturally sensitive strategies hold promise, but require systemic investment and adolescent-centred design.

To shift the trajectory, adolescents must no longer be treated as an invisible demographic in health policy. Both adolescents and experts also identified as protective factors school-based interventions, NGO workshops, and community activities as spaces that promoted body confidence, emotional well-being and a healthier lifestyle. Furthermore, experts emphasized the role of school nutrition programs and enablers of adolescent health. Most experts in the study saw schools as critical platforms to promote healthy behaviours due to the amount of time adolescents spend in this environment, advocating for more comprehensive interventions that embeds health promotion across all school activities and stakeholders. However, many pointed out that school-based interventions tend to be underfunded, implemented inconsistently or poorly aligned with adolescents' nutritional needs.

Meaningful engagement, sustained funding, and multisectoral coordination are essential to counteract the structural and psychosocial pressures fuelling this crisis. Adolescents are not only rights holders but key actors in their own health and well-being, and should be positioned as such in every policy, programme, and intervention that seeks to support them.

REFERENCES

1. United Nations Children's Fund, *Childhood Overweight on the Rise: Is It Too Late To Turn The Tide in Latin America and the Caribbean?*, UNICEF, 2024.
2. World Health Organization, 'Obesity and Overweight', WHO, 2024, <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight> accessed 8 October 2024.
3. NCD Risk Factor Collaboration, 'Child & Adolescent Body-Mass Index,' <https://ncdrisc.org/data-downloads-adiposity-ado.html>, accessed June 23, 2025.
4. Godina-Flores, Naara L., ets al., 'Obesity and Its Association with Mental Health among Mexican Children and Adolescents: Systematic Review', Nutrition Reviews, vol. 81, no. 6, 2022, pp. 658–669.
5. Centers for Disease Control and Prevention, 'Causes and Consequences of Childhood Obesity', 1 CDC, 2025, <https://www.cdc.gov/obesity/basics/consequences.html>, accessed October 15 2024.
6. Pan American Health Organization, 'Obesity Prevention', Pan American Health Organization, PAHO, <https://www.paho.org/en/topics/obesity-prevention>, accessed: June 23 2025.
7. O'Sullivan, Orla, and Angel Santamaría, *Social Norms, Nutrition and Body Image in Latin America and the Caribbean: A Study in Colombia, Guatemala and Mexico.* UNICEF, 2023.
8. United Nations, Economic and Social Panorama of the Community of Latin American and Caribbean States, LC/L.3946, United Nations, Santiago, Chile, January 2015.
9. United Nations, World urbanization prospects: the 2011 revision, data tables and highlights, ST/ESA/SER.A/322, United Nations, New York, 2013.
10. Corvalán C, et al., 'Nutrition status of children in Latin America.' *Obesity Reviews,* vol. 18, no. Supplement 2, 2017, pp. 7-18.
11. Fraser Barbara, 'Latin America's Urbanization is Boosting Obesity', *The Lancet,* vol. 365, no. 9476, 11 June 2005, pp. 1995-1996.
12. Kain, Juliana, et al., 'Obesity Prevention in Latin America', *Current Obesity Reports*, vol. 3, 2014, pp. 150-155.
13. Leite, Fernanda Helena Marrocos, et al., 'Availability of processed foods in the perimeter of public schools in urban areas', *Jornal de Pediatria (Rio de Janeiro)*, vol. 88, no. 4, 2012, pp. 328–334.
14. Saavedra-Garcia, Lorena, et al., 'Oferta y publicidad de alimentos y bebidas en instituciones educativas y entornos escolares de Lima Metropolitana. Un estudio exploratorio.' *Revista Peruana de Medicina Experimental y Salud Pública,* vol. 37, no.4, 2021, pp.726-732.
15. Popkin, Barry M., 'Nutrition, agriculture and the global food system in low and middle income countries', *Food Policy* vol. 47, 2014, pp. 91–96.
16. Reardon, Thomas A., Julio A. Berdegué and Joh Farrington, 'Supermarkets and farming in Latin America: pointing directions for elsewhere?', *Natural Resource Perspectives,* no. 81, 2002, pp. 1-6.
17. Kennedy, Gina, Guy Nantel and Prakash Shetty, 'Globalization of food systems in developing countries: a synthesis of country case studies', in *Globalization of food systems in developing countries: impact on food security and nutrition,* Food and Agriculture Organization of the United Nations, Rome, 2004, pp.1-26.
18. Statista, 'Number of McDonald's restaurants in Latin America in 2023, by country', 2023, <https://www.statista.com/statistics/256052/mcdonalds-restaurants-in-latin-america/>, accessed June 23 2025.
19. Mesas, Arthur E., et al., 'Increased Consumption of Ultra-Processed Food Is Associated with Poor Mental Health in a Nationally Representative Sample of Adolescent Students in Brazil', *Nutrients*, vol. 14, no. 5207, 7 December 2022.
20. Dicken, Samuel J., Sulmaaz Qamar, and Rachel L. Batterham, 'Who consumes ultra-processed food? A systematic review of sociodemographic determinants of ultra-processed food consumption from nationally representative samples', *Nutrition research reviews,* vol. 37, no. 2, 31 Oct 2023, pp.416-456.
21. Pan American Health Organization (PAHO), 'Ultra-processed Food and Drink Products in Latin America: Trends, Impact on Obesity, Policy Implications', PAHO, Washington, DC, April 2015.
22. Aceves-Martins, Magaly, 'Obesity-Promoting Factors in Mexican Children and Adolescents: Challenges and Opportunities.' *Global Health Action,* vol. 9, no. 1, 2016.
23. Grünberger Klaus, 'Estimating food consumption patterns by reconciling food balance sheets and household budget surveys,' Food and Agriculture Organization of the United Nations, Rome, 2014.
24. Food and Agriculture Organization of the United Nations, 'FAOSTAT', FAO, 2024, <http://www.fao.org/faostat/en/#data/FBS> accessed June 23 2025.
25. Silberman Martín, et al., 'Dietary patterns, overweight and obesity from 1961 to 2011 in the socioeconomic and political context of Argentina', *International Journal of Food Sciences and Nutrition,* vol. 68, no. 1, 2016, pp. 1–13.
26. Guthold, Regina, et al., 'Global trends in insufficient physical activity among adolescents: a pooled analysis of 298 population-based surveys with 1·6 million participants', *The Lancet Child & Adolescent Health,* vol. 4, no. 1, January 2020, pp. 23-35.
27. Werneck André O., et. al., 'Sociodemographic Inequalities in Physical Activity in Latin America: Time for Policies Targeted at Groups that Need it the Most.' *International Journal of Public Health,* vol. 67, 10 November 2022.
28. Gómez-Restrepo, Carolos, et al., 'Mental Distress Among Youths in Low-Income Urban Areas in South America', *JAMA Network Open,* vol. 8, no. 3, 2025, pp. e250122-e250122.
29. Leme, Ana Carolina, et al., 'Co-Occurrence and Clustering of Sedentary Behaviors, Diet, Sugar-Sweetened Beverages, and Alcohol Intake among Adolescents and Adults: The Latin American Nutrition and Health Study (ELANS)', *Nutrients,* vol. 13, no. 6, 2021, p. 1809.
30. Holland, Grace, and Marika Tiggemann. 'A Systematic Review of the Impact of the Use of Social Networking Sites on Body Image and Disordered Eating Outcomes.' *Body Image,* vol. 17, 2016, pp. 100–110.
31. Blanchard, Laurence, et al., 'Associations between Social Media, Adolescent Mental Health, and Diet: A Systematic Review', *Obesity Reviews,* vol. 24, no. S2, 2023, p. e13631.
32. Livingstone, Sonia, et al., 'One in Three: Internet Governance and Children's Rights', Innocenti Discussion Papers No. 2016-01, UNICEF Office of Research – Innocenti, Florence, January 2016, <www.unicef-irc.org/publications/795-one-in-threeinternet-governance-and-childrens-rights.html>, accessed 25 November 2025.
33. We Are Social, 'Digital in 2023: Global Overview Report', Meltwater, 2023.
34. Ganson, Kyle T., et al., 'Screen Time, Social Media Use, and Weight-Related Bullying Victimization: Findings from an International Sample of Adolescents', *PLOS ONE* 19, no. 4, 2024, e0299830.

35. De Beltrán, Paula, et. Al., 'Social Media and Mental Health of Adolescents in Latin America", UNICEF LACRO, February 2019.
36. Qutteina, Yara, et al., 'What Do Adolescents See on Social Media? A Diary Study of Food Marketing Images on Social Media', *Frontiers in Psychology,* vol. 10, November 2019, p. 2637.
37. United Nations Children's Fund, *Children and adolescents' exposure to food and beverage digital marketing in Argentina,* UNICEF, Buenos Aires, May 2021.
38. Monge-Rojas, Rafael, et al., 'Gender-Based Eating Norms, the Family Environment and Food Intake among Costa Rican Adolescents', *Public Health Nutrition,* vol. 24, no. 15, 2021, pp. 4840–4850.
39. Hochdorn, Alexander, et al., 'Obese Children Are Thin in Parents' Eyes: A Psychologically, Socially, or Culturally Driven Bias?', *Journal of Health Psychology,* vol. 23, no. 1, 2018, pp. 114–126.
40. Banna, Jinan C., et al., 'Influences on Eating: A Qualitative Study of Adolescents in a Periurban Area in Lima, Peru.' *BMC Public Health,* vol. 16, no. 1, 2016.
41. Rodgers, Rachel F., et al., 'Body image as a global mental health concern', *Cambridge Prisms: Global Mental Health,* vol. 10, no. e9, 24 January 2023, pp. 1-8.
42. United Nations Children's Fund, *The state of the world's children 2021: On my mind,* UNICEF, 2021.
43. Kohn, Robert, et al., 'Mental Health in the Americas: An Overview of the Treatment Gap', *Revista Panamericana de Salud Pública,* vol 42, 2018.
44. Jung, Anne-Sophie, Jeremy Veillard, and Timothy A. Johnston. 'Resilient Health Systems for Better Mental Health Outcomes in Latin America and the Caribbean: Policy Brief', World Bank, 2024.
45. Pellizer, Mia L., and Tracey D. Wade, ' Developing a definition of body neutrality and strategies for an intervention', *Body Image,* vol. 46, 16 July 2023, pp. 434-442.
46. Nutter, Sarah, et al., 'Changing the global obesity narrative to recognize and reduce weight stigma: A position statement from the World Obesity Federation', *Wiley Obesity Review,* vol. 25, no. 1, 9 September 2023.
47. Jebeile, Hiba, et al., 'Obesity in children and adolescents: Epidemiology, causes, assessment, and management', *The Lancet Diabetes & Endocrinology,* vol. 10, no. 5, 2022. pp. 351–365.
48. Hackman Joseph, Jonathan Maupin, and Alexandra A. Brewis. 'Weight-related stigma is a significant psychosocial stressor in developing countries: Evidence from Guatemala,' *Social Science & Medicine,* vol. 161, 2016, pp. 55-60.
49. Pan American Health Organization, 'Plan of Action for the Prevention of Obesity in Children and Adolescents', *Publicaciones Generales,* PAHO, 2014.
50. Petit, Vincent. 'The Behavioural Drivers Model: A Conceptual Framework for Social and Behaviour Change Programming'. United Nations Children's Fund (UNICEF), 2019.
51. Page, Matthew J., et al., 'The PRISMA 2020 statement: An updated guideline for reporting systematic reviews'. *BMJ (Clinical Research Ed.),* vol. 372, no. 71, 2021.
52. Are You Sugar Savvy? | Game about Sugary Drinks | WCRF', *World Cancer Research Fund,* n.d., <https://www.wcrf-uk.org/health-professionals/sugar-savvy-game/>, accessed 17 October 2024.
53. Mebarak Chams, Moisés, et al., 'The Spanish Body Image State Scale: Factor Structure, Reliability and Validity in a Colombian Population', *Frontiers in Psychology,* vol. 10, November 2019.
54. Justino, Maraísa I.C., Carla Cristina Enes, and Luciana B. Nucci, 'Self-perceived body image and body satisfaction of adolescents', *Revista Brasileira de Saude Materno Infantil,* vol. 20, no. 3, July-September 2020, pp. 715-724.
55. Andres, Fabienne E., et al., 'Relationship between media influence, body image and sociocultural appearance ideals in Latin America: a systematic literature review', *Body Image,* vol. 51, December 2024.
56. Flores-Cornejo, Fiorela, 'Association between body image dissatisfaction and depressive symptoms in adolescents', *Revista Brasileira de Psiquitria,* vol. 39, 2017, pp. 316-322.
57. McArthur, Laura H., Donald Holbert, and Manuel Peña, 'An exploration of the attitudinal and perceptual dimensions of body image among male and female adolescents from six Latin American cities', *Adolescence,* vol. 40, no. 160, 2005, pp. 801-16.
58. Kist-van Holthe, Joana, et al., 'Body image: a survey of children in Caribbean Bonaire', *BMJ Paediatrics Open,* vol. 1, 8 September 2017.
59. Royal Society for Public Health, 'Social media and young people's mental health and wellbeing', RSPH, May 2017.
60. Revranche, Mathieu, Margot Biscond, and Mathilde M. Husky, 'Lien entre usage des réseaux sociaux et image corporelle chez les adolescents: une revue systématique de la littérature', *L'Encéphale,* vol.48, no.2, 2021.
61. Scully, M., L. Swords, and E. Nixon, 'Social comparisons on social media: online appearance-related activity and body dissatisfaction in adolescent girls', *Irish Journal of Psychological Medicine,* vol. 40, no. 1, 2023, pp. 31-42.
62. Castillo, Jacqueline L., et al., 'Social and health behaviors of adolescence represented in TikTok', *Enfermería: Cuidados Humanizados,* vol. 12, no. 1, January-June 2023, pp. e3078.
63. Escribens Medrano, Isabelle N. and Yrigoyen Alarco, C., 'Percepcion de las adolescentes sobra la imagen corporal expuesta en redes sociales', *Universidad Peruana de Ciencias Aplicadas,* 12 Enero 2023.
64. Puhl, Rebecca M. and Joerg Luedicke, 'Weight-based victimization among adolescents in the school setting: emotional reactions and coping behaviors', *Journal of Youth and Adolescence,* vol. 41, no. 1, January 2012, pp.27-40.
65. Arias Ramos, N., et al., 'Social exclusion of the adolescent with overweight: Study of sociocentric social networks in the classroom', *Pediatric Obesity,* vol. 13, no. 10, 2018, pp. 614–620
66. Lint, Stuart W. and Taissa Villa, 'Weight stigma and discrimination in Latin America and the Caribbean: A call for papers', *The Lancet Regional Health-Americas,* vol. 35, July 2024.
67. Silva, Sara Araujo, et al., 'Lifestyle patterns associated with common mental disorders in Brazilian adolescents: Results of the Study of Cardiovascular Risks in Adolescents (ERICA),' *PLOS One,* vol. 16, no. 12, 14 December 2021.
68. Ministerio de Salud, 'Encuesta Nacional de Salud Mental 2022', Ministerio de Salud, San Salvador, March 2023.
69. Quintero-Jurado, Jessica, et al., 'Association Between School Bullying, Suicidal Ideation, and Eating Disorders Among School-Aged Children from Antioquia, Colombia', *Trends in Psychology,* vol. 30, no. 1, 26 August 2021, pp. 58-72.
70. Elia, Christelle, et al., 'Association of macro-level determinants with adolescent overweight and suicidal ideation with planning: A cross-sectional study of 21 Latin American and Caribbean Countries', *PLOS Medicine,* vol. 17, no. 12, 29 December 2020, p. e1003443.
71. Wiss, David A., and Erica M. LaFata, 'Ultra-Processed Foods and Mental Health: Where Do Eating Disorders Fit into the Puzzle?', *Nutrients,* vol. 15, no. 12, 19 June 2024, p. 1955.
72. Lara-Castor, Laura, et al., 'Sugar-Sweetened Beverage Intakes among Adults between 1990 and 2018 in 185 Countries.' *Nature Communications,* vol. 14, no. 1, 2023, p. 5957.
73. World Health Organization, 'Policies to protect children from the harmful impact of food marketing', WHO, Geneva, 2023.
74. United Nations Children's Fund, *A Child Rights-Based Approach to Food Marketing: A Guide for Policy Makers,* UNICEF, April 2018.
75. Nieto, Claudia, et al., 'Digital Food and Beverage Marketing Appealing to Children and Adolescents: An Emerging Challenge in Mexico.' *Pediatric Obesity,* vol. 18, no. 7, 2023, p. e13036.

76. Mendoza-Herrera, Kenny, et al., 'Association between Parental Feeding Styles and Excess Weight, and Its Mediation by Diet, in Costa Rican Adolescents', *Nutrients,* vol. 14, no. 11, 2022, p.2314.
77. Godin, Katelyn M., et al., 'The School Environment and Sugar-Sweetened Beverage Consumption among Guatemalan Adolescents', *Public Health Nutrition,* vol. 20, no. 16, 2017, pp. 2980–2987.
78. Esen Öksüzoğlu Makbule, et al., 'Predictors of emotional eating behaviors in adolescents with overweight and obesity.' *Archives de Pédiatrie,* vol. 31, no. 8, 2024, pp. 527-532.
79. Dillman Carpentier, Francesca R., et al., 'Evaluating the Impact of Chile's Marketing Regulation of Unhealthy Foods and Beverages: Pre-School and Adolescent Children's Changes in Exposure to Food Advertising on Television.' *Public Health Nutrition,* vol. 23, no. 4, 2020, pp. 747–755.
80. Beddoe, Amelia, Rebecca Hinges, and Charlotte Kerner, "'It's Like Feeling Everyone Will Be Looking at You, but in Reality, No One Cares." A Qualitative Visual Methods Study Exploring Adolescent Males' Relatedness in Physical Activity', *Psychology of Men and Masculinities,* 2024.
81. Guthold, Regina, et al., 'Global trends in insufficient physical activity among adolescents: a pooled analysis of 298 population-based surveys with 1·6 million participants', *The Lancet Child & Adolescent Health,* vol. 4, no. 1, January 2020, pp. 23-35.
82. Vegas-Salas, María Jesús, et al., 'School environments and obesity: a systematic review of interventions and policies among school-age students in Latin America and the Caribbean', *International Journal of Obesity,* vol. 47, no. 1, 2022, pp. 5-16.
83. Trübswasser, Ursula, et al., 'Factors Influencing Obesogenic Behaviours of Adolescent Girls and Women in Low- and Middle-Income Countries: A Qualitative Evidence Synthesis.' *Obesity Reviews,* vol. 22, no. 4, 2021, p. e13163.
84. Brazo-Sayavera, Javier, et al., 'Gender Differences in Physical Activity and Sedentary Behavior: Results from over 200,000 Latin-American Children and Adolescents.' *PLOS ONE,* vol. 16, no. 8, 2021, p. e0255353.
85. United Nations Children's Fund, *Improving urban food environments to prevent childhood overweight and obesity in Latin America and the Caribbean: Diagnosis and recommendations,* UNICEF, Panama City, 2022.
86. Monge-Rojas, Rafael, et al., 'How Self-Objectification Impacts Physical Activity Among Adolescent Girls in Costa Rica.' *Journal of Physical Activity and Health,* vol. 14, no. 2, 2017, pp. 123–129.
87. Debouys, Lucille, et al., 'Socio-Economic and Cultural Disparities in Diet among Adolescents and Young Adults: A Systematic Review.' *Public Health Nutrition,* vol. 23, no. 5, 2020, pp. 843–860.
88. Chavez, Rosemary Cosme, and Eun Woo Nam. 'School-Based Obesity Prevention Interventions in Latin America: A Systematic Review.' *Revista de Saúde Pública,* vol. 54, 2 November 2020.
89. Florindo, Alex Antonio, et al., 'Public Open Spaces and Leisure-Time Walking in Brazilian Adults.' *International Journal of Environmental Research and Public Health,* vol. 14, no. 6, 2017.
90. Castañeda Molina, Flor Argentinam, 'Aspectos que inciden en el sobrepeso y obesidad de niñez y adolescencia en San Luis del Carmen y el Rosario', *Ciencia, Cultura y Sociedad,* vol. 7, no. 2, 2022.
91. Ferreira, Sandra Roberta G., et al., 'Determinants of Obesity in Latin America.' *Nature Metabolism,* vol. 6, no. 3, 2024, pp. 409–432.
92. Kwon, Mya. 'Media Influences on Body Image & Eating Behaviors in Adolescents', ch.7 in *Adolescent Nutrition: Assuring the Needs of Emerging Adults,* edited by Y. N. Evans and A. Dixon Docter, Springer Nature Switzerland AG, 2020, pp. 177–235.
93. Boakye, Kwadwo, et al., 'Urbanization and Physical Activity in the Global Prospective Urban and Rural Epidemiology Study', *Scientific Reports,* vol. 13, no. 1, 2023, pp. 1–11.
94. United Nations Children's Fund, *UNICEF Strategic Plan 2022–2025,* UNICEF, New York, January 2022.
95. World Health Organization (WHO), 'UNICEF and WHO Joint Programme on Mental Health and Psychosocial Well-being and Development of Children and Adolescents', <www.who.int/teams/mental-health-and-substance-use/promotion-prevention/unicef-and-who-joint-programme-on-mental-health-and-psychosocial-well-being-and-development-of-children-and-adolescents>, accessed June 5, 2025.
96. United Nations Children's Fund, *Global Multisectoral Operational Framework for Mental Health and Psychosocial Support of Children, Adolescents and Caregivers Across Settings,* UNICEF, New York, 2022.



© UNICEF/UN0845376/Goupil - Highway Child

© United Nations Children's Fund (UNICEF)

September 2025

Latin America and Caribbean Regional Office
Bldg. 102, Alberto Tejada St., City of Knowledge
Panama, Republic of Panama
P.O. Box 0843-03045
Phone: +507 301 7400
www.unicef.org/lac
Twitter: @uniceflac
Facebook: /uniceflac

For more information, please contact:
Paula Veliz
Regional Nutrition Specialist
UNICEF Regional Office for Latin America and the Caribbean
Email: pveliz@unicef.org

unicef | for every child