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Public policies to combat and prevent obesity in Brazil

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Summary

Introduction: Obesity is known as a public health problem, characterized by the accumulation of excess body fat, which harms the individual's health and quality of life, being a risk factor for other pathologies, such as: type 2 diabetes mellitus, systemic arterial hypertension, cardiovascular diseases, and some types of cancer. Studies show that the prevalence of obesity has been increasing significantly, which leads to investigations and care so that these numbers can regress. **Objective:** The study aims to discuss the aspects of obesity, as well as its characteristics, comorbidities, factors that imply this condition, and how Brazilian public policies impact on it.

treatment and prevention of obesity. **Methodology:** This review was prepared through primary articles, using a total of 5 articles, with a 5-year cut-off, from 2020 to 2025, in the "PubMed", "SciELO", and "CAPES Periodicals" databases. **Results:** It is concluded that the creation and intervention of Brazilian public policies is of great importance for the treatment and prevention of obesity, as a consequence, they prevent other pathologies derived from this condition, making it necessary for the population to use these government actions, as well as the supervision of the authorities regarding these practices, in order to ensure that they are in force and are effective in preventing this condition (obesity).

Keywords: Obesity, Public Policies, Chronic Disease Prevention.

Abstract

Introduction: Obesity is recognized as a public health problem, characterized by the excessive accumulation of body fat, which harms an individual's health and quality of life. It is also a risk factor for other diseases such as type 2 diabetes mellitus, systemic arterial hypertension, cardiovascular diseases, and certain types of cancer. Studies show that the prevalence of obesity has been increasing significantly, prompting further investigation and efforts to reverse this trend. **Objective:** This study aims to discuss the various aspects of obesity, including its characteristics, comorbidities, contributing factors, and how Brazilian public policies impact the treatment and prevention of obesity. **Methodology:** This review was conducted using five primary articles published between 2020 and 2025, sourced from the databases "PubMed,"

"SciELO," and "CAPES Journals." **Results:** It is concluded that the development and implementation of Brazilian public policies play a crucial role in the treatment and prevention of obesity. Consequently, these policies help prevent other conditions derived from obesity.
Therefore, it is essential for the population to utilize these governmental actions, and for authorities to ensure their enforcement, in order to guarantee their effectiveness in preventing this condition.

Keywords: Obesity, Public Policies, Chronic Disease Prevention.

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Introduction

According to the WHO (World Health Organization) 2022, obesity refers to excessive accumulation of body fat to the point of harming the individual's health. Such losses are described in the scientific literature as comorbidities (diabetes type 2 mellitus, systemic arterial hypertension, cancer and cardiovascular diseases) (World Health Organization, 2022).

Obesity is characterized as a multicausal pathology, with factors such as known sedentary lifestyle, excessive intake of ultra-processed foods, which has as a characteristic of being more palatable, chronic stress, hormonal dysregulation, genetic factors, use of certain types of medication, such as antidepressants, corticosteroids, antipsychotics (Rossi, Luciana et al., 2022).

The number of obesity cases in Brazil has increased dramatically. epidemic, generating public health problems, raising priorities regarding prevention issues, and government actions towards the obstacle. (Ministry of Health, Secretariat of Health and Environmental Surveillance, 2024). In Brazil, in recent years between 2013 and 2019, obesity increased by 72%, going from 11.8% to 20.3%. according to the Brazilian Institute of Geography and Statistics (IBGE) 2020, it shows that, in 2019, one in four people aged 18 and over was obese, equivalent to 41 million people. (Ministry of Health, Secretariat of Surveillance in Health and Environment, 2020).

Public policies in Brazil focus on combating and promoting actions that prevent obesity, such as offering healthy food in work environments and schoolchildren, encourage physical activity, reduce access to food ultra-processed foods, monitor, and care for individuals with obesity. Given the exposed, the current research aims to discuss the impact of public policies Brazilians in the fight against obesity in adults.

Methodology:

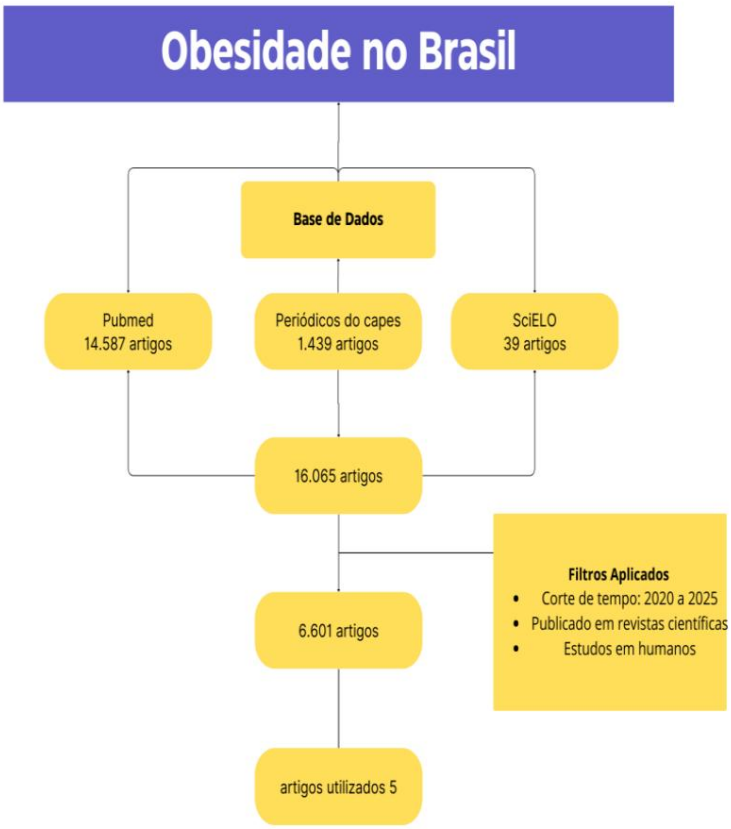
In this work, an integrative bibliographic review study was carried out, descriptive and exploratory characteristics. The study followed the question problem: “What are the main impacts of Brazilian public policies in combating and prevention of obesity in Brazil?” The investigation took place on the following databases: data: Official website of the Ministry of Health; Brazilian Association for the Study of Obesity and Metabolic Syndrome (Abeso); CAPES Journals. With the aim of descriptors: Public policies in Brazil, definition of obesity, impact profile of disease, epidemiology of obesity in Brazil.

The inclusion criteria were works published in the databases above described, only primary source articles of information, published in English and Portuguese, considering a time cut of 5 years, between 2020 to 2025, with the in order to use more current research.

Data collection followed the following steps: initially, the theme was defined central to the study, followed by the delimitation of inclusion and exclusion criteria. Subsequently, the titles were read sequentially, followed by analysis of the abstracts, and finally, the selected articles were read in full.

The search for the descriptor OIB *(obesity in Brazil)* in the databases resulted in a total of 16,065 articles. Of these, 6,601 articles met the inclusion criteria previously established. The titles were then read sequentially, being those that were not related to the study theme were excluded, resulting in 5 articles. After this analysis, these articles were selected for inclusion in the review. The selection process was structured in an organizational chart (Figure 1), which highlights the main steps involved.

Figure 1. Descriptive organizational chart of the research process of the present literature review article.



Source: Material prepared by the author.

Results and Discussions

In table 1, described below, the most significant results were compiled from each scientific article selected in the research, as well as authors, type of study, year publication date, study location, sample, objectives, methodology and results. The 05 articles are studies published in international journals, two of which were carried out in Brazil, 2 in the United States, and 1 in Norway.

Table 1 – Summary of articles analyzed for review.

Article Author, year of publication, place of the study	Outline, type of study and N	Objectives of the study	Methodology	Main findings

1	Laura R. Saslow et al., 2023, Michigan, USA	Randomized clinical trial, 2×2 factorial, N = 94	Comparing the results of a very low-carb diet (VLC) with the DASH diet in adults with hypertension, prediabetes or type 2 diabetes, and overweight or obesity	94 adults with hypertension, prediabetes or type 2 diabetes, and overweight or obesity were randomized to follow a VLC or DASH diet, with or without additional support (such as mindful eating and social support), for 4 months. Systolic blood pressure, glycated hemoglobin (HbA1c) and body weight were assessed.	The VLC diet showed greater improvements in systolic blood pressure (-9.77 mmHg vs -5.18 mmHg; P = 0.046), HbA1c (-0.35% vs -0.14%; P = .034) and weight loss (-19.14 lb vs -10.34 lb; P = .0003) compared with the DASH diet. Additional support had no statistically significant effect on the findings.
2	Jarle Berge et al., 2021, Norway	Randomized clinical trial, N = 71	To compare the effects of two aerobic exercise programs of different intensities on energy expenditure and weight loss in people with severe obesity	The analysis was performed at the Morbid Obesity Centre, Vestfold Hospital Trust, Norway. Participants were randomized to either a 24-week moderate-intensity continuous training (MICT) program or a combined program of MICT with high-intensity interval training (HIIT/MICT). The primary outcome was exercise energy expenditure (EEDE). Secondary outcomes included resting metabolic rate, cardiorespiratory fitness, and body composition.	Both groups showed an increase in EEDE, with no significant difference between them. The HIIT/MICT group had an average weight loss of 5 kg, while the MICT group lost an average of 2 kg. Resting metabolic rate remained unchanged in both groups. The study suggests that aerobic exercise programs, regardless of intensity, can increase energy expenditure and induce moderate weight loss in individuals with obesity. severe.
3	Ethan J. Weiss et al., 2020, San Francisco, USA	Randomized clinical trial, N = 116	To evaluate the effects of time-restricted feeding (16:8) on weight loss and metabolic markers in overweight or obese adults	Participants were randomized to two groups: time-restricted feeding (16 hours of fasting and 8 hours of eating) or habitual feeding, for 12 weeks. Measurements of body weight, body composition, fasting blood glucose, insulin and	Time-restricted eating did not result in significant weight loss compared to usual eating. Furthermore, there were no significant improvements in metabolic markers between the groups.

				other metabolic markers were assessed at baseline and end of the study.	
4	Deborah C. S. Marques et al., 2023, Brazil	Randomized clinical trial, N = 43	Search for the impacts of a multidisciplinary family intervention, versus an isolated one, on the food processing of overweight adolescents	The members were divided into two groups: Family Group (n = 21), in which the adolescents carried out activities with their parents, and Isolated Group (n = 22), in which the adolescents carried out the activities alone. The intervention lasted 12 weeks and included physical exercises, nutritional guidance and psychoeducation. Body mass, height and body mass index (BMI) were assessed before and after the intervention.	The analysis showed that the multidisciplinary family intervention was more effective in reducing the consumption of ultra-processed foods and improving the eating habits of overweight adolescents, compared to the isolated intervention.
5	Cunha, G. M. et al., 2020, Brazil	Randomized clinical trial, N = 39	To evaluate the effects of a very low calorie ketogenic diet (VLCKD), when compared to a standard hypocaloric diet, in reducing visceral and hepatic fat in patients with obesity.	Participants were divided into two groups: VLCKD (n = 20) and standard hypocaloric diet (LC) (n = 19). Both groups received physical activity guidance. Body weight, visceral fat (VAT), liver fat fraction (PDFF) and liver stiffness were assessed by magnetic resonance imaging at baseline and after 2 months of intervention.	The VLCKD group had significantly greater weight loss (-9.59% vs. -1.87%; $p < 0.001$), more pronounced reduction in visceral fat (-32.0 cm^2 vs. -12.58 cm^2; $p < 0.05$) and hepatic fat fraction (-4.77% vs. -0.79%; $p < 0.005$) compared to the LC group. There were no significant changes in liver stiffness in either group.

Source: Material prepared by the author.

Impacts of obesity on the individual's quality of life

According to the World Health Organization (WHO) 2025, obesity is a pathology chronic intricate, in which excess body fat, to the point of causing harm to health, is its main characteristic. In different proportions, this disease affects

people of all ages, and all social groups around the world (Organization World Health Organization, 2025).

Etiology

The etiology of obesity is complex and involves several factors, which include genetic predisposition, sedentary lifestyle, the ease of obtaining foods that are composed of large amounts of calories, which are empty and of low nutritional quality (Rossi, Luciana et al. 2024). Inadequate eating habits also influence the obesity, as well as hormonal dysregulation, chronic stress which, in turn deregulates the hypothalamic-pituitary-adrenal axis and favors the endogenous production of endocannabinoids, which induces the consumption of more palatable caloric foods, contributing to a gain in visceral adiposity (Rossi, Luciana et al. 2024). The use of some medications such as antidepressants, corticosteroids, are associated to weight gain. (Rossi, Luciana et al. 2024).

Physiological aspects

Obesity impacts not only the physical aspects of the individual, but also personal and social acceptance that affects the person's quality of life. It is important highlight and discuss the harm it can cause in human life. Excess adiposity is correlated with an increase in NCDs (non-communicable chronic diseases) transmissible), such as cardiovascular diseases, which are the main causes of death, followed by type 2 diabetes mellitus (T2DM), metabolic syndrome (MS), dyslipidemia, systemic arterial hypertension (SAH), fatty liver disease, cancer and depression. (Afshin, Reitsma, & Murray, 2017).

Very low calorie ketogenic diet, VCL and DASH diet in the treatment of obesity

In the present studies, the results of research on the ketogenic diet, Dash diet and VLC, showed a significant improvement in the clinical picture in individuals with obesity, hypertension, prediabetes, or type 2 diabetes mellitus. The study of ketogenic diet showed significant weight reduction in individuals with

obesity. Just like the very low carbohydrate (VLC) diet, it presented better results in controlling blood pressure in people with hypertension, when compared to using the DASH (Dietary Approaches to Stop Hypertension) diet in the treatment of pathologies. Both studies showed improvements in results. (SMITH; DOE, 2023).

In Brazil, it is of great importance that public policies work to guarantee the access and the right to adequate food for individuals, with the aim of prevent and combat obesity and its comorbidities. For example, National Food and Nutrition Security Policy (PNSAN), which involves the aggregation of efforts between the government and civil society, with actions and plans such as: Access to water, food acquisition program, food distribution, actions to support food and nutritional education, etc. (BRAZIL, 2025.)

The study described in table 1 showed the effects of physical activities, and exercises aerobic physical activities (activities that use oxygen as the main source) for the obesity treatment. (Ministry of Health, 2022). The research revealed that, regardless of the intensity of aerobic exercise, it can increase expenditure energy and induce moderate weight loss in individuals with obesity (HALL, 2021).

In this context, it is necessary to discuss the solutions that the Brazilian government tends to offer the population, for the prevention and treatment of obesity. The The Health Academy Program was launched in 2011, with the strategy of promoting health, and implement hubs in public spaces, where health practices are offered physical activity, these poles, which are part of the primary health care network, and are provided with infrastructure, equipment and qualified professionals. This policy public, becomes of great importance for the treatment of obesity, since, physical activity is an essential factor to obtain better results. (BRAZIL,2025)

As well as the practices of these activities, a diet based on healthy foods natural (vegetables, greens, fruits) or minimally processed (white rice, beans, chestnuts...) are also ways to prevent this condition. Research done to evaluate the impacts of a multidisciplinary family intervention, in the processing of overweight adolescents, described in Table 1, showed effectiveness in reduction in the consumption of ultra-processed foods consumed by this group of

people. Due to their ingredients, these foods, such as packaged snacks, soft drinks, stuffed cookies, are nutritionally unbalanced foods. Made from sugars, sodium, fats and other additives, these products tend to are more palatable, easy to consume, which generates a greater demand by the population (BRAZIL,2022).

The Food Guide for the Brazilian Population is a fundamental instrument for Nutritional Food Education, a significant reason for the prevention of Obesity. Its first version was published in 2006, being revised and published in 2014, with aim to recommend, guide and assist the population regarding their eating habits. The Guide is understood as a set of information, which can be combinations cuisines, choices, in addition to instigating possibilities for overcoming obstacles.

According to the guidelines proposed by the Guide, it is valuable to make natural foods and minimally processed, the basis for a nutritionally balanced diet, that will be tasty, culturally appropriate, and environmentally sustainable. In the study present, carried out with adolescents, the intervention of family members demonstrated more effectiveness in reducing the consumption of ultra-processed foods, and in improving eating habits. The act of integrating children and adolescents in activities domestic tasks, such as planning meals, preparing and sharing knowledge, are precious tasks to strengthen ties and create good eating habits (BRAZIL, 2014).

The guide also suggests that meals be eaten in company, in environments appropriate, clean, quiet and comfortable, avoiding cell phones under the table, which favors concentration on the act of eating, allowing preparations culinary products are consumed appropriately, thus contributing to reducing excesses (BRAZIL, 2014).

CONCLUSION

It is concluded that Brazilian public policy programs in combating and preventing of obesity in Brazil, can generate positive results in tackling the pathology. Their creation, and their intervention, are of great importance for the treatment and prevention of the disease, as a consequence, they prevent other diseases derived from it

of this condition. They were created so that the entire Brazilian population, of all classes, could have access to these services, in a practical and accessible way.

In this present review, the actions of these policies have shown that they can be efficient in prevention of obesity, results of their nutritional education practices, for example of the food guide for the Brazilian population, important literature, easily accessible, and essential for the general public to have access to this material.

As well as the implementation and creation of spaces for physical activities and exercises physical, which could serve the general population, another indispensable factor for the process of reducing body fat. However, it is important to emphasize that despite the existence of the same, the Brazilian Government must ensure that these policies public entities are acting legally, in accordance with their purpose, in addition to strengthen monitoring of these practices.

REFERENCES

BRAZIL. Ministry of Development and Social Assistance, Family and Fight Against Hunger. Federal government reduces limit on ultra-processed foods in school meals. Brasília, February 5. 2025. Available at: https://www.gov.br/mds/pt-br/noticias-e-conteudos/desenvolvimento-social/social-development-news/federal-government-reduces-limit-of-ultra-processed-foods-in-school-meals. Accessed on: May 26, 2025.

World Health Organization (WHO). Obesity and overweight. Geneva: World Health Organization World Health Organization, 2025. Available at: https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight. Accessed on: May 19, 2025.

BRAZIL. Ministry of Health. Secretariat of Health and Environmental Surveillance. Scenario of obesity in Brazil. Epidemiological Bulletin, Brasília, v. 55, n. 7, April 9, 2024. Available at: https://www.gov.br/saude/pt-br/centrais-de-content/publications/bulletins/epidemiological/editions/2024/bulletin-epidemiological-volume-55-no-07.pdf. Accessed on: May 19, 2025.

BRAZIL. Ministry of Health. Overweight and obesity as public health problems. Brasília: Ministry of Health, 2022. Available at: https://www.gov.br/saude/pt-br/issues/health-brazil/i-want-to-have-healthy-weight/news/2022/overweight-and-obesity-as-public-health-problems. Accessed on: May 19, 2025.

BRAZILIAN ASSOCIATION FOR THE STUDY OF OBESITY AND METABOLIC SYNDROME (ABESO). Obesity map. São Paulo: ABESO, 2019. Available at: https://abeso.org.br/obesidade-e-sindrome-metabolica/mapa-da-obesidade/. Accessed on: May 19 2025.

ROSSI, Luciana; POLTRONIERI, Fabiana. *Treatise on nutrition and diet therapy.* São Paulo: Publisher Athenaeus, 2021. Available in: https://minhabiblioteca.com.br/catalogo/livro/99339/tratado-de-nutri-oe-dietoterapia. Access on: May 19, 2025.

VALENTINE, Cesar Guilherme Queiroz;
DUARTE,
Nathalia Lopez. Obesity in Brazil: social, economic and public health challenges. *Journal Electronic Health Collection,* Campinas, v. 24, n. 11, 2024. Available at: https://acervomais.com.br/index.php/saude/article/view/18772/9623. Accessed on: May 19, 2025.

SILVA, Ana; COSTA, Maria; RIBEIRO, João. Childhood obesity and its impacts on quality of life. *Multidisciplinary Scientific Journal Knowledge Center,* v. 6, n. 4, p. 123-135, 2021. Available at: https://www.nucleodoconhecimento.com.br/saude/impactos-na-quality. Accessed on: May 19, 2025.

MACHADO, Natalia Guerra; MAYNARD,
Dayanne da Costa. The pathophysiology of obesity and its nutritional therapeutic approach with use of nutraceuticals. *Research, Society and Development,* v. 12, n. 6, e11812642104, 2023. Available at: http://dx.doi.org/10.33448/rsd-v12i6.42104. Accessed on: May 19, 2025.

NEUMAN, Mark D.; ZAFAR, Sadiq Y.; LEVY, Benjamin P. Health Care at the End of Life — Facing the Challenges. *The Annals of Family Medicine,* vol. 21, no. 3, p. 256-262, 2023. Available at: https://www.annfammed.org/content/21/3/256.long. Accessed on: May 20, 2025.

BRAZIL. Ministry of Health. The impact of obesity. Published on Jun 7, 2022. Available in: https://www.gov.br/saude/pt-br/assuntos/saude-brasil/eu-quero-ter-peso-healthy/news/2022/the-impact-of-obesity. Accessed on: May 20, 2025.

BRAZIL. Ministry of Health. **Physical Activity Guide for the Brazilian Population.** Brasilia: Ministry from the Health, 2021. Available in:

https://bvsms.saude.gov.br/bvs/publicacoes/guia_atividade_fisica_populacao_brasileira.pdf.
Accessed on: May 20 , 2025.Datainfo+4Virtual Health Library MS+4Pan-American Health Organization
American Health+4

ALEXANDROU, Christina; HENRIKSSON, Hanna; HENSTRÖM, Maria; HENRIKSSON, Pontus; DELISLE NYSTRÖM, Christine; BENDTSEN, Marcus; LÖF, Marie. Effectiveness of a Smartphone App (MINISTOP 2.0) integrated in primary child health care to promote healthy diet and physical activity behaviors and prevent obesity in preschool-aged children: randomized controlled trial. *International Journal of Behavioral Nutrition and Physical Activity,* v. 20, n. 1, p. 22, 2023. Available in: https://ijbnpa.biomedcentral.com/articles/10.1186/s12966-023-01405-5. Accessed on: May 20 2025.

MARTIN, Sherry S.; BLUMENTHAL, Roger S.; MILLER, Michael; MICHOS, Erin D. Association of Lifestyle and Genetic Risk With Incidence of Atrial Fibrillation. *JAMA Internal Medicine,* v. 180, n. 9, p. 1225–1233, 2020. Available in: https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2771095. Accessed on: 20 May 2025.

MARTINS, C. et al. Treatment of childhood obesity based on the reduction of sedentary behavior and physical activity: a systematic review. *Clinical Obesity,* vol. 13, no. 2, e12648, 2023. Available at: https://onlinelibrary.wiley.com/doi/10.1111/cob.12648. Accessed on: May 20 2025.

MARQUES, Déborah CS; FERREIRA, Willian C.; SANTOS, Isabella C.; RYAL, Joed J.; MARQUES, Marilene GS; OLIVEIRA, Fabiano M.; MILANI, Rute G.; MOTA, Jorge; VALDÉS-BADILLA, Pablo; BRANCO, Braulio H.M. Impacts of a Multi-Professional Family versus Isolated Intervention on Food Level Processing in Overweight Adolescents: A Randomized Trial. *Nutrients,* Basel, v. 15, n. 4, art. 935, 2023. Available at: https://www.mdpi.com/2072-6643/15/4/935. Accessed on: May 20, 2025.

SASLOW, Laura R.; JONES, Lenette M.; SEN, Ananda; WOLFSON, Julia A.; DIEZ, Heidi L.; O'BRIEN, Alison; LEUNG, Cindy W.; BAYANDORIAN, Hovig; DAUBENMIER, Jennifer; MISSEL, Amanda L.; RICHARDSON, Caroline. Comparing Very Low-Carbohydrate vs. DASH Diets for Overweight or Obese Adults With Hypertension and Prediabetes or Type 2 Diabetes: A Randomized Trial. *Annals of Family Medicine,* vol. 21, no. 3, p. 256–263, 2023. Available at: https://www.annfammed.org/content/21/3/256.long. Accessed on: May 20, 2025.

BRAZIL. Ministry of Development and Social Assistance, Family and Fight Against Hunger. National Food and Nutrition Security System. Available at:

https://www.gov.br/mds/pt-br/acesso-a-informacao/carta-de-servicos/desenvolvimento-social/social-inclusion-and-rural-productivity/national-food-and-nutritional-security-system. Accessed on: May 20, 2025.

BRAZIL. Ministry of Health. *Aerobic physical activities.* Brasília: Ministry of Health, 2022. Available in: https://www.gov.br/saude/pt-br/assuntos/saude-brazil/glossary/aerobic-physical-activities. Accessed on: May 20, 2025.

BRAZIL. Ministry of Health. *Health Academy Program.* Brasília: Ministry of Health, 2023. Available at: https://www.gov.br/saude/pt-br/composicao/saps/academia-da-saude. Accessed on: May 20, 2025.

BRAZIL. Ministry of Health. *Food guide for the Brazilian population: promoting healthy eating.* 2nd ed. Brasília, DF: Ministry of Health, 2014. Available at: https://www.gov.br/saude/pt-br/assuntos/saude-brasil/publicacoes-para-promocao-a-health/food_guide_brazilian_population_2nd edition.pdf/view?utm_blog=blog. Accessed on: June 11th. 2025.