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# Food and nutritional surveillance system as tool for planning Public Health actions in Brazil1

*Food and nutrition monitoring system as tool for planning actions in Public Health in Brazil*

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**SUMMARY**

**Introduction:** The Food and Nutrition Surveillance System (SISVAN) is a strategic tool for monitoring the nutritional status of the Brazilian population, acting as an essential indicator in the planning and implementation of public health policies. **Objective:** This study aims to review the literature focused on identifying evidence of the interaction between the Food and Nutrition Surveillance System (SISVAN) and actions developed within the scope of public health policies. **Methodology:** A search was conducted in the SciELO, PubMed, and CAPES Journals databases, resulting in 915 articles, of which 6 met the inclusion criteria. **Results:** The selected studies show that, despite limitations related to the system's coverage, SISVAN plays a relevant role in monitoring nutritional data and formulating public health policies.

**Keywords:** Food and Nutrition Surveillance System; Public Policies; Chronic Non-Communicable Diseases.

**ABSTRACT**

**Introduction:** The Food and Nutrition Surveillance System (SISVAN) is a strategic tool for monitoring the nutritional status of the Brazilian population, acting as an essential indicator in the planning and implementation of public health policies. **Objective:** This study aims to conduct a literature review focusing on identifying evidence of the interaction between the Food and Nutrition Surveillance System (SISVAN) and the actions developed within the scope of public health policies. **Methodology:** A search was conducted in the SciELO, PubMed and CAPES Journals databases, resulting in 915 articles, of which 6 met the inclusion criteria. **Results:** The selected studies show that, despite the limitations related to the system's coverage, SISVAN plays an important role in monitoring nutritional data and in the formulation of public health policies.

**Keywords:** Food and Nutrition Surveillance System; Public Policies; Non-communicable Chronic Diseases.

## Introduction

The Food and Nutrition Surveillance System (SISVAN) is a tool essential for the formulation of more effective public policies, as it allows the monitoring of nutritional data of the population served by the Unified Health System (SUS) (MREJEN *et* al., 2023).

Furthermore, the collection of data on food consumption markers provides results that contribute to food and nutritional surveillance in Brazil, subsidizing

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evidence-based actions and public policies (LOURENÇO *et* al., 2023). The record this information in SISVAN also helps in monitoring nutritional status of PBF beneficiaries, functioning as a relevant indicator for the prevention of Chronic Non-Communicable Diseases (NCDs) (SILVA *et* al., 2020).

In October 2019, the state of Northeast had a 56% frequency of overweight among women aged 60 and over (SANTOS *et* al., 2021). In this context, programs such as the Promotion of Adequate and Healthy Eating (PPAAS), Program Bolsa Família (PBF), the School Health Program (PSE), among others, are fundamental to improve the diet and quality of life of the Brazilian population (BICALHO *et* al., 2023; CARMOS *et* al., 2022).

Therefore, this study aims to analyze, through a review of literature, the possible contributions of SISVAN as a data control tool nutritional, as well as its relevance for planning public health actions in Brazil.

**Methodology**

In the present work, a review article study was carried out considering English and Portuguese literature, analysis studies, clinical and controlled trials randomized, with descriptive and exploratory characteristics, excluding books, documents, systematic review, opinions and duplications. The investigation took place in following databases: Scientific Electronic Library Online (SciELO), Periodicals of the CAPES and National Library of Medicine (PubMed). With the following descriptors: SISVAN, healthy eating, food consumption markers and the guiding question “What is the importance of SISVAN for planning public health actions in Brazil?”

To compile the data, a 5-year time frame was considered, between 2020 to 2025, with the aim of using more current research. The search for the descriptors reported previously resulted in a total of 45 articles, of which only 6 met the criteria established, according to the organizational chart figure 1 presented below.

To select the studies for the articles, the central theme was initially defined, followed by by defining the inclusion and exclusion criteria. Subsequently, the reading was carried out sequential order of titles, followed by analysis of abstracts, and finally, reading was carried out full text of the selected articles.

Data extracted from the selected studies were summarized and organized as shown in table 1 below, by year of publication, author, location, purpose of the


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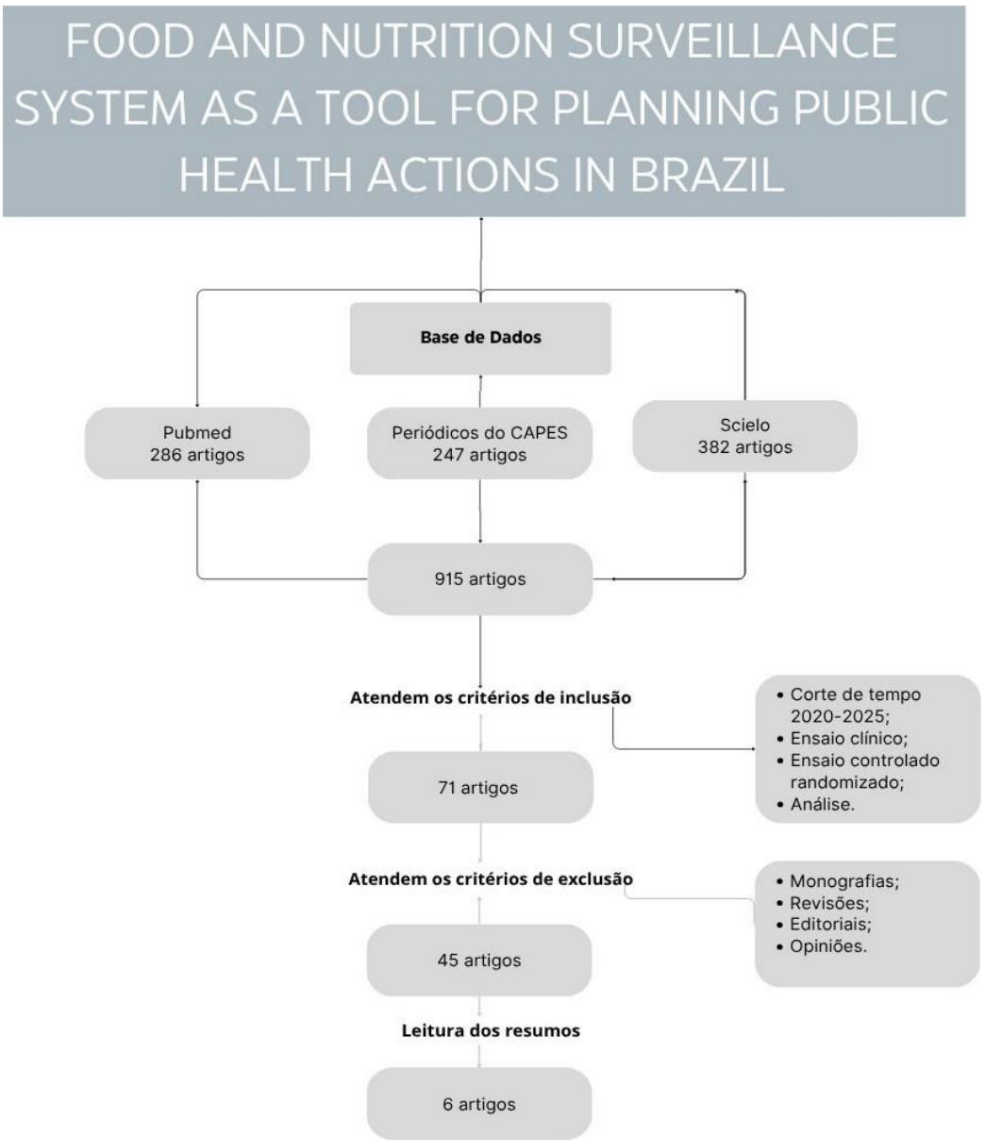
study, main findings, methodology, among others.

**Figure** 1: Descriptive chart of the research process of the literature review of this article




**Source:** developed by the authors, 2025.

**Results and discussions**

The selected scientific articles, presented in table 1, bring together research relevant that highlight the importance of the nutritional data control system, in context of public health actions in Brazil. This relevance is directly related to the Ordinance No. 1,156, of August 31, 1990, of the Ministry of Health, which officially instituted the Food and Nutrition Surveillance System (SISVAN) within the scope of the Unified System of Health (SUS), with the objective of monitoring and subsidizing policies aimed at promoting health and food and nutritional security of the Brazilian population.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In the sphere of Primary Health Care (PHC), the collection of anthropometric data, such as weight and height, among beneficiaries of the Bolsa Família Program (PBF), constitutes a fundamental strategy for assessing the nutritional status of this population. In this context, the Guidelines Manual on Bolsa Família in Health (BRAZIL, 2010) offers guidelines that direct the actions of health professionals in monitoring and supporting to beneficiary families, promoting coordination between nutritional surveillance and social assistance policies.

In the study by (Mrejen *et* al., 2023), statistical data from SISVAN were explored, with a special focus on children aged 0 to 9 and adolescents aged 10 to 19. The objective was analyze the scope and potential of the tool in monitoring nutritional status, emphasizing that the system's coverage varies between regions of the country, being more comprehensive in the North and Northeast. This scope allows the construction of local diagnoses and regional governments that guide public policies more suited to the specific realities of each territory.

The ecological research of (Silva *et* al., 2022), in turn, investigated adults aged 20 to 59 years in the period from 2008 to 2019, covering all Brazilian macro-regions. The results showed that, even with the limited coverage of SISVAN, there was an increase significant increase in the prevalence of overweight and obesity among adults in all regions analyzed. This data reinforces the relevance of the information provided by the system as a basis for intersectoral actions, including food education programs and nutritional, food security policies and campaigns to reduce food consumption sodium, saturated fats and sugars (BRAZIL, 2022). Regarding the elderly population, the analysis carried out by (Silva *et* al., 2021) showed a significant increase in the number of overweight elderly women in the Northeast region. However, the authors highlight that the data obtained through SISVAN Web for this age group must be interpreted with caution, since natural changes in body composition resulting from aging, such as reduced lean mass and changes in height, may compromise the accuracy of weight and height measurements and, consequently, the index body mass index (BMI).

In this context and based on the study by (Louzada *et al.,* 2023), which highlights the increase in the consumption of ultra-processed foods in Brazil, the importance of food consumption markers as essential tools for food surveillance and nutritional within the scope of the SUS. Corroborating this perspective, (Lourenço *et al.,* 2023). validate the use of SISVAN in both epidemiological research and monitoring


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population, reinforcing its applicability in nutritional care actions, especially when linked to the Food Guide for the Brazilian Population.

Given the increase in chronic diseases associated with poor diet and worsening of morbidity and mortality rates in the country, (Bicalho *et* al., 2023). highlight the importance of the Program for the Promotion of Adequate and Healthy Eating (PPAAS). This program, inserted in primary health care, adopts dynamic methodologies and participatory measures that involve both primary care professionals and the community, promoting integration and awareness among users regarding more appropriate food choices healthy.

In conjunction with these initiatives, the analysis by (Carmos *et* al., 2022) showed the potential of the actions of the Healthy Growth Program (PCS), established in 2017 by Ministry of Health to act in the prevention of childhood obesity in schools, through activities carried out within the scope of the School Health Program (PSE). The main strategies include nutritional assessment, promotion of adequate and healthy eating, and encouraging the practice of physical activities, aiming to change the behavior of students (BRAZIL, 2022).

According to (Ferreira *et* al., 2013), the effective use of the system has potential to improve public policy planning and contribute to reducing inequalities in health and nutrition, since the data consolidated by SISVAN represent a strategic basis for the formulation, implementation and improvement of policies and public health actions.

In theory, SISVAN constitutes a strategic instrument for planning and the management of public health actions, since it enables continuous monitoring and systematized the nutritional status and food consumption of the Brazilian population. From through data collection and analysis, the system enables early identification of health problems nutritional disorders, such as malnutrition, overweight, micronutrient deficiencies and patterns inadequate food, subsidizing the formulation of public policies based on evidence and more efficient allocation of resources. Furthermore, SISVAN contributes to the evaluation of the effectiveness of intersectoral programs and strategies, such as the Program Bolsa Família, reinforcing the importance of nutritional surveillance as a tool for promoting health equity.

In this sense, the system consolidates itself as a robust base for the development of scientific research, health education and interventions aimed at prevention and control of diseases, in addition to strengthening epidemiological surveillance and


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tackling social inequalities related to food and nutrition in Brazil.

**Table 1** – Summary of articles analyzed for review

| Article | Author, year of publication, location of the study | Design, Type of study and N | Study objectives | Methodology | Main findings |
|---|---|---|---|---|---|
| **1- SISVAN as a tool monitoring of nutritional status of children and adolescents in Brazil** | Matías Mrejen et al Published in 2023, SP | Quantitative study No. 3 | Analyze the importance of the system as a tool for monitoring the nutritional status of individuals. | Verified the evolution of fees coverage of system, calculating the percentage of population between 2008 and 2019 through the SISVAN, PBF and PSE shares. | It was identified that SISVAN coverage is predominant in rural areas and that anthropometric data collected are subject to possible errors, whether due to lack of training of the APS team or equipment failures, this interfering with the quality of data collection. |
| **2- SISVAN trend coverage time and status Nutritional status of registered adults, 2008-2019** | Ruth Pereira Costa Silva et al Published in 2022, Fortaleza, CE | Ecological study of time series No. 9 | Check the extension coverage of the SISVAN system and nutritional status of individuals served in the PHC | Used the report of data generated through e-SUS migrated to the Sisvan Web, to determine the scope of the system in macroregions. | An increase in one overweight, obesity and malnutrition was observed between people in of vulnerable situations. |
| **3- Evaluation of Program Of Promotion of Food Suitable and Healthy in Attention Primary: Mixed methods research** | Juliana Mara et al Published in 2023, MG | Study of field qualitative and quantitative No. 6 | Investigate the implementation of Program of Promotion of Adequate and healthy nutrition (PPAAS) in PHC | Held a evaluative research | The implementation of the Program under study with (PPAAS) favored the integration of between PHC professionals and users, through the collective activities carried out. |

| | | | | | |
|---|---|---|---|---|---|
| **4 - Markers of the consumption feed of SISVAN: structure and invariance of measurement in Brazil** | Barbara Lourenço et al Published in 2023, SP | Exploratory analysis study N 3 | Consider the internal structure of the Sisvan form of food intake markers. | Performed a parallel analysis to assist in the determining the ideal number of factors to be extracted from the data set. | The markers of feeding consumption mo |
| **5-Promotion of adequate and healthy nutrition within the scope of School Health Program: implemented if contributions of Program To grow Healthy** | Ariene Silva do Carmo et al Published in 2022, DF | Epidemiological study N 7 | Evaluate the percentage of the participating schools to the PSE that carried out collective PAAS activities | Data extracted from Sisab of the Primary Health Care Secretariat, delimiting the actions carried out in the PSE through the e-SUS collective activity form. | Increase in realization of activities press conferences on food healthy in schools participants of the PSE, increase in the number of municipalities participants of the PCS |
| **6-Condition assessment nutritional status of elderly women resident in Northeast region of Brazil through Sisvan data WEB** | Lais Romeica Soares da Silva Published in 2021, SP | Study transversal and descriptive N 4 | Assess the nutritional status of women aged 60 in the region years Northeast, through data from Sisvan Web | Data-driven analysis of dietary Body Mass Index (BMI) and consumption registered node SISVAN-WEB. | The study suggests that SISVAN-WEB data may not accurately reflect nutritional status of elderly women, because they only use BMI and consumption assessment food. The inclusion of other parameters would be necessary for an evaluation more apr |

**Source:** Table developed by the authors, 2025.

## Conclusion

In view of the studies analyzed, the importance of the Surveillance System is evident Food and Nutrition (SISVAN) as a fundamental instrument for monitoring the nutritional status of the Brazilian population, and for the articulation of public policies in health. Despite limitations related to coverage and quality of data in certain regions and age groups, the system has proven effective in identifying dietary patterns and early detection of nutritional problems, such as overweight and obesity.

The articulation of SISVAN with government programs, such as the Program of Promotion of Adequate and Healthy Eating (PPAAS) and the Growing Up Healthy Program (PCS), reinforces its potential for intersectoral action in the prevention of chronic diseases not transmissible. In this sense, expand the use and qualification of SISVAN data

represents an essential strategy for strengthening food and nutritional surveillance actions in the Unified Health System (SUS), contributing to improving conditions health and nutrition of the Brazilian population.

It is also important to highlight the relevance of Primary Health Care professionals (APS) follow the guidelines of the Food Surveillance Organization Guide and Nutritional and the SISVAN Operational Manual, which offer guidelines ranging from the identification of priority populations to the interpretation of anthropometric indicators and food consumption. The qualified use of this information contributes significantly for planning, management and decision-making in services health.

**References**

BICALHO, JMF; GUIMARÃES, EAA; FREITAS, PP; LOPES, MS; MENEZES, MC; LOPES, ACS; OLIVEIRA, CL Evaluation of the Program of Promoting Adequate and Healthy Eating in Primary Care: a mixed-methods research. **Ciência & Saúde Coletiva,** Rio de Janeiro, 2023. Available at: https://www.scielo.br/j/csc/a/PZXQ9pVPrwKS4v6k98N3dxx/?lang=pt. Accessed: May 2025

BRAZIL. Ministry of Health. **Guidelines for the collection and analysis of anthropometric data in health services.** Brasília, DF: Ministry of Health, 2011.

BRAZIL. Ministry of Health. **SISVAN Indicator Panel – Food and Nutrition Surveillance System.** Brasília, DF: Ministry of Health, 2023. Available at: https://sisaps.saude.gov.br/sisvan/painel Accessed: May 2025.

BRAZIL. Ministry of Health. **Strategic Action Plan to Combat Chronic Non-Communicable Diseases in Brazil 2021–2030.** Brasília: Ministry of Health, 2022. Available at: https://www.gov.br/saude/pt-br/centrais-de-conteudo/publicacoes/svsa/doencas-cronicas-nao-transmissiveis-dcnt/09-plano-de-dant-2022_2030.pdf Accessed: May 2025.

BRAZIL. Ministry of Health. **Healthy Growth Program.** Available at: https://www.gov.br/saude/pt-br/composicao/saps/promocao-da-saude/programa-crescer-saudavel. Accessed: May 2025.

BRAZIL. Ministry of Health. Secretariat of Health Care. Department of Health Care Basic. **Guidelines Manual on the Bolsa Família in Health.** 3rd ed. Brasília: Ministry of Health, 2010.

BRAZIL. Ministry of Health. Secretariat of Health Care. Department of Primary Care. **Operational manual for use of the Food and Nutrition Surveillance System – SISVAN.** Version 3.0. Brasília, DF: Ministry of Health; 2017. Accessed: June 2025. Available at: http://sisaps.saude.gov.br/sisvan/public/file/ManualDoSisvan.pdf Accessed: June 2025



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BRAZIL. Ministry of Health (MS). Secretariat of Health Care. Department of Primary Care. **National Food and Nutrition Policy** Brasília: MS; 2012.

BRAZIL. Ministry of Health. Secretariat of Primary Health Care. **Guide for the organization of food and nutrition surveillance in primary health care.** Brasília, DF: Ministry of Health; 2022. Accessed in June 2025. Available at: Guide for the Organization of Food and Nutrition Surveillance in Primary Health Care. Accessed in: June 2025.

BRAZIL. Ministry of Health, Secretariat of Primary Health Care. **School Health Program.** Brasília, DF; 2022. Available at: https://aps.saude.gov.br/ape/pse. Accessed: May 2025

BRAZIL. Ministry of Health (MS). **Dietary guide for the Brazilian population.** 2nd ed. Brasilia: MS; 2014.

BRAZIL. Ministry of Health (MS). Health Surveillance Secretariat. Department of Health Situation Analysis. **Strategic Action Plan to Combat Chronic Non-Communicable Diseases (NCDs) in Brazil 2011-2022.** Brasília: MS; 2011.

BRAZIL. Ministry of Health. Ordinance No. 1,156, of August 31, 1990. Institutes the System Food and Nutrition Surveillance System – SISVAN. **Official Gazette of the Union: section** 1, Brasília, DF, September 5, 1990.

CARMOS, AS et al. A. Promotion of Adequate and Healthy Nutrition within the scope of the School Health Program: implementation and contribution of the Healthy Growth Program. **Health in Debate,** Rio de Janeiro, 2022. Available at: https://www.scielo.br/j/sdeb/a/S46wkWKMJrRdmsg9knNrwSG/. Nov. Accessed: May 2025.

FERREIRA, CS; CHERCHIGLIA, ML; CÉSAR, CC The Food and Nutrition Surveillance System as a monitoring tool for the National Strategy for Healthy Complementary Feeding. **Brazilian Journal of Maternal and Child Health,** v. 13, Jun. n. 2, p. 167-177, 2013. Available at in: https://www.scielo.br/j/rbsmi/a/hwp645RMKNCC7XhtM6Dq3Mc/. Accessed on: September 1, 2025.

LOURENÇO, BH; GUEDES, BM; SANTOS, TSS Food consumption markers from Sisvan: structure and measurement invariance in Brazil. **Journal of Public Health,** São Paulo, 2023. Available at: https://pubmed.ncbi.nlm.nih.gov/37585951/ . Accessed: May 2025.

LOUZADA, MLC et al. Food and Nutrition Surveillance System markers predict diet quality. **Public Health Journal,** São Paulo, v.57, p.82,2023. Available in: https://pmc.ncbi.nlm.nih.gov/articles/PMC10631750/?utm_source Accessed: June 2025.

MREJEN, M.; CRUZ, MV; ROSA, L. The Food and Nutrition Surveillance System (SISVAN) as a tool for monitoring the nutritional status of children and adolescents in Brazil. **Cadernos de Saúde Pública,** Rio de Janeiro, 2023. Available at: https://www.scielosp.org/article/csp/2023.v39n1/e00169622/. Accessed: May 2025

SILVA, RPC et al. Food and Nutrition Surveillance System: temporal trends in coverage and nutritional status of registered adults, 2008-2019. **Epidemiology and Services.** Available **at:** https://www.scielo.br/j/ress/a/rQyYg8DVPLyjxhVZMCJrgqM/?lang=pt. in: **Health,** Brasilia, 2022. Accessed: May 2025

SILVA, LRS et al. Assessment of the nutritional status of elderly women living in the Northeast region of Brazil using data from SISVAN-WEB. **Ibero-American Journal of Humanities, Sciences and Education,** v. 2021. 7, Available at: https://www.periodicos.capes.gov.br/index.php/acervo/buscador.html?task=details&source=all&id=W4205536749. Accessed: June 2025.



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