

Use of Sisvan Data on Food Consumption and Nutritional Status: Scoping Review Protocol

Uso de Dados do Sisvan Sobre Consumo Alimentar e Estado Nutricional: Protocolo de Revisão de Escopo

Uso de Datos del Sisvan Sobre Consumo Alimentario y Estado Nutricional: Protocolo de Revisión de Alcance

RESUMO

Objetivo: Mapear o uso de dados do Sistema de Vigilância Alimentar e Nutricional (SISVAN) na produção de evidência científica sobre consumo alimentar e estado nutricional da população brasileira. **Métodos:** Registrado na *Open Science Framework* (<https://doi.org/10.17605/OSF.IO/X3B45>) e seguindo as diretrizes do PRISMA-ScR, serão incluídos artigos científicos e literatura cinzenta, sem recorte de tempo de publicação, em inglês, português e espanhol, com texto completo disponível. As bases de dados adotadas serão: MEDLINE (PubMed); Embase (*Elsevier*); LILACS; SciELO; WOS (CAPES). As publicações selecionadas serão importadas para o *software Rayyan*. A seleção dos estudos será realizada de modo duplo-cego, por dois revisores independentes, com um terceiro para resolver divergências. A análise dos dados ocorrerá de maneira descritiva, com base no conteúdo investigado. **Conclusão:** Espera-se que esta revisão de escopo identifique os temas mais escassos, o potencial de uso dos dados do SISVAN e as tendências e lacunas na produção científica.

DESCRIPTORES: Sisvan; Vigilância alimentar e nutricional; Estado Nutricional; Consumo Alimentar; Nutrição.

ABSTRACT

Objective: To map the use of data from the Food and Nutrition Surveillance System (SISVAN) in the production of scientific evidence on food consumption and nutritional status of the Brazilian population. **Methods:** Registered on the Open Science Framework (<https://doi.org/10.17605/OSF.IO/X3B45>) and following PRISMA-ScR guidelines, scientific articles and grey literature will be included without restriction on publication date, in English, Portuguese, and Spanish, with full text available. The databases used will be: MEDLINE (PubMed); Embase (*Elsevier*); LILACS; SciELO; WOS (CAPES). Selected publications will be imported into Rayyan software. Study selection will be conducted in a double-blind manner by two independent reviewers, with a third reviewer to resolve discrepancies. Data analysis will be descriptive, based on the investigated content. **Conclusion:** This scoping review is expected to identify the least explored topics, the potential use of SISVAN data, and trends and gaps in scientific production.

KEYWORDS: SISVAN; Food and nutrition surveillance; Nutritional status; Food consumption; Nutrition.

RESUMEN

Objetivo: Mapear el uso de los datos del Sistema de Vigilancia Alimentaria y Nutricional (SISVAN) en la producción de evidencia científica sobre el consumo alimentario y el estado nutricional de la población brasileña. **Métodos:** Registrado en Open Science Framework (<https://doi.org/10.17605/OSF.IO/X3B45>) y siguiendo las directrices del PRISMA-ScR, se incluirán artículos científicos y literatura gris, sin restricción de fecha de publicación, en inglés, portugués y español, con texto completo disponible. Las bases de datos utilizadas serán: MEDLINE (PubMed); Embase (*Elsevier*); LILACS; SciELO; WOS (CAPES). Las publicaciones seleccionadas se importarán al software Rayyan. La selección de los estudios se realizará a doble ciego por dos revisores independientes, con un tercero para resolver discrepancias. El análisis de los datos se realizará de forma descriptiva, con base en el contenido investigado. **Conclusión:** Se espera que esta revisión de alcance identifique los temas menos explorados, el potencial de uso de los datos del SISVAN y las tendencias y lagunas en la producción científica.

DESCRIPTORES: SISVAN; Vigilancia alimentaria y nutricional; Estado nutricional; Consumo alimentario; Nutrición.

Integrative Review

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INTRODUCTION

The nutritional transition has highlighted a significant change in global dietary patterns, marked by a reduction in the consumption of fresh or minimally processed foods and an increase in the consumption of ultra-processed foods. This process is accelerating as countries experience economic growth, with their populations adopting diets richer in industrialized products with greater convenience and added value. At the same time, there is a reduction in the use of basic ingredients traditionally used in domestic food preparation. However, there are important variations between regions and countries, indicating that the transition to a more global diet occurs at different stages of economic, social and cultural development⁽¹⁾.

These transformations have been influenced by globalization, changes in lifestyle and technological growth in the food industry, leading to a progressive reduction in malnutrition and an increase in overweight and obesity^(2, 3, 4). However, the double

burden of malnutrition remains, characterized by the coexistence of nutritional deficiencies and excess weight in the same population⁽⁵⁾.

The epidemiological profile associated with the nutritional transition, which has affected different age groups and income levels, has highlighted the need for measures to control and prevent overweight, obesity and chronic diseases. Faced with this scenario, the National Food and Nutrition Policy (PNAN), created in 1999, was a timely response to reorganize, qualify and improve food and nutrition actions in Brazil⁽⁶⁾.

However, debates on food and nutrition security intensified with the creation of the National Food and Nutrition Security System (SISAN) in 2006 and the inclusion of the Human Right to Adequate Food (HRAF) in the Federal Constitution in 2010. In 2011, the National Food and Nutrition Policy (PNAN) was updated, aligning itself with the principles of the Unified Health System (SUS) and reaffirming the promotion of the rights to health and food⁽⁷⁾.

Among the PNAN guidelines,

Food and Nutrition Surveillance (VAN) stands out as an essential strategy for monitoring the population's food and nutrition situation through the SUS^(8, 9). The Food and Nutrition Surveillance System (SISVAN) is the main tool for managing FNS information, gathering data on the nutritional status and diet of the Brazilian population^(10, 11).

SISVAN has important potential in enabling the generation of data on nutritional status and food consumption markers for vulnerable groups, such as the indigenous population, which is often absent from population surveys. However, it still faces limitations related to low coverage in hard-to-reach regions, regional inequalities and challenges in filling in and effectively using the data for planning and evaluating nutrition actions in Primary Health Care⁽¹²⁾. In addition to under-utilization of the system⁽⁹⁾, especially in the food consumption component⁽¹³⁾.

These weaknesses highlight the need to study the use of information provided by SISVAN, in order to assess its application and capacity to

support health actions in the area of food and nutrition. The aim of this scoping review is to map the use of SISVAN data in the production of scientific evidence on the food consumption and nutritional status of the Brazilian population.

METHODS

This scoping review protocol was registered with the Open Science Framework (<https://doi.org/10.17605/OSF.IO/X3B45>), will be carried out according to the methodological proposal of the Joanna Briggs Institute (JBI)⁽¹⁴⁾ and will be developed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) checklist⁽¹⁵⁾.

The acronym "PCC" (population, concept and context) will guide the elaboration of the research question: 1) As for the population, the entire Brazilian population will be considered, without restriction of age group or health condition; 2) as for the concept, the use of secondary data made available by SISVAN will be considered; 3) as for the context, food consumption and nutritional status will be considered. In view of this, the scoping review will have the following research question: "How have SISVAN data been used to produce scientific evidence on the food consumption and nutritional status of the Brazilian population?"

Eligibility criteria

The review will include publications in English, Portuguese and Spanish, with full text available, which used SISVAN data to assess the nutritional status and/or food consumption of the Brazilian population. These data were obtained from both scientific articles and gray literature, with no cut-off time for publication. Literature reviews, duplicates and

publications that do not answer the research question will be excluded.

Search strategy and information sources

In order to improve the sensitivity of the search strategies, both stan-

dardized descriptors from DeCS/MeSH (Descriptors in Health Sciences/Medical Subject Headings) and free terms relevant to the topic, which are not included in these standardized terminologies, will be used (table 1).

TABLE 1: Terms to be adopted for the search strategy.

Population	"Children" OR "Adolescents" OR "Adults" OR "Aged" OR "Infants" OR "Pregnant Women"
Concept	"Sisvan" OR "Health Information Systems" OR "Food and Nutrition Surveillance"
Context	"Food Consumption" OR "Food Intake" OR "Ultraprocessed Foods" OR "Breast Feeding" OR "Complementary Feeding" OR "Food Processing" OR "Nutritional Status" OR "Obesity" OR "Malnutrition"

Source: Authors (2025).

The databases selected for the searches were as follows: Medical Literature and Retrieval System online (MEDLINE) via PubMed; Embase via Elsevier; Latin American and Caribbean Health Sciences Literature (LILACS); Scientific Electronic Library Online (SciELO); Web of Science +(WOS) via the Portal of Periodicals of the Coordination for the Improvement of Higher Education Personnel (CAPES).

For the first search strategy, the five databases were searched using the string: (("Children" OR "Adolescents" OR "Adults" OR "Aged" OR "Infants" OR "Pregnant Women") AND ("Sisvan" OR "Health Information Systems" OR "Food and Nutrition Surveillance") AND ("Food Consumption" OR "Food Intake" OR "Ultraprocessed Foods" OR "Breast Feeding" OR "Complementary Feeding" OR "Food Processing" OR "Nutritional Status" OR "Obesity" OR "Malnutrition")). After this search, with the terms in Portuguese, English and Spanish, 8 studies were found in Embase, 67 in LILACS, 17 in MEDLINE - Pubmed, and no publications were found in SciELO and Web of Science, totaling 92 publications.

For the second search strategy, the following string was used in the five selected databases: ("Sisvan" AND ("food consumption" OR "nutritional status")). After this search, with the terms in Portuguese, English and Spanish, 47 studies were found in Embase, 236 in LILACS, 39 in MEDLINE - Pubmed, 27 in SciELO and 43 in Web of Science, totaling 392 publications. Given the higher number of publications identified, this search syntax will be adopted as the final strategy. In addition, manual searches will be carried out on the reference lists of the selected articles to identify studies relevant to the topic that were not located in the selected databases.

Data selection and extraction

The references will be imported into the software Rayyan (Qatar Computing Research Institute, Doha, Qatar) (16) to manage, remove duplicates and screen the studies found in the searches. The selection of studies will be carried out in a double-blind manner, where two reviewers will independently include and exclude studies. If there are any differences in the screening, a third reviewer will be consulted to help make the final de-

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cision.

Initially, duplicates will be identified and removed, and then the studies will be selected by reading the title and abstract. After screening, the included studies will be analyzed by reading the full text and eligibility for the review will be considered. If in doubt, the authors of the eligible publications can be consulted.

The data will be analyzed descriptively, based on the content investigated, considering the characteristics of the studies and the information relevant to the objectives of the scoping review. The data will be organized and presented in a flowchart, following the guidelines established by PRISMA 2020⁽¹⁷⁾, in order to illustrate the entire process of selecting the included studies (Appendix A).

The data will be extracted and organized in a customized spreadsheet containing the characteristics of the study, the characteristics of the participants, nutritional information and a summary of the main results and conclusions. The variables selected

will be: database, authors, language, journal, year of publication, type of study, levels of evidence, objective of the study, target audience, methodology used, number of participants, macro-region of the study, macro-region of the main researcher, results and conclusions, as well as variables related to food consumption and nutritional status.

The variables related to food consumption will be: frequency of consumption of specific foods, food profile by life cycles, time trend of consumption, food consumption of traditional communities and related socioeconomic factors. The variables related to nutritional status will be: nutritional status by life cycle, time trend of nutritional status, nutritional status of traditional communities, nutritional deficiencies and related socioeconomic factors.

To ensure the consistency of the process, a preliminary analysis of a subset of the data will be carried out to adjust the variables and extract the data as necessary.

CONCLUSION

Mapping the use of SISVAN data on the nutritional situation of the Brazilian population can help in the planning, management and evaluation of food and nutrition services in the SUS. Thus, it is hoped that this scoping review will identify the most scarce topics, the potential for using SISVAN data and the trends and gaps in scientific production, with a view to supporting food and nutrition surveillance actions.

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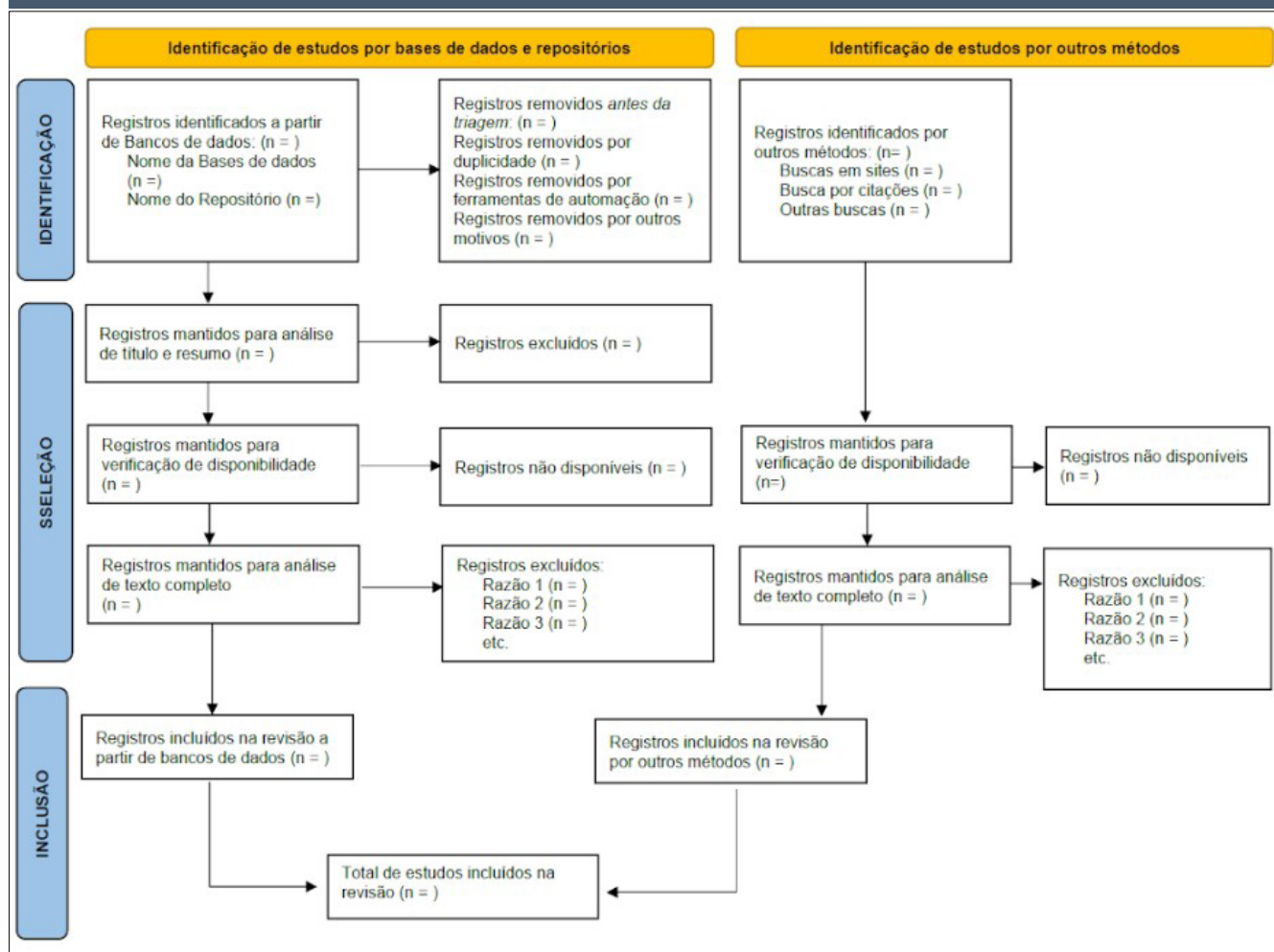
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APPENDIX A: PRISMA flowchart for the identification, selection and inclusion of studies in the scoping review.



Source: Adapted from Page *et al* (2021) ⁽¹⁷⁾.