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## **Food and nutritional (in)security in Primary Health Care in Brazil between 2016 and 2022: scoping review**

**(In)segurança alimentar e nutricional na Atenção Primária à Saúde no Brasil entre 2016 e 2022: revisão de escopo**

### **Abstract**

**Introduction:** The Brazilian healthcare system establishes health and adequate nutrition as a fundamental right and prioritizes Primary Health Care (PHC) as a strategy for achieving social justice. However, in recent years, there has been an increase in Food Insecurity (FI). **Objective:** To identify actions to promote Food and Nutrition Security (FNS) in primary care territories, described in the scientific literature in the period between 2016 and 2022, in Brazil. **Methods:** This is a scoping review study carried out in the BVS, Scielo, Lilacs, Pubmed, Science Direct and Web of Science databases. **Results:** A total of 540 publications were identified, and 10 comprised the final corpus. Most of the studies were cross-sectional, conducted in the Northeast region, with diverse target audiences, and sought to assess food and nutrition insecurity and professionals' knowledge of food and nutrition. However, actions related to promoting food security were rarely mentioned. **Conclusion:** Primary health care (PHC) has the potential to track and identify FI, promote FNS, and guarantee the Human Right to Adequate Food. Therefore, it is essential to produce evidence that positively impacts individuals' nutritional health and ensures democratic strategies to combat poverty and hunger.

**Keywords:** Human Right to Adequate Food. Primary Health Care. Food and Nutrition Security. Public Policy.

### **Resumo**

**Introdução:** O sistema de saúde brasileiro estabelece a saúde e a alimentação adequada enquanto um direito fundamental e prioriza a Atenção Primária à Saúde (APS) como estratégia para alcançar a justiça social. Todavia, nos últimos anos, observa-se aumento da Insegurança Alimentar (IA). **Objetivo:** Identificar as ações de promoção da Segurança Alimentar e Nutricional (SAN) em territórios de atenção primária, descritas na literatura científica no período compreendido entre 2016 e 2022, no Brasil. **Métodos:** Trata-se de um estudo de revisão de escopo realizado nas bases de dados BVS, Scielo, Lilacs, Pubmed, Science Direct e Web of Science. **Resultados:** Foram identificadas 540 publicações, e 10 compuseram o *corpus* final. Grande parte dos estudos foram do tipo transversal, realizados na Região Nordeste, com público-alvo diverso, e buscaram avaliar a insegurança alimentar e nutricional, o

conhecimento dos profissionais em relação à alimentação e nutrição; entretanto, as ações relacionadas à promoção da segurança alimentar foram pouco referidas. **Conclusão:** A APS tem potencialidade para atuar no rastreamento e identificação da IA, promoção da SAN e garantia do Direito Humano à Alimentação Adequada. Assim é fundamental produzir evidências que impactem positivamente a situação de saúde nutricional dos indivíduos e que garantam estratégias democráticas para o enfrentamento da pobreza e da fome.

**Palavras-chave:** Direito Humano à Alimentação Adequada. Atenção Primária à Saúde. Segurança Alimentar e Nutricional. Política Pública.

## INTRODUCTION

The Brazilian health system establishes health as a fundamental human right and has Primary Health Care (PHC) as a priority strategy to achieve equity and comprehensiveness based on social justice.<sup>1</sup> In this sense, PHC constitutes a potential space to address Food and Nutrition Security (FNS) from an emancipatory perspective of human rights, associated with intersectoral initiatives with interfaces between combating poverty, school meals, food distribution in vulnerable communities, food and nutrition education and agricultural production, proposed since 2003.<sup>2</sup>

Identifying PHC as a strategic point in the healthcare network (RAS) for implementing food and nutrition actions requires prioritizing the analyses and recommendations to be operationalized at this level of care, as a basic condition for well-being and human dignity.<sup>3</sup> To this end, in 2006, the Organic Law on Food and Nutrition Security was enacted, establishing the principles, guidelines, and objectives of the National Food and Nutrition Security System. This system reinforces the right to regular and permanent access to quality food in sufficient quantities without compromising access to other essential needs.<sup>4,5</sup> A few years later, in 2010, the National Policy on Food and Nutrition Security was established,<sup>6</sup> defining guidelines and objectives to promote the right of all to regular and permanent access to quality food, based on health-promoting dietary practices that respect cultural diversity and are environmentally, culturally, economically, and socially sustainable.

Despite these legal frameworks, the country continues to be marked by inequities in health and nutrition, the negative impacts of which are felt most, above all, in groups exposed to greater social vulnerability.<sup>7</sup> Since 2014, the worsening of hunger and food insecurity has been evident on the national scene, due to budget cuts in the National Food and Nutrition Security System and in the National Food and Nutrition Security Policy, and the extinction of the Conselho Nacional de Segurança Alimentar e Nutricional (National Council for Food and Nutrition Security – CONSEA), a set of political strategies and public equipment that worked to ensure access to food.<sup>8</sup>

This situation has recently worsened amid a neoliberal context and sociopolitical conflicts, with rollbacks to rights, job shortages, and rising food prices, exposing a current food crisis.<sup>8,9</sup> Studies<sup>9,10</sup> show an association with increased poverty and worsening living conditions for a considerable portion of the population. According to the Household Budget Survey (POF 2017-2018), the prevalence of food insecurity (FI) in the country increased from 22.6% in 2013 to 36.1% between 2017 and 2018.<sup>11</sup>

The COVID-19 pandemic has exacerbated hunger and worsened food insecurity. According to the second National Survey on Food Insecurity in the Context of the COVID-19 Pandemic, conducted by the Rede Brasileira de Pesquisa em Soberania e Segurança Alimentar e Nutricional (Brazilian Research Network on Food and Nutrition Sovereignty and Security -- REDE PENSSAN), 125.2 million Brazilians experienced some degree of food insecurity in absolute terms. The results revealed that, between 2021 and 2022, 28% of households were uncertain about food access, in addition to already compromised food quality, presenting mild food insecurity.<sup>12</sup>

PHC, as a primary contact between health professionals and residents, has enormous potential to contribute to ensuring FNS through health promotion actions, especially in areas with high levels of social and economic vulnerability. Given the above, it is important to understand the national scientific literature on FNS actions in PHC territories. Thus, this study seeks to identify FNS promotion actions in PHC territories described in the scientific literature from 2016 to 2022 in Brazil.

## METHOD

This is a scoping review of national scientific production on FNS actions in PHC territories, between 2016 and 2022. The choice of this time frame is based on the understanding that, from 2016 to 2022, Brazil experienced a period of political crisis, with the freezing of public spending and cuts in social programs, added to the consequences of the COVID-19 pandemic.

A scoping review allows for the collection of various types of evidence and their forms of production. It is important for tracking and/or anticipating potential, which should support researchers in the field and, to some extent, health workers, managers, and policymakers. It assists in research with emerging evidence, recent and/or incipient scientific production, and in investigations into how research is being conducted in already established fields.<sup>13</sup>

This scoping review was based on the proposals of Arksey and O'Malley,<sup>14</sup> which, in an adapted manner, consisted of six main consecutive steps: 1) identification of the research question and objective; 2) identification of relevant studies that would enable the breadth and scope of the review's purposes; 3) study selection according to predefined criteria; 4) data mapping; 5) summarization of results through qualitative thematic analysis in relation to the objective and question; 6) presentation of results, identifying implications for policy, practice, or research. The review also used the Prisma extension for scoping reviews (Prisma-ScR) as a criterion.<sup>15</sup>

The guiding question was: "which actions to promote food and nutritional security were prioritized in the PHC territories in Brazil, in the period between 2016 and 2022?"

Based on the combination of these descriptors and the question that supported the review, publications were located in the following databases: Virtual Health Library (VHL), Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature in Health Sciences (LILACS), PubMed, Science Direct, and Web of Science. The descriptors were identified in MESH/DECS terms and, using the Boolean operators AND and OR, the search strategies were established, as shown in Box 1.

**Chat 1.** Search strategies in databases.

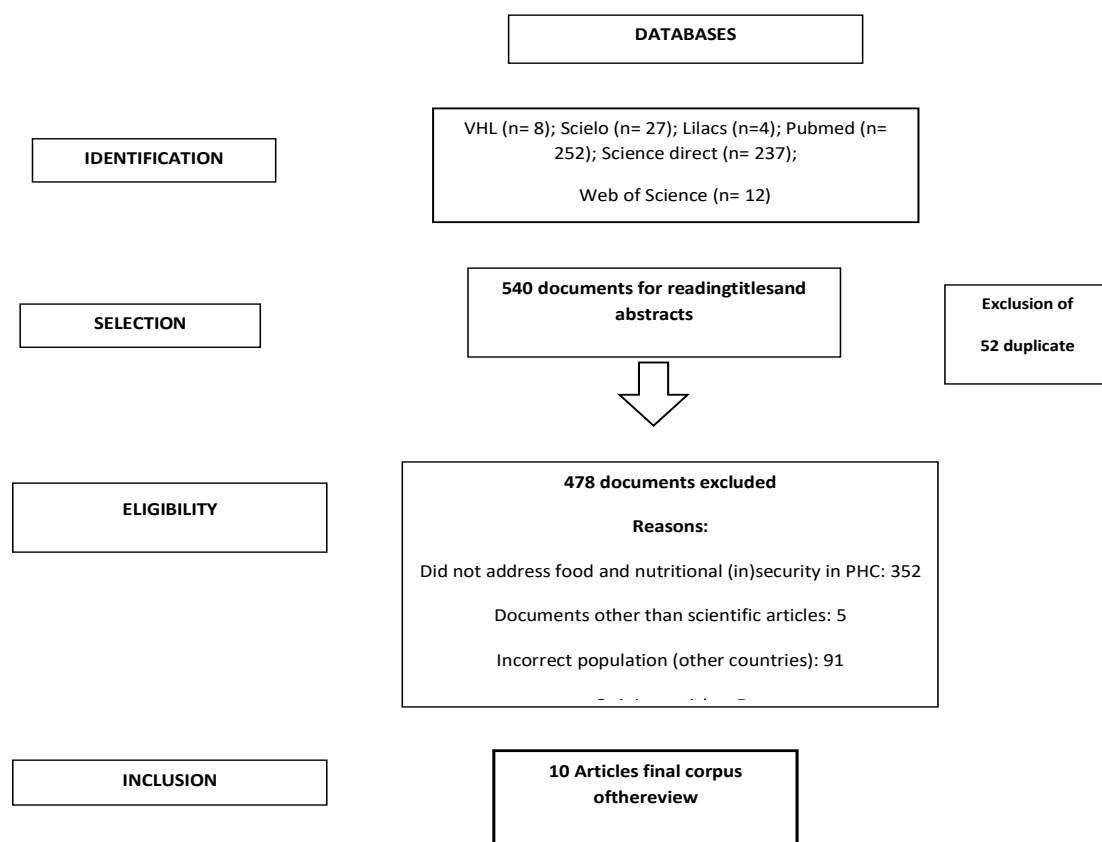
Database	Search strategie
Virtual Health Library (VHL)	food security AND health policy AND primary care AND brazil AND ( mj:("Segurança Alimentar" OR "Atenção Primária à Saúde" OR "Insegurança Alimentar" OR "Saúde da Família" OR "Política Pública" OR "Programas e Políticas de Nutrição e Alimentação"
Scielo	(Atenção Primária à Saúde) AND ( Segurança alimentar e nutricional )
Lilacs	food security AND health policy AND primary care AND ( db:("LILACS") AND mj:("Primary Health Care" OR "Food Security" OR "Public Policy" OR "National Health Strategies")
Pubmed	food security AND primary care
Science direct	food security AND health policy AND primary care AND brazil
Web of Science	food security AND health policy AND primary care AND brazil

Source: Prepared by the authors.

For study eligibility, quantitative, qualitative, or mixed-method studies were considered, meeting the following criteria: studies addressing experiences with food and nutrition security in primary care, describing the actions, and providing contributions on food security between October 2016 and December 2022, and being available in full. Articles that were not freely available in full or on topics that diverged from the central theme of this study were excluded. Articles in Portuguese, English, and Spanish were included.

Figure 1 outlines, as per Prisma recommendation for scoping review (Prisma-ScR), the process of selecting publications for this review.

**Figure 1.** Flow chart of study identification, screening and inclusion.



Source: Prepared by the authors, based on the PRISMA Extension for Scoping Reviews (PRISMA-ScR).

The review process was conducted using Rayyan QCRY® software, ensuring independent (blind) evaluation among the authors (CJF and RSC), who selected the studies in three phases: title analysis, abstract reading, and full-text reading and comprehension. Discrepancies were resolved by consensus or, if necessary, by a third author (NMBLP). Mendley® software was used to identify and exclude duplicate articles. Eligible studies were selected and organized in an Excel® spreadsheet to extract the relevant information.

Finally, the methodological quality of the articles was assessed using the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) for observational studies and the Consolidated Criteria

for Reporting Qualitative Research (CoReQ) for qualitative studies. These assessments were not intended to exclude selected articles, but rather to assess the quality and robustness of each publication.

**Tabela 1.** Score and quality percentage of articles based on the criteria of STROBE e CoReQ<sup>1</sup>

Author/Year	Number of Items	%
CoReQ		
Pedraza et al., (2017) <sup>16</sup>	18	82%
Araújo et al., (2018) <sup>17</sup>	17	77%
Santos et al., (2020) <sup>18</sup>	18	82%
Costa et al., (2022) <sup>19</sup>	19	86%
Dantas et al., (2020) <sup>20</sup>	17	77%
Santos, Bernadino, Pedraza (2021) <sup>21</sup>	20	90%
STROBE		
Gerra; Botelho; Cevato (2021) <sup>22</sup>	18	56%
Damião et al., (2021) <sup>23</sup>	17	53%
Hirano; Baggio; Ferrari (2021) <sup>24</sup>	18	56%
Magalhães; Santos (2020) <sup>25</sup>	16	50%

Source: prepared by the authors.

<sup>1</sup> CoReQ: Consolidated Criteria for Reporting Qualitative Research. STROBE: Strengthening the Reporting of Observational Studies in Epidemiology. For this study, all selected articles were subjected to evaluation using the STROBE (quantitative) and CoReQ (qualitative) items. STROBE comprises 22 criteria, each equivalent to one point (maximum score = 22). CoReQ comprises 32 criteria (maximum score = 32). The higher the score, the better the quality. The quality percentage reflects the number of items met in relation to the total number of items in each guideline. All articles were retained, regardless of the score/percentage achieved.

Based on the analysis of all the contents of the selected articles, the results were organized considering two central topics: 1 - General characterization of the selected studies; 2 - Conceptions and actions on FNS in the PHC territories between 2016 and 2022.

## RESULTS

### General characterization of the selected studies

A total of 540 articles were identified in the selected databases. After removing duplicate studies, 478 articles with unique records remained. The titles and abstracts were then read, resulting in the selection of 24 articles for full-text reading. After the full text reading, 10 articles were selected to comprise the final corpus of this review.

Regarding the temporal analysis, the year 2021 was most frequent, with four publications (40%), followed by 2020, with three (30%); and the years 2017, 2018, and 2022, with one study each. Regarding the location of the studies, the Northeast region stood out, with the highest number of studies (five), followed by the Southeast (four) and South (one).

The predominant type of study was cross-sectional, observed in six studies. The target audience was diverse, including families with children aged 0-5 years; pregnant women; mothers of breastfeeding children;

health professionals working in PHC teams, including those linked to the Family Health Support Center (NASF), and users of the Health Academy Program and the Family Health Strategy (Box 2).

**Chart 2.** Description of the studies included in the scoping review according to authors/year, location, type of study, objective and target audience of the study.

Author/Year	Periodical	Objective	Type of study	Location	Target audience
Pedraza et al., (2017) <sup>16</sup>	Revista Salud Pública	To determine the prevalence of food insecurity among families residing in the municipality of Queimadas and its association with socioeconomic and demographic characteristics.	Cross-sectional study	Queimadas (Paraíba)	Families with children born during 2009.
Araújo et al (2018) <sup>17</sup>	Nutrition	To identify the prevalence of food insecurity among families of public health service users in a developing country and its association with food consumption.	Cross-sectional study	Belo Horizonte, (Minas Gerais)	Users of the health academy program ≥20 years of age.
Santos et al., (2020) <sup>18</sup>	Ciência e Saúde Coletiva	To assess factors associated with food and nutritional insecurity among families with children aged > 5 years living in areas covered by the ESF, in prioritized municipalities with financial resources for nutrition.	Cross-sectional study	Two municipalities (Paraíba)	Families served by the Family Health Strategy, with children aged 0 to 59 months in the family nucleus.
Costa et al., (2022) <sup>19</sup>	Revista Brasileira de Saúde Materno Infantil	To investigate factors associated with food insecurity during pregnancy in women using the Unified Health System.	Cross-sectional study	Lavras (Minas Gerais)	Pregnant women treated in the public health network.
Dantas et al.,(2020) <sup>20</sup>	Revista Brasileira de Enfermagem	To analyze the knowledge of nurses working in PHC units on the topics of 'regional foods', 'food security' and 'nutritional'.	Cross-sectional study	Fortaleza (Ceará)	Nurses working in the Regional Executive Secretariats and who carried out childcare consultations.
Santos, Bernadino, Pedraza (2021) <sup>21</sup>	Cadernos Saúde Coletiva	Identify household factors that may influence the FNS of families with children > 5 years old in areas covered by the ESF.	Cross-sectional study	Seven municipalities in the interior of the State of Paraíba, with populations between 30,000 and 149,999 inhabitants	Families served by the ESF, with children > 5 years old in the family nucleus.

**Chart 2.** Description of the studies included in the scoping review according to authors/year, location, type of study, objective and target audience of the study. (Continues)

Author/Year	Periodical	Objective	Type of study	Location	Target audience
Gerra; Botelho; Cevato, (2021) <sup>22</sup>	Cadernos de Saúde Pública	Understand the forms of professional action and proposed actions for the implementation of the DHAA in the context of PHC.	Qualitative study	São Paulo	Health professionals who lead educational groups on the topic of food and nutrition in PHC
Damião et al., (2021) <sup>23</sup>	Cadernos de Saúde Pública	To understand the narratives of PHC health professionals in Rio de Janeiro regarding actions related to food and nutritional surveillance in the context of the Bolsa Família Program.	Qualitative /evaluative study	Rio de Janeiro	Health professionals and CHW.
Hirano; Baggio; Ferrari, (2021) <sup>24</sup>	Cogitare Enfermagem	Understand how breastfeeding and complementary feeding relate to the food and nutritional security of children living in a border region.	Qualitative study	Foz do Iguaçu (Paraná)	Mothers of children aged 8 to 24 months, who have been or are still breastfed, receiving complementary feeding and childcare in the PHC; be a PHC professional (doctors, nurses, nutritionists) working in a UBS, providing childcare for more than a year or involved in providing guidance on breastfeeding and complementary feeding.
Magalhães; Santos, (2020) <sup>25</sup>	Cadernos de Saúde Pública	Understand how the food and nutrition care production process takes place within the scope of PHC, based on matrix support practices.	Qualitative study/ethnography	Large municipality (Bahia)	Users and professionals (CHW, doctor, nutritionist, psychologist, occupational therapists, physiotherapists, social worker).

Source: Prepared by the authors.

Note: FNS = Food and Nutrition Security; PHC = Primary Health Care; CHW = Community Health Workers; UBS = Basic Health Unit; DHAA = Human Right to Adequate Food; ESF = Family Health Strategy.

The selected studies<sup>16-19,21</sup> sought to identify and evaluate the factors associated with food and nutritional insecurity and/or its prevalence at the municipal level or in specific user groups, such as pregnant women, families with children under 5 years of age served in PHC and groups linked to the Health Academy Program.

Regarding the target audience, there was a predominance of health professionals linked to PHC teams, who sought to understand how to act in the production of care regarding food and nutrition,<sup>22,23</sup> as well as analyze knowledge about topics related to FNS and breastfeeding.<sup>20,24,25</sup>



In general, studies have highlighted, among the difficulties in developing actions focused on food and nutrition, the perception that health professionals have about the issue associated with social inequalities from an insoluble perspective, in which changing the social reality seems unattainable.<sup>22</sup> Also highlighted were the high turnover of professionals, incomplete PHC teams and the high number of records linked per team,<sup>23</sup> in addition to the need for continuing education to qualify professionals and insufficient funding for actions and services within PHC.<sup>20,24,25</sup>

Regarding the potential of actions, by revealing the prevalence of food and nutritional insecurity in a subgroup of the population, possibilities are opened for the identification of economic and social vulnerabilities that are relevant to the planning or reformulation of public policies aimed at solving the problem.<sup>19,21</sup>

### Conceptions and actions to promote FNS in PHC territories

The selected studies captured concepts and actions related to FNS.

The concepts of FNS (Box 3) describe the concept established in Law No. 11,346 of September 15, 2006,<sup>3</sup> as a public policy, as well as its key components (in 40% of the studies), namely: a right for all; regular and permanent access to quality food in sufficient quantities; health-promoting eating practices; respect for cultural diversity; and environmental, cultural, economic, and social sustainability.

Among the actions, assessments of the food insecurity scenario in different municipalities with a diverse target audience stand out, including families with children under 5, mothers, pregnant women, and participants in the Health Academy Program. All of these groups were served at basic health units. Among the selected articles, actions related to the level of knowledge of professionals regarding FNS were demonstrated to be relevant, as well as assessments of care practices, professionals' perceptions of food and nutritional surveillance actions in the context of the Bolsa Família Program and the performance of professionals (in addition to the nutritionist) in the development of activities for the implementation of the DHAA in the context of PHC.

**Quadro 3.** Categorização dos estudos conforme a concepção e as ações de segurança alimentar e nutricional.

Author/Year	Conception of FNS	FNS actions
Pedraza et al. (2017) <sup>16</sup>	Covers the key components highlighted in this study	Assessment of the food (in)security situation using EBIA and association with the socioeconomic and demographic characteristics of families.
Araújo et al (2018) <sup>17</sup>	Physical, social and economic access to safe and sufficient food to meet nutritional needs.	Assess the food insecurity of participants' families and food consumption.
Santos et al. (2020) <sup>18</sup>	Public policy to guarantee the human right to access to food.	Assessment of mothers' nutritional status by measuring weight and height. The FNS situation of families with children under 5 years of age was assessed using the EBIA, which combined socioeconomic status, social support, and access to health services and social programs.
Costa et al. (2022) <sup>19</sup>	FNS as a public policy.	Assessment of the food (in)security situation using EBIA and association with the socioeconomic, demographic and biological characteristics of pregnant women treated in the public health network.

**Quadro 3.** Categorização dos estudos conforme a concepção e as ações de segurança alimentar e nutricional.(Continues)

Author/Year	Conception of FNS	FNS actions
Dantaset al.(2020) <sup>20</sup>	Covers the key components highlighted in this study	To assess the knowledge of regional foods and food safety among nurses who provide childcare services.
Santos, Bernadino, Pedraza (2021) <sup>21</sup>	Everyone's right. Access to food	Assessment of the food (in)security situation with EBIA application and association with the socioeconomic and demographic characteristics of families residing in municipalities in the State of Paraíba, served by the ESF, with children under 5 years of age in the family nucleus.
Gerra; Botelho; Cevato (2021) <sup>22</sup>	Covers the key components.	Understanding of the forms of professional action (except the nutritionist) that led educational groups on the topic of food and nutrition in PHC and the proposed actions for the implementation of the DHAA in the context of PHC, with the aim of knowing "how and what they do".
Damião et al. (2021) <sup>23</sup>	Everyone's right. Access to food	Through the narratives of PHC health professionals, their perceptions regarding actions related to food and nutritional surveillance in the context of the Bolsa Família Program were evaluated.
Hirano; Baggio; Ferrari (2021) <sup>24</sup>	Covers the key components.	This initiative stemmed from the project "Rede Mãe Paranaense" (Mothers from Paraná Network) from the User's Perspective: Women's Care in Prenatal, Childbirth, Postpartum, and Child Care." Among its strategies, this initiative sought to understand how breastfeeding and complementary feeding relate to the food and nutritional security of children with Brazilian and foreign mothers residing in Brazil (Paraguayan, Chilean, Venezuelan, Haitian, and Peruvian), in addition to the knowledge of PHC health professionals.
Magalhães; Santos (2020) <sup>25</sup>	FNS as a public policy, which touches on social, cultural and existential dimensions.	An investigation was carried out into food and nutrition care practices developed in PHC, monitoring the activities of professionals and educational groups on the topic of food and nutrition.

Source: Prepared by the authors.

Note: EBIA = Brazilian Food Insecurity Scale; DHAA = Human Right to Adequate Food; ESF = Family Health Strategy; PHC = Primary Health Care; FNS = Food and Nutrition Security.

## DISCUSSÃO

In this article, the food and nutrition actions developed within the scope of PHC, between 2016 and 2022, demonstrated that practices of assessing food and nutritional insecurity and of assessing knowledge of professionals in relation to food and nutrition are present in the studies, while those of promoting FNS were in the background, corroborating the study by Pereira, Monteiro & Santos.<sup>26</sup> Although the identification

of food insecurity has revealed different aspects in the violation of the DHAA, there is a need for movements that go beyond the diagnosis and assessment of food and nutritional insecurity, and that envision regular access to food and health-promoting eating practices.

PHC, as the first level of contact and the closest link between individuals and the health system, can play a fundamental role in integrating FNS and the health sector.<sup>27</sup> The various PHC mechanisms highlighted in the selected studies, such as the Health Academy, the Family Health team itself, and the NASF (National Family Health Strategy) as matrix support for Family Health Strategy (ESF) teams, prove to be important instruments for this integration with the community. Because it is ideally a setting based on community participation, intersectoral coordination, and health promotion, it stands out as a powerful space for developing actions that address practical and possible issues of everyday life. In this sense, it is essential to discuss approaches that take into account the social determinants of health when planning food and nutrition education actions and their acceptability, taking into account the culture and food preferences of users.<sup>28</sup>

The multidimensional nature of nutrition encompasses much more than biological aspects - that is, not just the intake of nutrients necessary for a good quality of life. Eating encompasses a universe of meanings that ranges from personal pleasure to sociocultural factors in which the individual is inserted.<sup>29</sup> Dietary recommendations must be aligned with socially and environmentally sustainable food systems, aiming to expand autonomy in food choices.<sup>30</sup> It is understood that food and nutritional insecurity affects different segments of society unequally and is determined by economic, political, environmental, educational, and other factors.<sup>27</sup>

Corroborating the results of this study, Bortolini et al.<sup>31</sup> emphasize that the main food and nutrition actions in PHC are linked to food and nutrition surveillance and the promotion of adequate and healthy eating. However, they also highlight the prevention of nutritional deficiencies and the dietary management of obesity, diabetes, and systemic arterial hypertension, which are not included in the selected studies. Another study<sup>32</sup> also reveals that food and nutrition surveillance is one of the most consistent actions in PHC.

The manual issued by the Ministry of Health through the Secretariat of Primary Health Care,<sup>33</sup> which aims to guide the process of monitoring and assessing food insecurity in PHC areas, contributing to the strengthening of FNS, highlights the use of an instrument known as TRIA (Food Insecurity Risk Screening). Although the instrument for directly measuring the perception of food insecurity is the EBIA (Brazilian Household Food Insecurity Measurement Scale), used in the various selected studies, TRIA is indicated in PHC when time, financial constraints, or the burden on the respondent prevent the use of EBIA, as it is a quick and easy to use instrument.

The NASF appears as an important tool for developing effective food and nutritional security actions, with emphasis on the presence of a nutritionist and a multidisciplinary team.<sup>25</sup> Created in 2008 by the Ministry of Health, the NASF is considered fundamental for strengthening nutrition in the SUS. Its name was updated in 2017 to NASF-AB (Expanded Center for Family Health and Primary Care). More recently (2023), in a replacement arrangement, multidisciplinary teams (eMulti) were established, aiming to expand the scope of practices and the resolvability of PHC,<sup>34</sup> a process that in turn is understood as essential to enable dialogue with the FNS field.

Thirty years after the approval of the National Food and Nutrition Policy, and almost 15 years since food was established as a right, it is possible to recognize the presence of food and nutrition actions implemented in PHC. However, the selected studies highlighted important challenges in identifying factors that affect the population's diet and nutrition in the PHC context, such as: low coverage of the National Food and Nutrition

Surveillance System (SISVAN Web) and/or insufficient use of data generated by the system; limitations in strategic planning, and in the monitoring and evaluation of practices.<sup>35</sup>

It re-emerges as a crucial consideration that PHC needs to be seen beyond a scenario of identifying violations of the DHAA, but as a favorable space for overcoming inequalities with the realization of human rights, in addition to the right to health<sup>5</sup> and health-promoting dietary practices that respect cultural diversity and are environmentally, culturally, economically and socially sustainable.

The articles<sup>16-25</sup> analyzed highlighted the need to address food insecurity in PHC, with strategies and actions aimed at promoting food and nutritional security, given the recurring constraints and discontinuities that policies on this topic have suffered over the years. Furthermore, the study by Guerra et al.<sup>22</sup> shows that health professionals do not recognize food as a right, surrounding it with biomedical paradigms and distancing it from the multicausal complexity, which leads to depoliticized and isolated actions.

Thus, the lack of more qualified work by PHC professionals and public policies that implement the right to food prevents the strengthening of the area of nutrition in public health, compromising the health of the population.<sup>32</sup>

Because FNS is not a static concept, its meaning changes depending on the interests of those who appropriate it. In this regard, the assessment and understanding of the knowledge of PHC professionals regarding issues related to food and nutritional security reflected in the selected studies highlights the importance of food as a social right,<sup>36</sup> relevant to the way these professionals operate and the actions they propose.

Regarding the predominant population group and the target region of the studies, the syntheses revealed a focus on families with children in the Northeast region. This result differs from the study by Pereira, Monteiro, and Santos,<sup>26</sup> who identified a higher prevalence in the Southeast region of the country. Research<sup>12,37</sup> has revealed significant inequalities that permeate food and nutritional insecurity among Brazilian families, with higher prevalence in the North region, followed by the Northeast region, in the strata of greatest social, economic, and demographic vulnerability.

Actions taken during the COVID-19 pandemic were not included in the results, even though the period analyzed encompassed the health crisis. This is because the studies selected from 2020 to 2022 included results from research prior to their publication, which does not cover the pandemic period. However, it is worth noting that the health crisis has had serious consequences for the Brazilian population, especially those in situations of greatest vulnerability.<sup>38</sup> However, this cannot be singled out in isolation due to the severity of the situation of hunger, malnutrition, and food and nutritional insecurity.

However, equity in health care for the most vulnerable, a point elucidated in the studies of the Rede PENSSAN, was not found in the studies analyzed. It is essential to develop care strategies in a multidisciplinary and intersectoral manner that can address more specific issues related to inequality of gender, race, ethnicity, housing and access to income and education.<sup>12</sup> Unovercome inequalities, the advancement of neoliberal policies and the dismantling of the system that contemplated inclusive social policies and promoted FNS have been adding to the current situation, aggravated by the impacts of the pandemic and generating implications for the guarantee of the DHAA.<sup>39</sup>

In the scenario of underfunding of health expenditures (EC 95), lack of interest in social participation and advances in neoliberal projects, experienced in recent years in Brazil,<sup>39</sup> if the notion of adequate food as a right – respecting the multidimensionality that encompasses food and nutrition, and which remains essentially in political, economic and social dispute,<sup>6</sup> – is not the driving force for the actions developed in

PHC, we will certainly imprison actions in the scope of dietary guidance and prescription,<sup>21</sup> which have little impact on food and nutritional security.

Improving the training and practice of health professionals working in PHC, with regard to the need to understand social rights as a political consciousness, is essential for a more efficient approach and implementation of food and nutrition actions, capable of addressing the specific needs of each population. The importance of nutritionists in PHC, given the current epidemiological scenario and the relationship between food and the population's health/disease process, is a significant example of overcoming this situation. Finally, the process of promoting adequate, healthy, and supportive nutrition must be based on knowledge of the territory. Therefore, the incorporation of qualified health professionals, continuing education, and adapting working conditions are essential to facilitate DHAA actions in PHC.<sup>32</sup>

Some limitations related to the methodological aspects of this study are worth highlighting: the search strategies and the period considered for analysis did not capture articles that conducted their research during the COVID-19 pandemic, even though the search period encompassed the pandemic and could reveal significant aspects of the fragility and incipience of the topic on the government agenda. This is due to structures and programs, which are often clientelistic, lack defined criteria for access, lack budgetary autonomy, and are therefore subject to discontinuity as political parties shift.

Another limitation is that most published studies on the topic are diagnostic, assessing the prevalence of FI, resulting in a publication bias that limits access to research on successful experiences promoting FNS in Primary Health Care.

## CONCLUSION

This scoping review identified the need for further studies that go beyond the diagnosis and assessment of food and nutrition insecurity, focusing on regular food access and health-promoting eating practices, providing evidence that positively impacts individuals' nutritional health.

Another key recommendation is the promotion of intra- and intersectoral planning, emphasizing PHC as a strategic setting for the centrality of care, with appropriate network coordination to advance innovative, supportive, and viable interventions for food and nutrition security. It also highlights the need to strengthen ongoing education for PHC workers to enhance and develop knowledge and practices related to food and nutrition care based on their daily work.

Food and Nutrition Security (FNS) is a cross-cutting aspect of all PHC care. However, PHC and the SUS (Brazilian Unified Health System) as a whole cannot, alone, address the structural issues necessary to guarantee the population's right to adequate and healthy food. Within the scope of PHC practices, it is necessary to consider food and nutrition as determinants of the health-disease process. This requires attentive and qualified professionals to recognize and act on aspects related to food and nutritional status, as well as their implications for diseases, conditions, and other needs that lead to the search for PHC services.

The consolidation of food and nutrition security depends on structural PHC actions, intersectorally coordinated with concrete initiatives to combat poverty. If strengthened, these actions contribute to a more robust PHC system capable of contributing to Brazil's exclusion from the Hunger Map.

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### Contributors

França CJ contributed to the conception, analysis, and interpretation of the data, writing of the article, and final approval of the version to be published. He is responsible for all aspects of the work, ensuring the accuracy and integrity of any part of the work. Carvalho VCHS, Cerqueira RSR, and Santos HLPC contributed to the design of the article, analysis and interpretation of the data, and review and approval of the final version. Prado NMBL contributed to the conception and design of the article, analysis and interpretation of the data, and review and approval of the final version.

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