


 René de Castro Lopo Neto¹
 Santuzza Arreguy Silva Vitorino²
 Ana Laura Brandão²
 Juliana Pereira Casemiro^{1,3}

¹ Universidade Federal do Estado do Rio de Janeiro, Programa de Pós-graduação em Segurança Alimentar e Nutricional. Rio de Janeiro, RJ, Brasil.

² Fundação Oswaldo Cruz, Escola Nacional de Saúde Pública Sérgio Arouca. Rio de Janeiro, RJ, Brasil.

³ Universidade do Estado do Rio de Janeiro, Instituto de Nutrição. Rio de Janeiro, RJ, Brasil.

Correspondence
René de Castro Lopo Neto
meto@sesc.com.br
rened78@yahoo.com.br

Validation of the logical operational model of a national network of food banks: contribution to evaluation in food and nutritional security

Validação do modelo lógico operacional de uma rede nacional de bancos de alimentos: contribuição para avaliação em segurança alimentar e nutricional

Abstract

Objective: To describe the validation process of the logical operational model (LOM) of Mesa Brasil Sesc Program (MBS) for the promotion of FNS. **Methods:** This is a cross-sectional study and instrument validation, based on FNS legal documents, using the Delphi consensus technique with a team of experts. **Results:** The validation team was made up of 12 participants, FNS important players from the country's five geographical macro-regions, who analyzed the pertinence and relevance of the activities, products, results and impacts of the six technical components of MBS. The 103 items, distributed in the technical components, reached consensus when they reached more than 85% agreement among the participants, confirmed by the analysis of the median and interquartile range. **Conclusion:** This process provided a rich and horizontal discussion on theory, practice and results, brought reflections and new perceptions about MBS and the resulting LOM is a valuable tool for developing M&E strategies, decision-making and governance of the Program.

Keywords: Monitoring. Processes and results evaluation. Food and nutrition security.

Resumo

Objetivo: Descrever o processo de validação do modelo lógico operacional (MLO) do Programa Mesa Brasil Sesc (MBS) para a promoção da SAN. **Métodos:** Trata-se de um estudo transversal e de validação de instrumento, baseado em documentos legais de SAN, por meio da técnica de consenso Delphi com painel de especialistas. **Resultados:** O painel para validação foi formado por 12 participantes, atores em SAN das cinco macrorregiões geográficas do país, que analisaram a pertinência e relevância das atividades, produtos, resultados e impactos dos seis componentes técnicos do MBS. Os 103 itens, distribuídos nos componentes técnicos, foram consensuados quando alcançaram mais de 85% de concordância entre os participantes, confirmados pelas análises da mediana e intervalo interquartil. **Conclusão:** Esse processo proporcionou um espaço rico e horizontal de discussão sobre teoria, prática e resultados, trouxe reflexões e novas percepções sobre o MBS, e o MLO resultante é valiosa ferramenta para o desenvolvimento de estratégias de M&A, tomada de decisões e governança sobre o programa.

Palavras-chave: Monitoramento. Avaliação de processos e resultados. Segurança Alimentar e Nutricional.

INTRODUCTION

The establishment of Food and Nutrition Security (FNS) as knowledge, practices and public policies¹ has been characterized by the observation of the persistence of hunger, malnutrition and its manifestations,²⁻⁵ allied to a scenario of food waste.^{6,7} Thus, Serviço Social do Comércio (Sesc) – a private institution operating throughout the national territory⁸ – launched the Programa Mesa Brasil Sesc Program (MBS).

Created in 2003, MBS is a national network of food banks that, in addition to operating in the traditional model of collecting and distributing food that exceeds or exceeds commercial standards and is still good for consumption,^{9,10} carries out educational actions in order to promote the development and autonomy of people from Attended Social Entities (ASE),¹¹ being an important FNS strategy.

Monitoring and evaluation (M&E) in Food and Nutrition can make relevant contributions to achieve FNS.¹² The normative documents referring to FNS highlight M&E among its objectives and guidelines,^{1,12} pointing out the priority and relevance of this topic.¹³ At Sesc, M&E strategies are valued and the institution accumulates experience, data and expertise in this type of activity.¹⁴ In order to improve M&E processes of MBS and identify factors that allow enhancing results for the continuous promotion of FNS, from the perspective of the Human Right to Adequate Food (HRAF), the need identified was to broaden the perception of the program through the view of the multiple players involved in its chain of action. It is considered that the improvement of M&E of MBS can contribute even more to the fight against the basic causes of food loss and waste (FLW) and Food Insecurity (FI) in Brazil, which, at the same time, is among the ten countries that record food losses in the world,¹⁵ presents more than half of its population with some degree of FI, with 33 million Brazilians going hungry daily,¹⁶ as a result of the health and economic crises intensified by the Covid-19 pandemic, associated with the dismantling of public policies over the past five years.^{17,18}

It is understood that developing an accessible instrument, simple to understand and apply, which addresses the relationship among the assumptions of MBS¹¹ and the FNS dimensions,¹⁹ is an advantage to understand the activities and a necessary structure to achieve the desired results, in addition to identifying and analyzing possible contextual, internal and external factors that may help decision-making.

Thus, this article intends to describe the validation methodology of the logical operational model of Mesa Brasil Sesc Program for the promotion of FNS.

METHODS

When approaching the construction and validation of logical models, it is important to highlight the existence of two categories: logical-theoretical and logical-operational.²⁰ The first shows how a program ideally works, including specifications about the problem or intended behavior, the target group, the context conditions, its content and the necessary and enough attributes to produce, in an isolated or integrated way, the expected effects, explaining that theoretical arguments support the hypothesis presented,²¹ while the second demonstrates, from the relationship among inputs, activities and products, how the program should act to achieve the desired results and impacts.²⁰

Understanding the need to thoroughly describe the intervention and modernize it, in order to better guide the M&E process,²¹ the logical-theoretical model (LTM) of MBS was developed,²² based on the analysis of the literature on the subject and documents of MBS management,^{11,14} compared with current legislation in FNS,^{19,23} which defined the beginning of the validation process of the logical-operational model (LOM), which is the focus of this article.

According to Vitorino, Cruz and Barros,²⁴ the LOM does not intend to be “a universally applicable truth”, considering the characteristics of each region and national territories, characterized by the economic, cultural and social diversity of Brazil, but to bring the perspective of people who know the program in different operating contexts and favor the incorporation of new information, experiences, knowledge acquired from the experience and different perspectives in relation to pre-formulated conceptions. These participants are considered, therefore, experts involved with the topic.

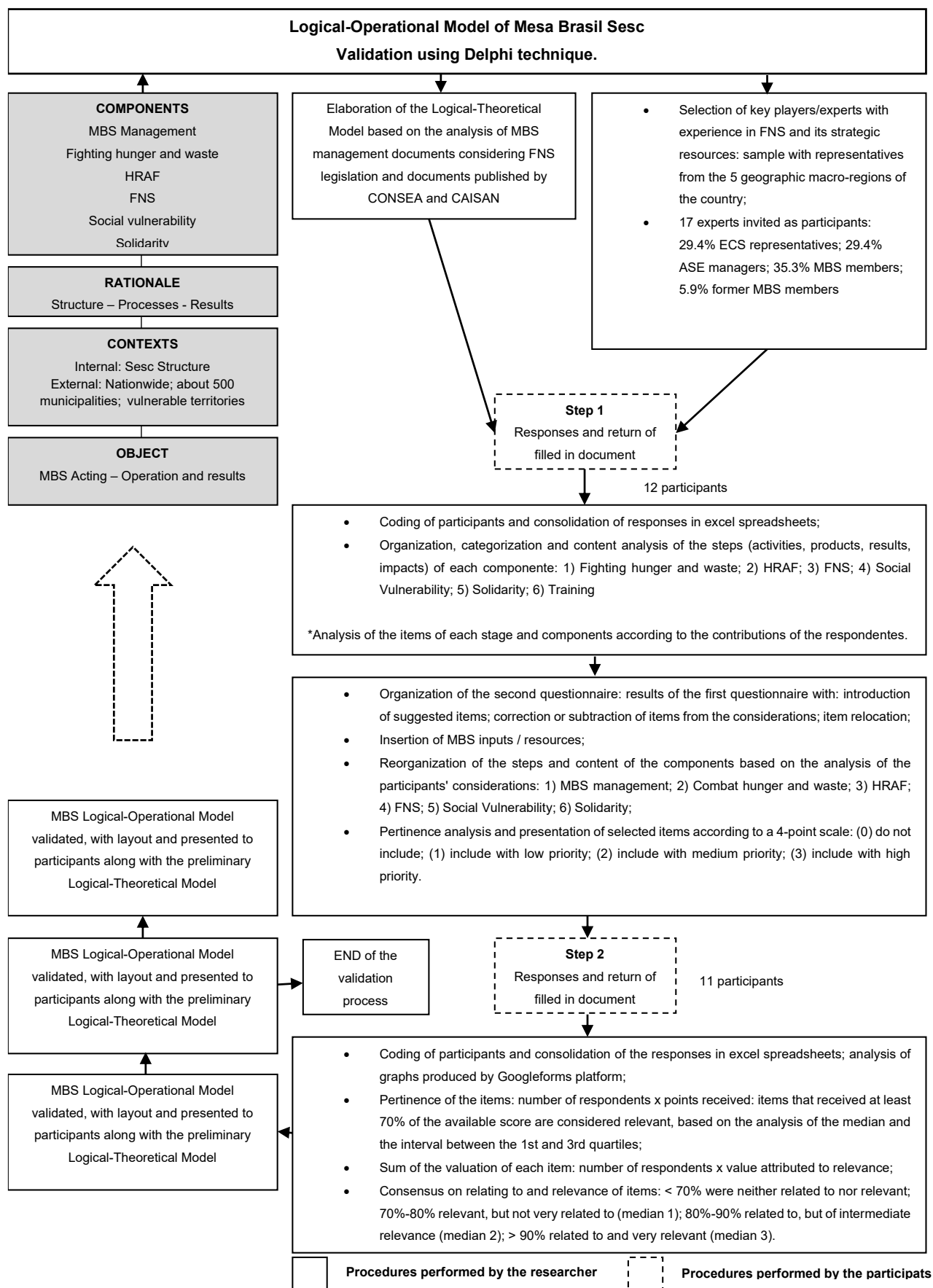
The involvement of potential stakeholders in the construction and validation of logical models can take place in different ways, usually workshops,²⁵ but in the context of the Covid-19 pandemic, which adopted social distancing as the main strategy to prevent contamination and spread of the new coronavirus, digital platforms²⁶ and consensus techniques traditionally performed at a distance, such as the Delphi technique, have been used to increase the construct validity of theoretical elaborations on health interventions.²⁴

MBS LOM validation process involved listening to key players through a consensus building technique – Delphi, which is based on the principle that forecasts issued by a structured group of experts, in which each one is isolated from influence of others, are more accurate if compared to forecasts generated by unstructured groups or individual forecasts.²⁷⁻³⁰

This technique has been introduced in a deep way in order to reach consensus on a previously established topic, in several knowledge areas, providing opportunities for experts, researchers, managers and other players involved with the subject to participate in constructive and decision-making processes.²⁷⁻³⁰ An intrinsic characteristic of the technique, particularly relevant for the MBS considering its wide distribution in all Brazilian states, is that it is carried out at a distance, which enables the participation of people who are geographically far.

The validation process was proposed in two steps, in order to expand the validity of the construct and favor its divulgation and reply after it was formalized. Figure 1 shows the flowchart of the validation process of LOM²⁴ with the adoption of a qualitative and quantitative methodology, which allows multiple perspectives in view of understanding the performance of the MBS and its complexity of manifestations in FNS.¹¹

Picture 1. Flowchart of the validation process of the Logical-Operational Model of Mesa Brasil Sesc Program.



Source. Own elaboration, based on the flowcharts presented by Wright and Giovino²⁷ and Vitorino, Cruz and Barros.²⁴

Adopting as criteria the technical and empirical knowledge related to the MBS, and/or performance in FNS, in addition to the region of work, 17 experts were invited via email: 1 member of the MBS/Sesc National Department (Sesc ND), 1 former member of the MBS technical team in Rio de Janeiro and 3 representatives from each Brazilian macro-region, including 1 MBS coordinator, 1 ASE manager and 1 “social control space” representative. Considering the group, 12 experts responded positively and entered Google Forms virtual platform to fill in the questions to the semi-structured questionnaire in Step 1.

In Step 1, as it was intentionally an open step, the instrument had pre-elaborated questions, with no mandatory response to advance to the others, and with blanks for the respondent to freely express himself/herself about the structural components of the LOM (activities, products, results and impacts), according to each of the six MBS technical components described based on their main arguments: 1 –Fighting against hunger and waste; 2 - HRAF 3 - FNS; 4 - Social Vulnerability; 5 - Solidarity; 6 - Qualifications and Trainings.

The principles of the *Theory of Change*,^{31,32} widely applied in planning and monitoring and evaluating, were used to guide the drawing of the instrument, with questions formulated from the chain of ideas and the inverse causal relationship among the structural components.

Participants were provided with a video with the researcher's personal presentation, a brief report on the work of the MBS, in addition to an explanation of what should be done in this first step of the study. The deadline for filling in the instrument in Step 1 was 30 (thirty) days, and figure 2 shows an example of the instrument's content, prepared based on the rationality of the Theory of Change and the concept of intervention.²¹

Picture 2. Example of Step 1 instrument content

Step 1 Questionnaire

MBS technical components: Keywords/concepts that permeate the existence and performance of the MBS Program

Component 1: Fighting against hunger and waste

Objectives: To contribute to the fight against hunger and food waste, by rationalizing the consumption of natural resources and the possible use of surpluses from the food production chain, which disposal has significant impacts on the 3 dimensions of sustainability (social, environmental and economic).

1. Considering the objectives of the MBS related to the fight against hunger and waste, the expected result(s)/impact(s) in the long term (> 5 years) for the target group and players involved is/are : [check all options you consider relevant]

() Reduction of food waste at all steps of the chain
(production/distribution/consumption)

() Reduction in the situation of poverty
and hunger

() Reduction in the prevalence of
malnutrition

() Others

Source. Own elaboration.

The analysis of the respondents' profile presented an heterogeneous group, quite experienced, with different performances in FNS and, consequently, many experiences to be shared. Most of the respondents were nutritionists (8), but the survey also included social workers (2), university professors (1) and managers (1), 10 women and 2 men. The place of professional activity was mostly the Southeast Region (7), but with representatives from all Brazilian macro-regions, distributed in the Northeast (2), North (1), Midwest (1) and South (1). Most participants are aged from 30 to 50 years (7), with 11 to 19 years of experience in FNS (9), including 2 respondents with more than 20 years of experience in the area. All participants had university education, half with *lato sensu* postgraduate degree (6) and 3 with *stricto sensu* postgraduate degree.

The lowest adherence among those invited to participate in the research occurred among ASE, users of the intervention, and considering the five regions, only one ASE manager attended by the MBS responded. Some difficulties commonly highlighted by this target group were intensified in 2020, during the new coronavirus pandemic, considering that, in most cases, these people work and live in these territories of greater social vulnerability. Among the most reported setbacks, the following stand out: problems to access computers and connect to Internet; physical and emotional exhaustion; work overload; little familiarity with digital platforms/online environments and their resources.

It is considered that the losses reported by the members of this specific group did not implicate the consistency of the validation process carried out, considering the representativeness of the other groups involved.

Responses to Step 1 instrument were collected using Google Forms and analyzed using Excel and the Iramutec tool, software used for content analysis of texts and questionnaires. Each response, in any technical component of the program, impacted the other structural components. For example, when a participant suggested a certain result or impact, the next step was to go backwards to define activities and products that could lead to expected results.

The analyzed and consolidated responses presented the general perspective of the group of respondents about the work of MBS as an intervention, including the possible changes in its performance in the medium and long terms, with the respective activities and necessary products, and were the basis for the elaboration of the second step instrument, according to Picture 3.

Picture 3. Example of the content of Step 2 instrument.

Step 2 Questionnaire

REGISTRATION - Before starting, I ask you to register your electronic address (e-mail) here, emphasizing that, according to the information presented in the FICT, such registration will only be for the codified consolidation to be carried out by the researcher, keeping your anonymity:

Component 2: Fight against hunger and waste. For this component, answer the questions from 5 to 8

Objectives: To contribute to the fight against hunger and food waste, by rationalizing the consumption of natural resources and the viable use of surpluses from the food production chain, which disposal has significant impacts on the 3 dimensions of sustainability (social, environmental and economic).

Picture - Component 2 Flow

Picture 3. Example of the content of Step 2 instrument. (Continues)

Component 2 – Fight against hunger and waste				
Inputs	Activities	Product	Results and Impacts	
Financial resources Human Resources Vehicles Physical spaces Material resources Equipments	Attracting new givers	Increased number of givers	Reducing food waste at all steps of the chain	Reduction of poverty and hunger
	Retain/appreciation of givers	Improved work with existing givers	Increased conscious consumption – food/resources	Reduction of FI expressions (malnutrition, obesity and overweight, nutritional deficiencies)
	Food collection and distribution	Follow up of surpluses for donation on a regular basis	Increased physical and economic access to food on a regular basis and in enough quantity to reach individual nutritional needs	Reduction of child mortality
	Registration of new social entities and keeping the registration of existing ones	Increased number of attended social entities	Increase in monitored and evaluated MBS actions	Reduction of environmental impacts (eg: rational use of water; reduction of production and disposal of organic waste)
		Improved work with attended social entities		Increased guarantee of social rights
	Carrying out educational actions that encourage conscious consumption and approach food waste, with all players involved in the network	Educational actions on a regular basis, with all players involved, that encourage conscious consumption and approach food waste		Increasing MBSP management processes
	Carrying out educational actions that approach the mechanisms of hunger and social exclusion, with all players involved in the network	Educational actions on a regular basis, with all players involved, that approach the mechanisms of hunger and social exclusion		
	Carrying out systematic assessment of educational and trainings actions	Systematic assessment carried out		
	Carrying out the action monitoring and evaluation plan	Plan for monitoring and evaluating actions carried out		

5. Activities to be carried out for the expected products:

	Don't include	Include (Low)	Include (median)	Include (High)
Attracting new givers	()	()	()	()
Retaining/appreciation of givers	()	()	()	()
Food collection and distribution	()	()	()	()
Registration of new social entities and keeping the registers of the existing ones	()	()	()	()
Carrying out educational actions with all the players involved, who encourage conscious consumption and approach the food waste	()	()	()	()
Carrying out educational actions with all the players involved, which approach the mechanisms of hunger and social exclusion	()	()	()	()
Carrying out systematic assessment of educational and training actions	()	()	()	()
Carrying out the monitoring and evaluating action plan	()	()	()	()

Source. Own elaboration.

Respondents to Step 1 received, by e-mail, a new link to fill in the structured instrument of Step 2. Unlike the previous one, in this one the closed responses were mandatory and with free comment possibility. Participants had 10 days to respond.

Through the Step 2 instrument, it was possible to analyze the items of the structural components (activity, product, result and impact) of each of the six technical components of the program, brought from the previous step, and classify them according to their relevance. For this purpose, the respondent highlighted, in each sentence presented, options: do not include; include with low priority; include with medium priority; or include with high priority, which received the following scores during the analysis, respectively: 0, 1, 2 and 3.

The final score of the items was calculated by multiplying the total number of respondents who considered that the item should be included, that is, that it is relevant, according to the value of the points received.

Items that received at least 70% of the available score were considered important, based on the analysis of the median and interquartile range. The importance analysis was proposed on a score scale (1, 2 and 3) and defined the strength of relevance. Thus, <70% was considered neither pertinent nor important; 70%-74.9% pertinent, but not very important (median 1-2); 75%-84.9% pertinent, but of intermediate importance (median 2-3); >85% pertinent and very important (median 3).

The attribution of the strength of relevance tried to define the level of importance given by the participants to the items of each component for the promotion of FNS and the achievement of successful results and, therefore, their stay, reformulation or disregard in the instrument.

The responses were consolidated, and the items considered important and very important, statistically defined by the median (3) and interquartile range (< 1) by at least 85% of the participants, were the items that made up the validated LOM.

Regarding the ethical aspects, the respondents received and signed the Free and Informed Commitment Term (FICT), the Consent Term from the Assistance Management/Social Programs Board of Sesc-ND and, in compliance with the ethical principles of the National Health Council Resolution No. 510/2016, which guides ethical conduct for research with human beings,³³ The study was approved by the Research Ethics Committee of the Federal University of the State of Rio de Janeiro, under number CAAE: 32982820.1.0000.5285 and opinion number 4.343.054.

RESULTS AND DISCUSSION

The understanding of intervention that guided the development of the logical theoretical and operational models of MBS is the one defined by Champagne et al.²⁰ as an organized system of action that intends to modify the predictable course of a phenomenon to correct a problem situation, in a specific context and period. And every organized system of action involves five components: a structure, individual and collective players and their practices, action processes or activities, one or several purposes, and an environment.²⁰

Considering the Theory of Change that guided the elaboration of the instruments in this proposal, the focus was on two of the five intervention components: the action processes or foreseen activities and the purposes of MBS in the short, medium and long terms.

The construction and validation of the LOM of MBS, carried out remotely in two steps, took about two months. There was 25% loss of participation in the first step and 8.3% in the second. The steps presented, in this order, abstention similar and below the expected in this type of research, which is, respectively, 25% and 20% for these two moments.²⁴

Step 1, consisting of open questions, included activities in six technical components of MBS (1 –Fighting against hunger and waste; 2 - HRAF; 3 - FNS; 4 - Social Vulnerability; 5 - Solidarity; 6 - Trainings) and allowed free expression from the respondents.

Such contributions made it easier not only the systematization and consistency analysis of the topics presented, but also groupings, rearrangements and changes typical to the flow of the LOM proposed,²² expressing the quality of the concepts of experts in the topic presented and favoring consensus, which shows how congruent is the use of Delphi technique in the instrument validation process.³⁴

Still considering such manifestations, in Step 2 the components were rewritten as follows: 1 - Management of the MBS; 2 –Fighting against hunger and waste; 3-HRAF; 4 - FNS; 5 - Social Vulnerability; 6 - Solidarity. Thus, the “training” component became a transversal axis to the other components, while issues related to program management gained centrality, showed by a specific component.

The analysis of Step 2 allowed the items of the previous step to be organized by structural components of the intervention, from the first to the sixth technical components of MBS and, after being analyzed, they were followed by the total score achieved, median values and interquartile range, as shown in Table 1.

Table 1. Total score, median and interquartile range of items related to the steps of technical components 1, 2, 3, 4, 5 and 6.

COMPONENT 1 – MBSP MANAGEMENT				
Steps	Items	Total score	Median	Interquartile range
Activities	Planning actions to attract and retain partnerships with schedule and budget	32	3	0
	Planning actions for collecting and distributing donations with schedule and budget	32	3	0
	Planning of educational actions, directed to the attended social entities, with schedule and budget and appropriate content to the topics: FNS; Losses and Waste; Solidarity; Fund-raising; Sustainability; Social rights; Social media; Community development; Impacts of a healthy and balanced diet on human life	28	3	1
	Planning of training actions for MBSP teams and volunteers on FNS, Losses and Waste and Solidarity, with schedule and budget	27	3	1
	Planning to expand MBSP team, with schedule and budget	22	2	0,5
	Planning to revitalize and/or expand MBSP fleet, with schedule and budget	24	2	1
	Planning to implement new MBSP Units, with schedule and budget	17	2	1
	Promotion of MBSP and its actions on social media	28	3	0,5
	Planning to monitor and evaluate actions	33	3	0

Table 1. Total score, median and interquartile range of items related to the steps of technical components 1, 2, 3, 4, 5 and 6. (Continues)

COMPONENT 1 – MBSP MANAGEMENT				
Products	Actions to attract and retain planned partnerships according to the schedule and budget	32	3	0
	Actions for collecting and distributing planned donations according to the schedule and budget	32	3	0
	Educational actions, directed to the attended social entities (attended people, managers, work teams, volunteering), planned according to schedule, budget and topics: FNS; Losses and Waste; Solidarity; Fund-raising; Sustainability; Social rights; Social media; Community development; Impacts of a healthy and balanced diet on human life	28	3	1
	Training actions, directed to MBSP teams and volunteers, according to schedule, budget and topics: FNS; Losses and Waste; Solidarity.	28	3	1
	Expansion of MBSP team according to the schedule and budget	25	2	1
	Expansion and/or revitalization of MBSP fleet according to the schedule and budget	25	2	1
	Expansion of the number of MBSP Units, according to the schedule and budget	21	2	1
	Increased number of strategic partnerships (logistics, media, financial resources, other services)	30	3	0
	Increased number of volunteers	25	2	1
	Monitoring and evaluation MBSP action plan	31	3	0
Results	Proportions of new and retained partnerships	30	3	0
	Expansion and diversification of collected and distributed donations	28	3	0,5
	Improvement of educational actions carried out	27	2	1
	Increased access to FNS information; Losses and Waste; Solidarity; Fund-raising; Sustainability; Social rights; Social media; Community development; Impacts of a healthy and balanced diet on human life	30	3	0,5
	Increased monitored and evaluated MBSP actions	29	3	1
	Increased effectiveness of management processes	30	3	0,5
Impacts	Reduction of food losses and waste in production	27	3	1
	Reduction of losses and food waste in distribution	28	3	1
	Improvement of MBSP management processes	31	3	0
	Increased efficiency of MBS management processes	31	3	0

Table 1. Total score, median and interquartile range of items related to the steps of technical components 1, 2, 3, 4, 5 and 6. (Continues)

COMPONENT 2 – FIGHT AGAINST HUNGER AND WASTE				
Steps	Items	Total score	Median	Interquartile range
Activities	Attracting new givers	33	3	0
	Retaining/appreciation of givers	33	3	0
	Food collection and distribution	32	3	0
	Registration of new social entities and keeping the registers of the existing ones	27	3	1
	Carrying out educational actions, with all the players involved (managers, attended people, ASE employees and volunteers; MBSP teams and volunteers; teams and volunteer givers), which encourage conscious consumption and approach food waste	30	3	0,5
	Carrying out educational actions with all the players involved (managers, attended people, ASE employees and volunteers; MBSP teams and volunteers; teams and volunteer givers), which involve the mechanisms of hunger and social exclusion	29	3	1
	Carrying out systematic assessment of educational and training actions	29	3	1
	Carrying out the monitoring and Evaluation action plan	32	3	0
	Increased number of givers	32	3	0
	Improved work with existing givers	33	3	0
Products	Following up surpluses for donation on a regular basis	33	3	0
	Increased number of attended social entities	29	3	1
	Improved work with attended social entities	32	3	0
	Educational actions on a regular basis, with all players involved, that encourage conscious consumption and approach food waste	30	3	0,5
	Educational actions on a regular basis, with all players involved, that approach the mechanisms of hunger and social exclusion	29	3	1
	Systematic assessment of educational and trainings actions	30	3	0,5
	Plan for monitoring and evaluating actions carried out	32	3	0
	Reduction of food waste at all steps of the chain (production/distribution/consumption)	31	3	0
Results	Increased conscious consumption - food/resources	30	3	0
	Increased physical and economic access to food on a regular basis and in enough quantity to reach individual nutritional needs	32	3	0
	Increase in monitored and evaluated MBSP actions	32	3	0
	Reduction of poverty and hunger	32	3	0
Impacts	Reduction of FI expressions (malnutrition, obesity and overweight, nutritional deficiencies)	32	3	0
	Reduction of child mortality	28	3	1
	Reduction of environmental impacts (eg: rational use of water; reduction of production and disposal of organic waste)	31	3	0
	Increased guarantee of social rights	31	3	0
	Improvement of management processes	31	3	0

Table 1. Total score, median and interquartile range of items related to the steps of technical components 1, 2, 3, 4, 5 and 6. (Continues)

COMPONENT 3 - HRAF				
Steps	Items	Total score	Median	Interquartile range
Activities	Carrying out strategic meetings and operative groups with FNS public policy managers and related areas for actions in partnership	29	3	1
	Carrying out strategic meetings with Public Policy Councils and Human Rights Councils for actions in partnership	30	3	0,5
	Elaboration of projects in partnership with agricultural technical assistance organizations	27	3	1
	Carrying out meetings/events/educational actions with social entities (managers and attended people) on social rights guarantee and food and nutrition	28	3	1
	Articulation with Government in order to construct/improve FNS public policies	31	3	0
	Systematic self-assessment of meetings/events/educational actions	30	3	0,5
	Carrying out the Monitoring and Evaluating Action Plan	30	3	0,5
Products	Strategic meetings and operative groups held with FNS public policy managers and related areas for actions in partnership	32	3	0
	Strategic meetings held and partnerships formalized with Institutions for the defense and enforceability of Human Rights - Public Policy Councils and Councils for joint actions	30	3	0,5
	Projects developed in partnership with agricultural technical assistance organizations	28	3	1
	Meetings/events/educational actions carried out with social entities (managers and attended people) on social rights guarantee and food and nutrition	29	3	1
	Articulation with Government carried out aiming at the construct/improvement FNS public policies	31	3	0
	Systematic self-assessment of meetings/events/educational actions carried out	30	3	0,5
	Monitoring and Evaluating Action Plan carried out	31	3	0
Results	Quantitative and qualitative improvement of meals provided in social entities (complementation)	31	3	0
	Increased attendance to people at social and nutritional risk (families and homeless)	33	3	0
	Increased physical and economic access to good food on a regular basis and in enough quantity to reach individual nutritional needs	33	3	0
	Increased distribution of surplus regional food – harvest	32	3	0
	Increased perception of the vulnerable population about their social rights	30	3	0,5
	Increase in monitored and evaluated MBSP actions	32	3	0
Impacts	Reduction of FI expressions (malnutrition, obesity and overweight, nutritional deficiencies)	32	3	0
	Increasing access to nutritionally, culturally and environmentally appropriate “feeding”	32	3	0
	Increased guarantee of social rights	31	3	0
	Improvement of MBSP management processes	32	3	0

Table 1. Total score, median and interquartile range of items related to the steps of technical components 1, 2, 3, 4, 5 and 6. (Continues)

COMPONENT 4 – FNS				
Steps	Items	Total score	Median	Interquartile range
Activities	Definition of FNS monitoring and evaluation mechanisms at the attended entities	32	3	0
	Carrying out monitoring visits to the attended social entities	31	3	0
	Establishment of partnerships with other FNS resources to guarantee food supply on a regular basis	31	3	0
	Strategic meetings on FNS with other groups, forums and participation and social control Councils	27	3	1
	Carrying out educational actions focused on FNS, approaching issues of incomes, access employment, poverty, inequalities, social rights and public policies	32	3	0
	Systematic self-assessment of educational actions	30	3	0,5
	Carrying out the Action Monitoring and Evaluation Plan	32	3	0
Products	Defined mechanisms for the monitoring and evaluation of FNS in the attended entities	32	3	0
	Monitoring visits carried out	29	3	1
	Established partnerships with other FNS resources	30	3	0,5
	Strategic meetings on FNS with other groups, forums and participation and social control Councils	30	3	0,5
	Carrying out educational actions focused on FNS, approaching issues of incomes, access, employment, poverty, inequalities, social rights and public policies	32	3	0
	Systematic assessment of educational actions carried out	31	3	0
	Monitoring and Evaluating Action Plan carried out	33	3	0
Results	Improvement of the analysis of local and national FNS situation	31	3	0
	Increased quantity and nutritional quality of captured/collected food	32	3	0
	Increased perception of the vulnerable people about FNS	30	3	0,5
	Increased access to diversified and safe food in an uninterrupted and permanent way	32	3	0
	Increase in monitored and evaluated MBSP actions	29	3	0,5
Impacts	Reduction of FI expressions (malnutrition, obesity and overweight, nutritional deficiencies)	31	3	0
	Reduction of non-communicable chronic diseases related to inadequate nutrition	29	3	1
	Increased effectiveness of actions direct to food and nutrition education	30	3	0,5
	Improvement of MBSP management processes	31	3	0

Table 1. Total score, median and interquartile range of items related to the steps of technical components 1, 2, 3, 4, 5 and 6. (Continues)

COMPONENT 5 –SOCIAL VULNERABILITY				
Steps	Items	Total score	Median	Interquartile range
Activities	Carrying out networking events, promoted by the social entities themselves, with the support of the MBSP (case reports/exchange of experiences)	29	3	1
	Systematic implementation of educational actions, with different approaches, like a dialog, popular and <i>freirian</i> (from Paulo Freire, famous Brazilian educator), trying to involve all program participants so that they become action protagonists	28	3	0,5
	Carrying out meetings/lectures/activities/operative groups with right councils and managers of social assistance public policies	27	3	1
	Systematic assessment of educational actions	28	3	0,5
	Carrying out the Monitoring and Evaluation Action Plan	29	3	0
Products	Network actions carried out by social entities in order to make information available and share experiences	30	3	0,5
	Educational actions carried out in order to discuss and clarify the effective practice of social rights and the use of social and health resources	28	3	1
	Meetings/lectures/activities/operative groups carried out with right councils and managers of social assistance public policies	28	3	1
	Systematic self-assessment of educational actions carried out	31	3	0
	Monitoring and Evaluation Action Plan carried out	32	3	0
Results	Increased access to opportunities (education, continuing education and work/employment) for development as a citizen	31	3	0
	Increased ability to access enough livelihoods for essential needs (food, decent housing and health care and hygiene)	29	3	1
	Increased access to information regarding citizens' rights and effective participation in formal organizations of social control	29	3	1
	Increased use of social and health resources	31	3	0
	Increase in monitored and evaluated MBSP actions	32	3	0
Impacts	Reduction of FI expressions (malnutrition, obesity and overweight, nutritional deficiencies)	31	3	0
	Reduction of non-communicable chronic diseases related to inadequate nutrition	30	3	0,5
	Increased guarantee of social rights	30	3	0,5
	Improvement of MBSP management processes	31	3	0

Table 1. Total score, median and interquartile range of items related to the steps of technical components 1, 2, 3, 4, 5 and 6. (Continues)

COMPONENT 6 – SOLIDARITY				
Steps	Items	Total score	Median	Interquartile range
Activities	Carrying out actions to raise awareness and encourage voluntary action (dissemination of MBSP in society)	30	3	0,5
	Carrying out meetings, lectures, etc., on the importance of volunteering in fighting against hunger and waste	26	3	1,5
	Meetings with non-military society, other groups and organizations to engage with the cause and carry out actions such as seminars, workshops, discussions on poverty and social inequality, in order to effectively and lastingly reduce hunger	28	3	1
	Meetings with Government to engage with the cause and carry out actions such as seminars, workshops, discussions to raise awareness of non-military society and organizations on poverty and social inequality, in order to effectively and lastingly reduce hunger	27	3	1
	Diversification of MBS Program partnerships to encourage projects with family farming	29	3	1
	Systematic assessment of educational actions	31	3	0
	Carrying out the Monitoring and Evaluation Action Plan	32	3	0
	Number of actions taken by volunteers in MBSP	28	3	1
Products	Number of voluntary actions carried out by employees of the organizations	27	3	1
	Number of actions carried out in partnership with , non-military people, other groups and organizations to engage with the case and broaden the discussion on poverty and social inequality, in order to effectively and lastingly reduce hunger	30	3	0
	Number of actions carried out in partnership with Government to engage with the cause and broaden the discussion on poverty and social inequality, in order to effectively and lastingly reduce hunger	29	3	0,5
	Projects to encourage family farming carried out	31	3	0
	Systematic assessment of educational actions carried out	30	3	0
	Monitoring and Evaluation Action Plan carried out	32	3	0
	Increase in the network to fight against hunger and waste (individuals, organizations and Government)	32	3	0
Results	Increase in the number of individual and corporate volunteers at MBSP	28	3	1
	Increased conscious consumption	30	3	0,5
	Increase in the quantity of food coming from family farming	31	3	0
	Increase in monitored and evaluated MBSP actions	31	3	0
	Reduction of FI expressions (malnutrition, obesity and overweight, nutritional deficiencies)	31	3	0
Impacts	Reduction of environmental impacts (eg: rational use of water; reduction of production and disposal of organic waste)	30	3	0,5
	Increased guarantee of social rights	30	3	0,5
	Enlargement of social accountability	30	3	0,5
	Improvement of MBSP management processes	31	3	0

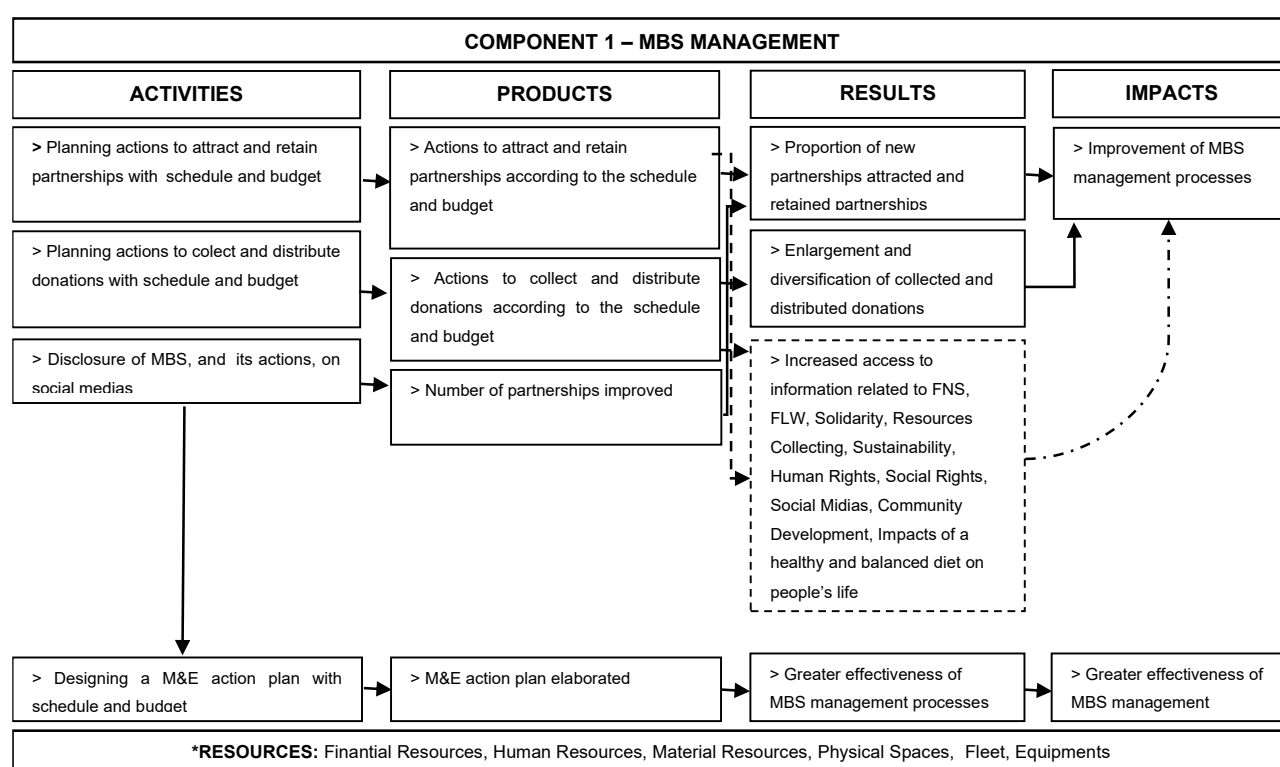
Source. Own elaboration.

The lines highlighted in gray in the presented table correspond to items considered not related to or not important by the participants (those that reached less than 23.1 points), related to, but of low importance (below 24.75 points) or those that, even reaching 26.4 or above, presented a median lower than 3 and an interquartile range equal to or superior to 1, showing that the consensus, statistically defined, was not reached.

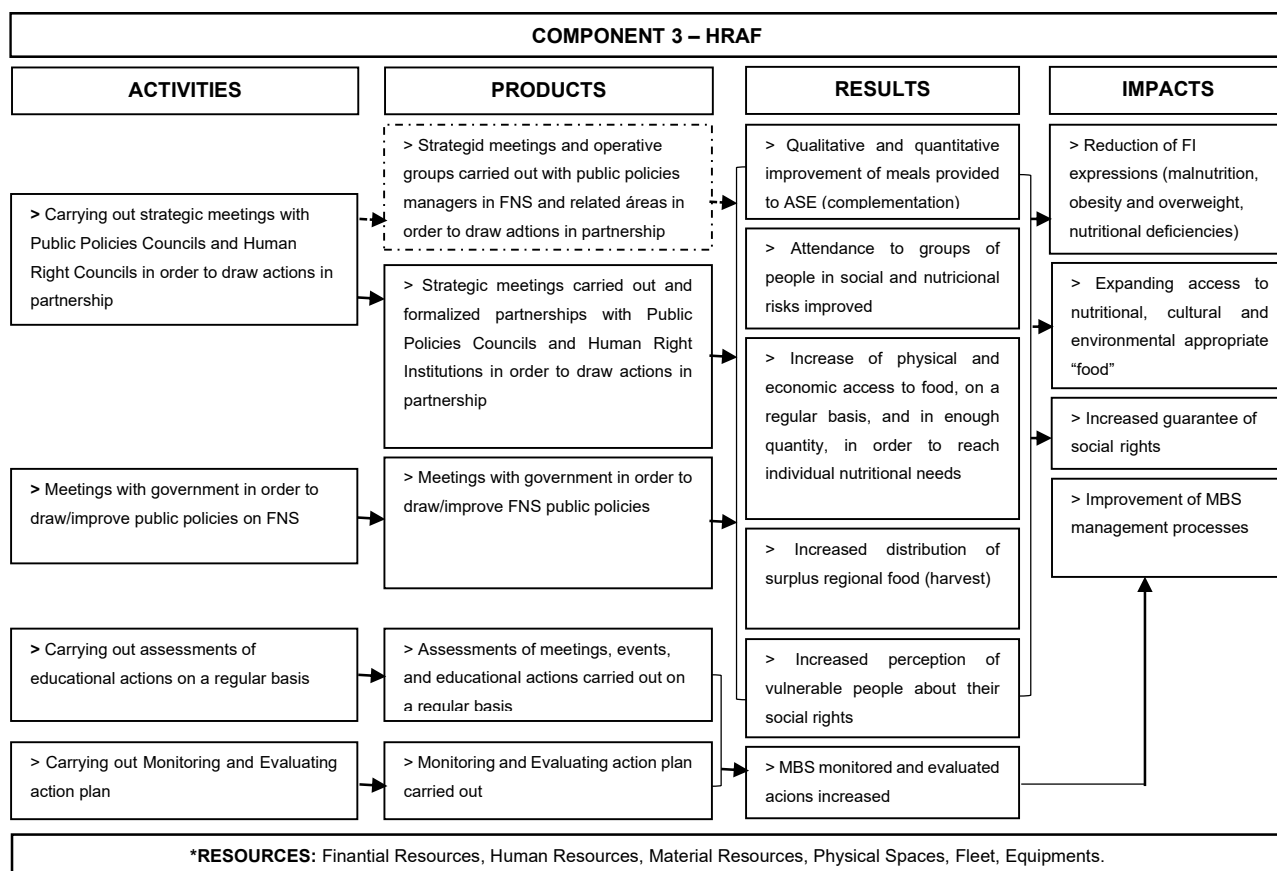
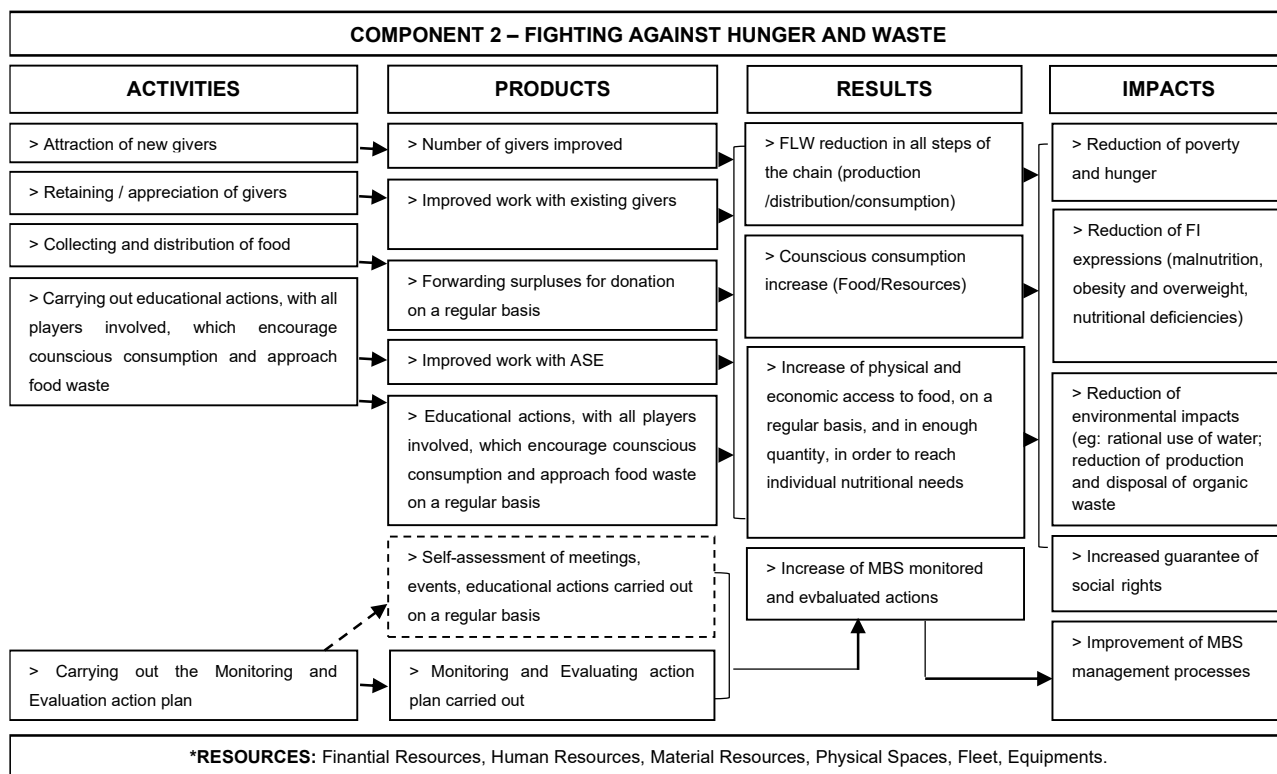
It should be highlighted that in Step 2, in all technical components, there were moments in which the structural components didn't reach consensus to be very important, bringing ruptures to the proposed logical-operational chain. The "Management" component, which was added, was the one that presented the most continuity interruptions.

Items that reached 26.4 points or above, median equal to 3 and interquartile range inferior to 1 were classified as very important. Such items composed the validated logical-operational model, which layout is presented, by MBSP technical components, in Picture 4.

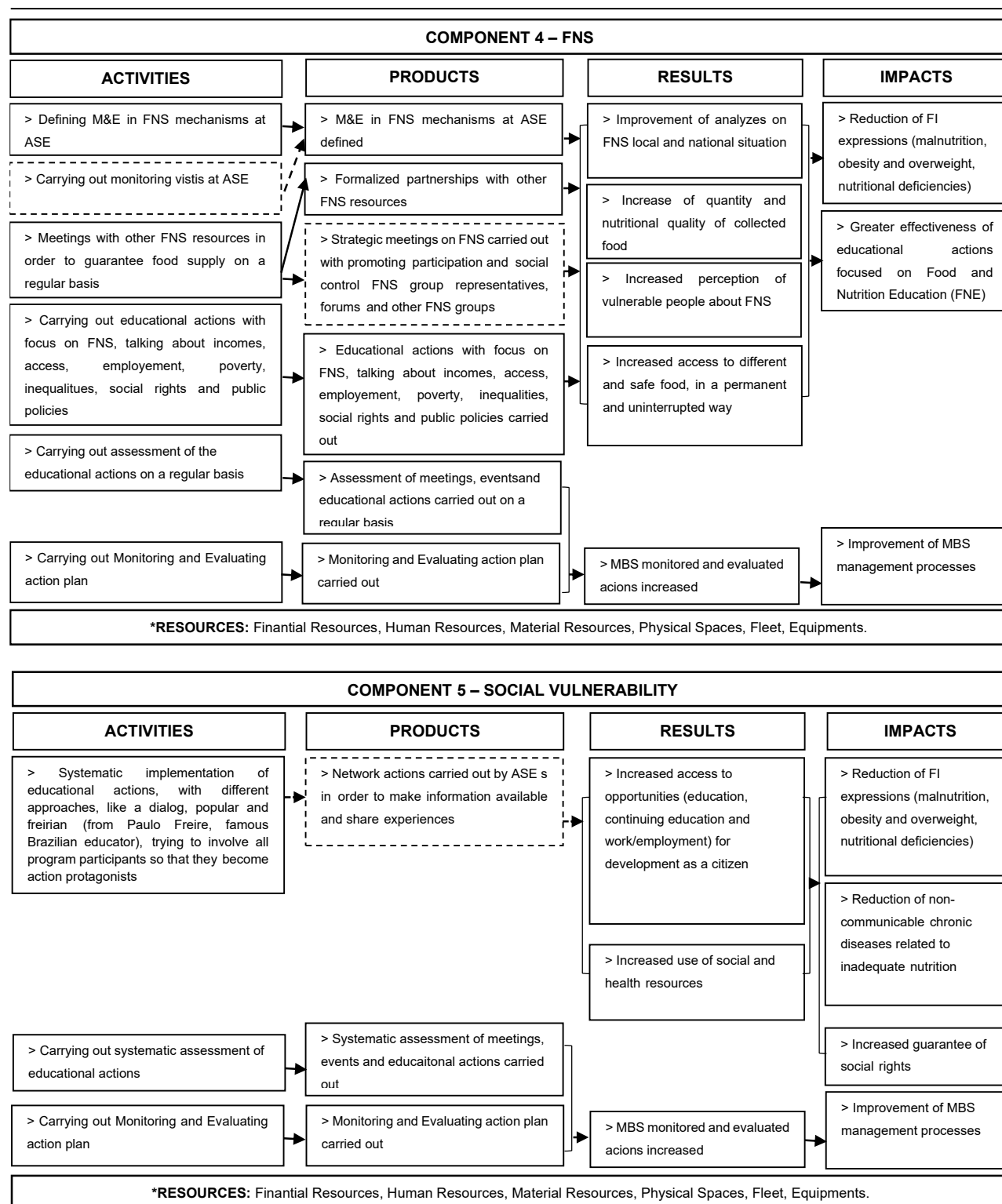
Picture 4. Validated logical-operational model of MBS.



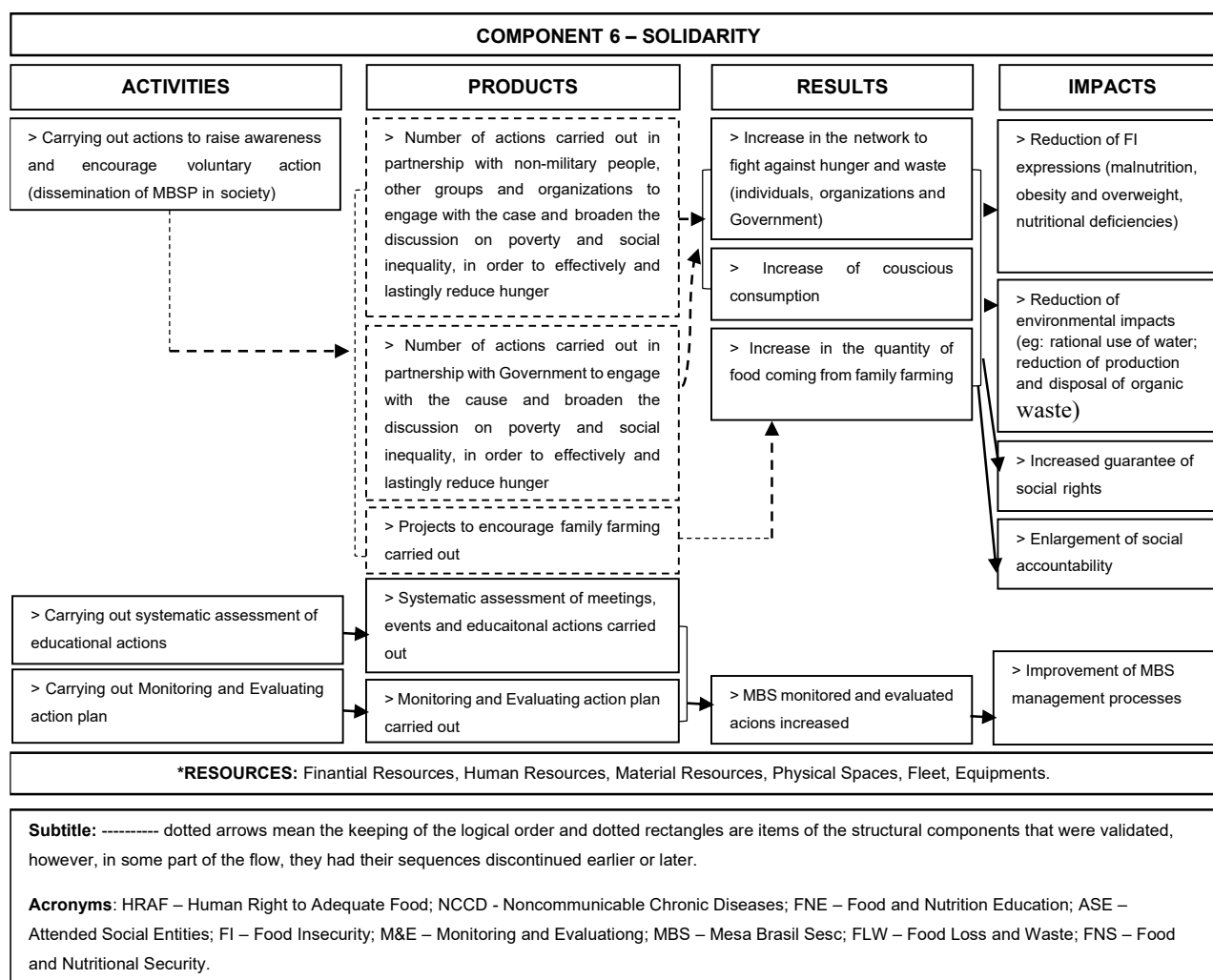
Picture 4. Validated logical-operational model of MBS. (Continues)



Picture 4. Validated logical-operational model of MBS. (Continues)



Picture 4. Validated logical-operational model of MBS. (Continues)



The process made it possible to identify different perceptions about FNS topic and the work proposal of MBS Program, as a network of food banks, among people with different experiences and performances in the area, geographically far from each other and with different realities and histories.

This diversity of perceptions and experiences is a relevant characteristic of the FNS area. Therefore, it should be noted that the meanings attributed to FNS may vary for different reasons: for greater or lesser contact with the debate, according to the type of engagement and experiences, as well as how far its various perspectives are adopted – biomedical, social, political, cultural, among others.^{35,36} Thus, the perception that there was an expansion of FNS dimensions adopted from the participation of the experts involved allows us to assume that their different histories and approaches to the topic contributed to update the way of facing the actions and results of the MBS.

The participants' responses found coherence between the two steps of the research, as well as with the evolution of the FNS concept in Brazil. Important principles of MBS program were reassured as acting premise in reducing nutritional deficiencies and food waste. They included, however, the concern with the increase in the prevalence of overweight in the population, as well as non-communicable chronic diseases and other diseases associated with poor nutrition. At the same time, they update some perspectives by

including dimensions inherent to the HRAF concept, such as the emphasis on issues such as access, regularity of actions, stability, expansion of information related to rights and promotion of citizenship.³⁷

It is possible to identify a perspective of reinforcing actions in partnership with Government, participation in councils and institutions of social control and protection of public policies of Health, Social Assistance and FNS. This comes to be extremely important and consistent with the current context of discontinuity of FNS public policies.³⁸ It also shows that the activities of food banks, alone, do not ensure FNS of the population in a situation of social vulnerability,³⁹ highlighting the need for integrated policies and programs that respect the essential principle of equity when promoting its actions.⁴⁰

Still in this picture, probably due to the current context of crisis experienced in Brazil, words and expressions such as hunger, poverty, social exclusion, inequality and vulnerability appeared recurrently in the contributions in Step 1, emphasizing that such factors must be considered when discussing the concept of dietary adequacy and which points to a collective understanding that it is essential to emphasize strategies that advocate and democratize access to food, even if there is availability, directly affected by the historical imbalance in income distribution.^{40,41}

In Step 2, noting Components 2 and 3 (fighting against hunger and HRAF), the great majority of activities were considered important and reached consensus, which reinforces the typical aspect of FNS in Brazil, where the adoption of the premises of the HRAF played a key role in building both the concept and the actions in this area. In this direction, topics related to the “fight against hunger, poor nutrition and the guarantee of adequate food for all”⁴² are historically grouped in the country.

The focus on human rights places the human being at the center, a socio-historical-cultural subject, and not just the object of an action or policy. So, all actions in the área must value the “prioritization of human dignity, the main reason why FNS strategies must be directed and integrated into the human rights approach”.⁴²

As already stated, Food and Nutrition Education (FNE) and training actions have a relevant role in the history of MBS actions. Being coherent with this premise, the participants expressed significantly about contributions to this topic. The alignment with the guidelines of the Framework of Reference for Food and Nutrition Education for Public Policies stands out. In this picture, the need for planning, systematic assessment of these actions, and the adoption of critical methodologies were pointed out.⁴³

Although MBS management component had many suppressed items, it was possible to identify the appreciation, along with the other components, of planning, monitoring and evaluation actions. It is therefore suggested that, in the joint evaluation of the two steps, management topics were valued, which is coherent with the current context of actions in the FNSarea, since recognition of the need to adopt different rationales and strategies is broadened, in order to adapt to the complexity and breadth of the FNS concept, which increasingly requires intersectoral action and dialogue with local realities. Care was also expressed in relation to issues related to the operation and continuity of the Program, showed by concern with investments in the fleet, team and media and spreading strategies.

In the “solidarity” component, attention was drawn to the inclusion of actions to support and promote family farming, expressed by two participants. It should be noted that, through different government initiatives, the promotion of family farming was expanded within the framework of the construction of the National Food and Nutrition Security Policy. Expanding the structure for transporting, storing and processing these foods has represented an important challenge,⁴⁴ and food banks have been presenting themselves, over the years, as an important support strategy.⁴⁵

It also demonstrates how fundamental the relationship among FNS resources and this sustainable food system model is, since, in addition to producing for subsistence and own consumption, it generates excess that can be traded by food banks, in a perspective of promotion of FNS at the local level, fighting against hunger in areas of extreme poverty, valuing culture and local habits.⁴⁶

It should be noted that the validated LOM brought up important reflections on MBSP, which go beyond common sense about the performance of food banks,⁴⁵ as it allowed identifying that other FNS dimensions are also strongly expressed in their actions.¹¹ This differentiates it from other experiences in this segment, since they go beyond the important, but not exclusive, role of mediator or warehouse among givers and receivers of food,^{9,10} with emphasis on educational actions with the players involved in its chain and the strengthening of conscious consumption and social solidarity.⁴⁷

It is essential that the findings of this article be discussed among those interested, and an opportunity is the National Meeting of MBS coordinators, which takes place every two years.

The LOM is, therefore, a very useful tool for improving the MBSP monitoring process and will allow periodic evaluation strategies in the continuous search for excellence in its performance, as FNS resources, especially in this context of deconstruction of policies of FNS, in which the production of M&E methodologies in food and nutrition are essential to verify and analyze the impacts of actions carried out in this area, as well as refresh it as a positive agenda.

CONCLUSION

The development of participatory M&E processes in FNS is an essential strategy in the defense of HRAF. It is understood that the experimentation, documentation and making public the initiatives of this nature contribute to the construction of an evaluation culture within the scope of governmental and non-governmental FNS initiatives, which can strengthen mechanisms of management and social control.

The validation of the LOM showed, in the most reliable possible way and from the perspective of different players, the paths to be taken to improve the contribution of MBS to the continuous promotion of FNS, and that there is a great demand for the survey and analysis of information able to reveal critical aspects that can contribute to the improvement of processes and results.

It should be noted that, as it was carried out remotely, the study had as an advantage the low cost of providing access links to the questionnaires sent by email, consistent with the necessary adaptations in the period of the Covid-19 pandemic, which encouraged the implementation and adaptation of researches with wider use of virtual tools.

However, it is also important to highlight, as limiting factors, the long time spent in the elaboration of the questionnaires and the exceeding the deadlines stipulated for the conclusion of the two steps proposed for the consensus definition. This fact shows how much the study depends on the engagement of respondents to elaborate coherent and reliable responses and how much external factors, in this specific case the pandemic and its consequences, can interfere in this process.

Finally, it is worth valuing the shared construction throughout the process, the importance of the collective aspect, of the consensus among the players involved with FNS. The points of view influenced by local realities and different experiences benefit reflection on the challenges faced in the activities carried out on a daily basis, with emphasis on the monitoring and evaluation steps, in order to achieve the objectives proposed in this study.

REFERENCES

1. Takagi M, Graziano da Silva J, Del Grossi ME. A política da segurança alimentar e nutricional do Brasil a partir do Programa Fome Zero. In: Almeida Filho N, Ortega AO (orgs). Desenvolvimento territorial, Segurança Alimentar e Economia Solidária. Campinas: Alínea; 2007.
2. Castro J. Geografia da fome (o dilema brasileiro: pão ou aço). 10. ed. Rio de Janeiro: Antares; 1984. 364 p.
3. Freitas MCS. Agonia da fome [E-book]. Rio de Janeiro: Fiocruz; 2003 [citado 2 jun 2021]. 281 p. Disponível em: <https://static.scielo.org/scielobooks/r9y7f/pdf/freitas-9788575412497.pdf> doi: 10.7476/9788575412497 ISBN: 85-8906-004-7.
4. Monteiro CA. A dimensão da pobreza, da desnutrição e da fome no Brasil. In: Estud. av. [internet]. 2003 [citado 25 ago 2021];17(48):7-20. Disponível em: <https://doi.org/10.1590/S0103-40142003000200002>
5. Menezes F. O aumento da fome no Brasil: várias faces de um mesmo problema. Nexo Jornal [internet]. 2021 [acesso em 2021 fev 25]. Disponível em: <https://nexojornal.com.br/ensaio/2021/O-aumento-da-fome-no-Brasil-varias-faces-de-um-mesmo-problema/>.
6. Belik W, Cunha ARA, Costa LA. Crise dos Alimentos e Estratégias para a Redução do Desperdício no Contexto de Uma Política de Segurança Alimentar e Nutricional no Brasil. Revista Planejamento e Política Públicas. 2012;38:107-132. doi: 10.38116/ppp38.
7. CAISAN. Estratégia intersetorial para a redução de perdas e desperdício de alimentos no Brasil. 2018. Disponível em: https://www.mds.gov.br/webarquivos/arquivo/seguranca_alimentar/caisan/Publicacao/Caisan_Nacional/PDA.pdf
8. Brasil. Decreto-Lei nº 9.853, de 13 de setembro de 1946. Atribui à Confederação Nacional do Comércio o encargo de criar e organizar o Serviço Social do Comércio e dá outras providências. Diário Oficial da União. 16 set 1946. p. 2947.
9. Tenuta N, Teixeira RA. A eficácia dos Bancos de Alimentos de Minas Gerais no combate às perdas e desperdícios de alimentos. Segur. Aliment. Nutr. 2017;24(1):53-61. <https://doi.org/10.20396/san.v24i1.8649720>
10. Machado KSO, Gentil PC. Bancos de alimentos: oportunidades e desafios. In: Perdas e desperdício de alimentos: estratégias para redução. Brasília: Edições Câmara; 2018. p. 161-179.
11. Serviço Social do Comércio. Departamento Nacional. Guia do programa Mesa Brasil Sesc. Rio de Janeiro: Sesc; 2017.
12. Santos SMC, Silva DO. Trilhas para monitorar e avaliar a Política Nacional de Alimentação e Nutrição. Alimentação e Nutrição: Políticas e Ação. Rio de Janeiro: EAD/ENSP. 2013.
13. Oliveira ASB, Casemiro JP, Brandão AL, Pinto AMS. Monitoramento e Avaliação da Segurança Alimentar e Nutricional: um olhar sobre as publicações oficiais. Cien. Saúde Colet. 2020;27(02):631-640. <https://doi.org/10.1590/1413-81232022272.41332020>.
14. Serviço Social do Comércio. Departamento Nacional. Plano Estratégico do Mesa Brasil Sesc 2012-2015. Rio de Janeiro: Sesc; 2012.
15. FAO. Global Food Losses and Food Waste: Extent, Causes and Prevention. Rome, Italy [internet]. 2011 [acesso em 2019 out 10]. Disponível em: <http://www.fao.org/3/mb060e/mb060e00.pdf>.

16. Rede PENSSAN. II Inquérito Nacional sobre Insegurança Alimentar no Contexto da Pandemia da Covid-19 no Brasil. 2022.
17. Instituto Brasileiro de Geografia e Estatística. Pesquisa Nacional por Amostra de Domicílios: PNAD Covid-19. [relatório eletrônico] 2020 [acesso em 20 fev 2021]. Disponível em: <https://covid19.ibge.gov.br/pnad-covid/>.
18. Alpino T de MA, Santos CRB, Barros DC de, Freitas CM de. COVID-19 e (in)segurança alimentar e nutricional: ações do Governo Federal brasileiro na pandemia frente aos desmontes orçamentários e institucionais. Cad. Saúde Pública. 2020;36(8):1-17. <https://doi.org/10.1590/0102-311X00161320>
19. Brasil. Decreto nº 7.272, de 25 de agosto de 2010. Regulamenta a Lei nº 11.346 de 15 de setembro de 2006, que cria o Sistema Nacional de Segurança Alimentar e Nutricional - SISAN com vistas a assegurar o direito humano à alimentação adequada, institui a Política Nacional de Segurança Alimentar e Nutricional - PNSAN, estabelece os parâmetros para a elaboração do Plano Nacional de Segurança Alimentar e Nutricional, e dá outras providências. Diário Oficial da União 2010; 26 ago.
20. Champagne F, Brousselle A, Hartz ZMA, Contandriopoulos A-P. Modelizar as intervenções. In: Brousselle A, Champagne F, Contandriopoulos A-P, Hartz ZMA. (org.). Avaliação: conceitos e métodos. Rio de Janeiro: Fiocruz, 2011. p. 61-74.
21. Hartz ZMA, Silva LMV. Avaliação em saúde: dos modelos teóricos à prática na avaliação de programas e sistemas de saúde. Rio de Janeiro: Fiocruz, 2005. 275 p.
22. Lopo Neto RC. Validação de Instrumento de Monitoramento e Avaliação do Mesa Brasil Sesc para Promoção da Segurança Alimentar e Nutricional [Dissertação]. Rio de Janeiro: Universidade Federal do Estado do Rio de Janeiro; 2021. 192 p.
23. Brasil. Lei nº 11.346, de 15 de setembro de 2006. Cria o Sistema Nacional de Segurança Alimentar e Nutricional – SISAN com vistas em assegurar o direito humano à alimentação adequada e dá outras providências. Brasília: Presidência da República [Internet]. 2020 [acesso em 2021 abr 26]. Disponível em: http://www.planalto.gov.br/ccivil_03/_Ato2004-2006/2006/Lei/L11346.htm
24. Vitorino SAS, Cruz MM, Barros DC. Validação do modelo lógico teórico da vigilância alimentar e nutricional na atenção primária em saúde. Cad. Saúde Pública. 2017;33(12):1-23. <https://doi.org/10.1590/0102-311X00014217>
25. Fontenele RM, Sousa AI, Rasche AS, Souza MHN, Medeiros DC. Construção e validação participativa do modelo lógico do Programa Saúde na Escola. Saúde Debate. 2017;41(spe):167-179. <https://doi.org/10.1590/0103-11042017S13>
26. Deslandes S, Coutinho T. Pesquisa social em ambientes digitais em tempos de COVID-19: notas teórico-metodológicas. Cad. Saúde Pública. 2020;33(11):1-11. <https://doi.org/10.1590/0102-311X00223120>
27. Wright JTC, Giovinazzo RA. Delphi - uma ferramenta de apoio ao planejamento prospectivo. Cad. de Pesquisas em Administração. 2000; 1(12):54-65.
28. da Silva AM, Rodrigues CDS, Silva SMR, Witt RR. Utilização da técnica Delphi on-line para investigação de competências: relato de experiência. Rev. Gaúcha Enferm [Internet]. 2009;30(2):348-51. Disponível em: <https://www.seer.ufrgs.br/index.php/rgenf/article/view/7274>
29. Kayo EK, Securato JR. Método Delphi: Fundamentos, Críticas e Vieses. Caderno de Pesquisas em Administração. 1997;1(4):51-61.

30. Uchoa AC, Gondim GMM, Barreto MA, Rocha NSPD, Rocha PM Utilizando técnicas de consenso: potencialidades e limites na avaliação de informações em saúde. In: Hartz ZMA, Felisberto E, Vieira-da Silva LM. (org.). Meta-avaliação da atenção básica à saúde: teoria e prática. Rio de Janeiro: Fiocruz; 2008. p. 253-275.
31. Weiss CH, Connell, JP. Nothing as Practical as Good Theory: Exploring Theory-Based Evaluation for Comprehensive Community Initiatives for Children and Families. In: The Aspen Institute. New Approaches to Evaluating Community Initiatives: Concepts, Methods, and Contexts. 1995. p.65-92.
32. Center for theory of change. O que é a Teoria da Mudança? [internet]. [acesso em 2020 ago 08]. Disponível em: <https://www.theoryofchange.org/what-is-theory-of-change/>.
33. Brasil. Resolução nº 510, de 07 de abril de 2016. Diretrizes e normas regulamentadoras aplicáveis a pesquisas em ciências humanas e sociais envolvendo seres humanos. 2016.
34. Scarparo AF, Laus AM, Azevedo ALCS, Freitas MRI, Gabriel CS, Chaves LDP. Reflexões sobre a técnica delphi em pesquisa na enfermagem. Rev Rene. 2012;13(1):242-51.
35. Aliaga, MA, Santos, SMC, Trad, LAB. Segurança Alimentar e Nutricional: significados construídos por líderes comunitários e moradores de um bairro popular de Salvador, Bahia, Brasil. Cad. Saúde Pública, 2020;36(1):1-15. <https://doi.org/10.1590/0102-311X00169218>
36. Costa CA, Bógus MC. Significados e apropriações da noção de Segurança Alimentar e Nutricional pelo segmento da sociedade civil do Conselho Nacional de Segurança Alimentar e Nutricional. Saúde Soc., 2012;21(1):103-114. <https://doi.org/10.1590/S0104-12902012000100011>
37. Burity V, Franceschini T, Valente FL, Recine E, Leão M, Carvalho MF. Direito Humano à Alimentação Adequada no Contexto da Segurança Alimentar e Nutricional. Brasília: ABRANDH. 2010.
38. Campello T. Para a fome não voltar [internet]. 2021 [acesso em 2021 ago 03]. Disponível em: <https://www.uol.com.br/ecoa/reportagens-especiais/alimentacao-entrevista---tereza-campello/>.
39. Hehnke B, Galera AS, Silva NM, De Maria PF, Kutz NA, Salgueiro MMHAO. Percepção sobre a segurança alimentar e nutricional de instituições cadastradas no Banco de Alimentos de Itapeverica da Serra. Cad Saúde Colet, 2021;29(2):238-245. <https://doi.org/10.1590/1414-462X202129020586>
40. Fagundes A, de Cássia Lisboa Ribeiro R, de Brito ERB et al. Public infrastructure for food and nutrition security in Brazil: fulfilling the constitutional commitment to the human right to adequate food. Food Sec. 2022;14:897-905. <https://doi.org/10.1007/s12571-022-01272-1>
41. Verdan Rangel TL. O programa banco de alimentos como instrumento de concretização do direito humano à alimentação adequada. LH [Internet]. 28º de fevereiro de 2017 [citado 15º de novembro de 2022];8(2):120-36. Disponível em: <https://seer.ucp.br/seer/index.php/LexHumana/article/view/1263>
42. Albuquerque MFM. Segurança Alimentar e Nutricional e o uso da abordagem de direitos humanos no desenho das políticas públicas para combater a fome e a pobreza. Rev. Nutr., 2009;22(6):895-903. p. 897-902. <https://doi.org/10.1590/S1415-52732009000600011>
43. Valente FL. Em busca de uma educação nutricional crítica. In: Valente F. Fome e desnutrição: determinantes sociais. São Paulo: Cortez; 1986. p. 66 – 91.
44. Grisa C, Porto SI. Políticas de segurança alimentar e nutricional - Dez anos de PAA: As contribuições e os desafios para o desenvolvimento rural. In: Grisa C, Schneider S (org.). Políticas Públicas de Desenvolvimento Rural no Brasil. Porto Alegre: Editora da UFRGS, 2015. p. 155-180.

45. Burlandy L, Maluf RS, Frozi D, Mafra LAS, Reis MC, Zimmermann SA. Avaliação do Programa Banco de Alimentos no Brasil. In: Brasil. Ministério do Desenvolvimento Social e Combate à Fome. Secretaria de Avaliação e Gestão da Informação. Caderno de Estudos – Desenvolvimento Social em Debate. Rede de equipamentos públicos de alimentação e nutrição: resultados de avaliações. Brasília: MDS; 2010. p.35-63.
46. Maluf RS, Menezes F, Marques SB. Caderno “segurança alimentar” [Internet]. Paris: Fhp; 2000 [acesso em 2021 abr 27]. Disponível em: <https://www.agencia.cnptia.embrapa.br>
47. Burlandy L. A atuação da sociedade civil na construção do campo da Alimentação e Nutrição no Brasil: elementos para reflexão. Ciênc. saúde coletiva, 2011;16(1):63-72. <https://doi.org/10.1590/S1413-81232011000100010>

Contributors

Lopo Neto RC, took part in the conception and design; data analysis and interpretation. Vitorino SAS, Brandão AL e Casemiro JP took part in the review and approval of the final version.

Conflict of Interests: The authors declare there is no conflict of interests.

Received: August 10, 2022

Accepted: January 25, 2023