

Ministry of Education
National Fund for the Development of Education

FNDE



GUIDE TO SUPPORT TECHNICAL ACTIVITIES OF PNAE NUTRITIONISTS



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GUIDE TO SUPPORT TECHNICAL ACTIVITIES OF PNAE NUTRITIONISTS



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1

PRESENTATION



Among other assignments, the National Fund for the Development of Education (FNDE) has two obligations: to provide technical assistance so the National School Feeding Programme (PNAE) performs well, and to cooperate in the process of enabling human resources involved in the Programme's execution.

The PNAE is the Brazilian government's oldest programme in the area of school feeding and Food and Nutrition Security (FNS). It is considered one of the biggest and most comprehensive programmes in the world regarding universal service to students and the right to a proper, healthy feeding.

This public policy, managed by the FNDE, covers all students registered in Nursery School (day-cares and preschool), Primary School and Secondary School and in the modalities of indigenous, quilombola¹, Specialised Education Services (AEE) and Adult Education (EJA). Students must be enrolled in public, philanthropic, community (alongside the public power), and federal schools, according to the School Census of the year prior to the service.

The PNAE aims to contribute to students' growth, biopsychosocial development, learning, school performance and the formation of healthy habits. This is accomplished through food and nutrition education actions, as well as the offer of meals that cover nutritional needs during school hours.

To achieve Millennium Education and Health Goals, the Brazilian Federal Government established guidelines to promote nationwide Healthy Feeding at Nursery, Primary and Secondary public and private schools, through the Interministerial Ordinance no. 1010/2006 – Health and Education. This facilitates the development of actions that promote and ensure the adoption of healthier feeding practices at schools.

The PNAE has undergone a series of transformations recently, through which Brazilian students have received a greater, differentiated service. Also, the Programme has been strengthening its role in the education and promotion of proper, healthy feeding habits, as well as focusing on the relationship between students and the food offered to them, seeking healthier and more appropriate practices at school environments.

It is important to mention the number of nutritionists currently working at PNAE has increased. This began with the insertion of nutritionists in the Programme by Law no. 8,913, of July 12th, 1994, which was a historical moment. This law, article 4, states that: the elaboration of school feeding menus under the responsibility of States and Municipalities takes place by means of a nutritionist, who must respect each place's food habits and their agricultural vocation.

Furthermore, Law no. 11,947, of June 16th, 2009, establishes that nutritionists are responsible for school feeding in States, the Federal District and Municipalities at federal schools, and the Resolution CD/FNDE no. 26, of June 17th, 2013, adds that this must be linked to the school feeding sector of the Executing Entity.

The Federal Council of Nutritionists Resolution, CFN no. 465/2010, has updated the foreseen assignments for this professional's routine according to other valid federal regulations. It adds mandatory technical activities for nutritionists that work in the scope of PNAE. Previously, these activities were limited to the elaboration of menus, but now they have incorporated many other technical activities, increasing the importance and complexity of this professional's work.

In this way, the PNAE's Food and Nutrition Security Coordination elaborated this Guide, hoping to provide practical strategies that may help PNAE nutritionists complete their assignments. This information is vital, given that existing publications do not cover this topic thoroughly and the development of new information on how to solve the main hardships and obstacles of PNAE nutritionists is needed.

We wish you a good reading experience and we hope this material can help you develop activities and inspire you to try out new paths!

Silvio Pinheiro
President of the FNDE

¹Translator's note: In Colonial Brazil, Quilombolas were inhabitants of areas where runaway enslaved people would settle and live according to their culture. To this day, many of these settlements remain in different places around the country.

2

INTRODUCTION





The Guide to Support Technical Activities of PNAE Nutritionists presents a set of information and recommendations related to assignments nutritionists who work with school feeding must do. This guide hopes to provide technical and practical support for all nutritionists.

Chapter 1 describes guideline recommendations and principles to elaborate work plans according to Resolution CFN no. 465/2010. It is a planning tool that must contain the following items: specification of activities, projects and programmes, justifications, operational strategies, locations, executing organisations, work schedules, targets, finance schedules, budget and evaluation tools.

Chapter 2 advises on how to elaborate school feeding menus that go beyond stating what students will eat. It is important to have a plan, through which any student's peculiar eating habits or restrictions will be considered, as well as the offer and production of regional foodstuffs and the kitchen's infrastructure to prepare meals. This chapter proposes a standard of school menus that state the minimally required information and that might be adopted and adapted according to each Executing Entity's reality.

Chapter 3 details aspects related to Food Preparation Technical Files (FTP), which are operational support tools in which nutritionists survey costs, describe preparations and calculate nutritional values of meals. The chapter also suggests the adoption of a standard model of FTP, providing clear information and instruction of the items that must be present.

Chapter 4 suggests Food and Nutrition Education (FNE) activities to stimulate the inclusion of this topic in the school curriculum. Also, this chapter may be used as a tool of practical examples for teachers.

Chapter 5 recommends Acceptability Tests in order to measure how much students accept the meals that are offered to them, in accordance with methodologies described by the FNDE.

Chapter 6 provides information on Nutritional Diagnosis, which is extremely important for students'

growth and development. We also highlight the hard work the Federal Government has been conducting in this moment of nutritional transition, especially with the growing cases of obesity and overweight in Brazil and in the world, paying close attention, in advance, to possible risks to health and morbimortality derived from unhealthy feeding habits.

Chapter 7 describes Special Dietary Needs (SDN), as nutritionists must identify students with food restrictions, so they can receive proper care in the PNAE according to Law no. 12,982. This law guarantees the provision of adequate school feeding to students who have a specific health condition.

Chapter 8 encourages the interaction between school feeding nutritionists and smallholder farmers and their organisations, as a way of knowing local production so their production, so their products can be included in school feeding, elaborating seasonal menus that take into account the diversity of regional foods, as well as mapping smallholder farmers according to supply and demand.

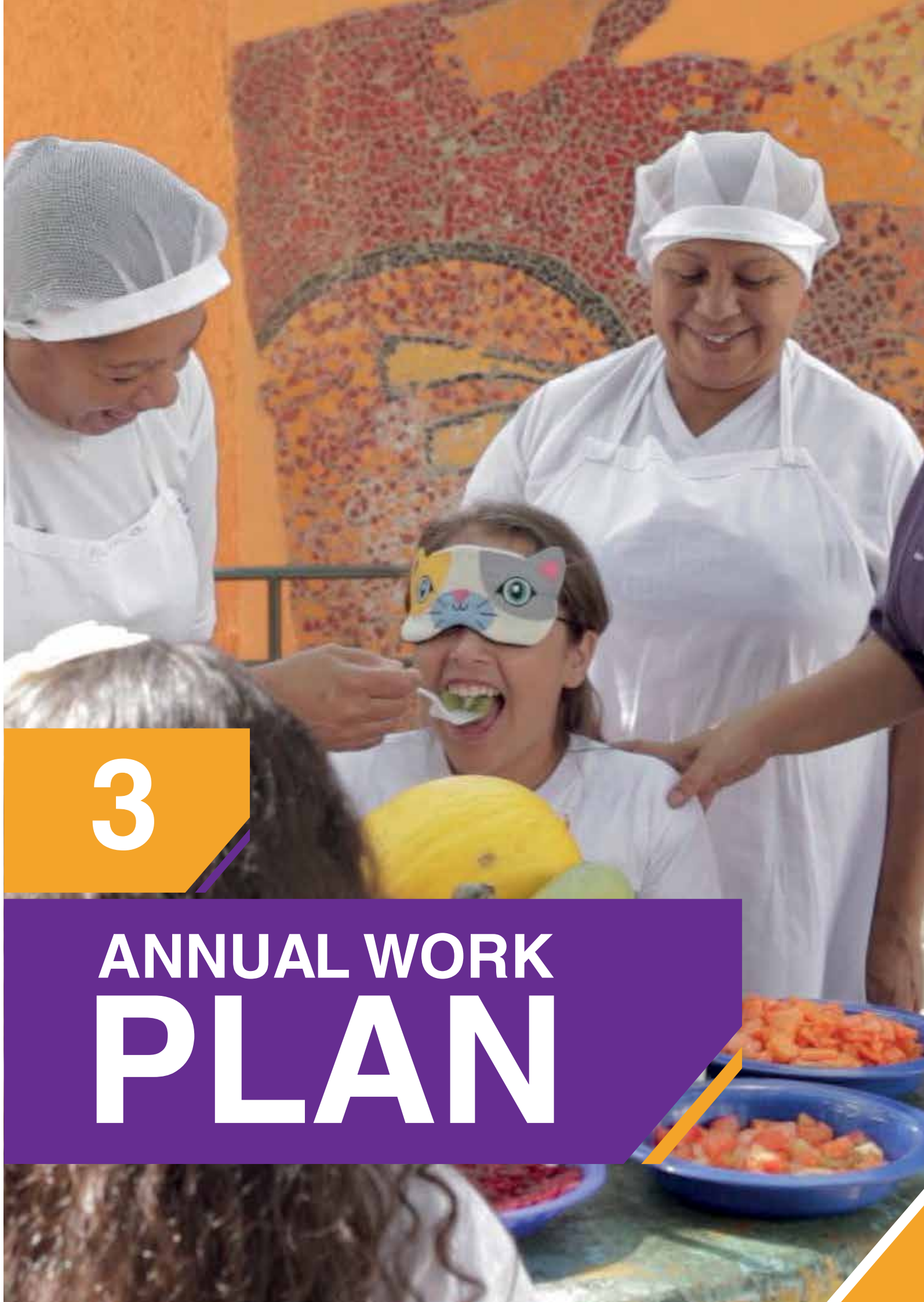
Chapter 9 refers to the participation of nutritionists in the bidding process and public calls for the purchase of foodstuffs related to technical specification, quantity, among others.

Chapter 10 approaches school feeding quality control and how raw materials, sanitary conditions of the work environment, and food handling techniques are important factors to be considered in the production and supply of safe, quality foods.

Chapter 11 is dedicated to the School Feeding Council (CAE) regarding the PNAE's technical execution.

Chapter 12 presents information on complementary activities to be performed by nutritionists in the scope of the PNAE.

On a final section, there is a list of Technical Notes that have been published by the FNDE. These are documents that clarify any doubts related to how the PNAE works.



3

ANNUAL WORK
PLAN



3

ANNUAL WORK PLAN

Elaborate the PNAE's Annual Work Plan considering adopted procedures to develop assignments;

Nutritionists' mandatory assignments in the scope of the School Feeding Programme, according to article 3 of Resolution no. 465, of August 23rd, 2010, of the Federal Council of Nutritionists.

In this chapter, we will describe guideline recommendations and principles so nutritionists who work with the PNAE can elaborate work plans. This document was written in a participation context, that is, it is important you can elaborate it alongside other health and education professionals and managers.

Nutritionists who work with the PNAE, connected to Executing Entities, must elaborate the Annual Work Plan considering adopted procedures to develop assignments, according to article 3 of Resolution CFN no. 465/2010. The Annual Work Plan specifies the planning of actions to be carried out and must include:

- 1) justification;
- 2) operational strategies;
- 3) locations and executing organisations;
- 4) activities schedule;
- 5) targets;
- 6) finance schedule;
- 7) budget; and
- 8) evaluation tools.

It is important to remember the Annual Work Plan must be approved by managers.

A work plan is a draft of goals and procedures nutritionists must strive to achieve. It offers a better understanding of the essence of the activities. These plans help you keep organised when working on many projects. With them, you can describe the process in detail and transform it into achievable tasks, making it easier to identify what you aim to do.

Elaborating a work plan, regardless of the time of execution, must begin with a diagnosis. From the analysis of collected data you will be able to identify your problems. These data can be obtained from direct observation or a database. For each identified problem, there must be a plan of action to solve it or diminish it. The more actors involved in the elaboration of a diagnosis, analysis of collected data, and planning and execution of actions, bigger chances of achieving goals you will have.

Do not forget these actions can be intersectorial, that is, they can involve different sectors, such as health, civil society oversight, smallholder farming, among others. Also, these actions can be performed by different professionals, such as lunch ladies, teachers, social workers, agronomists, among others.

The most important thing is knowing which question you want to answer with your annual work plan. All development from the work plan is linked to this central question, which is your job's motivation. Never begin a project if you don't know exactly what you want to achieve. Only in rare cases is it possible to discover interesting things without having a question beforehand; however, this is the exception, not the rule. In this way, always choose a good question to be answered on your annual work plan.

Now it's time to get to know each one of the items that must be present in your Annual Work Plan:

1.1 Definition and detail of activities

The definition of activities involves identifying and documenting specific tasks that must be carried out in order to produce results throughout the year. This stage includes necessary activities, such as the identifier, which is a description of each activity with sufficient detail so team members can understand which type of work must be conducted at the moment.

Activities consist of all necessary steps to achieve your work plan goals. They are concrete actions that must be carried out for an execution period, that is, throughout the school year.

In this way, it is important to propose activities within the budget, time frame, and capability of everyone who is involved. Activities can also be conducted by many people and, in this case, there must be a leader who will be responsible for setting up a team, making preparations, mobilising all participants and taking care of necessary requirements. Many times, trusting everyone will carry out an activity may result in nobody actually doing it.

While some activities may be performed by the community, others may require technical consultancy or support for transportation, equipment, location, machinery, among others. In this case, it is important to foresee who will be the partners. Knowing who they are beforehand is necessary to analyse what are your needs and which people or organisations can effectively contribute.

On this Guide's following chapters, mandatory technical activities for nutritionists who work in the scope of PNAE will be further detailed, according to Resolution CFN no. 465/2010, article 3. This Resolution establishes that, apart from elaborating an Annual Work Plan, nutritionists must: a) diagnose and keep track of students' nutritional state; b) stimulate the identification of students who may have special dietary needs; c) elaborate technical files for meal preparations and school menus; d) take part in food and nutrition education actions; e) perform acceptability tests; f) work alongside smallholder farmers; g) participate in bidding processes and direct purchase from smallholder farming; h) elaborate and implement a Good Practices Guide; and i) advise the School Feeding Council (CAE).

Beyond these mandatory activities, nutritionists must also pay attention to any complementary assignments that may be carried out according to need, complexity of services and operation structure availability.

When choosing activities for your work plan, don't forget that they are executed actions, that is, they support your goals throughout the year. We can simplify relating activities to what will be done and how they will be done during your work plan.

1.2 Justification

A justification must briefly present the prioritised problem and possibilities of actions to be executed. It must also reveal in what way said situation will be fixed or enhanced after goals are achieved.

The justification is a very important part of an annual work plan. It should answer the following questions: Why have a work plan? Why should it be approved and implemented? Specifically, in this section, the text must explain why a defined strategy was chosen to solve presented demands or take advantage of its potential.

You can be creative, so the manager can truly understand that the school feeding sector needs a project, that the organisation is capable of conducting it, and that it will contribute to a relevant cause.

1.3 Operational Strategies

Strategies are a set of decisions and actions related to choosing the means and articulating the resources capable of achieving goals.

The definition of operational strategies is a very important one, as it is through them that goals and targets are achieved. It works as a way or action to accomplish established goals and targets in a different manner.

Operational strategies are related to more restricted initiatives and approaches to conduct planned daily activities throughout the year. When elaborating operational strategies, we must think about who and where actions will be carried out.

Elaborating school menus is an example of a fundamental activity in the work plan. What would be a strategy that nutritionists could think of, so menus were correctly elaborated throughout the year? They could search the region's agricultural mapping to increase the offer of goods that come from smallholder farming, or they could conduct a survey

considering opinions of the school's directors and lunch ladies, or even have a meeting with the School Feeding Council (CAE) to present the menus.

Now that we already know the activity with its justifications and strategies, it is necessary to define the targets you wish to achieve.

1.4 Targets

You need to define goals for every strategy/action that will be developed in your work plan. Goals are quantitative, that is, they are numbers, percentages you want to achieve. For example: offering goods that come from smallholder farming to all schools; achieving a 30% offer of goods that come from smallholder farming.

Hand in hand with goals, targets are timeless, which means they define deadlines. For example, in case one of your activities is "Meeting with the School Feeding Council", to analyse accountability, your targets will be to emit a Conclusive Report to CAE and later send an accountability report to the Management Accountability System (SIGPC), the Management Council System (SIGECON) and the FNDE in time.

When targets are achieved, you can reach your goals. Another example: you want to divulge your positive experience with food and nutrition education around the country. This is your goal. Your target is to define in which social networks this action will be disclosed.

In this way, the difference between goals (what you intend to do and/or achieve) and targets (specification of these goals in a quantitative manner) is clear. Goals are what you want to accomplish, while targets stipulate steps and deadlines so your goals can be achieved.

It is important to understand targets form a path. That's why they are always mentioned in the plural form, because usually a set of targets builds a path to any planning.

1.5 Locations

In this stage, you must state where your activities will take place, which depends on the number of predicted participants. Also, you must make a list of which equipment will be needed (chairs, tables, computers, etc.) and verify whether the location has the appropriate structure for it.

This topic is directly connected to the partnerships you may search to conduct your activities. The reason for this is that it is through partners that you will be

able to be offered other locations or equipment, apart from your workplace, to carry out your project.

1.6 Executing Organisations

This is a very important stage when elaborating your work plan. You must inform who will be the PNAE actors that will participate in your activity and who will be responsible for its execution.

If one of your activities is a project to keep track of students' nutritional state, you can invite the Secretariat of Health, through health professionals, to be one of your many partners in this project. If necessary, health professionals can discuss the best way to deal with a student with the family health team.

On the other hand, if your activity is a meeting with the manager of the Executing Entity (EEx) to present your work plan, you can invite the manager of the municipality, the secretary of education and the Executing Entity's purchase and accounting sector to the meeting.

It is essential that actors participate in the process of building, elaborating and defining actions that guarantee well-executed activities in the work plan. On a technical perspective, then, it is extremely important to count on incorporating multiple angles when elaborating each activity.

1.7 Activities Execution Schedule

All proposed activities will require time, from its choice to its execution. This period when activities are developed in a schedule is important to establish the date a product or service is delivered, to control how the project is developed and to maintain commitment to the ones responsible for executing them.

A schedule is the main resource for managing the time of an annual work plan, as it establishes when each activity should begin and end in a logical and sequential chain. Its main goal is to ensure each stage is delivered within an agreed deadline.

It is an extremely visual way to show a project's sequence of activities, allowing you to verify the interdependence of the tasks and to build your own critical path. In other words, you identify tension aspects of the initiative and verify exactly where the team will have to pay more attention so as not to miss deadlines and finish activities according to plan.

When creating your schedule, you estimate how much time it will take to develop each activity, which grants more trust to your planning.

1.8 Finance Execution Schedule

You must be asking yourself: Why have a finance schedule?

It is an “execution” schedule because it keeps track of tangible stages of the project, and it is a “finance” schedule because it foresees required expenses. In this way, it is important to plan in detail services that will be carried out in all execution stages of the work plan. Therefore, elaborating a realistic physical-financial schedule demands that many people directly involved with activities participate.

One example is the activity of “elaborating menus”, when nutritionists can predict the revenue transferred by the FNDE to the Executing Entity (EEx) in ten annual instalments on their finance execution schedule. In case there is consideration, nutritionists must add these values, elaborate the menus and conduct a purchase list for the bidding process or public call. However, this type of organisation is useful for basically any activity you, a nutritionist, intend to do, from elaborating menus to the bidding of foodstuffs, from meetings with managers to the delivery of foodstuffs at schools. Therefore, it is possible to envision great expenses, predict and collect budget to supply demands.

When the annual plan is in the form of a detailed schedule, it is easier to understand and execute it. After the schedule is ready, it will be a powerful ally that will help to meet the team’s deadlines and targets, as you will have in hand a flow of necessary financial resources to conduct activities defined in your work plan.

1.9 Budget

A budget is a part of the work plan that states which financial resources will be necessary for its execution, with unit and total values.

Before making your budget, it is essential to verify the minimum and maximum values for the resources available. Another commonly required item is for the consideration, which can be with human, material or financial resources.

When you decide to perform students’ nutritional diagnosis and need to buy the equipment, for example, the right thing to do is to specify within the budget the description of the materials you need to purchase (scale, stadiometer, tape measure, etc.) and their prices.

On the other hand, if one of your activities is to visit schools, you will probably need a car for support. In this case, the ideal is to anticipate a budget for fuel. When foreseeing all these possibilities, you realise a budget is a valuable planning tool.

1.10 Evaluation tools

During the elaboration of a work plan, nutritionists must reflect on evaluation practices for each activity. Which tools are more suitable for your work plan’s evaluation purposes?

When discussing evaluation, many are the tools and techniques mentioned. However, the discussion about the purpose of a choice is more important than the option itself, that is, the objective of an evaluation tool is to evaluate an action. In case it is applied again, it will allow alterations on actions that did not bring out expected results and reapply the ones that were successful.

An evaluation tool for an activity of “elaborating school menus”, for example, would be the application of an acceptability test with students. Another evaluation tool would be to consult the Brazilian Food Composition Table (TBCA) as a reference for “Calculation of menu’s nutritional composition and technical files” activities.

Therefore, evaluation tools are representative parameters, concise, and easy to interpret, used to illustrate main aspects of a certain activity. It allows value judgement over a performed action. A good evaluation tool must have the following aspects: easy to understand, statistical quantification and coherent logic.

A close-up photograph of a young child with dark, curly hair, smiling and eating a strawberry. The child is wearing a blue jacket over a white shirt. The background is slightly blurred, showing what appears to be a school setting with colorful decorations.

4

SCHOOL FEEDING
MENUS



4

SCHOOL FEEDING MENUS

Plan, elaborate, keep track and evaluate the school feeding menu based on nutrition diagnosis and nutritional references, paying attention to:

- a) Suitable age groups and epidemiologic profiles of attended population, in order to define food quantity and quality;*
- b) Respect each location's food habits and cultures, their agricultural vocation and proper, healthy feeding;*
- c) Utilisation of smallholder farming foods, prioritising, as much as possible, organic and/or agriecological foods; local, regional, territorial, state or national, in this order of priority.*

Nutritionists' mandatory assignments in the scope of the School Feeding Programme, according to Resolution no. 465, of August 23rd, 2010, of the Federal Council of Nutritionists.

Defining a menu is an important issue to be addressed during the PNAE's planning in each Executing Entity. Food experiences incorporated during childhood will determine feeding patterns that will be adopted by individuals, and the school environment is an important place that enables contact and creates healthy eating practices. Also, schools must disseminate proper practices

that enable the control of nutritional deficiencies and the reduction of child malnutrition and non-communicable diseases.

In addition, school feeding seeks to provide energetic and nutritional support in order to contribute to students' biopsychosocial growth and aptitudes, considering the teaching-learning process for the period students stay at schools.

In this sense, the analysis of the nutritional value is an important evaluation tool of the quantity and quality of meals provided at schools, as well as a valuable parameter to analyse how much public policies have impacted students' life conditions.

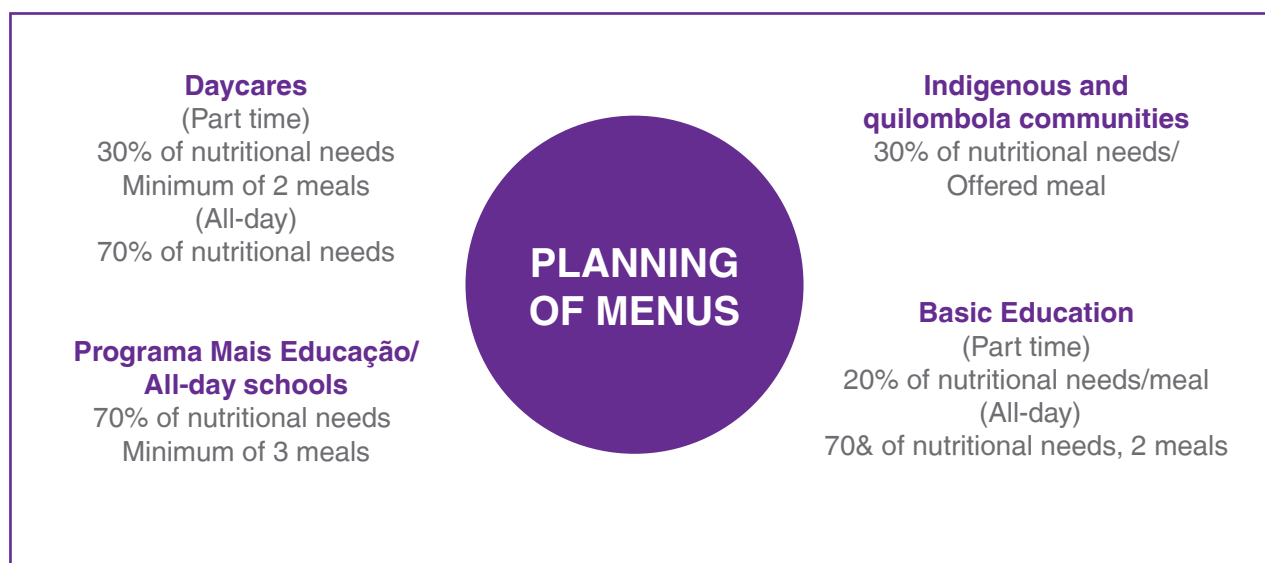
The planning and elaboration of menus must comprehend criteria such as: diversified school feeding, of good nutritional value and proper sanitary conditions; flavour; adaptation to local cultural habits; and good appearance. This is what the entire school community must strive for. In this sense, a menu is not only establishing what students will eat on their daily school feeding, without considering any criteria on the matter. It is important to have a systematic plan, in which any peculiarity regarding students' habits and food restrictions, the production and offer of regional foodstuffs, and the infrastructure of the kitchen when preparing meals is considered.

In this way, a well-planned menu will:

- Conduct the process of goods to be purchased for school feeding;
- Collaborate for the quality of meals served to students;
- Contribute to cover necessary nutritional needs for students' development and growth and for the improvement of the teaching-learning process;
- Cooperate to the acquisition, maintenance or change of feeding habits;
- Allow medical care to children with food restrictions or special dietary needs due to health conditions.

In face of these concerns, Law no. 11,947/2009, which establishes the PNAE, states that menus must be elaborated by nutritionists – professionals habilitated to work in the area of feeding and nutrition, connected to an Executing Entity (EEx).

In this way, Resolution CD/FNDE no. 26/2013, which establishes school feeding to students of basic education in the scope of the PNAE, contains information on the planning of menus that must attend nutritional needs established according to Annex 3 of the Resolution, as a way to supply:



In the case of indigenous communities and remnant areas of quilombos, the menu must be reinforced, that is, it must be prepared to ensure 30% of daily nutritional needs, as these populations are on a higher nutritional risk and are considered to be in a situation of food insecurity.

It is a nutritionist's responsibility to watch over the promotion of health, feeding and nutrition in the school environment, considering special dietary needs.



School feeding menus must be elaborated respecting nutritional references, feeding habits, cultural specifications of indigenous and/or quilombola communities, specific health conditions and, above all, to seek out **PROPER and HEALTHY FEEDING**.

PREPARING SCHOOL FEEDING

WE RECOMMEND A MAXIMUM OF :

- 10% of the total energy value derived from added sugar
- 15% to 30% of total energy value derived from total fat

10% of total energy value derived from saturated fat
1% of total energy value derived from trans fat

The offer of sweets and/or sweet preparations is limited to two portions a week
Equivalent to 110 calories per portion

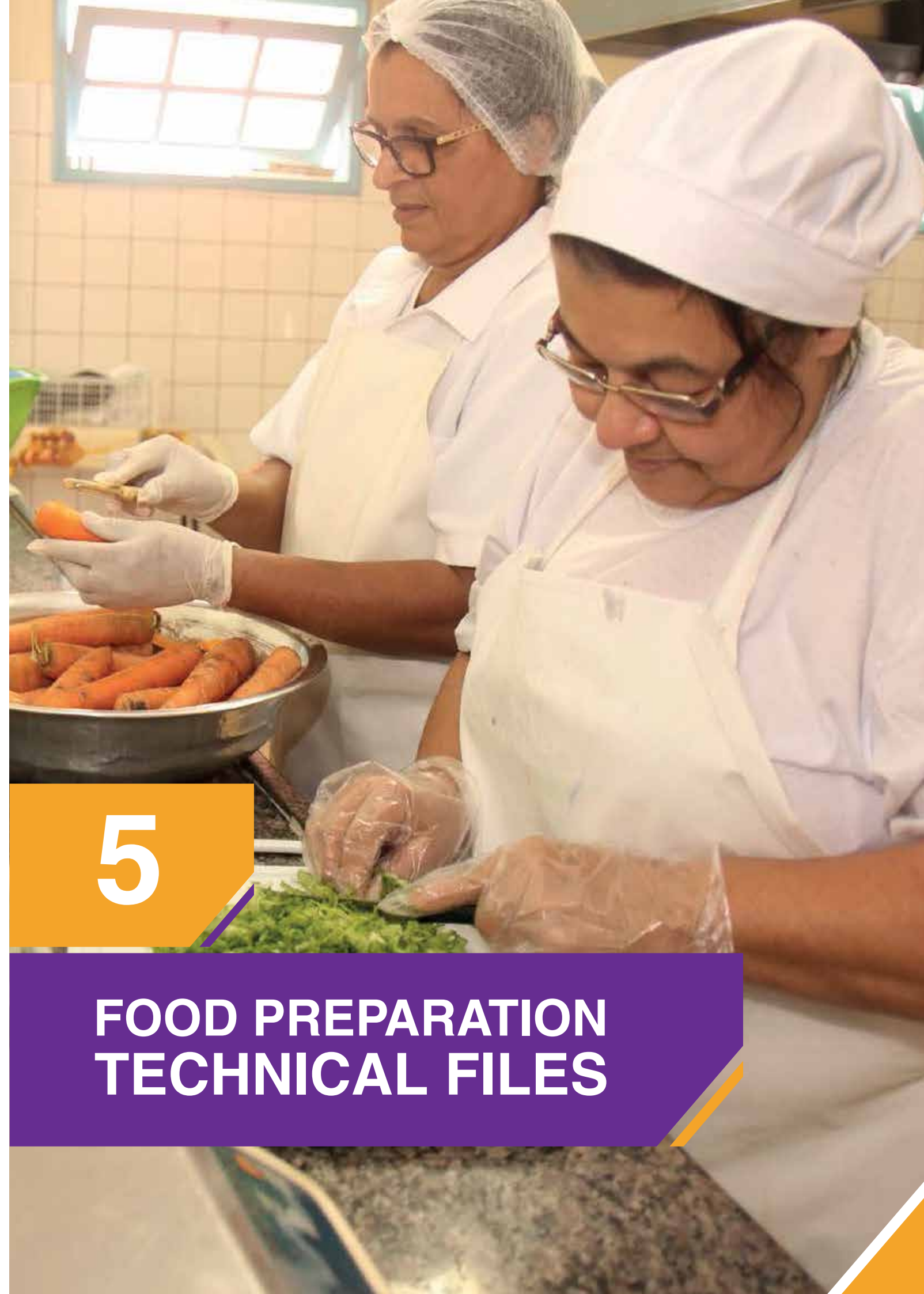
*Read the technical note no. 01/2014 Restriction on the offer of sweets and sweet preparations in school feeding.

Having a nutritionist who works in the scope of the PNAE is one of the guarantees that the quality of school feeding will be maintained, especially as the programme does not only cover students' nutritional needs, but also contributes to improving people's health by providing knowledge on healthy feeding habits.

Hoping to standardise models of school feeding menus, we hereby propose one (as you can see below) with the minimally required information that may be adopted and adapted according to each location's reality. This model is also available on this Guide's Annex.

(State/Municipal) Secretariat of Education of (Municipality/State) NATIONAL SCHOOL FEEDING PROGRAMME – PNAE												
MENU STAGE/MODALITY OF EDUCATION (AGE GROUP)												
Month/Year												
	MONDAY Day/month	TUESDAY Day/month	WEDNESDAY Day/month	THURSDAY Day/month	FRIDAY Day/month							
Meal Time												
Nutritional composition (weekly average)	Energy (cal)	CHO (g)	PTN (g)	LDP (g)	Fibres (g)	Vit. A (mcg)	Vit. C (mg)	Ca (mg)	Fe (mg)	Mg (mg)	Zn (mg)	Na (mg)

Nutritionist's name, Regional Council of Nutritionists (CRN) number and signature



5

**FOOD PREPARATION
TECHNICAL FILES**



5

FOOD PREPARATION TECHNICAL FILES

Elaborate food preparation technical files that compose the menu;

Nutritionists' mandatory assignments in the scope of the School Feeding Programme, according to article 3 of Resolution no. 465, of August 23rd, 2010, of the Federal Council of Nutritionists.

According to chapter 2, the planning of a menu intends to technically program meals that respect some prerequisites, such as: feeding habits, students' nutritional characteristics, and sanitary conditions. They must also be adequate to supply markets and the production capacity of a Food and Nutrition Unit – UAN. Also, in order to properly carry out this planning, we recommend you use a Food Preparation Technical File (FTP).

An FTP is an operational support managing tool through which a process of costing, distributing preparation and calculating nutritional value is carried out.

It should state how long a preparation takes, including pre-preparation stages and the preparation itself, correction and cooking factors, the preparation's chemical composition in macro and micronutrients, food output, and the number of portions (portioning).

So... What is a technical file for?

- Calculating the menu's nutritional value
- Ordering purchases, deliveries and preparation
- Standardising preparations
- Costing process

Which items must be present?

- Ingredients
- Preparation method
- Nutritional value
- Quantities
- Food output
- Quantity per capita
- Culinary and dietary techniques (preparation methods)
- Direct and indirect cost
- Nutrients calculation

In addition, FTPs have other advantages. They allow the nutritionist to have financial control and to determine a preparation's nutritional composition. As they indirectly point out a preparation's complexity, they allow you to evaluate whether there is enough time for it to be done.

Also, FTPs are tools to control different types of menus and their calculations, in which all ingredients and equipment to be used are specified. All preparation steps and times of procedure are detailed, as well as the order and amount of foodstuffs and preparation techniques for each of them.

A precise description of needed equipment facilitates the planning of a menu, allowing preparations to be properly done with available time, equipment, and professionals.

Defining a preparation's correction factors enables planning and creation of a purchase list and effective random acquisitions that result in higher prices. Correction factors are also important ways to assess if there is a need to train employees and control waste.

Correction factor

It adjusts alterations of weight and volume once foods have been cooked.

Gross per capita

It corresponds to the raw food, still with trimmings, peels, seeds, etc.

Net per capita

It corresponds to the already washed food.

Per capita

It is the necessary amount of food to prepare a meal for one person

When food preparation technical files are elaborated properly, they provide clear instructions and information that will guide how products, equipment and utensils will be used, allowing a more rational use for the production team, step by step.

We suggest the use of a standard model of FTP, with minimum and necessary items you can use in your planning. Feel free to adapt it according to your needs. This model is also available on this Guide's Annex.

**(State/Municipal) Secretariat of Education of (Municipality/State)
NATIONAL SCHOOL FEEDING PROGRAMME – PNAE**

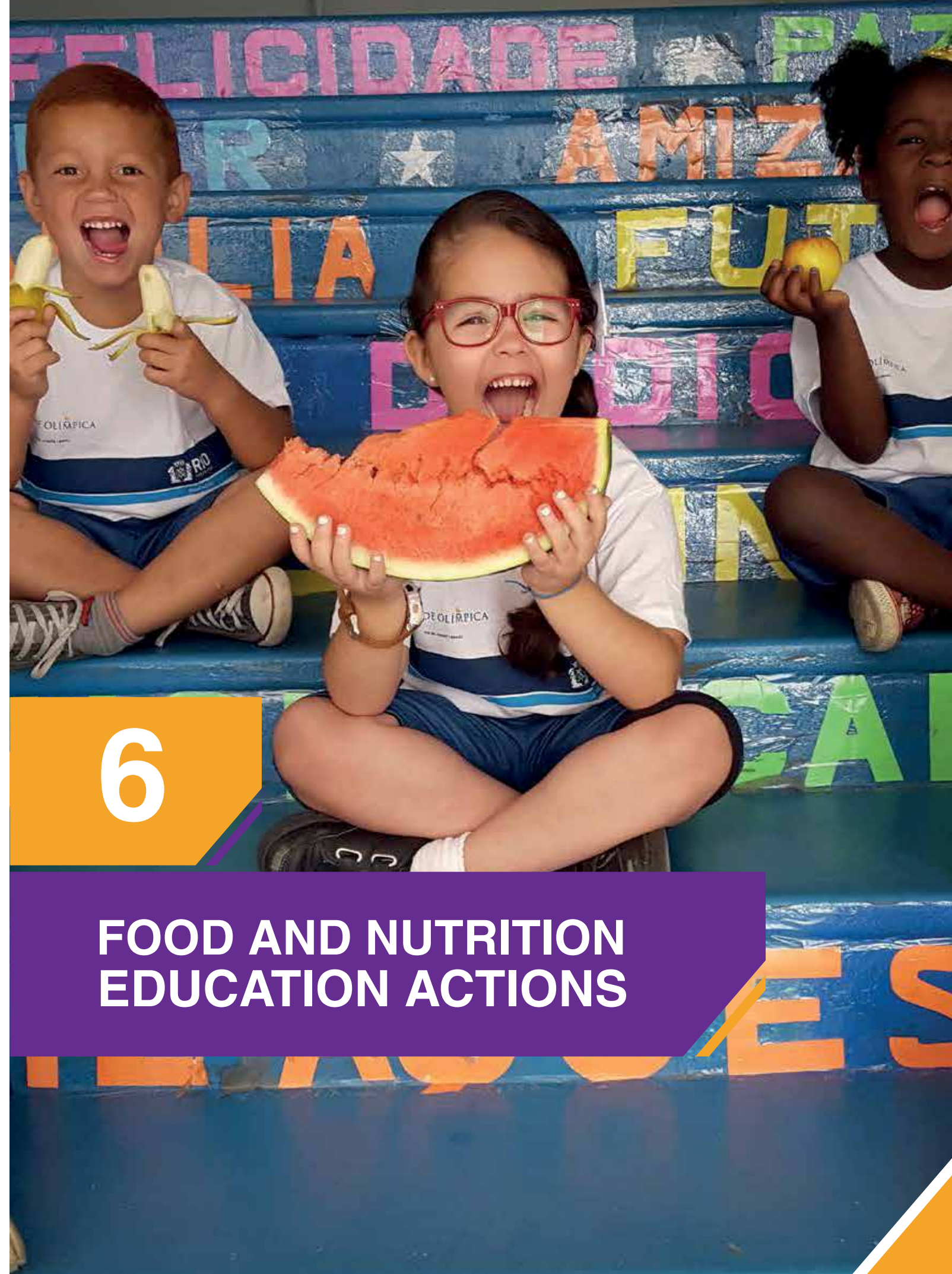
FOOD PREPARATION TECHNICAL FILE – MENU PRIMARY SCHOOL (6-10 YEAR OLDS)

PREPARATION NAME: white rice					NUTRITIONAL COMPOSITION											
Ingredients	B (g)P	L (g)F	CU	nit Cost	Cal	CHO (g)	PTN (g)	LPD (g)	Fibres (g)	Vit. A (mcg)	Vit. C (mg)	Ca (mg)	Fe (mg)	Mg (mg)	Zn (mg)	Na (mg)
White rice	25	25	10	,06												
Soy oil	11		10	,003												
Garlic	1,08	11	,080	,01												
Salt	11		10	,002												
TOTAL				0,075												

PREPARATION METHOD: Wash the rice. Drain it and let it dry. Warm some oil in a pan and braise the garlic. Add the rice and braise it for a few minutes, mixing well. Add boiling water and salt. Cook in medium heat for approximately 20 minutes, or until the rice is dry and fluffy. Serve.

Nutritionist's name, CRN number and signature

Implementing FTPs benefits all categories involved in the production process. It facilitates the nutritionist's work, perfects employees' training and, most importantly, it improves students' health, as it allows a control of total energy value and provided nutrients.



6

FOOD AND NUTRITION EDUCATION ACTIONS



Propose and conduct food and nutrition education actions for the school community, both promoting environmental and ecological awareness and working alongside the school's pedagogical coordination to plan food and nutrition activities;

Nutritionists' mandatory assignments in the scope of the School Feeding Programme, according to article 3 of Resolution no. 465, of August 23rd, 2010, of the Federal Council of Nutritionists.

This chapter hopes to clarify Food and Nutrition Education (FNE) linked to the National School Feeding Programme (PNAE). In this sense, we hope to encourage the addition of this issue in the school curriculum, so it can guide nutritionists and be used as a tool of practical examples for educators.

Childhood obesity has been increasing worldwide, both in developed and developing countries, with serious repercussions on this population's health. For the first time in mankind's history, there are more overweight than malnourished people. Around 2.1 billion people are overweight, from which 670 million suffer from obesity. The total number already represents around 30% of the world population, and this percentage is likely to increase to half of the world's inhabitants by 2030.

Apart from the family, schools are means that interfere with students' food choices. It is at schools that students develop their skills and where the promotion of healthy feeding habits and lifestyles should be encouraged. It's clear schools are an environment that can promote proper feeding, inserting concepts of food and nutrition in different levels of education alongside the school curriculum.

Therefore, schools are privileged spaces to develop actions that improve students' health conditions and nutritional state, as it is a strategic sector for large-scale health education programmes, including food and nutrition education ones. These must be active, playful and interactive processes, which favour changes in attitude and feeding habits.

Some important political steps were taken to implement FNE at schools. In this sense, we can highlight goals and initiatives presented by the Federal Government's Pluriannual Plan 2016-2019, which has the commitment to support, in 100,000 basic education schools, actions regarding human rights, environmental education, food and nutrition education, ethnic and race relations, and the promotion of inclusion and culture through the connection of systems and education networks.

Another important step forward for Food and Nutrition Education is the inclusion of the 2015 Brazilian School Book Programme (PNLD) to be distributed in 2018. It will select materials of the entire curriculum to be incorporated in the text, Annex 3, of Principles and Criteria to assess secondary school students' on the following item (e)

e) elaborations of proposals that intervene in reality, based on knowledge developed at schools and the respect to human values, considering sociocultural diversity. For example, thematic proposals and activities that value the care towards healthy feeding and the debate of quality of life and health in the context of the National School Feeding Programme – PNAE.

Educating in the scope of food and nutrition is building permanent and continuous processes in order to optimise production, distribution, selection and consumption of goods in a proper, healthy and safe way.

In addition, as a food and nutrition education guideline, we highlight the valorisation of individuals' habits and cultural traditions from their social group, as well as the awareness on food waste.

A habit is an act, use and routine, or a reaction pattern acquired by an activity's frequent repetition (learning). This habit should be related to the availability of varied foods in a comfortable, pleasant environment, associated with a correct feeding socialisation that greatly depends on food culture habits of the group students belong to, so they can develop their eating preferences.

Therefore, we realise students establish their eating preferences as a result of not only the contact with foods, but also of how this contact takes place (way it is offered, sensations and feelings connected to the moment of the meal). In this sense, the goal of Food and Nutrition Education is to provide students with experiences, information and knowledge that grant them enough conditions to choose healthier, more conscientious food consumption, always preserving their individuality and autonomy when making such choices. Activities that contribute to rescuing regional eating habits, stimulating in natura food consumption, developing the pleasure of feeding, among others, are the ones that can help achieving this goal.

Through Food and Nutrition Education, it is possible to plan actions that involve communication, nutrition education and, as a result, awareness of healthier habits in the entire school community.

In this environment, the educator must be an enabler, a person who has conditions to use many teaching strategies, thus contributing to students' feeding improvement. It is up to nutritionists, then, to share knowledge and abilities on healthy feeding, seeking to incorporate them to pedagogical practices. This knowledge must be built transversally in the school environment, ensuring these actions are supported inside and outside the classroom.

We highlight the school community is made of parents, directors, coordinators, students, educators, lunch ladies, feeding councillors, nutritionists and other employees, including education's child protective services, children's rights, NGOs and universities. In face of such diversity, a well-informed community may actively guide students' healthy eating practices in partnership with many public policies that encourage and strengthen the need to implement and carry out these actions at schools.

Providing these skills at schools stimulates and increases knowledge on how to eat in a healthy way. Therefore, information promotes knowledge on food and nutrition (demystifying some taboos and beliefs), while making it clear how important FNE is for school curriculums.

In the scope of Education, the FNE must comply with PNAE's principles and guidelines. Eating practices are acquired throughout life, and schools play an influential role with children and teenagers. It is a teaching-learning interaction centre, in which the entire school community must be involved to integrate strategies and programmes that promote healthy feeding, ensuring quality meals and food offer at school environments.

In the scope of Executing Entities, nutritionists act as partners and promoters of FNE actions. They interact with representatives of Education Coordinations, servers responsible for the school feeding in their region, school directors, teachers, lunch ladies, and councillors, thus ensuring food and nutrition themes are not only dealt with in a transversal and transdisciplinary manner, but also through a permanent process, capable of generating active autonomy and participation.

Within the school system, educators play an important role in FNE, given that they lead students to feeding practices and provide subsidies for healthy eating choices to promote health and Food and Nutrition Security (FNS). Nutritionists, PNAE's responsible technicians, contribute to strengthen and disseminate actions and ideas about FNE at schools by interacting with the school team.

Through FNE, we hope to help choose foods that attend to individual, biological, affective and sociocultural aspects, utilise the environment in a sustainable way, and awaken political and economic awareness. In this sense, we reinstate the importance of FNE as a mediator to provide knowledge, and to raise awareness and motivation to change feeding into a healthy practice, one that involves all principles of FNS and feeding dimensions. Therefore, we hope to go beyond this topic's segmented nature and integrate it as a way to answer to people and society's food and nutrition issues.

One important assignment of nutritionists towards the school community and the pedagogical team is by means of the Political-Pedagogical Project (PPP), which aims to organise the school's pedagogical work through democratic decisions. The PPP is a tool built by the school community in whose elaboration process nutritionists can participate by having meetings with teachers and the school community, and calling attention to the topic and how important it is. The PPP is political due to its commitments to shape citizens for society, and it is pedagogical when it defines educational actions and necessary characteristics, so schools can fulfil their goals and intentions.

Adding FNE to the PPP is not only possible, but also necessary. Implementing this proposal at schools requires a collective effort to build information on food and nutrition. This is a product of collaborative pedagogical planning, which recognises schools, students and the school community's uniqueness. As nutritionists are an essential part of this process, themes that promote health, healthy feeding and food security may be contemplated at schools.

Nutritionists should also be aware of the Brazilian School Curriculum Standards (PCNs), which are a national reference of content and goals for the teaching and learning of each subject. As such, the PCNs have a complete curriculum structure. They are open and flexible to adapt to many secretariats' curriculum and to different contexts around the country.

Apart from mandatory subjects (Portuguese, Math, History, Geography, Natural Sciences, Art, Physical Education and Foreign Language for Primary School), the PCNs also cover "transversal themes". Although these are not part of specific subjects, their contents are addressed in traditional ones, transversally. These intersecting themes assume their integration in mandatory subjects of basic education schools.

Therefore, FNE can be transversally implemented in subjects, as a way to press students' autonomy to act as protagonists of their own healthy eating practices. This is the moment nutritionists and teachers can develop many activities that are linked to the FNE's theme, such as: the importance of school feeding and its nutritional values; explaining the nutritional value of each fruit by making a fruit salad with students; using school gardens and explaining their importance for the environment and sustainability; visiting supermarkets and fairs; clarifying notions of food hygiene, among others. Schools can also organise campaigns, seminars, and artistic assignments, mobilising many classes, sharing information, or using educational materials produced by the PNAE and health services. For this reason, educators and nutritionists have a leading role in implementing FNE, given that they are mentors in the pedagogical practice and PNAE coordination, respectively.

In face of this setting, schools are a great environment for FNE, as it provides students with a sense of community and autonomy regarding feeding. In this way, schools must be multidisciplinary institutions, and will be constituted as so from the moment its professionals are capable of sharing knowledge and exploring ways to apply it to daily life.

The National Fund for the Development of Education (FNDE), by means of the Brazilian School Book Curriculum (PNLD), distributed on the cover of school books, in 2016, messages about healthy feeding as a way to divulge FNE in the entire country. The goal behind it was to encourage students to develop healthy habits through pedagogical discussions with teachers in the classroom.

The "10 steps to a proper, healthy feeding" on school books is a great challenge for nutritionists' professional practice as a means to strengthen and circulate actions and ideas about FNE at schools. Nutritionists, in the role of PNAE's responsible technicians, must build a dialogue with schools and propose knowledge of food and nutrition education from a collaborative view of the entire school. This can be done to consume proper food, capable of preventing diseases; as an activity to build healthier eating habits, and as a pedagogical practice focused on students' feeding realities.

Moving forward with Food and Nutrition Education actions in the school environment, the FNDE published, in 2017, the new school book covers for High School, which were distributed in 2018. The covers were elaborated through a partnership between the Ministry of Health and the Movement "Comer pra Que?", through which each curriculum component was linked to a guiding theme, to reflect, incite dialogues and intertwine ideas, engaging youth, educators and the entire school community. The goal behind these actions is to incorporate food and nutrition topics within the school context, emphasizing healthy feeding and the promotion of health. Also, it recognises schools as suitable spaces to form healthy habits and build a sense of community, given that school environments can and must have a pedagogical function, added to the school curriculum.



7

ACCEPTABILITY
TEST



Plan, coordinate and supervise acceptability tests when new foods are introduced in the menu, any innovative changes in meal preparations are carried out, or to assess frequent menu's acceptability.

Nutritionists' mandatory assignments in the scope of the School Feeding Programme, according to article 3 of Resolution no. 465, of August 23rd, 2010, of the Federal Council of Nutritionists.

Acceptability tests are a set of scientifically-recognised methodological procedures that measure how much the food offered to students is accepted. They are part of a sensorial analysis that assesses, analyses and interprets reactions derived from food characteristics and materials, and how these attributes are perceived by our senses of vision, smell, taste, touch and hearing.

Nutritionists must plan, coordinate and supervise acceptability tests when new foods are introduced in the menu, any innovative changes in meal preparations are carried out, or to assess frequent menu's acceptability. In face of the importance acceptability tests hold, both to students' development and the analysis of correct use of resources transferred from the FNDE, it is important to provide information on acceptability studies that aim to understand nutritionists and their work.

ACCEPTABILITY TESTS

Application of an acceptability test

Resolution CD/FNDE no. 26/2013

Introduction
of new
foods

Innovative
changes

Assess
acceptability
of frequent
menus

Exception: 3-year-old students or younger (day-care)

Exempt from fruits and vegetables or meals that are mostly based on fruits and/or vegetables

Acceptability tests are part of a sensorial analysis that assesses, analyses and interprets reactions derived from food characteristics and materials, and how these attributes are perceived by our senses of vision, smell, taste, touch and hearing.

The FNDE recommends using two methodologies when applying acceptability tests: waste-ingestion and hedonic scale (facial, mixed, verbal and group activity). These will be further addressed in this Guide.

It is important to notice that for each of these methods, there is a different minimum rate of acceptability. Therefore, when applying the waste-ingestion method, the minimally-required acceptability rate must be of 90%. However, with the hedonic scale, the acceptability rate must be of at least 85%.

USED METHODS



This method is based on obtaining the weight from the rejected meal and the distributed meal. By distributed meal we have the subtraction between the total weight of the preparation and the leftovers that were not served to students.

The values obtained by weighing rejected and distributed meals are put in the formulas below, in order to achieve the rejection percentage, which will be used to calculate the ACCEPTANCE PERCENTAGE (ACCEPTABILITY RATE):

$$\text{PERCENTAGE OF REJECTION} = (\text{weight of rejected meal} \times 100) / \text{weight of distributed meal}$$

$$\text{PERCENTAGE OF ACCEPTANCE} = 100 - \text{PERCENTAGE OF REJECTION} = \text{acceptance \%}$$

Executing Entities must have the following materials to conduct waste-ingestion methods: scale, plastic bags to collect waste, and office supplies to register weight among other required data. Two applicators must work on the test so it can have a better performance.

How to proceed:

- a) Obtain the weight of distributed meal
 - * Weigh the meal that will be offered to students who will participate in the test, and make notes of the values;
 - * Oversee the portioning;
 - * After the meals are distributed, weigh what is left in the recipients (leftovers) and make notes.
- b) Obtain the weight of rejected meal
 - Apart from following the steps on item A, you must also:
 - *dispose waste in a bin with a plastic bag when plates are being returned. By the end of distribution, weigh students' waste and make notes;
 - *Place other waste, such as fruit peels (watermelon, melon, papaya) and bones in another bin. By the end of distribution, weigh the non-edible parts. Remember that the edible part (meat and skin) must be removed from bones and placed alongside students' food waste. Don't forget to factor out the weight of the bones from the weight of the offered meal (ready meal).

Observation: other waste, such as plastic cups and napkins, must be placed in another bin, as they do not need to be weighed.

1.2 Hedonic scale

Students will fill in one of the charts (figures below) to indicate in a scale how satisfied they are with the meals served at the school. To calculate the acceptability rate, the percentage of positive answers about the preparation will be added contemplating elements of "I like it (4)" and "I love it (5)". Executing Entities must have the following materials to conduct the hedonic scale method: printed and cut hedonic scale charts, scale and office supplies to register any required data.

How to proceed:

- *Hand in hedonic scale charts (suitable to students' grades), which should be answered inside the classroom;
- *Explain how these files must be filled out;
- *Ask students to write the name of the meal in the chart, or require a nutritionist to do so;
- *Provide a judgement-free environment, where students won't talk among themselves;
- *Collect charts once they are filled out.

Models of charts that can be used:

SCHOOL FEEDING ACCEPTABILITY TEST

Name: _____ Grade: ____ Date: _____

Check the face that most represents what you think of the _____



Figure 1: Model of chart of a facial hedonic scale

SCHOOL FEEDING ACCEPTABILITY TEST

Name: _____ Grade: ____ Date: _____

Check the face that most represents what you think of the _____

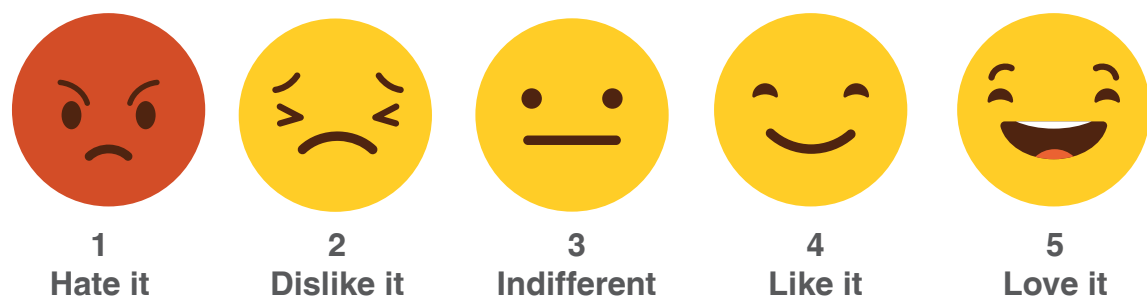


Figure 2: Model of chart of a mixed facial hedonic scale

SCHOOL FEEDING ACCEPTANCE TEST

Name: _____ Grade: ____ Date: _____

Check the one that most represents what you think of the _____

- () 5 – Love it
- () 4 – Like it
- () 3 - Indifferent
- () 2 – Dislike it
- () 1 – Hate it

Write what you liked the most about the preparation: _____

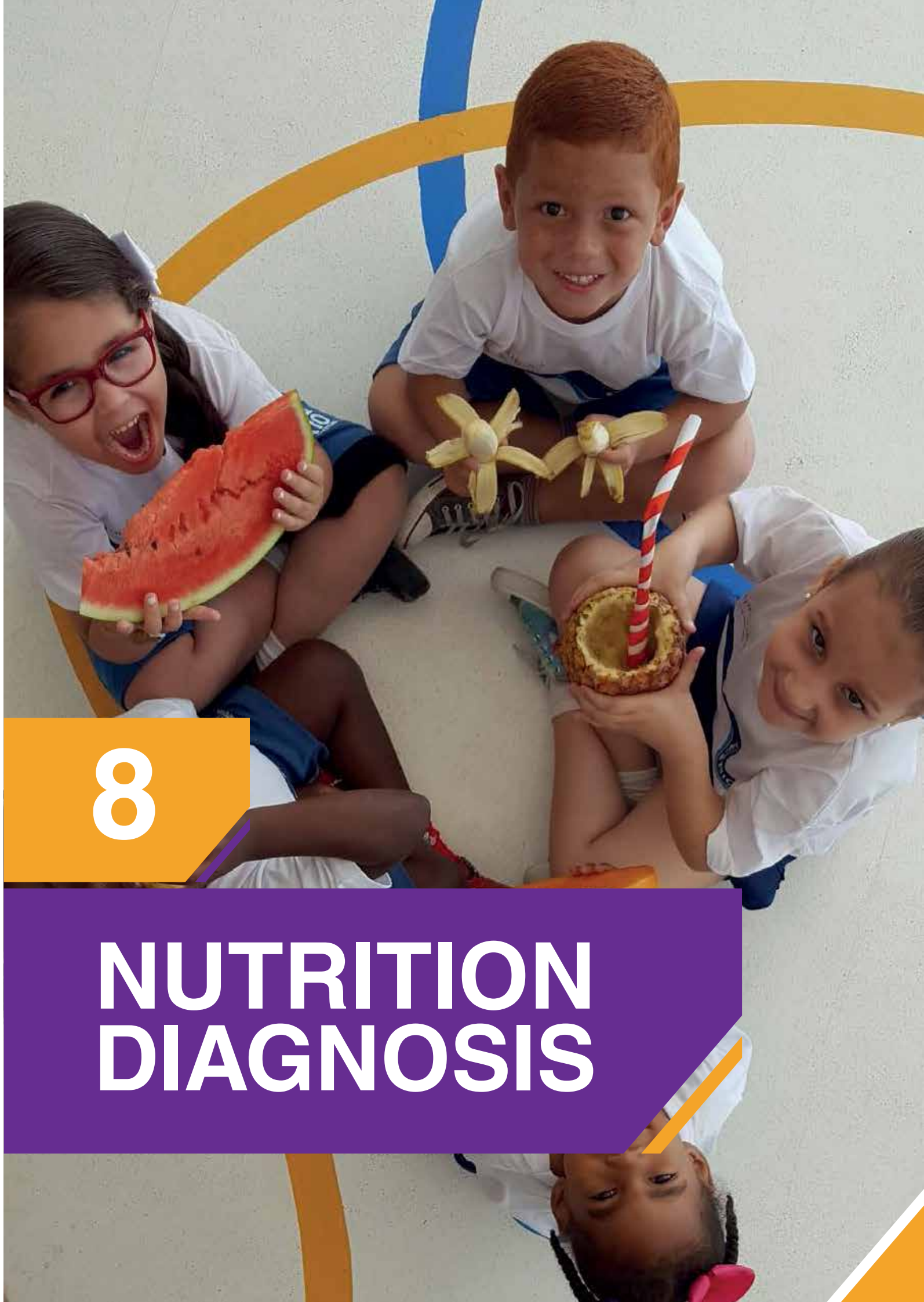
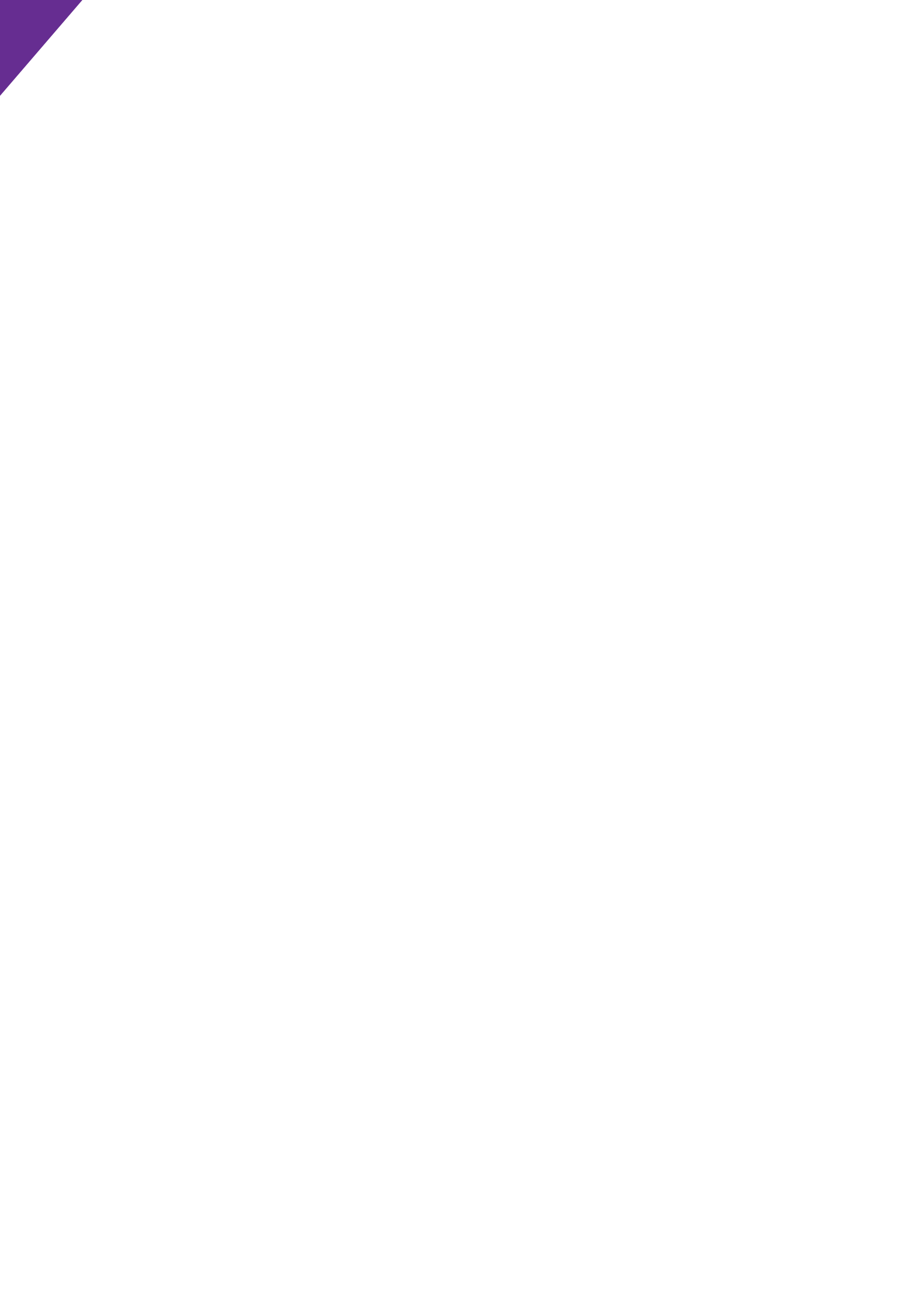
Write what you liked the least about the preparation: _____

Observation: Another valid option to assess acceptability is through playful hedonic scales (activity charts). These are done with “emojis” present in the charts above, but in an individual way. The system is similar to a vote, in which children show their opinion by selecting a card (emoji) and placing it inside a ballot-box. To calculate the acceptability rate, the cards will be collected, and the percentage of answers given with “emojis” “Like it (4)” and “Love it (5)” will be considered.

The content of this chapter was taken from the Manual for the application of acceptability tests in the National School Feeding Programme – PNAE, which was elaborated by the Centre of Collaboration for School Feeding and Nutrition of the Federal University of São Paulo and University of Brasília, and evaluated by

school feeding nutritionists. It is extremely important to read this manual thoroughly, as it presents in a simple, instructional way, how to apply acceptability tests in order to achieve their main goal: students’ satisfaction when eating. This manual is available (in Portuguese) at www.fnnde.gov.br >> Programas >> PNAE >> Área para gestores >> Manuais/Cartilhas.

By the time this Guide was being elaborated, the valid Resolution was FNDE/CD no. 38/2009. Currently, the legislation that addresses school feeding to basic education students is Resolution FNDE/CD no. 26, of June 17th, 2013. However, the content of this guide remains updated, and it must be used when applying acceptability tests as a reference validated by the FNDE.



8

NUTRITION DIAGNOSIS



Diagnose and keep track of students' nutritional state (basic education: kindergarten – preschools and day-cares -, primary school, secondary school, adult education) by calculating parameters based on nutritional evaluations according to guidelines specified by the FNDE;

Nutritionists' mandatory assignments in the scope of the School Feeding Programme, according to article 3 of Resolution no. 465, of August 23rd, 2010, of the Federal Council of Nutritionists.

Monitoring people's nutritional state is important for all age groups. It consists of central health actions taken throughout childhood and youth. During these stages of life, nutrition diagnosis is highly important; it issues from keeping track of people's growth process, paying attention to early signs of possible health issues and risk of morbimortality, especially due to the growing incidence of overweight/obesity in Brazil and worldwide.

Until recently, indicators of weight/height and height/age were adopted to evaluate Brazilian children's nutritional state according to the World Health Organization (WHO) recommendations. For the last decades, different criteria to deal with this evaluation emerged. Based on national studies, they would propose the Body Mass Index (BMI) as an indicator through different methodologies and populations, with the distinction of nutritional evaluations per age groups, according to the Ministry of Health's regulations.

The increase of obesity is associated with social, economic, environmental and genetic aspects. It is also linked to a complex network of factors related to ways of living, such as inappropriate eating habits and sedentarism. Young adults are under risk of obesity due to excessive weight gain during the transition of childhood or adolescence to adulthood. The most critical stages to develop obesity are in the early childhood and adolescence.

On individual or biological terms, a nutritional status is the result of balance between the consumption of nutrients and the body's energy expenditure to supply nutritional needs. Nutritional status may have three types of organic manifestation:

- Nutritional Adequacy (Eutrophy): indication of balance between consumption and nutritional needs.
- Nutritional Deficiency: indications of deficiency regarding quantity and/or quality of nutrients and nutritional needs.
- Nutritional Disorder: indications derived from the excessive and/or unbalanced consumption of nutrients regarding nutritional needs.

To observe nutritional status, the anthropometric method is recommended. Anthropometry is a nutrition investigation method based on the measurement of physical variations and the global body composition. It can be applied throughout all cycles of life, and it allows individuals and groups to be classified according to their nutritional status.

This method has the benefit of being cheap, simple, easy to apply and standardise, as well as of little invasiveness. Furthermore, it enables individual diagnoses to be grouped and analysed so as to provide a collective diagnosis, allowing the nutritional profile of a certain group to be known.

Apart from being universally accepted, Anthropometry is the best parameter to assess population groups' nutritional states.

The anthropometric method enables the evaluation of weight, height and other measurements of the human body. It represents a resource of great importance to assess people's nutritional state, and it also offers data to keep track of children's growth and development.

When obesity is manifested during childhood, the risk of becoming an obese adult is higher. From 6 years of age, approximately one in every two obese children becomes an obese adult, while only one in every ten non-obese children reaches the same state when they become adults.

Childhood obesity, diagnosed based on slow child growth, is one of the biggest public health issues faced by developing countries. It is associated with a higher risk of infectious diseases, premature mortality, compromised psychomotor development, poor school performance and less productive capacity in adulthood.

This scenario shows how fundamental it is to keep track of people's nutritional state in a constant, systematic manner, aiming to obtain reliable data and to enable the planning and development of policies focused on improving people's epidemiologic and health profiles in order to search for better intervention possibilities. In the same way, the monitoring of health conditions allows main needs to be identified and action plans, with clear goals and targets, to be elaborated.

One alternative for nutritionists that work within the PNAE to conduct nutritional diagnoses at schools is partnerships with Nutrition universities and faculties, physical education teachers, as well as team work with the local Secretariat of Health by means of the School Health Programme (PSE).

The School Health Programme (PSE), launched in 2007, is intersectorial between health and education. Given that it understands schools as essential places to promote health, the programme intends to contribute to students' education by providing actions that evaluate health conditions, promote quality of life, protect health and prevent diseases. These actions face vulnerabilities that compromise public school children, teenagers, youth and adults' full development.

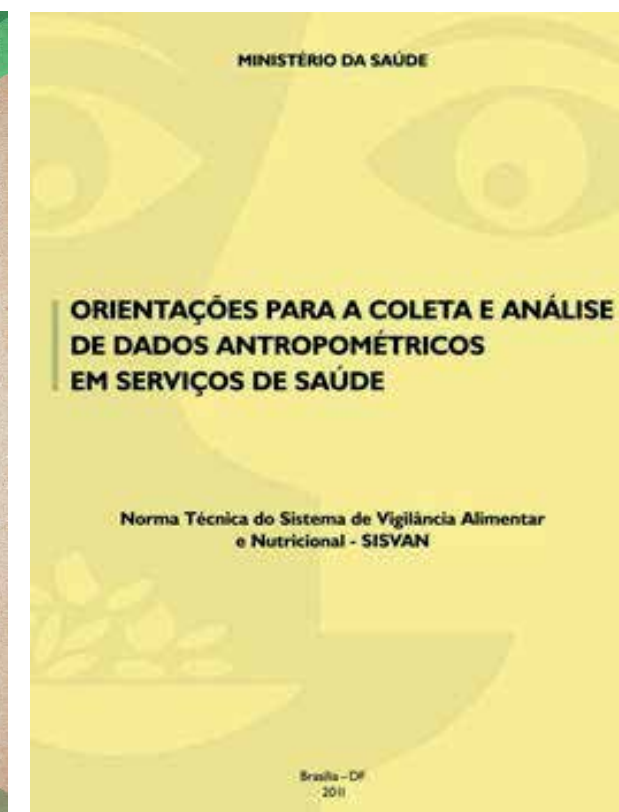
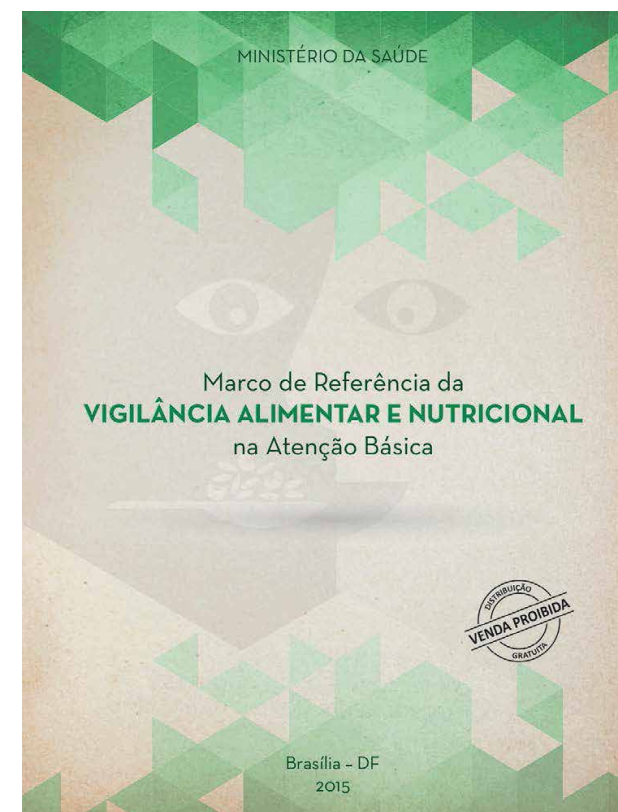
It is important that school feeding nutritionists work alongside the entire team of the PSE, as well as other health teams, to promote knowledge on healthy feeding and nutrition at schools. If possible, it is important that nutritionists participate in the Municipal Intersectorial Work Group (GTI-M), which is responsible for many actions of the PSE.

When actions are developed at schools, students have an easier access to knowledge, especially when most of them do not seek care at health care units frequently. This allows themes related to the promotion of health, selfcare and prevention of diseases to be part of their daily life, by means of the inclusion of these topics at the schools' political-pedagogical project.

Food and Nutrition Surveillance (VAN) actions are part of the essential activities that must be conducted by teams of Basic Attention alongside education professionals. Students' anthropometric evaluation allows early identification of individuals who present alterations on their nutritional status and who would probably seek help from health care services only if they had complications. Early identification enables these people to be taken care of by basic units of health, as well as the organisation of necessary care for every case.

Students' Food and Nutrition Surveillance also allows health and education teams to conduct collective evaluations of nutritional status and to identify preferences and tendencies that will support the planning of health promotion and proper, healthy feeding actions, as well as the inclusion of this theme in the political-pedagogical project.

Finally, we suggest the reading of the "Reference Guide on Food and Nutrition Surveillance – 2015", as a guideline of actions and strategies for students' nutritional diagnosis. We also recommend the "Guidelines to collect and analyse anthropometric data in health services: technical standards of the food and nutrition surveillance system – SISVAN". This publication intends to divulge basic information on anthropometry, aiming to collect necessary information to conduct Nutritional Surveillance between individuals of different stages throughout life.





9

SPECIAL DIETARY NEEDS



Encourage the identification of individuals that have special dietary needs, so they can receive proper care from the National School Feeding Programme;

Nutritionists' mandatory assignments in the scope of the School Feeding Programme, according to article 3 of Resolution no. 465, of August 23rd, 2010, of the Federal Council of Nutritionists.

In the scope of school feeding, one of the principles that guide the PNAE is equality, to promote fair treatment to healthy students and differentiated treatment to those who have special dietary needs (SDN), such as celiac and diabetic students, who must receive meals that are suitable to their conditions through menus elaborated by nutritionists. This decision is an important process to highlight the SDNs in a public policy's context.

Concerning students' experiences in dealing with special dietary needs, institutions that support and assist in this issue have taken a stand, stating that food restrictions without the right to proper food is a social exclusion factor.

Recent developments of legal marks and public policy resolutions that reinstate the importance of nutritionists in the promotion of health at schools have tried to highlight this professional's work by taking food and nutrition education actions for the school community.

Law no. 12,982, of May 28th, 2014, was the most recent progress regarding development and operation of PNAE activities, which are related to the provision of school feeding in order to attend students' special dietary needs. It altered Law no. 11,947, of June 16th, 2009, to determine that students who have specific health conditions must be provided with suitable school feeding.

Law no. 12,982 – May 28th, 2014

Law no. 12, 982/2014: It establishes proper school feeding must be provided to students who show a specific status or health condition.

Students who require personalised nutrition attention due to specific status or health conditions:

- will be provided with a special menu based on medical and nutritional recommendations
- will be evaluated and attended by differentiated nutritional care.

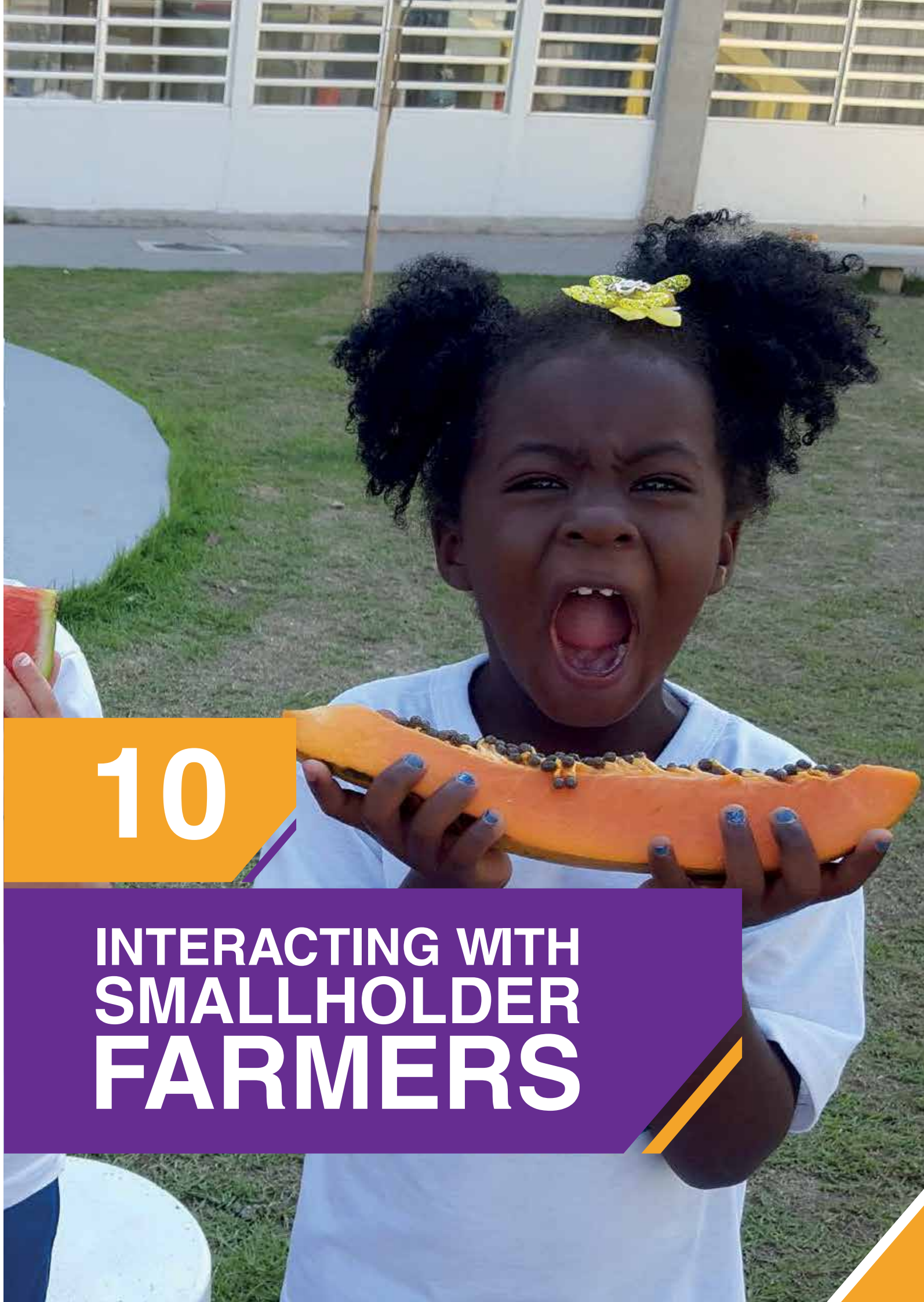
The “Reference Guide on School Feeding for Students with Special Dietary Needs” was published to help all those involved with the PNAE and the General Coordination of the School Feeding Programme (CGPAE).

The Reference Guide in question provides guidelines on how to treat students with special dietary needs without normalising it. Its content can support technical and managerial decisions that ultimately depend on nutritionists and managers, respectively. Its goal is to support Executing Entities (EEx.: municipalities, states, Federal District and technical schools) and nutritionists when attending to a demand of students with special dietary needs.

This is a necessary service, even if changes to the menu are required eventually. It's important to know equality is about dealing with differences in a way that everyone is taken care of eventually, that is, ensuring everyone has access to school feeding according to PNAE recommendations is more important than ensuring everyone receives the same meal.

The presented guidelines were established from the experience of many municipalities, states and the Federal District, as well as scientific papers and the government. However, this manual does not seek to strictly state how this service should be done. Brazil's reality is far too diverse, not only because of its dimensions and sociocultural aspects, but also because of different models of management that municipal, state or federal schools' Executing Entities require, for example.

To access this material, go to the website <http://www.fnde.gov.br>
>>Programas>>PNAE>>Áreaparağestores>>Manuais/Cartilhas. Download the “Reference Guide on School Feeding for Students with Special Dietary Needs”.



10

**INTERACTING WITH
SMALLHOLDER
FARMERS**



Interact with smallholder farmers and their organisations to know local production and insert their goods into school feeding;

Nutritionists' mandatory assignments in the scope of the School Feeding Programme, according to article 3 of Resolution no. 465, of August 23rd, 2010, of the Federal Council of Nutritionists.

One of the big advances of the School Feeding Law lies on its ability to boost sustainable development through the encouragement of purchasing local and regional foodstuffs and the mandatory direct acquisition of Smallholder Farming (SF) goods. According to this law, at least 30% of revenue transferred from the FNDE each year must be spent purchasing goods from smallholder farming and their organisations, prioritising land reform settlements and traditional indigenous and Quilombola communities.

Consequently, apart from incentives that develop smallholder farming, value culture and encourage participation of locals, Law no. 11,947/2009 aims to ensure public school students' food and nutrition security by means of a proper feeding, in which each region's cultural and eating habits are respected.

Therefore, according to Resolution CFN no. 465/2010, school feeding nutritionists must interact with smallholder farmers and their organisations to know local production and insert these foods into school feeding.

Nutritionists are key actors to fully execute the programme, as they hold the challenge of being active social actors in the sustainable development process by means of encouraging smallholder farming and promoting FNS.

In this way, it's important nutritionists include foods that reflect on smallholder farming promotion policy, which goes beyond the mandatory use of at least 30% purchase with PNAE resources. They need to know the region's agricultural vocation, propose

a menu with healthy foods, commit themselves to purchasing less processed goods, increase the amount of in natura products, such as fruits and vegetables, considering sustainability and the region's agricultural diversification.

The concept of sustainability on food and nutrition spheres is undergoing construction and is one of nutritionists' greatest challenges when elaborating school feeding menus. Its regulation defines incorporating in natura goods, both diversified and seasonal, respecting local food preferences, habits and traditions and not restricting to standardised specifications on foods' sensorial aspects in the purchase process.

Therefore, the Secretariat of Education and nutritionists must gather with representative organisations of local smallholder farming to identify available diversity and the number of foodstuffs that will be used in the school feeding menu. This is done to verify farmers and their organisation levels, logistics capacity, production benefits, and also to request the mapping of local smallholder farming, as a way to stimulate potential to diversify local production and attend to the school feeding demand.

The mapping must state, at least, a list of local products, amount of production and harvest time (agricultural census). In this way, holding the mapping of local agricultural production, nutritionists have real conditions of contemplating necessary amounts of local products when planning school menus, considering availability and distribution logistics. Therefore, the nutritionist has an important role in promoting local production's diversification, as it requires from smallholder farming products that are traditionally chosen for school menus and that are available in the region.

Choosing seasonal menus that consider the availability of regional foods with specific sanitary conditions and mapping ecological farmers are actions that can guide supply and demand.

School feeding nutritionists must know all stages of purchasing from smallholder farming, thus, we suggest reading the menu: “Acquisition of Smallholder Farming Products for School Feeding 2nd edition”, elaborated by COSAN/DIDAF of the National School Feeding Programme/FNDE.

To access this material, go to the website <http://www.fnde.gov.br> >> programas >> pnae >> áreasparagestores >> manuais/cartilhas and download the “Acquisition of Smallholder Farming Products for School Feeding – 2nd edition”.

There are many challenges to the purchase from smallholder farmers, as these depend on a previous knowledge of local production, its seasonability and how these farmers are organised. Only after such requirements are filled is it possible to elaborate a menu, a list of products and a public call, and it is essential nutritionists and smallholder farmers interact throughout the entire process of school feeding planning.

Nutritionists and Smallholder Farming
Interacting with smallholder farmers and their organisations

1 – Contacting and working alongside farmers

2 – Knowing the region’s agricultural diversity
Mapping of the production
Availability of organics

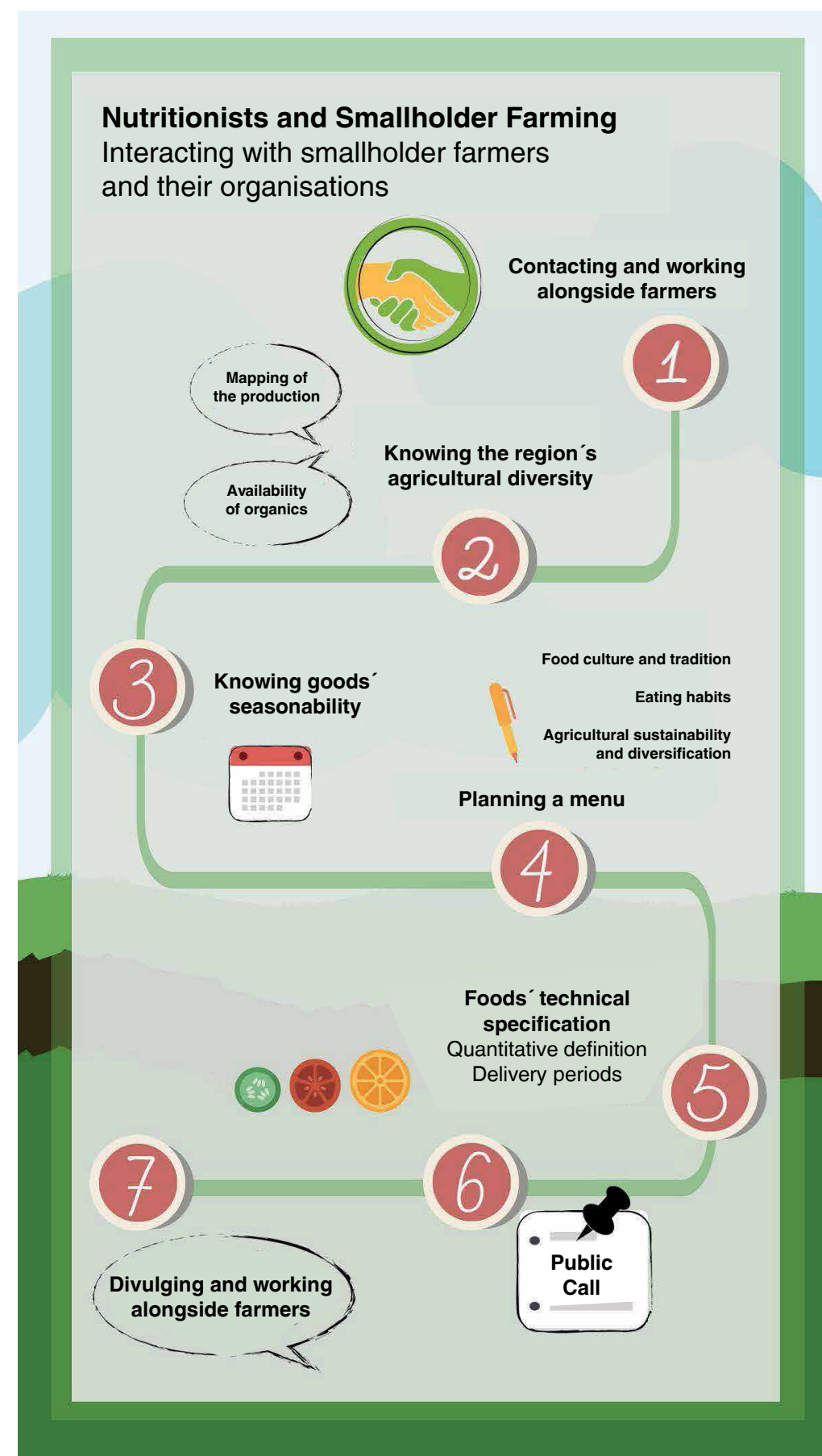
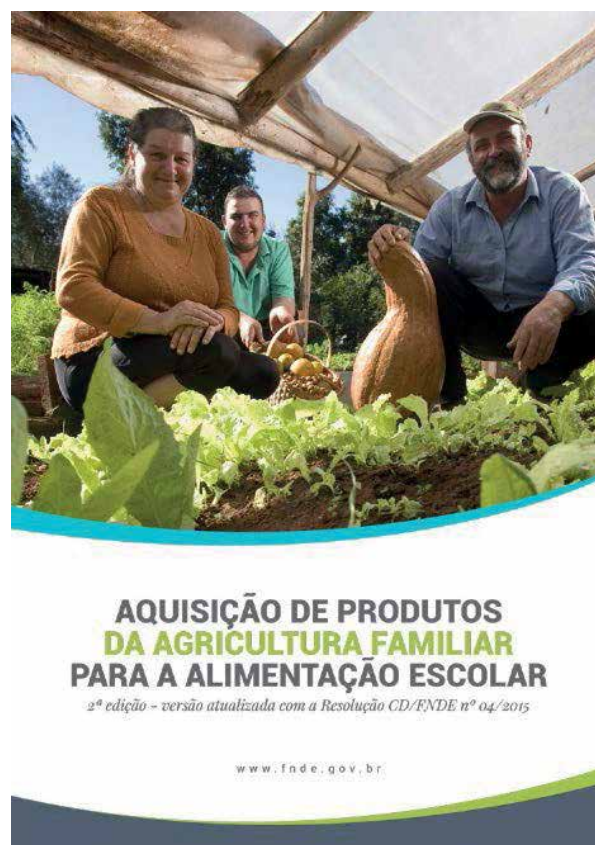
3 – Knowing goods’ seasonability
Food culture and tradition
Eating habits
Agricultural sustainability and diversification

4 – Planning a menu

5 – Foods’ technical specification
Quantitative definition
Delivery periods

6 – Public Call

7 – Divulging and working alongside farmers





11

**BIDDING PROCESS
AND PUBLIC CALL**



Take part in the bidding process and direct purchase of foodstuffs from smallholder farming regarding technical issues (specifications, quantities, among others);

Nutritionists' mandatory assignments in the scope of the School Feeding Programme, according to article 3 of Resolution no. 465, of August 23rd, 2010, of the Federal Council of Nutritionists.

Bidding

Before purchasing or hiring a service, individuals and private companies research what are the best prices, conditions, qualities of products and services, warranties, among others. The National School Feeding Programme has a similar attitude towards managing public resources and submitting its accounts to society. While this approach is optional for individuals and private companies, it is mandatory for public administration, as it must pay notice to certain Principles and Laws that rule conditions for purchasing or hiring services.

In all modalities, the bidding process has stages that must be thoroughly respected. Among them, one stage states that the product to be purchased or the service to be hired must be specified in great detail, which is a premise for the success of this process.

In the case of school feeding, the perfect specification of foodstuffs is essential for hiring good services, which requires the participation of technical responsible nutritionists and the technical board connected to the Executing Entities. Also, it is important to point out that the technical specification document must be stamped and signed by a professional in order to ensure this document's officiality.

Therefore, the FNDE has published the Technical Note no. 5007/2016 on "Foodstuffs Specification for the National School Feeding Programme – PNAE". This theme was influenced by nutritionists' reality and experiences when purchasing for school feeding.

One of the goals of this Technical Note was to highlight how important it is to correctly specify foodstuffs to be purchased for school feeding. This is extremely important for bidding processes and public calls, as they are one of the nutritionists' mandatory technical activities in the scope of the PNAE.

To read this Technical Note, go to the website <http://www.fnde.gov.br> >> programas >> pnae >> áreaparaestores >> notastécnicas to refer to and download the Technical Note "Foodstuffs Specification for the National School Feeding Programme – PNAE".

Public Call

Purchasing goods from Smallholder Farming may be done through a Public Call. In this case, a bidding process can be exempt as long as prices are compatible with the ones at local markets, according to Article 37 of the Federal Constitution, and if these goods obey the quality control demands established by regulating norms. This authorisation is foreseen by Law no. 11,947/2009, paragraph 1.

A Public Call is a tool that enables the purchase of foodstuffs that come from smallholder farming to the PNAE, and that respects smallholder farmers' organisation and production logic, as it values the consumer's closest local production – students, in this case – and considers how these populations' economic basis are structured on smallholder farming. In this sense, this process does not make use of a product's price as a criterion to select suppliers; criteria is whether goods are produced close to schools, how farmers are organised and the quality of products (organic/agroecological).

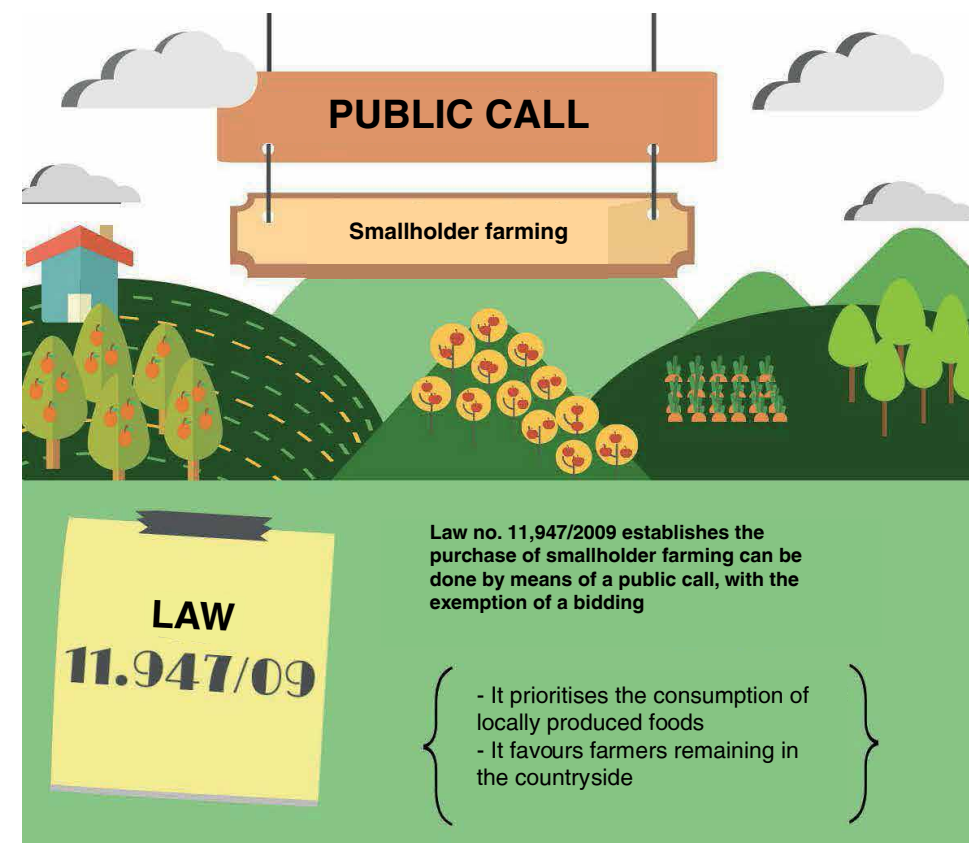
Therefore, technical responsible nutritionists and the technical board connected to the PNAE have an essential role in the process of purchasing goods from smallholder farming, especially working alongside the secretariat of agriculture, smallholder farmer's associations, CAEs, among others. This team work seeks to understand local smallholder farming production, as well as contribute to elaborating menus according to local products and seasonability.

In this sense, before planning a smallholder farming public call for the PNAE, it is vital to understand how local agricultural production works to identify diversity and the amount of foodstuffs that will be available for school feeding menus. Also, it's important to define which of these foodstuffs will be purchased through a public call and which will be purchased by means of a reverse auction, as it is also necessary to purchase foods that are not produced by the region's smallholder farming, but that must be included in schools' menus.

The FNDE has published the Technical Note no. 5004/2016, called "Clarifications on the purchase of foodstuffs directly from Smallholder Farming to the PNAE". The intent behind it was to highlight relevant aspects to be noticed when creating a purchase list of foodstuffs that come from smallholder farming, used as a tool for public calls.

To read this Technical Note, go to the website <http://www.fnde.gov.br> >> programas >> pnae >> áreaparagestores >> notastécnicas and download the "Clarifications on the purchase of foodstuffs directly from Smallholder Farming to the PNAE".

Nutritionists can also contribute to promote school feeding and smallholder farming as strategies for food and nutrition education and to support local sustainable development.



PUBLIC CALL

It is a tool that purchases foodstuffs from smallholder farming. It allows smallholder farmers to participate and aims to purchase goods at fair prices.

* Prices of goods that were purchased by a Public Call must reflect market prices, previously determined by the Executing Entity's research

The following priority order to select qualified selling projects will be used: local producers, followed by territorial, state and national producers.

- 1 Land reform settlements, and indigenous and quilombola communities, with no priority among them
- 2 Organic / agroecological food producers
- 3 Forma groups (DAP Legal Entity) over informal groups (smallholder farmers organised in groups, with their DAP Individuals) over individual suppliers (DAP Individual).





12

**QUALITY
CONTROL**



Guide and oversee activities of: environment sanitisation, storage of food, vehicles that transport food, and the institution's equipment and utensils. Elaborate and implement the Good Practices Guide for Food Services of Manufacturing and Control for the UAN;

Nutritionists' mandatory assignments in the scope of the School Feeding Programme, according to article 3 of Resolution no. 465, of August 23rd, 2010, of the Federal Council of Nutritionists.

Lately, people have been concerned about pursuing a better quality of life. Health is directly related to many factors that may contribute to a better life and, among them, food has a fundamental role, as it collaborates with the promotion of health. However, if there isn't any hygienic, sanitary care, it can cause and transmit diseases.

Faced with this scenario, it is extremely important for organisations that work within this segment (food production and handling) to be attentive and respectful to all legal regulations, given that any problems with contamination might compromise the health of consumers, who, in our case, are students.

All goods purchased for the PNAE must be previously submitted to quality control, according to the Commitment Form (Annex 5) of Resolution CD/FNDE no. 26, of June 17th, 2013. This Commitment Form must be renewed in the beginning of every municipal, state and Federal District's manager's term of office, and it must be forwarded to the FNDE, which, in turn, establishes a commitment to control the quality of school feeding. Therefore, managers must work alongside the Secretariat of Health, so health regulatory agencies are able to inspect and control purchased foodstuffs, as this is the organisation responsible for this inspection.

Some important factors to be considered when producing safe and quality foods include the quality of raw materials, the work environment's hygienic conditions and food handling techniques. These must be considered in the Good Practices Guide (BPFs).

In Brazil, the BPFs are established by Ordinances 1428/93-MS and 326/97-SVS/MS and by Resolution 275/2002-RDC, which are controlled by the Brazilian Health Regulatory Agency (ANVISA).

Through ANVISA, the Ministry of Health has elaborated Resolution RDC no. 216, of September 15th, 2004, which aims to ensure establishments comply with necessary procedures to produce safe foods. This resolution establishes the Technical Standards for Food Services Good Practices.

This Resolution is applied to food services that conduct one of the food production stages, from selecting raw materials to distributing to final consumers. It seeks to guarantee sanitary conditions, involving actions in: buildings, installations, equipment, furniture, utensils, sanitisation and maintenance; pest and vector control; water supply; waste management; food handler's health; raw materials, ingredients and packages; and from the pre-preparation to consumption of meals.

By law, Good Production Practices are defined as a series of procedures to be adopted by food services, in order to guarantee foods' hygienic quality and compliance with national sanitary regulations.

The correct use of Good Practices is an effective way of reducing and even eliminating risks, so consumers and their products are safer.

In 2002, ANVISA published RDC no. 275, which establishes technical regulations for Standardised Operational Procedures (POPs). These are applied at establishments that produce and process foods, and at the inspection list of Good Production Practices.

According to these GPPs, POPs must bear instructions that state a clear sequence of operations and their frequency, specifying the name, position and/or the function of everyone responsible for each activity. These POPs must be approved, dated and signed by the person responsible for such an establishment, and the records must be filed.

As a way to help school feeding nutritionists elaborate Good Production Practices and Standardised Operational Procedures for schools, the Centre of Collaboration for School Feeding of the Federal University of Rio Grande do Sul (CECANE UFRGS) and the Centre of Collaboration for School Feeding of the Federal University of Sao Paulo (CECANE UNIFESP) have provided a tool that facilitates the assessment of schools' sanitary conditions. This is done by means of a verification list and assistance in elaborating a Good Practices Manual for each school unit.

Go to website <http://www.fnde.gov.br> to use this tool. On the upper side of the webpage, click on the icon <Programas> and <PNAE>. Then, on the right hand side of the webpage, click on School Feeding Good Practices Guide, <tool> and install the app.

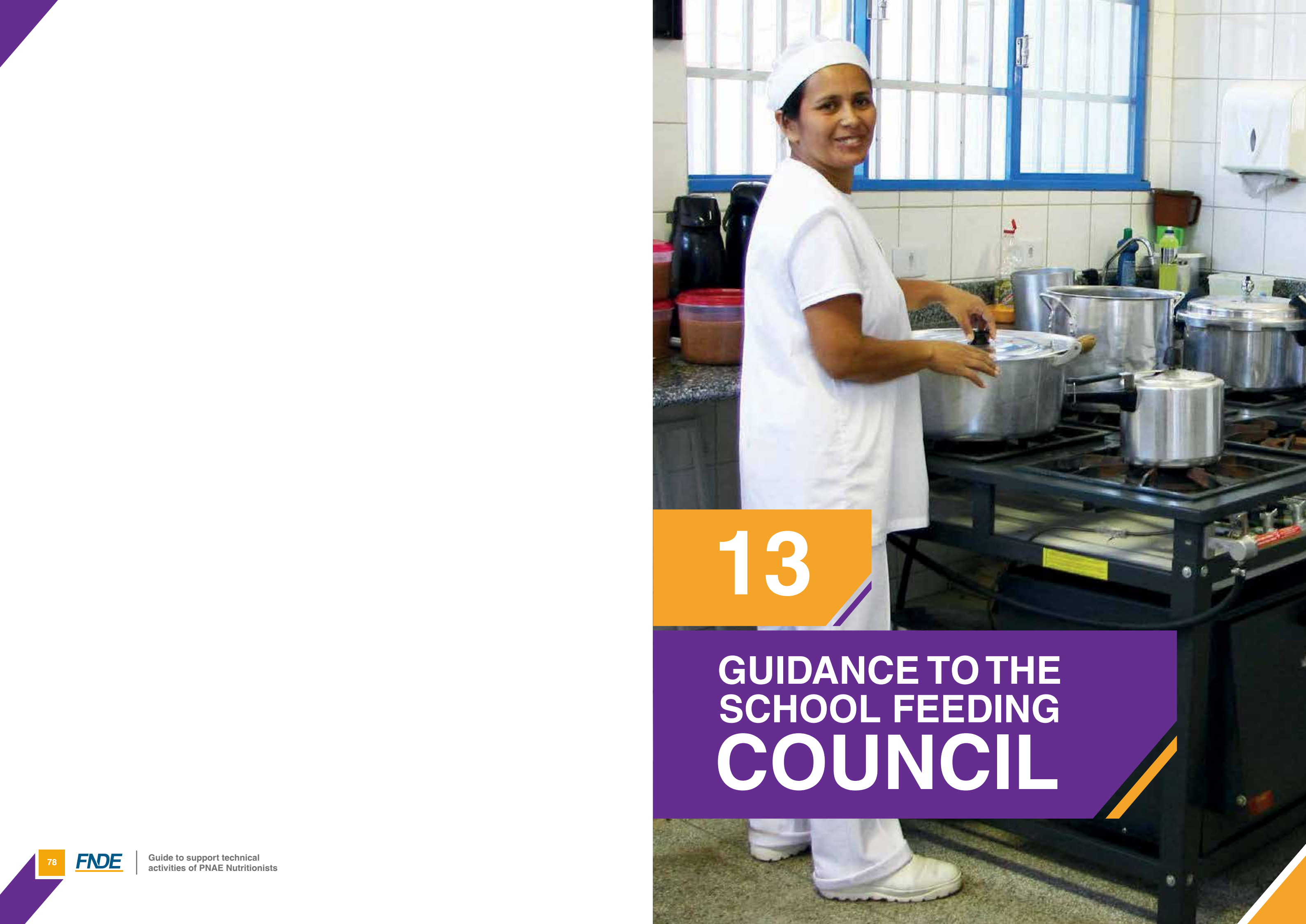
Another relevant aspect is that most food handlers are unaware hygienic cares must be taken when preparing food. Improper hygienic preparation practices by untrained people might result in cross-contamination, which is a risk to public health.

With that in mind, the CECANE UFRGS assessed the need to develop a support material that could provide theoretical and scientific content to professionals that work in the scope of the PNAE to educate food handlers that work within the programme. This document is for people responsible for educating schools' food handlers, including managers, school feeding and pedagogical sectors, nutritionists, among others.

To elaborate this Guide, CECANE UFRGS also gathered a team of nutrition and education professionals. Its main goal is to provide theoretic and scientific knowledge, thus supporting the planning and education of PNAE's food handlers. In addition, the Guide suggests important topics and recommends practical activities for some of them.

To also have access to this material, go to the website <http://www.fnde.gov.br> >> programas >> pnae >> areapargestores >> manuais/cartilhas and download the "Guide to Educate School Feeding Food Handlers".

In this sense, it is fundamental nutritionists provide knowledge to keep food handlers updated and trained in good practices that require a change of culture, values and habits. It is a continuous educational process, in which the training and development of those who work in the production process is indispensable; they must be recognised and motivated to achieve positive outcomes by the end of the process.



13

GUIDANCE TO THE SCHOOL FEEDING COUNCIL



Guide the School Feeding Council on how the PNAE is technically executed.

Nutritionists' mandatory assignments in the scope of the School Feeding Programme, according to article 3 of Resolution no. 465, of August 23rd, 2010, of the Federal Council of Nutritionists.

The School Feeding Council is an associated organisation of controlling, permanent, deliberative and advisement nature. It is established in the scope of States, the Federal District and Municipalities, and it is composed of a minimum of 7 (seven) full members and their respective alternates, represented by: Executive Power representatives, education professionals and professors, civil organisations and students' legal guardians.

Councils must be present in 5,570 Brazilian municipalities in the 26 states and the Federal District, with an approximate number of 80,000 councillors. Education activities must be continuous and permanent, given that there is a high number of councillors, turnover and quadrennial terms of office.

In this sense, it is important nutritionists of Executing Entities guide the CAE regarding how the PNAE is technically operated. It is also important they know and participate in activities alongside councillors, such as meetings, school visits and elaboration of school menus; invite the CAE to participate in the analysis of samples in the bidding process and acceptability tests; encourage the council to participate in meetings with smallholder farmers; and update councillors with information shared by the FNDE (guides, technical notes, PNAE reports, among others). It is important councillors are educated and invited to other activities that involve the school community. This partnership is extremely important to equip the CAE for its activities and competencies, aiming for students' Food and Nutrition Security.

Therefore, the School Feeding Council Handbook, elaborated by the FNDE's General Coordination of the National School Feeding Programme, is available on the FNDE's website. It can be an excellent support material to plan activities alongside the CAE.

CAE – SCHOOL FEEDING COUNCIL

- 1 representative nominated by the executive power
- 2 representatives from educational organisations
- 2 representatives of students' legal guardians
- 2 representatives of organised civil entities
- Elected in a meeting of their respective organisations
- Inspect PNAE's regulations and execution
- Keep track of the revenue addressed to school feeding
- Watch over the quality of foods and their acceptability in school menus
- Inspect any irregularities that might compromise the programme's good execution
- Emit a conclusive report to qualify or disqualify the programme's execution

Together with the Federal Court of Accounts (TCU), the FNDE published the 6th edition of the "PNAE Councillors Handbook", with the aim to encourage School Feeding Councils' qualification. This edition seeks to update legal frameworks, bring new concepts and tools, as well as incorporate changes to the PNAE's execution.

Go to the website <http://www.fnde.gov.br> >> programas >> pnae >> areaparagestores >> manuais/cartilhas to have access to this material. Download the "National School Feeding Handbook" and "PNAE Councillors Handbook",



14

**COMPLEMENTARY
ACTIVITIES**



According to Resolution CFN no. 465/2010, nutritionists that work in the scope of the PNAE carry out some complementary activities, apart from the ones previously mentioned. These are:

Article 4: In the scope of the National School Feeding Programme (PNAE), nutritionists who work alongside an Executing Entity must carry out the following complementary activities:

- I – Coordinate, supervise and carry out permanent education actions on food and nutrition for the entire school community;
- II – Participate in the process of technically assessing food suppliers in order to issue a technical report. This is done to establish quality criteria so these suppliers can take part in the food purchase process;
- III – Participate in the process of technically assessing the purchase of utensils, equipment, cleaning and disinfectant products, as well as hiring service providers that directly impact on the PNAE’s execution.
- IV – Recruit, select and qualify personnel who work within the PNAE;
- V – Participate in multidisciplinary teams that seek to plan, implement, control and carry out policies, programmes, courses, researches and events on school feeding;
- VI – Contribute to the elaboration and revision of food and nutrition’s own regulations;
- VII – Contribute to the qualification of food and nutrition professionals, supervising interns and participating in career development programmes;
- VIII – Communicate legal guardians and, if necessary, respective authorities when there are conditions in the PNAE that prevent good professional practice or that hinder health and collectivity;
- IX - Qualify executive units’ supervisor teams and coordinate their actions.

Article 5: Other assignments may be developed according to the PNAE’s need, complexity of service and availability of operational structure.

These complementary assignments reinforce the need for nutritionists who work in the scope of the PNAE to act alongside other governmental and non-governmental sectors. Nutritionists are the main people responsible for the dialogue between many social actors who may directly – or indirectly – interact with the programme. Therefore, we recommend the planning, execution and evaluation of actions related to the PNAE to be always conducted intersectorially, strengthening relationships and qualifying the programme’s management.

KNOW MORE

The National Fund for the Development of Education (FNDE), upon completing their mission of creating managerial mechanisms for the promotion of the human right to proper food, constantly publishes Technical Notes regarding the PNAE's execution.

On this section, you can find a list of Technical Notes the FNDE has published so far. However, we recommend you pay attention to the website for any new publications. Go to <http://www.fnde.gov.br>>pnae>>areaparagestores>>notastecnicas> to have access to these Technical Notes.

- Technical Note no. 5007/2016/COSAN/CGPAE/DIRAE – Foodstuffs specification for the National School Feeding Programme.
- Technical Note no. 5006/2016/COSAN/ CGPAE/ DIRAE – Acquisition of bottled mineral water with revenue transferred from the FNDE in the scope of the PNAE.
- Technical Note no. 5004/2015/COSAN/CGPAE/DIRAE – Clarifications on the purchase of foodstuffs directly from smallholder farming to the PNAE.
- Technical Note no. 5002/COSAN/CGPAE/DIRAE – Food storage control in the PNAE.
- Technical Note no. 03/2014 – Revenue from the PNAE to the Programa Mais Educação.
- Technical Note no. 02/2014 – Purchase of powdered milk for school feeding.
- Technical Note no. 01/2014 – Restriction on the offer of sweets and sugary preparations for school feeding.
- Technical Note no. 04/2013 – Insertion of fish in school feeding.
- Technical Note no. 01/2013 – Mandatory milk pasteurisation for the purchase and offer of school feeding.

- Technical Note no. 02/2012 – Brazilian public school cafeterias' regulations.

- Technical Note no. 01/2012 – Position of the General Coordination of the National School Feeding Programme regarding the purchase of orange juice for school feeding.

- Technical Note no. 01/2011 – Position of COTAN regarding fruit-based drinks replacing fruits in school feeding.

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ANNEXES

Model of a menu suggested by the Coordination of Food and Nutrition Security

(State/Municipal) Secretariat of Education of (Municipality/State) NATIONAL SCHOOL FEEDING PROGRAMME – PNAE														
MENU STAGE/MODALITY OF EDUCATION (AGE GROUP)														
Month/Year														
	MONDAY Day/month	TUESDAY Day/month	WEDNESDAY Day/month	THURSDAY Day/month	FRIDAY Day/month									
Meal Time														
Nutritional composition (weekly average)	Energy (cal)	CHO (g)	PTN (g)	LDP (g)	Fibres (g)	Vit. A (mcg)	Vit. C (mg)	Ca (mg)	Fe (mg)	Mg (mg)	Zn (mg)	Na (mg)		
Nutritionist's name, CRN number and signature														

(State/Municipal) Secretariat of Education of (Municipality/State) NATIONAL SCHOOL FEEDING PROGRAMME – PNAE																		
FOOD PREPARATION TECHNICAL FILE – MENU PRIMARY SCHOOL (6-10 YEAR OLDS)																		
PREPARATION NAME: white rice					NUTRITIONAL COMPOSITION													
Ingredients	P	B (g)P	L (g)F	CU	nit Cost	Cal	CHO (g)	PTN (g)	LPD (g)	Fibres (g)	Vit. A (mcg)	Vit. C (mg)	Ca (mg)	Fe (mg)	Mg (mg)	Zn (mg)	Na (mg)	
White rice		25	25	10	,06													
Soy oil		11		10	,003													
Garlic		1,08	11	,080	,01													
Salt		11		10	,002													
TOTAL					0,075													
PREPARATION METHOD: Wash the rice. Drain it and let it dry. Warm some oil in a pan and braise the garlic. Add the rice and braise it for a few minutes, mixing well. Add boiling water and salt. Cook in medium heat for approximately 20 minutes, or until the rice is dry and fluffy. Serve.																		
Nutritionist's name, CRN number and signature																		

ABBREVIATIONS LIST

AEE	Specialised Education Services
SF	Smallholder Farming
ANVISA	Brazilian Health Regulatory Agency
BPFs	Good Practices Guide
CAE	School Feeding Council
CFN	Federal Council of Nutritionists
CECANE	Centre of Collaboration for School Feeding and Nutrition
CGPAE	General Coordination of the School Feeding Programme
COSAN	Coordination of Food and Nutrition Security
DIDAF	Smallholder Farming Development Division
FNE	Food and Nutrition Education
EEx	Executing Entity
EJA	Adult Education
FNDE	National Fund for the Development of Education
CF	Correction Factor
FTP	Food Preparation Technical File
GTI-M	Municipal Intersectorial Work Group
IBGE	Brazilian Institute of Geography and Statistics
BMI	Body Mass Index
MEC	Ministry of Education
MDS	Ministry of Social Development
MS	Ministry of Health
SDN	Special Dietary Needs
WHO	World Health Organization
PAE	School Feeding Programme
PB	Gross per capita
PCNs	Brazilian School Curriculum Standards
PL	Liquid per capita
PNAE	National School Feeding Programme
PNLD	Brazilian School Book Programme
POPs	Standardised Operational Procedures
PPA	Pluriannual Plan
PPP	Political-Pedagogical Project
PSE	School Health Programme
QT	Technical Board
RDC	Resolution of the Collegiate Board of Directors
RT	Responsible Technician
SIGPC	Management Accountability System
SIGECON	Management Council System
SISVAN	Food and Nutrition Surveillance System
VAN	Food and Nutrition Surveillance

FNDE



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