EXPERIENCE REPORT
https://doi.org/10.22239/2317-269x.01267

Short couses and technical support in processes of products exempted from registration

Minicursos e apoio técnico em processos de produtos dispensados de registro

Katiuce Aparecida de Oliveira*

Fernanda Barbosa Borges Jardim

Eliane Cristina Lombardi

Instituto Federal de Educação, Ciência e Tecnologia do Triângulo Mineiro, Uberaba, MG, Brasil

* **E-mail:** katiuceapo@hotmail.com

Received: Feb 11, 2019
Approved: Jan 21, 2020

ABSTRACT

Introduction: The Uberlândia city's Health Surveillance Bureau analyzes the food labels exempted from registration by presenting the Communication Process of Initiation of Manufacturing of Products Exempted from Registration. The monitoring and analysis of this process are responsibility of the municipality. **Objective:** Check the quality of technical support by evaluating companies and to evaluate if educational actions promoted to companies and the technical team of the surveillance on the Communication Process of Initiation of Manufacturing of Products Exempted from Registration were effective to increase the approvals of the processes. **Method:** Mini courses were applied to the employees of the Health Surveillance and food companies about the Communication Process of Initiation of Manufacturing of Products Exempted from Registration and food labeling; in addition, technical support was provided to companies. The evaluation of educational actions was performed by quantifying the conformity of the processes, and the evaluation of the quality of the technical support was carried out by means of an evaluation form of satisfaction. **Results:** The processes, after the application of the educational actions, were slightly improved in the conformity indexes (general information, list of ingredients, liquid content, validity, sales denomination and lot). The technical support obtained an "Excellent" evaluation. **Conclusions:** The educational actions did not achieve the expected efficiency in the short term, but the continuous availability of these actions could increase the approval of the processes.

KEYWORDS: Training Courses; Legislation; Food Labeling

RESUMO

Introdução: A Vigilância Sanitária de Uberlândia (MG) analisa os rótulos dos alimentos dispensados de registro mediante a apresentação do processo de comunicação de início de fabricação de produtos dispensados de registro. São de responsabilidade do próprio município o acompanhamento e a análise deste processo. **Objetivo:** Verificar a qualidade do apoio técnico por meio de avaliação por parte das empresas e avaliar se ações educativas promovidas para empresas e para a equipe técnica da Vigilância Sanitária sobre os processos de comunicação de início de fabricação de produtos dispensados de registro foram efetivas para incremento das aprovações dos processos. **Método:** Foram aplicados minicursos aos funcionários da Vigilância Sanitária e às empresas de alimentos sobre o processo de comunicação de início de fabricação de produtos dispensados de registro e rotulagem de alimentos, além de disponibilização de apoio técnico às empresas. A avaliação das ações educativas foi realizada mediante quantificação das conformidades dos processos. A avaliação da qualidade do apoio técnico foi realizada por meio de ficha de avaliação do grau de satisfação. **Resultados:** Os processos, após a aplicação das ações educativas, obtiveram melhora discreta nos índices de conformidades (informações gerais, lista de ingredientes, conteúdo líquido, validade, denominação de venda e lote). A satisfação do apoio técnico obteve média de avaliação "ótima". **Conclusões:** As ações educativas não obtiveram a eficiência esperada em curto prazo, porém a disponibilização contínua dessas ações poderia aumentar a aprovação dos processos.

PALAVRAS-CHAVE: Cursos de Capacitação; Legislação; Rotulagem de Alimentos

INTRODUCTION

Considering that food labels guide consumers on the quality and quantity of the nutritional constituents of the products, legislative measures that regulate food labeling are important strategies for the promotion of health[1]. The Health Surveillance body of the municipality of Uberlândia, state of Minas Gerais, Brazil, uses the communication process of initiation of manufacturing of products exempted from registration as a means of inspecting the labels of food produced in the municipality.

The category of products exempted from registration was created by the Brazilian National Health Surveillance Agency (Anvisa) through Resolution of the Collegiate Board (RDC) n. 23, of March 15, 2000, and RDC n. 240, of July 26, 2008. The creation of this category intended to reduce the bureaucracy of the food regulation process in the agency, mentioned in Law n. 9.782, of January 26, 1999, which established the National Health Surveillance System and Anvisa. Before the creation of this category, all products needed to be registered. Products exempted from registration are considered by Anvisa to be less risky[2,3,4,5].

For analysis, companies need to submit to the health surveillance of Uberlândia, in addition to a form to communicate the initiation of the manufacturing of products exempted from registration (Annex X, which contains information about the producer and the product communicated), the following documents: copy of the sanitary permit of the company producing the communicated product, copy of the sanitary permit and communication form for the start of manufacture of the packaging and the label of the communicated products[6].

Considering the percentage of failures in the processes filed at Uberlândia's health surveillance body (100.0%), we notice that the companies that manufacture products exempted from registration still struggle to comply with the requirements of the process. Some companies that do not receive approval of this process for not making the necessary adjustments to the label and not presenting the necessary documentation maintain their activities in an illegal manner.

The work of health surveillance is not only about inspection and standardization but also includes educational, investigative and monitoring activities. Educational initiatives can assist the regulated sector in the control and reduction of possible risks and health problems. These activities can be performed during health inspections, lectures, training sessions, in the preparation of educational material and in the distribution of booklets[7].

It is important that the professionals that make up the health surveillance team be trained so that they can properly perform their duties, especially those of technical support to regulated companies.

In this sense, this study aimed to verify the evaluation of the training done by the professionals of the health surveillance team responsible for the technical support to companies and to verify whether educational initiatives (technical support and short courses) were efficient in improving the quality of the communication process of initiation of manufacturing of products exempted from registration (labeling and documentation) submitted by companies to Uberlândia's health surveillance body.

METHOD

Before the beginning of the research, the project was submitted to the Research Ethics Committee of the Federal University of Triângulo Mineiro (UFTM) and approved in 2016, with opinion number 1.758.413.

It is a prospective study of a quantitative and qualitative nature. The selection and quantification of the sample were by convenience. There was no randomness in the choice and no use of techniques like data saturation to determine the number of respondents. The methodological strategy adopted was an exploratory study through educational initiatives in the form of technical support/short courses to the technicians in charge of companies that file communication processes of initiation of manufacturing of products exempted from registration at Uberlândia's health surveillance, and short courses to the technical team (inspectors) of Uberlândia's health surveillance body.

Technical support was offered, in person, in Uberlândia's health surveillance food department, once a week, with a 6-hour workload, from January to April 2017. This service was available to anyone responsible for a company that had questions about the communication process of initiation of manufacturing of products exempted from registration. The participants were previously informed about their participation and data in the project and signed the free and informed consent form.

After answering the company's questions, the company representative was invited to fill out a satisfaction assessment form containing objective questions. In this questionnaire, the participants evaluated the assistant and their degree of satisfaction on a scale of 1 to 5. To assess their degree of satisfaction, the evaluation scores were classified, according to the methodology of Freitas[8], with the following concepts: "very satisfied" (5), "satisfied" (4), "neither satisfied nor dissatisfied" (3), "dissatisfied" (2) and "very dissatisfied" (1). In addition to the objective items, we evaluated, in an essay format, whether all questions were answered and whether the participant thought the availability of that service was important.

The short course offered to the health surveillance technical team (inspectors) was held at the institution's headquarters and lasted 4 hours. An expository methodology was adopted in combination with multimedia features. Employees from various departments attended the training: food department (n = 18), administrative department (n = 2), drug department (n = 4) and health department (n = 1), totaling 25 participants. The following topics were addressed: communication process of initiation

of manufacturing of products exempted from registration [3]; items that must be filed for the approval of Annex X[6]; steps in the process of approval; basic food labeling legislation [9,10,11,12,13,14,15] and allergen-related legislation[16].

The short course offered to companies was held at the Federal Institute of Education, Science and Technology of Triângulo Mineiro, Uberlândia, Centro campus, and lasted 4 hours. An expository methodology was adopted in combination with multimedia features. A formal notice invited technicians/representatives from companies with communication processes of initiation of manufacturing of products exempted from registration (n = 38) to the training. The following topics were addressed: communication process of initiation of manufacturing of products exempted from registration (definition, products exempted from registration and mandatory registration products, items that must be filed, stages of the approval process, how to fill out Annex X); basic legislation on food labeling; nutrition labeling and allergen-related legislation.

After carrying out these educational activities, both for companies and for health surveillance staff, the efficiency of the short courses and technical support was evaluated through the analysis of the communication processes of initiation of manufacturing of products exempted from registration submitted by the companies that attended the training sessions. The methodology adopted was that of a descriptive study, with the quantification of non-compliant items found in the processes.

Errors were found in the documents that were presented, in the completion of Annex X and in the labeling of products.

In the document check, we investigated whether the processes presented the following documents: duly completed Annex X reviewed by the health surveillance body from the manufacturer's place of origin; copy of the current sanitary permit; labels of all communicated products; copy of the packaging manufacturer's sanitary permit and packaging technical sheet.

In the analysis of how Annex X[3] was filled out, we assessed the errors in the fields of category and category description, product name, product brand, type of packaging, expiration date, control/numbering of attachments, data of the product holder/brand, manufacturing unit data, term of responsibility and commercial perspective. The formatting required by RDC n. 23/2000[3] for Annex X was also verified.

To evaluate the labels, the following items were analyzed: sales denomination; list of ingredients; declaration of additives in the list of ingredients; net content; origin identification; batch identification; expiration date; special conditions for conservation; preparation and instruction for use; presentation and distribution of mandatory information; intentional and supporting technology additives (if any)[9]; declaration of allergens[16] and ingredients that cause intolerance[11] (when applicable); nutritional labeling[12]; food for special purposes[13] (when applicable); declaration of special supplements[14] (when applicable); declarations of vitamin and/or mineral supplements (when applicable); declaration of presence of Genetically Modified Organisms[15] (if any); mandatory information for ready-to-drink liquid compounds[17] (when applicable) and mandatory information for cereals[18,19] (when applicable).

After collecting these data, we compared them with those prior to the initiatives (between the years 2012 to 2016). The data were treated statistically and tabulated with the aid of Excel Version 2013.

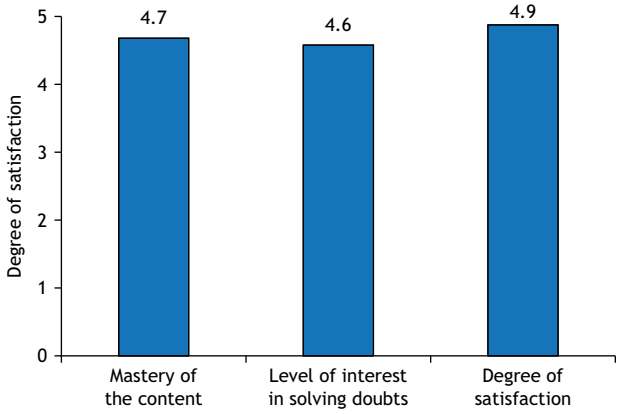
RESULTS AND DISCUSSION

Technical support was offered once a week, with face-to-face assistance at the health surveillance office. At the beginning of the work, many participants said they appreciated the initiative. The service was offered to the technicians responsible for companies that manufacture food exempted from registration. In total, 14 companies were assisted. The main questions presented by the companies were related to the opinion reports about their communication process of initiation of manufacturing of products exempted from registration. The questions about opinion reports are justified because these reports only indicate the items of the law that have not been complied with but they do not say which item is wrong or how it should be fixed. Corrections can be done in several ways, as long as they follow the legislation, which allows different ways of presenting the items. The participants commented that the material available on the website with guidelines for the communication process of initiation of manufacturing of products exempted from registration is not enough to answer all their questions. Another problem mentioned by the participants was the excess bureaucracy of the process, with a high number of documents to be submitted.

The main questions asked to the technical support were related to nutrition labeling and the labeling of allergenic foods. Questions about the nutrition facts label (format and mandatory items) and the calculation of the reference daily intake stood out in the item of nutrition labeling. As for the labeling of allergens, since this is a recent legislation, many companies had questions about the mandatory information for their product(s) and how this information should be presented on their label.

All items evaluated by the participants after the technical support achieved a "very satisfied" rating, according to the methodology of Freitas[8], that is, an optimal evaluation. The item that achieved the highest mean was the degree of satisfaction, probably due to the lack – at least so far – of a periodic service offered to technicians/owners, for guidance on the labeling and communication process of initiation of manufacturing of products exempted from registration (Figure).

The item that received the poorest rating was the assistant's interest in answering the questions, however the score was still positive. Many representatives who contacted the health surveillance body to clear doubts about the labeling and/or technical opinion regarding the communication process of initiation of



Source: Prepared by the authors, 2019.

Figure. Mean scores of technical support assessment sheets applied to technicians/owners of companies located in the city of Uberlândia, MG (n = 14).

manufacturing of products exempted from registration were not sufficiently familiar with the legislation mentioned in the opinion (as we could notice during the service). Technical support was offered to enable those representatives to ask questions about the legislation and the technical opinion issued, since this only mentions the items of the legislation that were not complied with. Companies' representatives saw the refusal of the assistant to detail the non-compliant items as lack of interest in answering their questions, however, technicians must have at least some knowledge of the legislation in force (Figure).

As for the answers to the essay-like question, 85.7% of the technical support participants indicated that all questions they had about the matter were answered. Only 14.3% of the participants answered negatively to this question, with mentions that the reference legislation is overly complex (argument presented by the participants in the form).

All participants in the technical support answered that the provision of this service is important. This unanimous answer shows the importance of health surveillance educational and advisory initiatives, which are relevant to the communication process of initiation of manufacturing of products exempted from registration and food labeling.

Some of the suggestions presented by the participants are: providing additional technical support on several specific subjects (nutrition labeling, allergen-related legislation, complementary nutritional information) and more hours and days of service. In this field, three participants (21.4%) congratulated the initiative on making this service available to the regulated sector.

In the short course offered to the health surveillance technical team, the participants had the following education: high school (n = 2), food technician (n = 3), nutrition (n = 2), biology (n = 3), veterinary medicine (n = 3), food engineering (n = 1), food technology (n = 6), pharmacy (n = 2) and nursing technician (n = 1). The short course was designed based on the essential knowledge that these professionals require to properly do their jobs. The short course addressed situations in which the documentation should be required, the necessary documents for the communication and the mandatory items in food labeling.

The short course was welcome by part of the team, given that usually scarce training is offered to inspectors. The participants made suggestions like courses addressing the topic in greater depth, the use of more practical examples in the training and courses on other topics of interest to their inspection activities.

The short course offered to companies had representatives from companies of different areas of food production. The technical representatives had the following education: dietitians, food technician, veterinarians, and food technologists. Of the 80 companies invited to participate in the short course, only 38 attended. This short course addressed the main questions related to the completion and preparation of a communication process of initiation of manufacturing of products exempted from registration. In addition to the oral explanation of the topic, there were moments of interaction, which enabled companies to solve their doubts and test their knowledge through the dynamics of food label evaluation.

After the technical support and the short course given to the companies, we analyzed 29 communication processes of initiation of manufacturing of products exempted from registration. None of them was approved, but the number of non-compliant items decreased. Of these evaluated requests, three were from companies that participated in the short courses and 26 from companies that participated in the technical support.

Only three (7.9%) companies presented a communication process of initiation of manufacturing of products exempted from registration after the educational initiatives (short courses). The remaining companies (92.1%) were unable to present the documentation because they did not receive a response from the printing company in a timely manner or did not provide the relevant documentation from the packaging manufacturer, as justified by the companies.

The items that achieved full improvement in the presentation of the documentation, after the short courses and technical support, were Annex X and the labeling statements. These topics were detailed to the companies' representatives in the short

Table 1. Percentage of missing documents in the communication process of initiation of manufacturing of products exempted from registration filed by companies in the Health Surveillance of Uberlândia (MG), before and after the educational initiatives.

Document	Rate of missing documents (%)	
	Before	After
Copy of the sanitary permit	73.2	65.5
Approved packaging communication form	53.5	58.6
Labels	15.5	3.4
Annex X	14.1	0
Labeling information	4.2	0

Source: Prepared by the authors, 2019.
Before: for the years 2012 to 2016.

course because they are fundamental requirements for the regularization of products and for the adequate viewing of the information presented on the label (Table 1).

As for the presentation of the form of communication of initiation of manufacturing of products exempted from registration with information about the packaging, this item had the worst performance after the conclusion of the educational initiatives. This poor performance can be explained by the recurring difficulties faced by the companies in obtaining this documentation. Many packaging suppliers are not located in the municipality and claim that this documentation is not required by the health surveillance body of their own municipalities (Table 1).

The percentage of non-submission of a copy of the sanitary permit remained high, despite the emphasis given by the technical support and short course on the importance of such document. The company depends on the inspection of its site and presentation of the necessary documentation to receive the permit (copy of the company's documentation, documentation from the responsible technician and supporting documents on water quality control, final product, pest control and health of the handlers). Because of that, many companies file their communication processes of initiation of manufacturing of products exempted from registration without the sanitary permit (Table 1). This problem occurs because many manufacturers start their activities in illegal conditions (without the authorization to operate) and, consequently, they do not have the communication process of initiation of manufacturing of products exempted from registration. According to the municipal legislation, the sanitary permit is a mandatory document for the operation of companies that carry out activities of interest to health.

The rate of non-presentation of labels was low after the educational initiatives, which can be justified by the emphasis given by the health surveillance technical team on the importance of presenting this documentation and the role of the label as an information tool for the consumers (Table 1).

As for the completion of Annex X, the item that obtained the highest rate of non-compliance after the educational initiatives continued to be the fields of category description and category. Even though this item was addressed during the short course and technical support to companies, they still struggle to correctly categorize the communicated products, which need a thorough study of the technical regulations relevant to the categories. Furthermore, there are difficulties in filling out the field with the full description of the category (Table 2).

Table 2. Percentage of non-compliance in the filling and formatting of Annex X filed by companies in the Health Surveillance of Uberlândia (MG), before and after the educational initiatives.

Form	Non-compliance (%)	
	Before	After
Category description and category field	53.3	51.7
Packaging type field	40.8	24.1
Formatting	23.7	20.7
Attachment control field	20.7	20.7
Term of responsibility field	20.7	20.7
Product name field	18.9	24.1
Expiration date field	13.6	6.9
Product brand field	3.0	6.9
Commercial perspective field	2.4	6.9

Source: Prepared by the authors, 2019.
Before: for the years 2012 to 2016.

In the type of packaging field, the type of packaging material, its format and the net product content in the packaging must be described. After the educational initiatives, the item improved compared to the results obtained before, which can be explained by the fact that the short course and technical support explained that this field must inform the net content of the product. This item had the highest incidence of errors before the educational initiatives (Table 2).

The Annex X form must be printed in front and back in the template presented by RDC n. 23/2000[3]. The short course and technical support explained how the document should be submitted, with a practical demonstration of how the item should be printed and filled out correctly. Despite the educational initiatives, this item did not achieve the expected improvement (Table 2).

The fields of control of attachments and technical responsibility term obtained the same scores before and after the educational initiatives, that is, the educational initiatives did promote improvement in these questions. The technical responsibility term is one of the most important fields of the form, in which the company declares which was the day the product started to be produced, and within how many days the company intends to market it. Because they do not remember the start date of manufacture of these products (since the manufacturing process often starts long before the date of communication), many companies do not fill in this item. In this field, the company also declares to be aware of the legislation relevant to the product, including that regarding labeling, and that the manufacturing plant can be inspected by health surveillance. As for the control of attachments field, this is located in the document header, which may have gone unnoticed at the time of completion. It must be filled out with the correct number of sheets in the communication. Usually, companies do not complete it and leave the fields blank (Table 2).

The fields of product name, product brand and commercial perspective obtained an increase in the incidence of non-compliance after the educational initiatives. As for the product name and product brand fields, representatives struggle to fill them out. There is confusion between the name and the brand of the product and respondents sometimes put the liquid content of the product in the product name (as a complement to its description). The commercial perspective field must inform in what scope the company wants to market its product (municipal, state or national). Some companies fill out the document digitally (text editor) before having it printed. However, this field can only be filled out manually, and some companies may have forgotten that, which justifies the increase in the non-compliance rate (Table 2).

The expiration date field must inform the validity in days, months or years of the communicated product. This item achieved some improvement in the non-compliance rates after the educational initiatives (Table 2).

The general information of a label can be defined as any information (mandatory or not) that is on the label in the form of words, sentences and/or pictures. According to RDC n. 259, of September 20, 2002, general information cannot: contain data that could mislead the consumer, make claims that cannot be proven, claim the presence of ingredients that are typical of food of the same category or make therapeutic or health claims[9].

This rate, if compared to the one obtained before the educational initiatives, had some improvement in the percentage of non-compliance, however the rate remained high because it was above 50.0% (Table 3).

The list of ingredients must be declared on the label of all foods except for those that have only one ingredient[9]. After the educational initiatives, the percentage of errors had a decrease in non-compliance (Table 3). The inadequate declaration of the list of ingredients may fail to inform the consumer about the composition of the food, which is important for consumers with dietary restrictions. In a study of labels of sweets[20] and loaf of bread[21], much lower rates (0%) of non-compliance were found in this item. In an evaluation of cereal bars, none of the brands adequately declared the product ingredients[22].

The net content tells consumers the amount of product they are buying and can be expressed in mass, volume or length. In this item, there was a decrease in the non-compliance found on the labels after the educational initiatives (Table 3). In a study on the labeling of bottled mineral water[23], no non-compliance was found in this item. In a study of the labeling of tapioca starch[24], lower rates (20%) of non-compliance were found.

As for the expiration date, this study found lower rates of non-compliance on the labels evaluated after the educational initiatives (Table 3). This decrease can be explained by the emphasis given by the short course and technical support on the correct way of declaring this information, using practical examples of what is right and what is wrong. In studies that evaluated snack labels[1] and packaged foods[25], lower non-compliance rates were found (respectively, 12.5% and 42.0%). Declaring the expiration date is essential so that the food does not pose risks to the consumers' health, preventing it from being consumed after the expiration date indicated on the label.

Table 3. Percentage of non-compliance in the mandatory information of the labels presented in the communication process of initiation of manufacturing of products exempted from registration filed by the companies in the Health Surveillance of Uberlândia (MG), before and after the educational initiatives.

Labeling	Non-compliance (%)	
	Before	After
General information	59.2	55.2
List of ingredients	68.6	48.3
Net content:	67.5	34.5
Expiration date	54.4	41.4
Sales denomination	53.8	31.0
Origin identification	44.4	55.2
Batch	44.4	41.4
Additives	25.4	27.6
Storage conditions	13.0	27.6
Instructions for preparation and use	5.9	10.3

Source: Prepared by the authors, 2019.
Before: for the years 2012 to 2016.

In sales denomination, there was a significant decrease in non-compliance on the labels analyzed before and after the educational initiatives (Table 3). Smaller rates (2%) were found in the study of cookie labels[26]. Higher rates (100%) of non-compliance were found in a study on the labels of cereal bars[22]. This comparison shows that, despite the decrease in the percentage of errors in the present study, the rate of non-compliance remains high.

As for the identification of origin, there was an increase in non-compliance in the labels analyzed after the educational initiatives (Table 3). This can be explained by the companies' difficulty in understanding the need to inform the identification of the manufacturer/producer/distributor before their data. Companies also fail to understand that the full address must include the declaration of the Postal Address Code (CEP). Non-compliance rates were higher than those found in studies on the labels of cereal bars[27] and snacks[1] (0% and 16.7%, respectively).

The presence of the batch number on the label enables the company to identify all the data about processes and raw materials used to manufacture that product and therefore it becomes easier to find the origin of any problem/non-compliance[28]. The percentage of non-compliance in this item was lower after the educational initiatives (Table 3). The correct declaration of this item on the label is important, both for the manufacturer and for the inspection agency, as it enables the identification and traceability of food products with some type of problem.

Additives must be declared as part of the list of ingredients, with the declaration of the function of the additive, followed by its name or International Numbering System (INS) or both[9]. The rates obtained before and after were similar and indicated that the educational initiatives did not lead to much improvement in the labels (Table 3). This may have occurred because the training addressed this item in general terms, although there are specific laws that regulate aromas, dyes and essences. A higher rate (33.4%) of non-compliance was found in a study on the labels of food consumed by schoolchildren[29].

As for the product's conservation conditions, the rate of non-compliance increased after the educational initiatives (Table 3). This can be explained by the companies' difficulty in identifying what products need conservation guidelines. Companies, in general, think that only chilled and frozen products need this guidance. A study on the labeling of grape jellies found lower non-compliance results (25%) than this study[30]. On food labels that require storage conditions, this information must appear in a clear and precise way to correctly guide the distribution and marketing chain, in

addition to informing the consumer about the storage conditions of the products so that their characteristics are preserved.

The preparation and use instructions are applied to some types of food that are not available for sale ready for consumption. This information must be clear and precise to properly guide the consumer on how to consume the food correctly. As for this item, the rate of non-compliance after the educational initiatives was higher (Table 3). This result can be explained by the companies' deficiency in placing this information in a clear way to the consumers, which often makes it impossible to understand correctly.

The mandatory information achieved significant improvement in some items (sales denomination, list of ingredients, net content, batch and expiration date), with the reduction of the percentage of errors on the labels analyzed after the educational initiatives (Table 3).

Nutritional information can be defined as any description intended to inform the consumer about the nutrition facts of some food[31]. The percentage of non-compliance increased after the educational initiatives (Table 4). The errors found in the nutritional information were in formatting, declaration of daily intake and expression of energy and nutrient values. Lower rates than those found in this study were verified on the labels of bakery products[32] and sandwich cookies[33], 0% and 16.7% respectively.

Educational initiatives did not positively affect the adequacy of the nutritional information item, although the topic was addressed in a very didactic way during the short course (with examples of right and wrong and explanation of how it should be prepared) and technical support (with recap of the changes that should be made to the labels). These high rates of non-compliance are worrisome (Table 4), since they reveal the shortcomings of the technicians responsible for the legislation and show that labels with inadequate nutritional information are being made available to consumers.

The labels of compounds that cause allergies had a higher percentage of non-compliance after the educational initiatives (Table 4). This negative impact of educational initiatives on allergenic food labels can be explained by the companies' difficulty in applying the allergenic legislation, given that it is relatively new (RDC n. 26, of July 2, 2015). There are lawsuits refuting some aspects of the legislation, and this may make it even more difficult for companies to adequately declare allergen-related information[34]. In a study that assessed the label of dairy products, higher rates of non-compliance in the allergens item (80%) were found[35].

In the declaration of compounds that cause intolerance, an improvement in the compliance rates was observed after the educational initiatives (Table 4). Legislation related to compounds that cause intolerance requires the declaration of the presence or absence of gluten in the food and the presence of lactose. The legal requirement to declare the presence of lactose was not in effect at the time of the survey.

Non-compliance regarding the declaration of the presence or absence of gluten was not found on the labels of bakery products[32], a rate far below that found in this study. The declaration of the presence of gluten on the label is important, since products containing this protein can cause significant damage to the health of people with celiac disease[26] and the only treatment for this disease is to completely avoid any food containing this compound[28].

Table 4. Percentage of non-compliance in the nutritional information and specific legislation on the labels presented in the communication process of initiation of manufacturing of products exempted from registration filed by the companies in the Health Surveillance of Uberlândia (MG), before and after the educational initiatives.

Labeling	Non-compliance (%)	
	Before	After
Nutrition facts	81.7	86.2
Allergens	53.7*	62.1*
Intolerant	33.1	17.2
Complementary nutritional information	10.1	17.2
Quality designation	4.1	6.9

Source: Prepared by the authors, 2019.
Before: for the years 2012 to 2016.
* Evaluated only in the years 2015 and 2016

Supplementary nutritional information is defined as information used to describe the absolute or relative level of certain nutrients or energy value present in the food, and its declaration is optional[36]. As for this item, higher rates of non-compliance were found in comparison to the rates found before the educational initiatives (Table 4).

Because of the complexity of the legislation regarding supplementary nutritional information, which requires the verification of various characteristics of the food, many companies have difficulties in consulting and applying this legislation. Since this is a very complex item, during the training sessions this topic was addressed in general terms, which may have impacted its non-improvement after the educational initiatives. It is important to promote complementary educational initiatives that address this item in a more comprehensive way to train companies' representatives, since erroneous information can mislead consumers and even damage their health.

The denomination of quality item presented a higher percentage of non-compliance when compared to the results obtained before the educational initiatives (Table 4). This demonstrates that companies increasingly want to draw consumers' attention to the quality and sensory characteristics of their products. However, for making such declarations on the labels, the corresponding specifications are established for a given food, by means of specific technical regulation.

The communication process of initiation of manufacturing of products exempted from registration has shown some improvement in most of the items we evaluated after the educational initiatives. However, it was not a significant improvement that could enable any approval in the short term (4 months). Despite these lukewarm results, it is expected that the continued provision of educational activities to health surveillance teams and the regulated sector can bring significant improvement in the long term.

CONCLUSIONS

The satisfaction assessment of the technical support made available to companies' representatives in Uberlândia achieved good scores. The satisfaction was confirmed by the comments of the participants, who agreed that the availability of this type of service is important for the companies.

Regarding the communication processes for the start of manufacturing of products exempted from registration submitted by the companies after the educational initiatives, we verified that the documentation presented had some improvement in the compliance rates, whereas the labels did not achieve any overall improvement after the educational initiatives. Therefore, these educational initiatives were not enough to increase process approval.

However, the evaluation was carried out shortly after the start of the initiatives (4 months). For this reason, it is important to continue with educational activities, with the provision of training to the companies' technicians and the health surveillance technical team on specific topics of the legislation, with a view to long-term improvement.

REFERÊNCIAS

1. Garcia MR, Vieites R, Daiuto E. Avaliação nutricional e conformidade da rotulagem de "petiscos" consumidos por crianças à legislação brasileira. Energ Agric. 2015;30(1):80-6. https://doi.org/10.17224/EnergAgric.2015v30n1p80-86
2. Abe-Matsumoto LT, Sampaio GR, Bastos DHM. Suplementos vitamínicos e/ou minerais: regulamentação, consumo e implicações à saúde. Cad Saude Publica. 2015;31(7):1371-80. https://doi.org/10.1590/0102-311X00177814
3. Agência Nacional de Vigilância Sanitária - Anvisa. Resolução RDC Nº 23, de 15 de março de 2000. Dispõe sobre o manual de procedimentos básicos para registro e dispensa da obrigatoriedade de registro de produtos pertinentes à área de alimentos. Diário Oficial União. 16 mar 2000.
4. Agência Nacional de Vigilância Sanitária - Anvisa. Resolução RDC N° 240, de 26 de julho de 2018. Altera a resolução RDC N° 27 de 2010, que dispõe sobre as categorias de alimentos e embalagens isentos e com obrigatoriedade de registro sanitário. Diário Oficial União. 27 jul 2018.
5. Brasil. Lei N° 9.782, 26 de janeiro de 1999. Define o Sistema Nacional de Vigilância Sanitária, cria a Agência Nacional de Vigilância Sanitária e dá outras providências. Diário Oficial União. 27 jan 1999.
6. Prefeitura de Uberlândia. Instruções gerais para a montagem do processo de comunicação de início de fabricação: anexo X, rotulagem e embalagens. Uberlândia: Secretaria de Saúde; 2014[acesso 6 maio 2007]. Disponível em: http://www.uberlandia.mg.gov.br/uploads/cmsbarquivos/11573.pdf.
7. Tibúrcio CLC, Vidal Jr POV. Avaliação das ações de vigilância sanitária em um município do Recôncavo da Bahia. Vigil Sanit Debate. 2013;1(3);19-26. https://doi.org/10.3395/vd.v1i3.26
8. Freitas ALP. Uma metodologia multicritério de subordinação para classificação da qualidade de serviços sob a ótica do cliente [tese]. Campo dos Goytacazes: Universidade Estadual do Norte Fluminense; 2001.
9. Agência Nacional de Vigilância Sanitária - Anvisa. Resolução RDC N° 259, de 20 de setembro de 2002. Dispõe sobre a rotulagem geral de alimentos embalados. Diário Oficial União. 23 set 2002.
10. Agência Nacional de Vigilância Sanitária - Anvisa. Resolução RDC N° 54, de 12 de novembro de 2012. Dispõe sobre regulamento técnico sobre informações nutricionais complementares. Diário Oficial União. 13 nov 2012.
11. Brasil. Lei N°10.674, de 16 de maio de 2003. Obriga a que os produtos alimentícios comercializados informem sobre a presença de glúten, como medida preventiva e de controle da doença celíaca. Diário Oficial União. 19 maio 2003.
12. Agência Nacional de Vigilância Sanitária - Anvisa. Resolução RDC N° 360, de 23 de dezembro de 2003. Dispõe sobre a obrigatoriedade da rotulagem nutricional. Diário Oficial União. 26 dez 2003.
13. Brasil. Portaria N° 29, de 13 de janeiro de 1998. Dispõe sobre regulamento técnico referente a alimentos para fins especiais. Diário Oficial União. 30 mar 1998.
14. Brasil. Portaria N° 32, de 13 de janeiro de 1998. Dispõe sobre o regulamento técnico para suplementos vitamínico e/ou minerais. Diário Oficial União. 15 jan 1998.
15. Brasil. Decreto N° 4.680, de 24 de abril de 2003. Regulamenta o direito à informação, assegurado pela lei N° 8.078, de 11 de setembro de 1990, quanto aos alimentos e ingredientes alimentares destinados ao consumo humano ou animal que contenham ou sejam produzidos a partir de organismos geneticamente modificados, sem prejuízo do cumprimento das demais normas aplicáveis. Diário Oficial União. 25 abr 2003.
16. Agência Nacional de Vigilância Sanitária - Anvisa. Resolução RDC n° 26, de 2 de julho de 2015. Dispõe sobre a rotulagem obrigatória dos principais alimentos que causam alergias alimentares. Diário Oficial União. 3 jul 2015.
17. Agência Nacional de Vigilância Sanitária - Anvisa. Resolução RDC N° 273, de 22 de setembro de 2005. Dispõe sobre o regulamento técnico para misturas para o preparo de alimentos e alimentos prontos para o consumo. Diário Oficial União. 23 set 2005.
18. Brasil. Instrução normativa N° 12, de 28 de março de 2008. Dispõe sobre o regulamento técnico do feijão, definindo o seu padrão oficial de classificação, com os requisitos de identidade e qualidade, a amostragem, o modo de apresentação e a marcação ou rotulagem. Diário Oficial União. 31 mar 2008.
19. Brasil. Instrução normativa N° 6, de 18 de fevereiro de 2009. Dispõe sobre o regulamento técnico do arroz, definindo seu padrão oficial de classificação, com requisitos de identidade, qualidade, a amostragem, o modo de apresentação e a marcação ou rotulagem. Diário Oficial União. 18 fev 2009.

20. Barros NVA, Batista LPR, Landim LASR, Leal MJB, Costa NQ, Hipólito TLB et al. Análise da rotulagem de alimentos *diet* e *light* comercializados em Teresina, PI. Ensaios Cien. 2012;16(4):51-60. https://doi.org/10.17921/1415-6938.2012v16n4p%25p
21. Miranda LLS, Soares CS, Almeida CAF, Almeida DKC, Gregório EL, Amaral DA. Análise da rotulagem nutricional de pães de forma com informação nutricional complementar comercializados no município de Belo Horizonte, MG. HU Rev. 2017;43(3):211-17. https://doi.org/10.34019/1982-8047.2017.v43.2814
22. Martinez-Ávila D, Gomes L. Rotulagem alimentar e organização do conhecimento: alegações nutricionais e de saúde em relação ao açúcar. Liinc. 2018;14(2):362-75. https://doi.org/10.18617/liinc.v14i2.4313
23. Borges RG, Conrado ALV, Assis L, Ribeiro CSG. Rotulagem de água mineral engarrafada: avaliação de conformidades às legislações nacional e do Mercosul. InterfacEHS. 2016;11(2):61-79.
24. Santos MCL, Shinohara NKS, Pimentel RMM, Padilha MRF. Rotulagem da goma de tapioca. J Env Analysis Prog. 2018;3(3):330-38. https://doi.org/10.24221/jeap.3.3.2018.2085.330-338
25. Mallet ACT, Oliveira RVA, Oliveira CF, Saron MLG, Costa LMAS. Adequação das rotulagens alimentícias frente a legislação vigente. Cad UniFOA. 2017;35:101-10.
26. Gonçalves IS. Análise de rótulo de pães e biscoitos produzidos por pequenas e medias indústrias das regiões do recôncavo e sudoeste da Bahia e comercializados em Cruz das Almas, BA [tese]. Salvador: Universidade Federal da Bahia; 2012.
27. Silva AS, Lorenzo ND, Santos OV. Comparação dos parâmetros de rotulagem e composição nutricional de barras proteicas. Rev Bras Nutri Esport. 2016;10(57):350-60.
28. Carvalho BG, Souza EB. Análise de rótulos de BCAA comercializados no município de Volta Redonda, RJ. Rev Bras Nutri Esport. 2015;9(49):25-9.
29. Garcia MR. Conformidade da rotulagem de alimento consumidos por escolares à legislação brasileira [dissertação]. Botucatu: Universidade Estatual Paulista; 2012.
30. Moro GMB, Rodrigues RS, Costa JAV, Pizato S, Machado WRC. Avaliação da rotulagem e qualidade físico-química de geleias de uva comercializadas na cidade do Rio Grande, RS. Rev Bras Tec Agro. 2013;7(1);897-910. https://doi.org/10.3895/S1981-36862013000100003
31. Pinto ALD. Análise de rotulagem de alimentos a partir da determinação, em larga escala, de gordura trans [tese]. Belo Horizonte: Universidade Federal de Minas Gerais; 2016.
32. Pedroso TC. Análise dos rótulos de produtos caseiros de panificação [monografia]. Pindamonhangaba: Faculdade de Pindamonhangaba; 2012.
33. Feitosa BF, Oliveira Neto JO, Oliveira ENA, Feitosa JVF, Feitosa RM, Diniz Junior LAM. Avaliação da rotulagem de diferentes marcas de biscoitos recheados sabor chocolate comercializados em Pau do Ferros, RN. Rev Barriguda. 2016;6(2):230-41.
34. O Globo. Anvisa decide retirar o óleo de soja da lista de alergênicos. Rio de Janeiro; Globo; 2017[acesso 15 jan 2019]. Disponível em: https://oglobo.globo.com/economia/defesa-do-consumidor/anvisa-decide-retirar-oleo-de-soja-da-lista-de-alergenicos-21295034
35. Piletti R, Freitas AR. Análise da rotulagem de produtos lácteos de diferentes marcas de acordo com a legislação RDC N° 26, de 2 de julho de 2015. Rev Ciencias Agro Alimentos. 2016:(1);1-11.
36. Agência Nacional de Vigilância Sanitária – Anvisa. Perguntas e respostas sobre a informação nutricional complementar. Brasília: Agência Nacional de Vigilância Sanitária; 2013.

Authors' Contributions

Oliveira KA - Acquisition, analysis, interpretation of data and writing of the work. Jardim FBB - Conception, planning, and review of the work. Lombardi EC - Analysis, interpretation of data and review of the work. All authors approved the final version of the paper.

Conflict of Interest

Authors have no potential conflict of interest to declare, related to this study's political or financial peers and institutions.