

# Food and nutrition actions and their Interface with food security: a comparison between Brazil and Portugal<sup>1</sup>

## Ações de alimentação e nutrição e sua interface com segurança alimentar e nutricional: uma comparação entre Brasil e Portugal

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<sup>1</sup> This article is the product of an Overseas Internship Program Scholarship provided by CAPES (process 1295-10-1).

## Resumo

Este trabalho se propõe a discutir comparativamente as ações de alimentação e nutrição que remetem ao tema da Segurança Alimentar e Nutricional (SAN) no Brasil e em Portugal, tendo em vista que diversos países têm estabelecido diretrizes para a garantia da alimentação adequada. Ambas as nações vivenciam situações de reduzida taxa de fecundidade, aumento da expectativa de vida e prevalências elevadas de doenças e agravos não transmissíveis. No Brasil, 30,2% das famílias vivem em insegurança alimentar; em Portugal, mesmo sem contabilizar a insegurança, 18,0% de seus habitantes encontram-se em risco de pobreza. A Política Nacional de Alimentação e Nutrição (PNAN) é o atual documento brasileiro que visa assegurar o acesso universal ao alimento. Portugal, devido à sua inserção na União Europeia, norteia-se pelo Segundo Plano de Ação Europeu para Política de Alimentação e Nutrição, da WHO, mas também pelo Plano Nacional de Saúde, atualizado periodicamente. Pautados pela intersectorialidade, os países apresentam ações relativas à SAN comuns, como aquelas relacionadas ao combate à obesidade, ao incentivo ao aleitamento materno, à prevenção de deficiências nutricionais e promoção de ações de educação alimentar em meio escolar, enquanto que, especificamente no Brasil, encontram-se estratégias relativas ao combate à desnutrição e, em Portugal, aquelas ligadas à indústria e à produção de alimentos seguros. Com relação à abordagem acerca da SAN, são verificadas distinções: a SAN é mais amplamente discutida pela política brasileira, enquanto que, em Portugal, o tema encontra-se implícito nas diversas ações de alimentação e nutrição. **Palavras-chave:** Política Pública de Saúde; Segurança Alimentar e Nutricional; Programas de Nutrição; Brasil; Portugal.

## Abstract

This paper aims to compare food and nutrition activities related to food and nutritional security (FNS) in Brazil and Portugal, keeping in mind that several countries have established guidelines to guarantee adequate food. Both nations are experiencing a reduction in fertility rates, increased life expectancy, and a high prevalence of non-communicable diseases. In Brazil, 30.2% of households live in food insecurity; in Portugal, even without estimating food insecurity, 18.0% of its inhabitants are at risk for poverty. The National Food and Nutrition Policy is the current Brazilian document which seeks to ensure universal access to food. Portugal, due to its inclusion in the European Union, is guided by the Second WHO European Action Plan for Food and Nutrition Policy as well as by the Portuguese National Health Plan, which has been updated periodically. Guided by the intersectoral approach, these countries share activities related to FNS, such as combating obesity, preventing nutritional deficiencies and promoting dietary education in schools, whereas, specifically in Brazil, some strategies also combat malnutrition and, in Portugal, are linked to industry and the production of safe food. With relation to FNS, some distinctions were seen: FNS is more widely discussed by Brazilian policies, while this subject is implied in several food and nutrition activities in Portugal.

**Keywords:** Health Public Policy; Food Security; Nutrition Programs; Brazil; Portugal.

## Introduction

The epidemiological landscape of nutrition-related diseases has indicated the need for involving areas outside of health, representing a challenge to developing and developed countries. As an expression of this process, the WHO's proposed plan to promote healthy eating (2004) involves the link between health and other sectors such as education, agriculture, urban planning, transport, and communication.

Facing questions related to nutrition, the double burden of diseases: malnutrition, which is connected to issues of hunger and poverty, and obesity, related to lifestyle and the obesogenic environment of today's society, countries have been driven to establish policies and national directives aimed at establishing actions combating these issues (Brasil, 2003; WHO, 2008).

The voluntary guidelines adopted by the FAO in 2004 to support progressive realization of the right to adequate food provided the states with guidance in implementing this right through actions to construct a supportive environment where people can feed themselves in an appropriate way. The state's obligation is defined as to respect, promote and protect the right to adequate food, besides presenting measures to make progress towards full realization of this goal (WHO, 2008). Under the lens of food security (FS), these directives emphasize the universality, the interdependence, and the indivisibility of human rights; as a result, it falls to the State to provide an economic, social, political and cultural environment which is peaceful, stable and supportive, in which people can feed themselves with freedom and dignity.

From the perspective of the FAO directives (2004), the need to involve different sectors of the government to guarantee this right to the population is critical.

However, the Global Strategy on Diet, Physical Activity and Health (WHO, 2004) sets the promotion and protection of health as a goal for member states, orienting the development of a space which is favorable to adopting sustainable measures at individual, community, national and global levels, which will reduce the morbidity and mortality associated with an unhealthy diet and lack of physical activity.

The WHO Strategy describes essential measures for preventing diseases and promoting health, including those which approach all aspects of an unbalanced diet, through excesses as well as deficiencies. The document shows the decisive role of governments in achieving sustainable changes in public health and reinforces the fact that health is essential in coordinating and facilitating the contributions of other ministries and government institutions such as those charged with creating policy related to nutrition, agriculture, youth, recreation, sports, education, market and industry, the treasury, transportation, communication, social subjects, and environmental and urban planning.

Keeping this discussion in mind, in this paper we propose to compare and discuss those actions related to diet and nutrition concerning to the topic of FS in Brazil and Portugal.

To conduct this study, we analyzed official documents which outlined both countries' actions in 2010 and 2011. Regarding Brazil, we analyzed the National Food and Nutrition Policy (Brasil, 2003), while for Portugal, we studied the National Health Plan (Portugal, 2004). However, in the absence of other specific documents on diet and nutrition, we also analyzed the Second WHO European Action Plan for Food and Nutrition Policy 2007-2012 (WHO, 2008).

The respective documents were read in order to identify aspects which converged and diverged between the countries; which were divided into different categories: intersectoriality, food industry, food safety, scientific research, human resources training, micronutrient deficiency, food and nutritional surveillance, attention to low income families, child and adolescent health, obesity, malnutrition and FS contextualization.

## Epidemiological, populational and social context

### Brazil

With just over 190 million inhabitants (IBGE, 2010d), Brazil's growth rate is slowing, while the Human Development Index (HDI) has been rising and reached 0.718 in 2011, achieving 84th place in the worldwide ranking. Life expectancy grew to 73.5

years, an increase of more than 10% in 20 years; the fertility rate was 1.8 births per woman (UNDP, 2011), and the infant mortality rate was 22.47/1000, still high compared to many countries, but continuing to fall. The association of these characteristics has altered the population pyramid of the country: the typically triangular format, with its broad base, represents a rapidly aging society (Vieira and Reis, 2010).

These population shifts are reflected in the epidemiological situation of the country, where the main causes of death are circulatory system diseases and cancer (Vieira and Reis, 2010). This epidemiological transition is represented by a lower population with weight and height deficits, and increase of overweight. For individuals from 5 to 9 years-old, 6.8% were stunted and 4.1% had low Body Mass Index (BMIs) for their age. However, 25.4% of adolescents and 53.8% of adults were overweight (IBGE, 2010a).

This nutritional profile is partly due to changes in standards of food consumption. Between 2002 and 2008, the number of meals eaten outside home rose 30%. There was also an increase in purchases of preprepared foods (37.0%), cola-based soft drinks (20.0%), and beer (88.8%). In contrast, purchases of pulses fell (19.4%) as did purchases of grains (20.5%) (IBGE, 2010b).

Concerning the country's FS situation, the National Household Sample Survey (IBGE, 2010c) indicated that 30.2% of families lived in situations classified as insecure, most frequently in rural areas and in the North and Northeast of the country. The same data also showed that 5.0% of families were classified as being in a state of severe food insecurity. Even with improvement on the national scale, food insecurity represents a worrying situation among Brazilian families, and is reflected in the health of the population (Vieira and Cervato-Mancuso, 2010).

### Portugal

Portugal has 10.6 million inhabitants (INE, 2010), with a low population growth, and with a HDI of 0.809, occupying the 41<sup>st</sup> place in the world ranking. Life expectancy has increased to 79.5 years; along with low fertility rates (3.16 in 1960, falling to 1.3 in 2006) (UNDP, 2011) and infant mortality (3.64/1000),

the population is aging (INE, 2010).

As for epidemiological profile, hypertension is the most prevalent disease, and cardiovascular diseases and cancer are among the main causes of death (INSA/ONSA, 2009). In Portugal, the proportion of people with malnutrition was less than 2.5% (PNUD, 2008); in contrast, 31.5% of children from 7 to 9 years-old were overweight (Padez et al., 2004), as were 54.0% of men and 46.0% of women (Carmo et al., 2006).

The current dietary pattern in Portugal is characterized by a withdrawal from the Mediterranean Diet, with increased consumption of sodium and fat and fewer vegetables and fruit, especially among the younger set; consumption of alcoholic beverages remains high, although with changes in the type of beverage, as consumption of wine has fallen and consumption of beer and other beverages has increased (INE, 2006).

With regards to the FS situation, a national study verified changes in the consumption of some foods considered essential due to economic difficulties in 8.1% of households (INSA/ONSA, 2003b). Data from the 4<sup>th</sup> National Health Survey of 2005/2006 indicate that, in more than a third of the population, nutritional insecurity coexists with overweight (Amaral et al., 2010). Despite the lack of data about food insecurity in Portugal, it is estimated that 18.0% of the population lives at risk of poverty (INE, 2009).

Furthermore, Portugal has the third highest level of household income inequality in the European Union. In 2008, in Portugal the Gini Index measuring the discrepancies between the rich and poor comes was 36% (CSO, 2010).

## Food and Nutrition Actions in the area of FS in Brazil and Portugal

Three important sectors of Brazilian federal government can be chosen to discuss direct food and nutrition actions: the Ministry of Health, represented by the Coordinator-General of Food and Nutrition, the Ministry of Education, which is responsible for important issues related to food in schools, and the Ministry of Social Development and Combating Hunger, which coordinates actions related to food access from a human rights perspective.

All of these are directly linked to the National Food and Nutrition Policy (Política Nacional de Alimentação e Nutrição: PNaN), which was established in 1999 and was the first document to focus on food and nutrition in Brazil. Its goal is to guarantee the quality of food consumed in the country, promote healthy nutritional practices, prevent and control nutritional disorders, and stimulate intersectorial actions. As can be seen in Chart 1, according to PNaN, intersectoriality with regards to FS is aimed at including areas outside of health, such as civil society and the food-producing sector, in order to foster universal access to food (Brasil, 2003).

Various aspects are emphasized in PNaN, such as issues related to food quality, with stress on the importance of sanitary surveillance to protect consumer health, keeping in mind the increase in consumption of industrialized goods and meals outside the home. Furthermore, the need to meet market needs related to food by stimulating innovative technology in food production is stressed (Chart 1). However, keeping in mind the growth of the producing market, the Policy points to the need for adequate monitoring and the existence of regulations throughout the entire food production chain (Brasil, 2003).

It also focuses on the promotion of healthier dietary practices and lifestyles, including promotion of breastfeeding, prevention and control of diseases associated with diet, and the systematization of monitoring the population's nutrition.

Aspects related to scientific research and human resources are fundamental to implementing PNaN's directives and supporting its actions. The lines of research to be established and supported aim to contribute to topics related to the national scenario, such as malnutrition, the relationship between diet and chronic diseases, assessment of food composition, and breastfeeding, to define and conduct nutritional activities. Professional training and continuing education are described in the Policy in order to supply the health sector with a good quantity and quality of professionals (Chart 1), and intends to integrate the health services and institutions of professional and higher education.

Based on its directives, PNaN systematized various actions, such as those related to fighting

**Chart 1 - Comparison of the characteristics of the principal food and nutrition actions undertaken by Brazil and Portugal. São Paulo, 2011**

Topics	Brazil	Portugal
FS Context	As part of the human right to food and health promotion.	Focus on poverty, on foods with low nutritional value, and lack of access to food related to low income.
Intersectoriality	Connection between government sectors, the productive sector, and civil society to guarantee universal access to adequate food. Activities to generate employment.	Revision of agricultural policy, incentives for local and urban agriculture, facilitation of imports and guarantee of less use of pesticides.
Micronutrient Deficiencies	Food fortification, nutritional guidance, and supplying supplements. Existence of national programs to combat various deficiencies.	Public health problem. Food fortification, nutritional guidance, and supplements are suggested.
Malnutrition	Prevalence is declining but still, disturbingly, present among children. Reinforced family approach, nutritional education, and food distribution.	Not considered a problem (low prevalence). Related to food insecurity. Greater concern with bedridden elderly and sick people.
Obesity	More recent situation that includes children, in greater proportions than malnutrition.	Considered to be an epidemic. The Platform Against Obesity, to correct habits which are determinants for excess weight and contribute to the development of a culture of promoting a healthy weight.
Breastfeeding	Educational activities are conducted. Legislation exists which supports maternal/child contact, including increasing maternity leave to 6 months.	Target of policies fostering this practice (educational activities and proposed legislation that supports mother/child contact). There are still few concrete activities.
Food Industry	Increased consumption of industrialized foods and meals outside the home. Importance of developing adequate techniques for food production to meet market demands.	Need for intervention strategies that take into account diet's complex network of causality. Reformulation of the food production chain is proposed. Incentives for using technology to produce healthy foods.
Scientific Research	Investigation of malnutrition, relationship between diet and chronic disease, evaluation of the nutritional values of foods, breastfeeding, and anthropological/ethnographic relationships to dietary habits.	Need to improve research in the public and private sectors, considering the social and cultural aspects of diet, and to assess the social impact of commercial trends.
Food safety	Technological advances in food production stand out; regulation and monitoring of products based on intersectoriality.	Concern with food-borne illness, microorganism resistance, agrochemical contamination and food allergies, indicating the creation of specific policies. Includes water quality.

nutritional deficits (iron, iodine and vitamin A), the Food and Nutritional Surveillance System (Sistema de Vigilância Alimentar e Nutricional: SISVAN), the development of a communication network between professionals involved with PNAN and important documents, such as the Dietary Guidelines for the Brazilian Population and the Brazilian Table of Food Composition (Tabela Brasileira de Composição dos Alimentos: TACO). It also contributed to the assessment of a wealth-distribution program known as *Bolsa Família* (PBF), and encouraged healthy eating in the school environment.

Actions related to nutritional deficiencies, which are conducted in a preventative way in primary care, focused on the groups which are proportionally more vulnerable, such as children, pregnant women and women who have just given birth, given the relatively high rates of these disorders in these populations. The National Survey of Demographics and Health of Children and Women (Brasil, 2006b) indicates a prevalence of 20.9% and 29.4% of iron deficiency anemia in children and women, respectively. Vitamin A deficiency occurs in 17.4% and 12.3% of these groups (Brasil, 2010b), and in 2004 the rate of goiter was 1.4% (an important decrease, considering that in 1974 the rate was ten times greater). Support materials have also been produced to complement the strategy with positive impacts, such as industrial adjustments to iodize salt for consumption (Brasil, 2010d) and increased ferrous sulfate requirements for pregnant women: above 90.0% in 18 of the 27 Brazilian states (Brasil, 2010a). The synthesis of information related to combating nutritional deficiencies can be found in Chart 1.

Concerning materials' focus on PNAN's promotion of healthy diet, that which deserves the most attention is the Dietary Guidelines for the Brazilian Population (Guia Alimentar para a População Brasileira) which was launched in 2005 (Brasil, 2005) in line with the Global Strategy (WHO, 2004); these were the first recommendations officially released on a national level. It is characterized by the use of positive messages and an integrated approach, considering food as a reference for guidance, based on the food culture and environmental sustainability. This material is complemented by other materials specific to certain age groups, such

as breastfeeding mothers and the elderly, in order to homogenize the nutritional messages used by health professionals, with a focus on promoting health and preventing diseases.

The Dietary Guidelines aims to meet the challenge of the double burden of diseases existing in the country: malnutrition and obesity (Chart 1). In both cases, the most worrying situation concerns children, keeping in mind that malnutrition has become less prevalent but still persists in Brazilian population; an educational approach which involves the family and food distribution is recommended. On the other hand, obesity is constantly increasing in all age groups, including younger people (IBGE, 2010a).

As SISVAN, a system which has been in existence since 1976, took national responsibility for monitoring the state of the population's nutrition and food consumption in 1990, its implementation intensified with PNAN, and it is carried out through the National Health System. As shown in Chart 1, the Brazilian system of nutritional surveillance seeks to enable the formulation of public policy, planning, monitoring and assessment of social programs related to food and nutrition. Through SISVAN, national health indicators could be established, such as the rate of overweight or underweight in different age groups the prevalence of chronic diseases such as diabetes, hypertension, and cancer, the duration of exclusive breastfeeding, as well as an assessment of household food insecurity (Brasil, 2010c).

Also related to improvements in the production of scientific knowledge, the proposition of the TACO, based on national dishes and regional recipes, stresses how important is it to know the composition of foods which are consumed in order to get closer to achieving FS (NEPA/UNICAMP, 2006). Launched in 2004, this document is relevant to conducting actions in agriculture, industry and education, supporting the public policies and services which protect the population, the environment and biodiversity.

A program instituted in PNAN's area was the *Bolsa Família* Program, which consists of a direct transfer of income depending on conditions related to health and education (Chart 1). In order to contribute to reducing food insecurity prevalence, it represents a strategy that benefits families in pov-

erty and extreme poverty, with important impacts on family spending on food (Brasil, 2011b); however, there is not yet information about how purchasing power affects diet quality.

Another characteristic of food and nutrition actions relative to FS refers to the population of children and adolescents (Chart 1), which is the recurring focus of State actions and, consequently, the National Student Food Program (Programa Nacional de Alimentação do Escolar: PNAE), which has been in existence since 1955. Coordinated by the Ministry of Education, it guarantees food to basic education students enrolled in public and charity schools through transfer of financial resources. The goal of this initiative is to meet the nutritional needs of individuals during school time, contributing to their growth, development, learning, and school effectiveness, as well as promoting the formation of healthy eating habits (FNDE, 2010). Interministerial Ordinance 1,010 established directives for the promotion of healthy eating in public and private early childhood education programs, elementary schools and high schools; these included nutritional and food education activities, considering cultural aspects and eating habits, stimulating the production of school gardens, establishing good food handling practices, restricting the sale of foods with high levels of saturated and trans fats, sodium and sugar, and offering incentives to consume fruits and vegetables and to conduct nutritional monitoring of students (Brasil, 2006a). Furthermore, it has stimulated PNAE's potential in encouraging local food production, helping to develop rural and urban agriculture (Triches and Schneider, 2010).

Regarding Portugal, food and nutrition actions have followed the European policies. In this context, the First WHO Action Plan for Food and Nutrition Policy for the WHO European Region 2000-2005 (WHO, 2001a) stands out; this policy expressed the need to develop policies to promote health, helping to reduce diet-related diseases. In 2007, the Second WHO European Action Plan for Food and Nutrition Policy was developed in order to promote the adoption of healthy lifestyles in the European population, fostering healthy eating habits and physical activity. This emphasizes promotion of physical activity, as well as concern with the environmental impact of

producing and processing food, acting in accordance with the Global Strategy of Food, Physical Activity and Health. Furthermore, the Plan reinforces the importance of intersectoriality, highlighting the link between the food-producing sector through revising agricultural policy, encouraging local and urban agriculture, and reflecting on the use of pesticides, as well as pointing out the facilitation of import processes in the area of food (WHO, 2006), as shown in Chart 1.

The European document stresses the importance of establishing coherent intervention strategies with the causal relationship regarding dietary practices, as it is necessary to reformulate the food production chain in order to encourage production of healthier foods (WHO, 2006).

Specifically in Portugal, the National Health Plan (Portugal, 2004) integrates strategy promoting health, rising as a management tool with strategic orientation meant to support the National System of Health; one of these is related to the conception of a human resources policy for the health field (Chart 1). This Plan indicates that, despite the fact that health gains have been significant, diseases associated with poverty and social exclusion are accentuated as a result of the increase in social inequality, the aging of the population, greater populational mobility, and a growing number of immigrants. The Plan came into being with the implementation of a set of programs, among which are some related to food and nutrition, such as for example the National Intervention Program integrated with Health Determinants related to Lifestyle.

Recognizing obesity as a serious public health problem in Europe, a Platform on “Diet, physical activity and health” was developed to reduce the risk factors for non-transmissible chronic diseases and encourage the development of policies in the area of nutrition and physical activity. A “White Paper on a Strategy for Europe on Nutrition, Overweight and Obesity related health issues” was also established about health problems related to nutrition, excess weight, and obesity, which emphasizes the social dimension of the obesity problem, considering people in deprived socio-economic groups, who show a greater prevalence of obesity, as priorities for action (Gregório and Padrão, 2010).

As a consequence of this initiative in Portugal, the Platform Against Obesity created by the Director-General of Health came about as a response to the elevated rates of obesity, and proposed to create conditions where effective, integrated and multisectorial approaches to prevent and control the problem in the country can be created. At the same time, questions related to malnutrition are not considered a public health problem due to its low prevalence; it is more common among bed-bound older populations and in regions where there are problems with access to food (WHO, 2008). Questions related to interventions concerning obesity and malnutrition can be seen in Chart 1.

Among the Platform's actions, the School Fruit Scheme (Regime da Fruta Escolar: RFE) stands out; it represents an intersectorial initiative involving the Ministry of Agriculture, Rural Development and Fisheries, Ministry of Health, and Ministry of Education (Chart 1). Its objective is to reinforce healthy eating practices, and to train children and families to adopt competencies which lead to greater consumption of fruit and vegetables through free distribution of these foods to all students in the first cycle of elementary education (Portugal, 2009).

Intervention in priority groups, such as children in the school environment, deserves emphasis. The National Student Health and Healthy Diet Promotion Program, for example, is a partnership between the Health and Education sectors. Aimed at educators, its principal goal is to reinforce a healthy lifestyle based on the principles of health promoting schools (Portugal, 2006).

Even with the emphasis on actions focused on non-communicable diseases in Portugal in the face of considering obesity as an epidemic, there is also concern with matters related to the consumption of safe food in the country, as can be seen in Chart 1, such as food-borne illness, resistance of microorganisms, water quality, chemical contamination, and food allergies; for this last issue, there is mention of the importance of developing a specific policy (WHO, 2008).

As for nutritional diagnosis (Chart 1), The National Health Observatory, besides being responsible for National Health Surveys, also evaluates food consumption, and providing anthropometric data

about the Portuguese population. It also conducts studies on the food and nutrition situation, despite the lack of a food and nutrition surveillance system (INSA/ONSA, 2003a; INSA/ONSA, 2003b).

Under the Platform Against Obesity, studies have been conducted related to the assessment of the nutritional status of the population. For that, the National Center for Observation of Obesity and Weight Control is integrated into the Platform, with the goal of monitoring obesity in the country (Portugal, 2010).

With regards to diagnosis of nutritional deficiencies, Portugal utilizes data cited by the WHO (2006) which indicate that iron deficiency is still a reality, and the prevalence of anemia was 12.7% in pre-school aged children, 17.3% in pregnant women, and 15.0% in non-pregnant women. Due to these alarming data, the WHO suggests actions related to food fortification, nutritional orientation and providing supplements (WHO, 2008), as can be seen in Chart 1.

With reference to the information about the population's food consumption, the only national survey was conducted in 1980 (Ferreira and Cruz, 1986) and, in recent years, information related to food consumption has been obtained through home diet studies, namely using data obtained from the Surveys on Family Budgets and by the Food Balances (Almeida et al., 1999; INE, 2006). Furthermore, materials have been developed such as the Portuguese Table of Food Composition, which are educational in nature or provide scientific support for nutritional monitoring and promotion of healthy eating (Martins et al., 2007).

## Reflections on progress towards attaining FS through the principal actions which were analyzed

Economic and political questions are relevant to understating countries' positions on public actions in the area of food and, as a result, those connected to FS. The processes of economic development related to diet in Brazil and Portugal occur in distinct ways, but have some characteristics in common.

In Brazil, industrial growth occurred at the beginning of the twentieth century with the migration of the population from rural to urban areas, and

at the end of that century, international relations increased. Due to the country's size and distinct processes in city formation, social disparities arose and were reflected in diet and nutrition. Structural diversity characterizes the history of public policies with a focus on social vulnerability and an emphasis on hunger and malnutrition (Valente, 2003). These characteristics certainly facilitate the discussion of FS in the country, aiming to guarantee food access, in principle, to satisfy nutritional needs and, more recently, healthy diet according to a human rights and health-promotion perspective (Belik, 2006).

In Portugal, the development process is different from that of the rest of Europe. Keeping in mind that, before entering the European Union (EU), the food production and sales sectors were not internationally well-connected, and afterwards, there was a rapid need to adjust to the competition of an open market, and access to the food standards characteristic of modern society rapidly increased. The growth of the country's industrial and economic sector was also evident, which increased the population's purchasing power. Furthermore, entrance into the EU forced the country to standardize the rules for handling, labeling and hygiene, showing a national concern with issues related to food safety, from a sanitary point of view (FCNAUP, 2004).

FS has come to be discussed internationally; according to the FAO (2003), it exists when all people have uninterrupted physical, social and economic access to sufficient, secure, and nutritious food that meets their dietary needs and preferences for a healthy and active life. In Brazil, this became law in 2006 and unites the concept of establishing food as a right with the need for health-promoting dietary practices which respect cultural diversity and are environmentally, culturally, economically, and socially sustainable to guarantee FS. In 2010, the law was endorsed with the institution of the National Policy for Food Security (Brasil, 2010c), which sought to promote universal access to adequate food and the organization of sustainable and decentralized systems from food production to distribution; institution of permanent processes for education, research and training in FS; promotion, universalization and coordination of actions aimed at traditional communities; strengthening of food

and nutrition actions at all levels of health care; support for initiatives promoting the country's food independence; and monitoring of the realization of the human right to adequate food.

Nevertheless, although it is less common in Europe, discussion of FS is a reality characterized by a lack of access to food due to questions of poverty and distribution of foods with low nutritional quality. However, discussion of this topic is still in the early stages of development in Portugal. Few studies have been conducted in this area in this country (INSA/ONSA, 2003b; Amaral et al., 2010) and, mainly, the topic does not appear clearly in public policies. Rodrigues and Miranda (2010) verified the connection between situations of food insecurity and unemployment and high numbers of people in the household, and showed that, initially, insecurity tends to affect the quality of foods available, and can provoke an increase in non-communicable diseases such as obesity. Amaral et al. (2010) also verified, through data from the National Health Survey, the coexistence of food insecurity and overweight in a high percentage of Portuguese adults.

The nutritional policies which exist in a country point to the understanding of existing concepts surrounding FS. Even though Portugal does not have a national policy, the Second WHO European Action Plan for Food and Nutrition Policy reflects decision making and actions in the country. This document, together with Portugal's National Health Plan, as well as PNAN, discuss FS from different points of view (Chart 1).

As for one of the most relevant nutritional deficiencies, malnutrition, despite the fact that the WHO emphasizes this topic, when compared to PNAN, the organization determined the need to establish programs protecting groups which are vulnerable or of low socio-economic levels through subsidies to acquire food, facilitated access to restaurants and other forms of social support. Micronutrient deficiencies have already come to be a public health concern in Brazil as well as Portugal.

Considering the above discussion, food insecurity situations appear in conjunction with problems related to overweight and, as a result, require actions pertinent to this topic which also consider the whole individual and the complex casual relationship sur-

rounding obesity. Combating the high prevalence of overweight is amply discussed in both the PNAN and the Second WHO European Action Plan for Food and Nutrition Policy. Translated into action, Brazil and Portugal use the Global Strategy for Healthy Eating, Physical Activity and Health to discuss this topic. Specifically in Portugal, the Platform Against Obesity can be considered to be related to a FS policy, as it stimulates healthy eating practices to the population.

Other proposals approach the context of FS, RFE allows access to food, as well as sustainability of the local economy, by using local producers to supply fruits and vegetables. With its focus on reducing obesity, it also contributes to acquiring competencies in the areas of nutrition education and health in the school environment (Portugal, 2009).

Programs that serve low income families to meet basic needs are common in many regions of the world, and this is represented in Brazil by the *Bolsa Família* Program; in Portugal, there is the *Rendimento Social de Inserção* Program as a policy measure which contributes to reduce inequality and alleviate poverty and social exclusion. This program is targeted at low income individuals or families need, representing monetary assistance, social and professional insertion (Portugal, 2003).

Both revolve around financial assistance and are generated by non-health areas but in Brazil, the relationship between this assistance and the nutritional improvement of the population is clear, while in Portugal there is no mention of repercussions in food access. PNAN supports and contributes to the evaluation of the *Bolsa Família* program, while in Portugal, the Ministry of Health does not get involved.

Another aspect to be discussed refers to the term “food security”, which is widely used in Brazil but is confused with “food safety” due to the similar nomenclature. Furthermore, safety from the sanitary point of view represents a concept that has a longer history and is therefore more widespread in the area of health and diet. But “food security” is widely discussed on the international area, and instruments even exist which measure a family’s situation with relation to insecurity. As mentioned previously, in Portugal discussion of food safety is

tied to the prevention of risks in the food chain due to chemical or biological contamination. However, according to the current situation of economic instability, some educational messages have arisen in order to guarantee FS, and some messages have been observed which aim to teach how to obtain an adequate diet at a low cost. Within the scope of the Platform Against Obesity, some guidelines on a more economical and nutritionally balanced diet was found, as well as low-cost recipes. The Portuguese Association of Nutritionists (Cordeiro et al., 2011) has also proposed materials, including items which form the basis of an adequate monthly diet for a typical Portuguese family, in order to make the Human Right to Adequate Diet more concrete.

The existence of human resources is one of the aspects where public policies can act and, therefore, it is necessary to analyze this aspect. With the process of globalization impacting the health sector in terms of technological resources as well as human resources, the WHO has tended to encourage the circulation of health professionals between nations (WHO, 2001b). The Bologna Process, in turn, created a European Area of Higher Education, standardizing the courses in various countries (EME, 1999). However, particularities between nations should be considered so that the health professional can be prepared to intervene in the local health scenario.

As a result, between Brazil and Portugal, starting from the different processes of conceiving higher education in nutrition, a relevant area from a FS perspective, there are different professional profiles.

While in Portugal there are six institutions that train nutritionists (Real et al., 2011) for slightly more than 10 million inhabitants, in Brazil there are at least 312 courses for 190 million people (Brasil, 2011a). This means that Brazil has more than three times the number of institutions in relation to the number of inhabitants, indicating a larger contingent of professionals to participate in actions related to FS. It is also important to consider the different history of the career in the two countries: in Brazil the profession has existed for 71 years, while in Portugal it has existed for 30 years, indicating differences in the process of expanding these professionals’ activities. Besides considering the quantitative availability of the professional in each

country, it is relevant to discuss that the courses may view nutritionist training with different objectives for their activity. In Brazil, the National Curriculum Directives indicate a professional “with generalist, humanist and critical training, prepared to act, viewing food security and diet care, in all areas of knowledge in which diet and nutrition are fundamental to the promotion, maintenance, and recovery of health and to prevent diseases in individuals or population groups” (Brasil, 2001). In Portugal, despite the lack of a defined profile for the nutritionists, the Portuguese Association of Nutritionists indicates that this professional can act in pursuit of dietary improvement to contribute to quality of life. In Portugal, nutritionists intervene in the diet of various age groups, sporting groups and with relation to diseases, and are indispensable in hospitals for nutritional evaluation and intervention for inpatients and clinic patients, while in health and government centers, they help to establish diet policy and transmit dietary advice to the population; in food service companies, they act to guarantee that secure diet plans meet all energy and nutrient needs, and they can also act in scientific investigations and as professors (Real et al., 2011).

## Final considerations

This article sought to present Brazil’s and Portugal’s actions and efforts to bring about the human right to adequate food, and the following factors show differences between the countries: FS is more widely discussed by Brazilian policy, while in Portugal, the topic is implicit in various activities.

The food and nutrition actions which refer to the topic of FS in Brazil and Portugal indicate the need for intersectorial strategies which extrapolate the health sector and refer to combating obesity, preventing nutritional deficiencies, and promoting nutrition education programs in the school environment. Actions specific to Brazil reflect those which emphasize a preoccupation with malnutrition, while in Portugal, greater efforts are seen to interfere at the food industry level and in measures for safety food production.

In the face of political and economic changes

which are affecting the European continent, bringing about important consequences for the health conditions of the Portuguese population and even the FS situation of families, deeper reflection on the subject of guaranteeing the human right to adequate nutrition is relevant. Besides the possibility of increasing numbers of individuals with social vulnerability, who face greater risk of compromised food access, the current dietary standard, which is characterized by the increase in industrialized foods, reflects other questions related to food insecurity such as loss of a country’s ability to feed its own people and the increased influence of the food industry in people’s dietary choices.

The differences between Brazil and Portugal are related to the political, economic and historical characteristics of each country, as well as the perception of the concept of health promotion in each place and the availability of health professionals to act in this scenario. Such aspects indicate the need for discussion about the training and activities of these professionals together with each nation’s characteristics, in order for these professionals to intervene in attaining the human right to adequate nutrition.

Besides the investment in human resources in the health sector of each country, it is important that Brazil and Portugal emphasize the topic of FS in general in proposed dietary and nutritional actions involving different areas of government and civil society. Emphasis on actions which seek to guarantee an adequate food to the population is important to reduce families’ food insecurity. However, investment in educational strategies which promote autonomy and the emancipation of individuals, as well as popular participation, is fundamental to ensuring that the social impact of these actions will be broad and sustainable.

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Received: 19/06/2011  
 Resubmitted: 25/01/2012  
 Approved: 04/04/2012