

# Integration of fields of public health and food and nutrition in the context of health promotion related to chronic non-communicable diseases

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## Abstract

Whereas chronic non-communicable diseases (NCDs) are one of the most important problems in public health today, this article aims to critically review the literature regarding integration between the fields of Public Health (PH) and Food and Nutrition (FN) in the context of health promotion related to NCDs. Thus, it became clear that in dealing with issues related to NCDs it is necessary to think about several factors that interact to form a complex, but possible, procedure for (re)constructing more effective intervention strategies, and that it becomes increasingly necessary to make up intersectoral and interdisciplinary actions aiming at more effective results.

**Keywords:** Feeding. Nutrition. Public Health. Health Promotion. Chronic Diseases.

## Introduction

Chronic non-communicable diseases (NCDs) in Brazil accounted for 72 % of deaths in 2007 and are considered one of the most relevant problems,<sup>1</sup> besides being the ones that are the most costly to the health care system, and nevertheless contributing for the progressive reduction of quality of life.

Among the multiple predictors of NCD are: biological, demographic, socioeconomic and especially the lifestyle characteristics, such as quality of nutrition and physical activity. In addition, factors that mark the contemporary aspects, such as urbanization; changes in the relationship between time and space; industrialization; multiplicity of roles of women, which still plays a central role in health care and feeding the family; marketing, among others; are attributed to changes in food habits of Brazilians.<sup>2</sup>

In dealing with NCDs and the public health system in Brazil, health promotion has gained remarkable importance. Thus, it is important to point out policies on food and nutrition, as well as access to adequate food – in quantity and quality – which makes it essential to link these determinants with the condition of life of the population.

Therefore, for a long time, food and nutrition (FN), although relevant at all levels of health and cited in all policies and legislation related to health and human rights – including the Federal Constitution, regarded as the Magna Carta (Latin for Great Charter) for the Brazilian population – were not very clearly defined and would sound more like a prophecy. Thus, they were public knowledge and discussed, but one could not enter them and interrelate them in the field of Public Health in the various levels of care.

A Política Nacional de Alimentação e Nutrição (PNAN – National Food and Nutrition Policy),<sup>3</sup> published in the late 1990s, has marked an important step for delineating an area in the health field, highlighting the epidemiological, nutritional and demographic transitions when there were, in the country, extremes of malnutrition and nutritional deficiencies, along with the high prevalence of obesity and diseases associated with food.<sup>4</sup>

Therefore, one should also think about Food and Nutrition epidemiologically, without reducing them to relations of sociodemographic and economic variables, trying to articulate categories (nature and culture) that may expand the studies, for example, on risks for nutritional problems, or interaction between micronutrient deficiency and socioeconomic and cultural factors and other relationships.<sup>5</sup>

That said, the possible link between FN as elements of health and care promotion in dealing with NCDs, although undeniably indispensable, is somewhat fragile because of the elements involved, from the difficulties of implementing policies on food and nutrition to food habits of the population.

Considering the relevance of the theme to public health, the aim of this study was to critically review the literature, proposing a discussion of the interface between the fields of Public Health (PH) and Food and Nutrition (FN) in the context of health promotion related to NCDs, outlining relevant society's issues pertaining access to food, freedom and possibility of food choice; contextualize the main factors that interact in this complex matter as well as highlight the contribution of FN specific policies to achieve the healthy lifestyle in the prevention of NCDs.

## Methods

An extensive search of scientific evidence available on the official website of the Ministry of Health in Brazil and BIREME database (including LILACS, MEDLINE and SciELO) was performed by means of the Virtual Health Library (VHL) – BIREME/PAHO/WHO, without using filters of date, language or publication type, using the descriptors: “food”, “nutrition in public health”, “health promotion” and “chronic disease”; gathering the information relevant to the topic and promoting the procedure of scientific update.

As eligibility criteria, only Brazilian articles were considered, or the ones that reported on themes in Brazil, since each country has specific policies, programs and legislation and the objective of this study does not consider global scopes.

## Results and discussion

Textual analysis was conducted after selection of articles that addressed the problem of this study (n = 14), whose results are presented below, in a descriptive manner, by emerging thematic groups.

### Promoting health

The role of health promotion, in its importance as a key strategy to address the problems of the health-disease-care procedures and their determination,<sup>6</sup> lies in the theoretical and practical construction procedures, and points to the redirection of health policies and programs in the country.<sup>7</sup>

Although not new, the term “health promotion” reappears as a promising strategy for the Public Health field only in the last twenty years, in response to the increasing medicalization, low effectiveness of health services and high costs of the sector.<sup>7</sup>

According to Pádua and Boog,<sup>8</sup> when it comes to health promotion, it is evident the importance of multidisciplinary work that requires the presence and participation of various health professionals, which will also ensure full health care. One must consider, however, that the integral care does not qualify as an automatic process, a direct result of the presence of diverse knowledge and professions. The actions of health promotion require the establishment of democratic and participatory spaces in order to establish an approach to the reality of individuals and populations..<sup>7</sup> “Health is the result of a broad spectrum associated with quality of life, comprising a set of values: social justice, education, income, housing, food, nutrition, work, etc”.<sup>7</sup>

It is relevant to highlight how health professionals and other sectors of society interact with this particular issue. In theory, one must consider that the actions can not and should not focus on health services, or be centered on health professionals. Thus, intersectionality is presented as a strategic priority in building legitimate spaces for dialogue between the different sectors involved in food dynamics, aiming to ensure access to adequate food,<sup>7</sup> while health professionals undertake to develop an integrated and shared learning in the practice of health promotion.

This is not necessarily an automatic procedure, conditioned only in the presence of various different disciplines. Indeed, interdisciplinarity is a challenge faced these days by health professionals, who, recognizing the limits of each area, look for new job opportunities, while facing barriers to work together for the sake of historical, social and professional reasons.<sup>8</sup>

Often, the model of care itself does not favor the implementation of health promotion and quality of life, being focused on addressing specific clinical demands, contradicting the proposal of collective care. Both must go together, but it is essential that emphasis be given to promotion and prevention, and not the welfare.

## Integration between “Food and Nutrition” and “Public Health”

Public Health (PH), as an unapologetically interdisciplinary scientific field – a broad thematic spectrum that penetrates and fertilizes other fields – integrates with food and nutrition,<sup>5</sup> but although it is an overly fertile and broad field, its doing – including in the field of research – is not an automatic procedure, but dependent and related to an endless amount of factors.

According to Bosi and Prado,<sup>5</sup> three nuclei are strongly present and express the epistemological constitution of the field, although it is important to recognize that a debate is polarized between fragmentation and interdisciplinarity in the field: Epidemiology, Humanities and Social Sciences and Planning and Management Policy of Health Systems.

Within the framework of Epidemiology, Public Health seeks the statistical relationships between “causal factors” of diseases in populations and is manifested in a very strong advancement of methodologies and techniques in the health/disease process, as in Food and Nutrition, in relation to studies on hunger and obesity in Brazil.<sup>5</sup> A consequence of this was the development of the *Política Nacional de Alimentação e Nutrição (PNAN)*,<sup>3</sup> whose epidemiological evidence guided the arguments and defined the guidelines.<sup>4</sup>

Regarding the unfolding of Public Health as a humanities and social science, reflections, critiques and transformations are developed about the concept of “thinking about health”. Its greatest contribution is perhaps this insistence on the need to dare to think about food and nutrition as social phenomena, a contribution built within this overlap: Food and Nutrition in Public Health.<sup>5</sup>

Although inserted in the dimension of policy, planning and health management, PH incorporates conceptual elements emphasizing relations with the government and its crises, and the need for planning and management at the population level, which is essential even in relation to Food and Nutrition.<sup>5</sup>

In this sense, implemented in 2006, the *Política Nacional de Promoção da Saúde (PNPS – National Health Promotion Policy)*<sup>9</sup> has included a series of actions in intersectoral coordination and policy development, health education, disease monitoring and risk factors and providing health care focused on healthy diets, physical activity, reducing tobacco use and harmful use of alcohol.<sup>1</sup> This has strengthened the actions of promoting healthy dietary practices earlier outlined in PNAN.<sup>3</sup>

When Public Health relates in particular to the field of Food, considering that this, “meanwhile, is a dynamic ‘procedure’ of construction and reconstruction, be it man’s production, consumption or labor in contemporary society”,<sup>10</sup> it is relevant to think about the core of actions and considerations that such a relationship provides for both the treatment of NCDs and for the insertion of the subject matter of Nutrition in the scope that sustains Public Health.

In this context, Public Health is an open door for nutritional (epidemiological approach) and food (focus in the humanities and social sciences) studies,<sup>11</sup> and suggests a promising path for the field of Food and Nutrition.<sup>7</sup> It Therefore it is necessary to invest in the approach, confrontation and contradictions between these fields and centers of knowledge and practices, in pursuit of dialectically overcoming this bias, as required by increasingly intense challenges that present themselves to health, food and many other aspects of human life.<sup>5</sup>

For the above arguments, the importance of integration of FN and PH is highlighted, as well as their respective policies in clashes in public health, including in conjunction with non-governmental organizations, the private sector and the civil society.

## Contributions of social participation

It is essential to gather a social participation in all matters that have been discussed so far:

*Once individuals take responsibility for the environmental and social consequences of their everyday choices, the specificity of political power in contemporary societies goes beyond the institutional sphere (food and nutrition security, social inequalities in access to food, agricultural policies and regulation of advertising of feed) to reach the private environments.<sup>12</sup>*

By this path, it is noteworthy that, given the control of individuals on any flows and displacements of food, social logics and several beliefs prevail. Therefore, analyzing the social tangents and consequences of food issues, from production and marketing of products to their consumption, is of utmost importance.

By admitting such a narrative, it is possible to highlight that when consumers become aware of the risks associated with the consumption of certain foods, they enter the political arena that, in the field of Food, is characterized by the increasing number of food scandals and conflicts of control and regulation, as well as the large number of conflicting discourses.<sup>12</sup>

Throughout history, and also in line with social and commercial notability and importance, in relation to some special dietary needs, paraphrasing Burlandy,<sup>13</sup> the influence of various social organizations on public policy is remarkable as well as their thematic breadth, and they have contributed to build an institutional place and a more effective and visible approach to food and nutrition issues.

Strengthening health promotion actions has taken place by the enforceability of human rights guarantees, even when they refer to adequate food for the population. Thus, the role of social movements and organizations in the field of FN has gained expressiveness with the progressive democratization of the country, in the decade of 1980,<sup>13</sup> marked by the creation of the Sistema Único de Saúde (SUS – Brazilian unified health system).

The role of the civil society in the area of FN was crucial for consolidating both PNAN and the Política Nacional de Segurança Alimentar e Nutricional (PNSAN – National Policy for Food

and Nutrition Security).<sup>13</sup> As a result of such process, recently the Human Right to Adequate Food (HRAF) has been consolidated as a constitutional amendment,<sup>14</sup> and the access to safe food should be ensured to all Brazilians, in quantity and quality, which is essential for their survival.

This convergence around an agenda for promoting a good and healthy diet is configured as an element of purposeful dialogue between civil society movements of Food Security and Nutrition (FSN) and Public Health.<sup>4</sup>

Mentioned earlier, as the result of a joint effort, including the civil society, PNAN<sup>3</sup> has legislatively established the principles of the Human Right to Adequate Food (HRAF) and FSN for guiding their actions. In its magnitude, directed at promoting health and food and nutrition surveillance, PNAN,<sup>3</sup> in turn, is based on information from SISVAN (Sistema Nacional de Vigilância Alimentar e Nutricional – National System of Food and Nutrition Surveillance). Coming from the routine of primary health care, especially family health teams, it is currently used to measure the results achieved by health managers of the state and municipal governments in achieving the goals of food and nutrition provided for in the Pacto Nacional de Saúde (National Health Plan).<sup>4</sup>

### Promotion of healthy nutritional practices

When considering health promotion and encouraging healthy eating habits in correlation with what has been explained so far, it is necessary to enter the paths of dynamic relationships that individuals have with food.

It seems somewhat logical that if it is possible to establish the relationship between social dynamics and food, and these will be reflected in the prevention of morbidity/mortality by NCDs, it is possible to assume that this procedure should happen within the nutritional and health education. In this context, the promotion of healthy eating habits is a vital strategy for addressing food and nutrition problems of the current context,<sup>6</sup> in which it is necessary to structure an attainable object that is subject to creating intervention strategies for health promotion and prevention, especially in regard to NCDs, in all levels of care where there is a mutual commitment from the professionals, society and government.

While recognizing that education strategies aimed at health as a whole, specifically nutrition, are not sufficient, a set of strategies that will strengthen the impact of food issues in different social and government sectors becomes relevant, pushing actions in a more intersectoral, and thus more comprehensive, dimension.

Following this reasoning, the proposed inclusion of food security issues in school education projects, in different levels of education, can contribute to empower individuals, allowing subjects to “navigate” this sea of information and still consider it within the political and philosophical discussions of Brazilian education, not reducing the subject to a mere inclusion of contents.<sup>6</sup>

However, this is not enough to propose changes in the eating habits of the population. The educator in nutrition does not just convey didactically correct information because it implies grasping how the person experiences the food problem, not only in relation to food consumption itself, but to all subjective and interpersonal matters imbricated in the feeding behavior.<sup>15</sup>

Educating for a healthy diet requires: confrontation of new practices with the social representations of food and their symbolic meaning in the educational process; the reinterpretation of food; and the construction of new meanings to the act of eating. Many health professionals feel unable to enter this educational process, since the undergraduate courses do not advance the issue, or even by disbelief in changing eating habits by not knowing how to do it and judging it to be utopian.

This situation becomes especially chronic when considering the still very clinical, individualistic and less politicized character, focused not only on training courses in various areas of health, but also on the aspects of the individual formation. For example, one can cite the media and the school and the family, which, by massively treating health issues as exclusive of similar diseases, significantly contribute to individuals and professionals that do not encompass completely and are apart from more collective issues and actions that have a broader impact.

Other actions are needed to promote health and healthy food practices. Effective policy measures, such as tax, that prioritize people’s access to healthy foods like fruits and vegetables, and discourage the consumption of processed foods, as well as interventions to guide urban planning with the goal of promoting an active lifestyle and physical activities.<sup>1</sup>

Actions to reduce the sodium content of foods are especially needed and have been developed by means of specific laws and policies of long-term implementation. The Strategic Action Plan for Confronting Chronic Noncommunicable Diseases (NCDs) in Brazil from 2011 to 2022 is cited,<sup>16</sup> that, as a public policy, intends to direct actions on several fronts, although it is still early to assess its possibilities and impacts.

## Access to food

Despite the importance of food and nutrition education to promote healthy eating habits,<sup>6</sup> if problems arise from the difficulty of access to food, the counseling techniques and nutritional guidance little impact will have.<sup>7</sup>

That said, it is necessary to recognize the Brazilian territory and its socio-political history, marked by deep and extensive social and economic inequalities. Also, it is necessary to recognize that a significant part of the population has feeding difficulties, specifically in relation to access to food.

According to Recine and Vasconcellos,<sup>4</sup> systematically monitoring the situation of health, food and nutrition reveals inequalities between geographical regions, population groups and vulnerable populations, and may subsidize interventions for the prevention and control of nutritional disorders and diseases associated with diet and nutrition, and to promote food practices and healthy lifestyles.

In this sense, one should move toward breaking the understanding of SISVAN as a simple systematic collection of anthropometric data, since it can enhance the articulation between the sectors of government, strengthen an expanded conception of the food, nutrition and health issue, and contribute to social programs intended for the most vulnerable groups.<sup>17</sup>

Therefore, based on the guiding fundamentals of the PNAN guidelines,<sup>3</sup> it can be concluded that the effectiveness of surveillance, which is able to overcome the approach of nutritional status including the food dimension, also demands to ensure the availability and conditions of social and physical access to foods, serving as a basis for planning and decision making.<sup>17</sup>

Government programs of direct cash transfer, such as Programa Bolsa Família (PBF – Family Allowance, a social welfare program of the Brazilian government),<sup>18</sup> have enabled the acquisition of food by society, contributing to the reduction of malnutrition in Brazil. This, however, does not guarantee that the population consumes foods that suit its needs.

On one hand there is the PBF,<sup>18</sup> on the other, there is the emancipation and capture of food cultural patterns of this family. Thus, the relative growth of freedom of consumer choice is connected to a quest for emancipation, personal identity and autonomy in the private sphere, pointing to new forms of political action.<sup>12</sup> In this context, intersectoral actions that encompass not only health care but also the actions to encourage family farming, community vegetable gardens and agricultural cooperatives, are presented as viable alternatives.<sup>7</sup>

Thus, if the field of food is politicized by means of the policies of agricultural production and distributional and nutritional policies, it is worth noting that this process of politicization is also given from the perception of the risks and the possibility of political use of consumption choices.<sup>12</sup>

## Food advertising

Issues regarding food education, food consumption patterns and public policies are not exhausted in the world of food, nor their interactions. It is necessary to deliberate and discuss on another important topic related to food, namely, food advertising.

*On one hand, the dynamics of everyday life favors the demand for practical products, of rapid preparation and consumption; on the other hand, there is also a social concern for the health in view of the multiple risks of contemporary food practices associated with chronic diseases, either by low consumption of fruits and vegetables and consequently micronutrients, or excessive consumption of sugar, sodium and fats.<sup>2</sup>*

As part of the food world and in a direct relationship to the economic system, food advertising then undergoes numerous pressures and morphs according to market variations, which, in turn, interact directly in the capture and formation of food standards.

Considering that food is the result of habits and customs influenced and reinforced by information supporting the decision making, the influence of media on the consolidation of a food and nutrition education of the population shows up as a relevant topic for research.<sup>19</sup> Finally, the dimension of food as nature involves its idealized image, opposite to the culture and technology that captures our imagination of what is good, healthy, true and authentic.<sup>12</sup> Therefore, the way as the food values are disseminated in society, considering the growing importance that the media culture has taken in this process, should be treated as a matter of public character.<sup>2</sup>

One must therefore take into consideration that, although not a unique or decisive factor in itself, the increase in time of exposure of people to the content disseminated on TV can influence their choices and eating habits, contributing to an adherence to healthy eating habits that promote health or intensification of inactivity and inadequate food consumption.<sup>19</sup>

When thinking about this question, one must also note that, in an economic system that aims at profit and capital formation, business strategies around food and how they are developed and the speed with which they change, are also factors that influence dietary patterns and, why not?, access to food, when one thinks of eating patterns associated with the lifestyle in this economic dynamics and the priorities that are established by the same system.

The purchasing strategies have changed, from the daily shopping for planned purchases to long-term ones. In addition, marketing strategies, such as promotions, giveaways and sweepstakes, and promotion of brands, seek to encourage consumption, thus intensifying impulse purchases.<sup>20</sup>

According to Victora et al.,<sup>21</sup> since the 1980s, series and other television programs have been intensively used by government and international and civil society organizations to promote healthy behaviors, and although such strategies have had noticeable effects, on the other hand, the means of mass communication have also been widely used for advertising, among others, alcohol and unhealthy foods. The situation is even more serious in relation to processed foods, which are high in calories and low in nutrients, because they are not subject to any regulation, even in relation to advertising to children and adolescents.

Advertising uses inexhaustible strategies to persuade the population to the consumption of the advertised products, especially when dealing with mothers and children.

Food products, mostly with high energy density, are disclosed on television, especially in a repetitive and intense manner, along with images of characters and/or gifts, including collectibles. It emphasizes the nutritional value, explores the practicality and conveys confidence that the product meets the food needs; the commercial break often features a higher pitched sound than the rest of the programming, associated to expressions of affection, joy and musicality, sometimes suggesting excessive consumption or replacement of natural and healthy foods.<sup>2</sup>

In a study conducted by Santos et al.<sup>19</sup> with the objective of analyzing the quantity and time of commercials aired on TV about food, by ranking these according to the food pyramid and identifying the calorie content of the most advertised foods by means of the nutritional information provided on the labels, it was observed that from the 239 food advertisements broadcasted by the two TV stations analyzed, 85 % of the advertised products contained sugars, oils and fats, high sodium levels, with emphasis on cured cold cuts and French fries; no commercial was identified addressing the consumption of fruits and vegetables, it was possible to detect that this television media did not contribute to a healthy lifestyle.

Henriques et al.<sup>2</sup> also observed that if the regulation proposed in public consultation No. 71/2006 were in force, 91.6 % of advertisements for food products would be in disagreement as to the warning message about the dangers of excessive consumption of sugar, saturated fat, trans fat and sodium. This message should appear after the advertisement of such products full of nutrients harmful to health and the rules for presentation of the alert message, enabling perfect readability and visibility, besides being perfectly audible, preventing consumers to know and assess risks when deciding on consumption. And yet, half the advertisements encouraged excessive consumption of the foods advertised.

The inevitable conclusion from the challenge of operating in the described scenario is frightening, not only by the number of fronts on which it is necessary to act, but also by the apparent

disparity of speed with which the actions are presented. This is rather by the fact that the action model is historically almost always based on “healing” responses, and not on the promotion of healthy and lasting actions.

Moreover, with the advancement of technology and the rapid dissemination of information in all respects, including the quality of life, health promotion and disease prevention by means of nutrition, the population seeks answers for its expectations. Namely, it is concerned not only with the pleasure that food brings, but also arouses the need to know if what is being consumed supplies the needs without causing damage to health. In the last decade, concern about food has gained great ground in Brazilian families. Hence the obsession with a quality seal, ensuring the origin and purity of the original food, creating or recreating, more or less magically, a bond between the product and its origin, breaking the symbolic barrier of packaging.<sup>20</sup>

It is possible to realize, however, that the Brazilian civil society has not opined on the aggressive commercial promotion of alcoholic beverages and unhealthy processed foods, possibly because the damage to health caused by moderate alcohol consumption and industrial foods is not so well documented and disseminated, not only domestically, but globally, as that related to tobacco, for example.<sup>21</sup>

It is still worth mentioning that the population is unaware and the marketing establishments do not disclose the mandatory non tie in sale of gifts that are sold or distributed at a lower price, combined with the purchase of food products.<sup>2</sup> Thus, when compared to the influence of schools and family with the television media, it is possible to identify that the business have more lasting influence in that use persuasive, compelling and memorable messages.<sup>2</sup> But this phenomenon is not a “privilege” today because subjectivities “pre-capitalistic” already engendered the so-called collective subjectivity equipment.<sup>22</sup>

This briefly means that by producing massive and compelling speeches and practices that value and extol as good ways of life a poor and/or unhealthy food composition and the low amount/lack of contrary stimuli as or more convincing than the first ones, this requires that we ask ourselves: which subjectivities we are producing? What kind of desires and consumption patterns are we producing?

Although it is not a direct and binding relationship, and the media and capitalism are not the only ones to blame, so to speak, the epidemiology of NCDs already described in this article demonstrates that the questions suggested above are being asked with considerable delay.

These findings are not only disturbing, but also suggest that we must then modify our strategies to promote healthy eating habits to make them equally attractive and persuasive. To do this, we

must also make efforts to diversify the forms of intervention and respond quickly to advertising campaigns, while these should also become the target of an intervention to reduce its power, namely, its regulation.

## Final thoughts

As discoursed here, there are several factors influencing issues related to dealing with chronic diseases and the effectiveness of policies for promotion and prevention. It is noteworthy that, although it is impossible to cover all the predictors, it is possible to understand and outline effective strategies in health and education. Therefore it is relevant that the purpose of promoting health, especially in Brazil, will not be achieved unless effective actions in the area of surveillance and food and nutrition assistance are implemented in an articulated manner to a system of health surveillance.<sup>23</sup>

By understanding that health promotion and prevention, especially nutrition and health education, do not go without sectoral and interdisciplinary interaction, we can state that actions involving the revision of the curricula of health training; incentives especially in primary health care; revision of school curricula and practices from early childhood education through high school; tax and production incentives of healthier products of greater nutritional value; and regulatory actions of exhibition and sale of products such as sausages and frozen food, for example, are necessary, to more effectively facilitate access to nutritional information and its risks to consumer health.

Finally, eventually there are regulatory actions of the food market, not only in control of FSN, but regarding the advertising factor, the latter on an emergency basis.

*[...] Thus, protection mechanisms must be guaranteed by the government to restrain the strategies that act on the subjective aspects of social practices and values that affect even social relationships and it is up to society in general, educators and health professionals to reiterate the demand by ethical advertising and the promotion of healthy eating by means of television media.<sup>2</sup>*

Upon completing this writing, it is important to stress once again that the most apparent challenge in these situations is the ethical and responsible interaction between the sectors involved. This, though obvious, is essentially more stressful and problematic because it does not cease to be related to all the factors that influence the main theme of this article.

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