#### FOOD AND NUTRITION IN COLLECTIVE HEALTH

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# Decade of Action in Nutrition: reflections on the Brazilian conjuncture

Década de Ação em Nutrição: reflexões sobre a conjuntura brasileira

#### Abstract

Objective: To reflect on the situation of Brazil in relation to the Decade of Action on Nutrition. *Methods:* Essay developed through bibliographical theoretical research. Results: The Agenda 2030 emerged as an alternative to discuss ways to improve the human needs and environmental conditions in a sustainable way. Nutrition has a prominent role in this regard, with at least 12 of the Sustainable Development Goals (SDGs) being related to nutritional status. In this context, the Decade of Action on Nutrition is permeated in six of the 17 SDGs and is the focus of the second that aims to end hunger, achieve food and nutrition security, improve nutrition and promote sustainable agriculture. As a signatory of the Decade of Action on Nutrition, Brazil declared through six pillars its international agreement with the improvement of food quality of its population and with the promotion of a sustainable food system. The present essay highlights the second and third pillars, which focus on the importance of universal coverage of nutrition actions in health and social protection systems. A reflection is made about the incorporation of nutrition actions in the Brazilian health system and the relevance of the Family Allowance (Bolsa Família) Program for the social protection of vulnerable groups in the country. *Conclusion*: The challenges identified were the work of nutritionists, interdisciplinary work, and training of health professionals in the implementation of food and nutrition actions in health services. The need for structural changes in the Bolsa Família Program is highlighted.

**Keywords:** Nutrition in Public Health. Nutrition and Food Programs and Policies. Sustainable development. Public policy.

### Resumo

*Objetivo*. Fazer uma reflexão sobre a conjuntura brasileira relacionada à Década de Ação em Nutrição. *Métodos*. Ensaio desenvolvido por meio de pesquisa teórica de base bibliográfica. *Resultados*. A Agenda 2030 surgiu como alternativa para discutir maneiras de melhorar o quadro de necessidades humanas e as condições do meio ambiente de maneira sustentável. A nutrição tem papel de destaque nesse sentido, sendo ao menos 12 dos Objetivos de Desenvolvimento Sustentável (ODS) relacionados ao estado nutricional. Nesse contexto, a Década de Ação em Nutrição está permeada em seis dos 17 ODS e focada no segundo que visa acabar com a fome, alcançar a segurança alimentar e nutricional, melhorar a nutrição e promover a agricultura sustentável. Como signatário da Década de Ação em Nutrição, o Brasil declarou, por meio de seis pilares, seu acordo internacional com a melhoria da qualidade da alimentação da sua população e com a promoção de um sistema alimentar sustentável. Este ensaio destaca os pilares segundo e terceiro, que enfocam a importância da cobertura universal de ações em nutrição nos sistemas de saúde e

da proteção social. Realiza-se uma reflexão acerca da incorporação das ações de nutrição no sistema de saúde brasileiro e da relevância do Programa Bolsa Família na proteção social de grupos vulneráveis no país. *Conclusão*. Verifica-se como desafios a atuação do nutricionista, o trabalho interdisciplinar e a capacitação dos profissionais de saúde na implantação das ações de alimentação e nutrição nos serviços de saúde. Destaca-se a necessidade de mudanças estruturais no Programa Bolsa Família.

**Palavras-chave:** Nutrição em Saúde Pública. Programas e Políticas de Nutrição e Alimentação. Desenvolvimento Sustentável. Política Pública

# **INTRODUCTION**

Combating malnutrition in all its forms is one of the greatest health challenges worldwide.<sup>1</sup> Maternal and child malnutrition is a global problem, with relevant consequences in terms of survival, incidence of acute and chronic diseases, healthy development, and economic productivity of individuals and societies.<sup>2</sup> Life-long benefits are expected from the achievement of adequate nutrition, as for example: i) lower childhood morbidity and mortality and increased motor, cognitive and socio-affective development; ii) improved social performance and learning ability; iii) increased adult height and decreased obesity and chronic-degenerative diseases; and iv) greater work capacity and productivity.<sup>2,3</sup>

Thus, this article, in the form of an essay, aims to reflect on the Brazilian situation regarding the Decade of Action on Nutrition (2016 - 2025). It is a bibliographical theoretical research. For didactic purposes, the text was divided into four sections that complement each other in an attempt to fully explore the theme, namely: the 2030 Agenda for Sustainable Development; the Decade of Action on Nutrition; the nutritional situation of the Brazilian population in relation to the goals established for the Decade of Action on Nutrition; and the Brazilian commitment with the Decade of Action on Nutrition, with a focus on universal coverage of nutrition actions in health systems and in social protection and food and nutrition education.

# 2030 Agenda for Sustainable Development

Health disparities are present since early life and are influenced by several factors, especially those of socioeconomic nature. As these inequalities accumulate throughout life, they restrict the individuals' full involvement in all social strata.<sup>4</sup> In this sense, health is a precondition resulting and used as an indicator of the three dimensions (environmental, social and economic) of sustainable development.<sup>5</sup>

In this context, the 2030 Agenda emerged as a historical result of meetings between countries to discuss ways to improve the framework of human needs and environmental conditions in a sustainable manner.<sup>6</sup> In 1992, during the United Nations Conference on Environment and Development (UNCED), representatives of several countries met in Brazil, in the city of Rio de Janeiro, to develop an action plan with the objective of guaranteeing sustainable development for future generations.<sup>7</sup> Later, in 2000, the United Nations (UN) assumed the commitment to develop global actions to reduce extreme poverty and hunger, as well as other generalized deprivations, making the topic a priority on the international development agenda. Thus, eight Millennium Development Goals (MDGs) were declared and should be reviewed within 15 years.<sup>8</sup>

In 2012, the United Nations Conference on Sustainable Development – Rio + 20 established a new sustainable development agenda, being an important starting point for building the future we want. At the event, new agreements were signed aiming at economic and conscious growth, shared environmental protection, social inclusion and poverty eradication.<sup>9</sup> Then, at the 2015 UN General Assembly held in New York, sustainable development was defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" as part of the document "Transforming Our World: the 2030 Agenda for Sustainable Development".<sup>5</sup>

The 2030 Agenda contains 17 and Sustainable Development Goals (SDGs) 169 targets. This set of goals reflects an innovative, universal and transformative agenda, based on the MDGs, to promote sustainable development by integrating its economic, social and environmental dimensions. The Agenda proposes actions aimed at the security of the planet and the population, in an alliance in which all countries involved are responsible for reaching all goals by the year 2030, involving diverse themes such as poverty eradication, food and nutrition security and agriculture, health, education, gender equality, reduction of inequalities,

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energy, water and sanitation, sustainable production and consumption patterns, climate change, sustainable cities, protection and sustainable use of the oceans and terrestrial ecosystems, inclusive economic growth, infrastructure and industrialization, governance, and means of implementation.<sup>6,8</sup>

The third SDG is primarily focused on population health, including access to health systems and conditions related to maternal and child health. It highlights the decrease in birth-related mortality, including preventable deaths, as global health priorities.<sup>10</sup> In Brazil, the number of maternal deaths per thousand live births decreased from 73.3 in 2000 to 64.8 in 2011 (http://tabnet.datasus.gov.br/cgi/idb2012/C03b.htm, accessed June 05, 2019), with the target of 70 deaths established in the SDGs.<sup>10</sup> In relation to the neonatal mortality target set at 12 deaths per thousand live births,<sup>10</sup> Brazil stands out for having reached the rate of 10.6 in 2011, taking into account that it was 16.7 in 2000 (http://tabnet.datasus.gov.br/cgi/idb2012/c0104b. htm, accessed June 05, 2019). In the same period, infant mortality rate in the country decreased from 30.1 to 17.7 (http://tabnet.datasus.gov.br/cgi/idb2012/c16b.htm, accessed June 05, 2019), when the global goal established for 2030 is of 25 deaths per thousand live births.<sup>10</sup> These advances put Brazil in a privileged position in relation to the maternal and child indicators mentioned in the SDGs, standing out for having a public, universal and free health system.<sup>11</sup> As a public ethical-political project aimed at social protection, the Unified Health System (SUS) has represented a profound change in the health of Brazilian society, assuming health as a social production, with responsibility of the State and valorization of social participation.<sup>12</sup>

In this sense, Primary Health Care (PHC) stands out for promoting progress in universal health coverage, health outcomes and SDGs, with a vital role in reducing post-neonatal and child mortality.<sup>13</sup> As a priority action in consolidating, qualifying and expanding PHC,<sup>14</sup> the Family Health Strategy (FHS) has collaborated with improvements in child health and reduction of infant mortality rate. Still, it has represented important progress in prenatal care and in the prevention of complications during pregnancy.<sup>15,16</sup> More recently, specific evaluations of the FHS in the context of the More Physicians (*Mais Médicos*) Program have highlighted its contributions in reducing hospitalizations due to ambulatory care sensitive conditions, in addition to expanding such assistance, effectively respecting the right to health, and promoting advances from the medical point of view (training, work process and turnover)<sup>17,18</sup>

However, it should be noted that it is still of paramount importance to deal with issues that have proven to be difficult to solve, such as the continuous increase in chronic non-communicable diseases (NCDs) and substantial low health coverage of the most vulnerable classes. In addition, PHC management problems that include the lack of communication with other services have to be mentioned, besides barriers to accessing specialized services and the feeling of discontinuity of care by users.<sup>11,12</sup>

#### **Decade of Action on Nutrition**

Nutrition has a prominent role in sustainable development. It is established with indicators of nutritional status in at least 12 of the SDGs. Adequate nutrition conditions can enhance SDGs because they bring benefits in terms of health, education, employment, female empowerment, and reduction of poverty and inequality.<sup>19</sup> Five fundamental areas of the SDGs are considered, to which nutrition can contribute and from which it can benefit: i) sustainable food production; ii) solid infrastructure systems; iii) health systems; iv) equity and inclusion; and v) peace and stability of nations. Thus, improving nutrition and eradicating malnutrition in all its forms is essential to the consolidation of the SDGs.<sup>20</sup>

Reaffirming the commitments of the 2030 Agenda and nutrition as a central axis of sustainable development, the UN recently proclaimed the Decade of Action on Nutrition (2016 - 2025). The objective is to coordinate global efforts, with effective participation of nations, to tackle all forms of malnutrition

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(overweight and obesity, growth problems, chronic malnutrition and micronutrient deficiency).<sup>21</sup> The Decade of Action on Nutrition is permeated in six of the 17 SDGs and focused on the second objective, which aims to end hunger, achieve food and nutrition security, improve nutrition and promote sustainable agriculture.<sup>22</sup>

Thus, the global nutrition goals for 2025 were established: i) to reduce by 40% the global number of stunted children aged 0 to five years; ii) to reduce anemia by 50% in women of reproductive age; iii) to reduce by 30% low birth weight; iv) to ensure that there is no increase in excess weight in children; v) to increase by at least 50% the rate of exclusive breastfeeding in the first six months of life; and vi) to reduce to less than 5% the number of children with low weight-for-height.<sup>21</sup>

# Nutritional situation of the Brazilian population in relation to the goals established for the Decade of Action on Nutrition

According to national data, Brazil stands out for having made some progress in tackling all forms of malnutrition and consequently reaching the global nutrition goals for 2025. The country has managed to reduce hunger to less than 5% and halved the number and percentage of malnourished people. However, anemia among women of reproductive age and in children under five years old has prevalence rates  $\geq$  5%, constituting an important public health problem. Likewise, in relation to the increase in obesity, it is considered that Brazil will possibly not reach the target until 2025.<sup>20,23</sup> Furthermore, there are regional inequalities and vulnerable disadvantaged groups, in which social injustices are perpetuated and paradoxes are manifested between nutritional excesses and deficiencies.<sup>23</sup>

With regard to the situation of food and nutrition security, the National Household Sample Survey (PNAD) of 2013 revealed that, at the time of the study, 14.8% of Brazilian households were in light, 4.6% in moderate and 3.2% in severe food and nutritional insecurity. The North (36.1%) and Northeast (38.1%) regions had the highest prevalence of households with food and nutritional insecurity, showing great disparities with the Southeast (14.5%), South (14.9%) and Midwest (18.2%). The rural area of the Northeast region had the highest percentage of households in a situation of moderate or severe food and nutritional insecurity - 20.1%. Still, the results showed that 78.9% of households with moderate or severe food and nutritional insecurity belonged to the class of up to one minimum wage.<sup>24</sup> Similar findings were found by other researchers who found that the lower the monthly household income per person, the higher the number of households in a situation of moderate or severe food and nutritional insecurity in Brazil, highlighting that families assisted by public health services/beneficiaries of the Family Grant Program (Programa Bolsa Família - PBF) had greater chances of food and nutritional insecurity, considering population-based studies and PNAD results as references.<sup>26</sup>

Regarding nutritional status, with the most recent national data being from 2006, it is noteworthy that in Brazil, acute malnutrition in children under five years old does not constitute a public health problem. This parameter had a modest decline from 2.2% in 1996 to 1.5% in 2006. The Northeast showed the best evolution, from 3.4% to 1.7% in this period.<sup>27</sup> However, data from SISVAN Web indicate a prevalence of this outcome ranging from 4.9% to 6.0% in the period from 2008 to 2019 (Public Reports. Http://sisaps.saude.gov.br/sisvan/relatoriopublico/index, accessed Jan 26, 2020).

In turn, the height deficit persists as a nutritional problem, despite the sharp reduction between 1996 (13.5%) and 2006 (7.1%), especially in the Northeast, which presented the greatest decline, from 22.1% in 1996 to 5.9% in 2006.<sup>28</sup> However, the results are uneven, with high prevalence of short stature in children from vulnerable groups of the population such as indigenous (26%) and quilombola (16%) individuals,

beneficiaries of the PBF (15%) and residents in the North region (15%).<sup>29</sup> According to the 2008 - 2009 Family Budget Survey, the reduction in height deficit is related to the increase in income (from 8.2% in the lowest income stratum to 3.1% in the highest income stratum).<sup>30</sup> According to data from SISVAN Web, between 2008 and 2019, deficits in linear growth were present in 12.3% to 15.1% of the children under five years old (Public Reports. http://sisaps.saude.gov.br/sisvan/relatoriopublico/index, accessed Jan 26, 2020).

Finally, overweight in Brazilian children under five years old showed stability between 1996 and 2006 (about 7.0% in both years). In this period, among different regions of the country, the greatest increase in prevalence occurred in the South, of 6.9% and 9.0%, while in the Northeast it was of 6.9% and 7.1%.<sup>27</sup> In terms of social inequalities, researchers showed an inverse linear trend between socioeconomic status and overweight in the case of female children.<sup>31</sup> Using secondary data from SISVAN Web, overweight/obesity between 14.1% and 17.3% in the years 2008 to 2019 (Public ranged Reports. http://sisaps.saude.gov.br/sisvan/relatoriopublico/index, accessed Jan 26, 2020)

Regarding the prevalence data presented, it is noteworthy that those registered through SISVAN Web suggest higher proportions of malnutrition than those found in 2006, in the period from 2008 to 2019, signaling the improvement of children's nutritional status as a persistent challenge for policies. Thus, analyzing the Brazilian situation regarding the guarantee of food and nutrition security, as advocated in the Decade of Action on Nutrition, is of vital importance, especially in the current political context of the country, characterized by a period of weakening or dismantling of social protection and health policies and strengthening of sustainable food systems and promoters of healthy eating, as well as the questioning of mechanisms of fighting obesity, with deterioration of living conditions and increase of poverty, starting in 2016, preceded by a period in which the policies in focus were prioritized on the governmental agenda.<sup>32,33</sup> In this sense, policies related to the expansion of basic health care and the increase in purchasing power/family income in low-income households stand out when considering that these factors, together with the improvement of maternal education and the expansion of the public basic sanitation network, were the main reasons for the decline in malnutrition in the country between 1996 and 2007.<sup>34</sup>

# **Brazilian commitment to the Decade of Action on Nutrition**

As a signatory of the Decade of Action on Nutrition, Brazil declared its international agreement with the improvement of the quality of the food of its population and with the promotion of a sustainable food system, through commitments converging with the goals previously assumed in the National Plan for Food and nutrition security, with a deadline for completion until 2019. Thus, Brazil presents its convention in six pillars: i) sustainable food systems and promoters of healthy food; ii) universal coverage of nutrition actions in health systems; iii) social protection and food and nutrition education; iv) trade and investment for better nutrition; v) safe and conducive environments for nutrition at all ages; and vi) revision, strengthening and promotion of governance in nutrition and accountability.<sup>22</sup>

The first pillar postulated in Brazil for the Decade of Action on Nutrition highlights the causal relationship between sustainable food systems and the promotion of healthy eating, reinforcing the importance of integration between nutrition, food and agriculture policies. In this sense, the promotion of healthy and sustainable food production and the structuring of family farming with government incentives must be considered, given their importance as goals for healthy eating and sustainable food systems. In special, it is proposed to increase the annual financial resources transferred by the National School Meal Program and destined to the acquisition of food from family farming.<sup>22</sup>

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The second and third pillars represent the main focus of this essay. They deal, respectively, with the inclusion of nutritional interventions in health systems and social protection mechanisms.<sup>22</sup>

The fourth pillar focuses on the role of trade in achieving global goals. Pillar five emphasizes the importance of the (domestic, school, work and institutional) environment in the occurrence of all forms of malnutrition. Pillar six includes the need for permanent monitoring regarding the achievement of global food and nutrition goals, the importance of policies and programs that impact nutrition, and the need for cooperation between countries on nutritional issues.<sup>22</sup>

# Universal coverage of nutrition actions in health systems

The second pillar postulated in Brazil for the Decade of Action on Nutrition highlights the importance of incorporating nutrition actions in health systems.<sup>22</sup> The understanding that food is a conditioning and determinant factor of health, actions targeting food and nutrition must be organized to meet the demands generated by diseases related to poor diet within comprehensive care in the health care network.<sup>29</sup> The development of such actions, in a qualified and multidisciplinary manner, is essential to guarantee the principles of SUS (integrality, universality and resolvability) in the context of PHC.<sup>35</sup> Based on these assumptions, the Ministry of Health establishes financial support for the structuring and implementation of food and nutrition actions within PHC by the municipal departments of Health and the Federal District, with priority guidelines promoting adequate and healthy food, Food and Nutrition, iron deficiency anemia, hypovitaminosis A, beriberi) and the qualification of the workforce in food and nutrition.<sup>36,37</sup> The Ministry of Health Academy Program,<sup>38</sup> as well as in actions to prevent childhood obesity in priority municipalities, in the context of the Health at School Programa *Saúde na Escola* - PSE).<sup>39</sup>

From the perspective of systematizing and organizing food and nutrition actions and nutritional care to integrate the list of actions developed in PHC, it is considered that action in this area must happen at two levels of intervention, management of actions and nutritional care (diagnosis, health promotion, prevention of diseases and nutritional disorders, and assistance). It is recommended that nutritional care include both universal (any stage of the course of life) as well as specific approaches (specific stage(s) of the course of life) for the different subjects of the actions (individual, family and community).<sup>35</sup> In this sense, as a privileged space for the development of food and nutrition actions and qualification of health care in PHC,<sup>40</sup> the FHS has the following axes of nutritional assistance: i) promotion of integrative and intersectoral health education actions and food and nutrition actions; ii) provision of nutritional care at all stages of life; iii) development of therapeutic plans for NCDs; iv) intervention in nutritional deficiencies; and v) stimulation for production and consumption of healthy foods.<sup>41</sup>

Despite the recognized importance of nutrition actions in health services, in general they are delegated to a second plan, due to the lack of training of professionals responsible for their development.<sup>42</sup> According to professional reports considering the observation of 20 large Brazilian municipalities, permanent food and nutrition educational actions are scarce as a consequence of the unavailability of an agenda for carrying out the training and the lack of professionals in the management of such actions.<sup>43</sup> In this context, the insertion of nutritionists in PHC through Family Health Support Center (NASF) teams aims to expand the resolution of food and nutrition actions provided by FHS teams through matrix support in the technical-pedagogical and clinical-care dimensions.<sup>44</sup> It is thus possible to concretize the commitment to integrate food and nutrition with the health sector, around food and nutrition security, and the guarantee of the Human Right to Adequate

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Food (HDRF).<sup>45</sup> It should be noted, in this sense, that nutritionists are the only professionals with specific knowledge to perform nutritional diagnosis and propose necessary dietary guidelines.<sup>42</sup> However, it is also known that the number of nutritionists working in PHC in the country is still small, and this can limit the development of food and nutrition actions and create a repressed demand for them, with possible consequences related to the HDRF.<sup>46</sup>

The second Brazilian pillar for the Decade of Action on Nutrition includes the implementation of the Global Strategy for Feeding Infants and Young Children and the Global Plan of Action for Prevention and Control of Non-communicable Diseases (2013-2020), set by the World Health Organization (WHO).<sup>22</sup> The Global Strategy for Feeding Infants and Young Children aims to define recommendations related to the duration of exclusive breastfeeding and the introduction of complementary foods at the appropriate age.<sup>47</sup> In turn, the Global Action Plan for the Prevention and Control of Non-communicable Diseases proposes actions at the regional and national level with the objective of reducing morbidity and mortality, in addition to minimizing exposure to risk factors and reducing the socioeconomic burden of these diseases.<sup>48</sup>

From this perspective, in Brazil, the National Food and Nutrition Policy has repositioned the food and nutrition issue on the agenda of public policies in the health sector, emphasizing the importance of healthy eating practices and lifestyles as an important component for the promotion and protection of health in first years of life.<sup>49</sup> In the previous situation, the Breastfeed and Feed Brazil Strategy (*Estratégia Amamenta e Alimenta Brasil* - EAAB) emerged as a result of the integration of two important actions of the Ministry of Health, the Breastfeed Brazil Network and the National Strategy for Complementary Healthy Eating.<sup>50</sup> In turn, the Intersectoral Strategy for Prevention and Control of Obesity directs efforts to reduce the prevalence of obesity in the country, concerned with improving the patterns of food consumption and promoting physical activity.<sup>51</sup> Both EAAB<sup>52</sup> and the Intersectoral Strategy for Prevention and Control of Obesity<sup>51</sup> point to the Food Guide for the Brazilian Population and the Food Guide for Children Under Two Years of Age as strategic technical instruments for food and nutrition education for the population and as guidelines for health actions for professionals and all sectors involved in the food system.

It is worth mentioning other relevant actions/strategies/programs that are part of the programmatic agenda of nutrition in PHC in Brazil. They include Food and Nutrition Surveillance, which provides subsidies to several information systems, of which the Food and Nutrition Surveillance System is the most important; and promotion of healthy eating and prevention of diseases related to food and nutrition such as specific nutritional deficiencies, with a focus on iron deficiency anemia and hypovitaminosis A, changes in nutritional status (malnutrition and overweight) and comorbidities associated with obesity. As intersectoriality is one of the aspects of food and nutrition actions, the PBF and PSE incorporate important aspects related to nutritional care.<sup>53</sup> In addition, other strategic interventions related to the promotion of child growth and development such as the Happy Child Program,<sup>54</sup> the Integrated Care Strategy for Preventing Childhood Illnesses<sup>55</sup> and the Stork Network also consider food and nutrition actions as essential components.<sup>56</sup>

# Social protection and food and nutrition education

The importance of incorporating the nutrition agenda into social protection and humanitarian aid programs, with a focus on food and nutrition security, is the central axis of pillar 3 of Brazilian commitments for the Decade of Action on Nutrition. Included in this pillar are cash transfer and food donation policies, school feeding programs and food and nutrition education actions. Families and people in situations of food and nutritional insecurity, traditional peoples and communities and other vulnerable social groups as the beneficiaries of the PBF meet the definition of priority individuals in this commitment. For these groups, the

country's commitments include providing school meals to 40 million students from the public school system per year, including 230 thousand indigenous and 230 thousand quilombola students, the implementation of the new legal framework for the Food Distribution Action, the implementation of the recommendations of the food guides for the Brazilian population and for children under the age of two, the subsidy to coordinated and federative actions of food and nutrition security and improvements in the nutritional status of children under the age of five and the transfer of income to families in situation of poverty.<sup>22</sup>

Conditional Cash Transfer Programs (CCTP) are considered a non-contributory social protection strategy of importance to the SDGs, as they seek to eradicate extreme poverty and hunger, as well as to improve nutrition, health and education through conditionalities.<sup>57</sup> Its capacity to break the intergenerational transmission of poverty<sup>57</sup> and to integrate sectoral policies aimed at the poor population is also noteworthy.<sup>58</sup>

Thus, CCTP contribute to various indicators of human capacities, such as a greater number of children and young people enrolled in schools, greater coverage in preventive medicine for children, and better indicators of child nutrition. Such programs also favor greater consumption by beneficiary families of food and inputs such as clothing and footwear, especially for children, promoting the accumulation of human capital along with the reduction of deficit in basic well-being needs.<sup>57</sup> From the point of view of nutrition, it is highlighted that the CCTP have positive effects on food and nutrition security, considering that the transfer allows families to buy more food and give priority to quality. In addition, the programs can positively influence preventive health visits and demand for prenatal care, as well as increase the likelihood of using improved sanitation or water sources.<sup>59</sup> However, studies differ in terms of impacts on vaccination status, food intake/food diversity, child's health and growth, and caregivers' behaviors. In this sense, there is an important knowledge gap related to the pathways of impact on the CCTP.<sup>59</sup>

In Brazil, the first CCTP appeared in the 1990s. In 2003, the PBF was created through Provisional Measure 132, unifying the previously proposed social programs into a single action. The PBF proposed to contribute to the reduction of inequalities in the country and to promote food and nutrition security, overcoming the situation of vulnerability and poverty, especially extreme poverty.<sup>60-62</sup>

Among the money transfer programs existing in the world, the PBF is the most comprehensive. By mid-August 2014, it had benefited approximately 14 million families in all Brazilian municipalities.<sup>63</sup> The PBF activities have as main axes: the transfer of income that makes it possible to immediately alleviate poverty; conditions, which reinforce access to basic rights in the area of education, health and social assistance; and integration with other complementary actions and programs aimed at the development of families to overcome the situation of vulnerability.<sup>60</sup>

The permanence of families in the Program on their meeting of conditions, which involve the monitoring of growth and development, the fulfillment of the vaccination calendar of children under seven years of age, the attendance of pregnant women to prenatal consultations, the frequency and attendance of the children in schools and participation in food and nutrition education actions.<sup>60,64</sup> Such conditions aim to ensure that beneficiary families have access to quality social services and contribute to breaking the intergenerational cycle of reproduction of poverty.<sup>60</sup>

The PBF has improved the health conditions of the beneficiary children. Among its impacts are the reduction in the prevalence of food and nutritional insecurity, low birth weight and mortality related to infectious diseases, malnutrition or diarrhea. In addition, positive effects have been postulated in the percentage of exclusive breastfeeding among children up to six months of age, in the updating the vaccination schedule, and in hospitalization rates among children under five years old.<sup>65</sup> A nationwide study showed a reduction in the risks of malnutrition and excess of weight in children under five years, through the

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monitoring of conditions of the program. According to the results, longer stays in the Program and regular health monitoring provided a greater probability of favorable nutritional evolution and within the standards of anthropometric adequacy.<sup>66</sup>

Evidence compiled in systematic reviews on the impact of the PBF on food and nutrition security and nutritional status has indicated benefits in access to food in quantity and variety, but without necessarily having an impact on nutritional quality. It is suggested that the financial transfer supports, in general, access to foods of low nutritional value, to the detriment of the recommendations for a healthy diet, reflecting in the increase of overweight and anemia.<sup>25,64</sup> This scenario suggests the need to improve the program, emphasizing the importance of linking the monetary benefit of food and nutrition educational actions, since the transfer income alone is not able to solve the problem of poverty and food and nutrition insecurity.<sup>25,64,66</sup> This perspective is implicit in the third pillar of Brazilian commitments for the Decade of Action on Nutrition, as it also addresses the relevance of implementing food and nutritional information and education actions.<sup>22</sup>

# **FINAL CONSIDERATIONS**

Nutritional changes are the expression not only of social determinants of health, but also of the macropolitical condition, with new problems emerging as a result of a stressful and intense routine, loss of cultural identity and impairment of environmental sustainability and biodiversity. Thus, in addition to the challenges focused on the health sector, social protection programs and food and nutrition education actions addressed in this essay, structural changes based on the reduction of social inequities, such as investments in education, reorganization of the land structure and regulation internal and external markets are necessary, with a view to benefit the interests related to the health of the population and not the market.<sup>23</sup>

It is also important to emphasize that adequate and healthy eating also means interfering in the socioenvironmental repercussions of the dominant agri-food system and strengthening the proposal of food sovereignty. It is not possible to ignore the threat of extinction of 800 types of local foods that are not of interest to the export agribusiness economic sector, neither the negative consequences associated with industrialized food and the use of pesticides, fertilizers and synthetic additives, veterinary drugs and products from irradiation.<sup>67</sup> Moreover, the fragility of the agri-food system is accentuated as a result of trade liberalization and Brazilian economic deregulation, which contrasts with the resurgence of regulation of agrifood markets by national states or regional blocks such as the European Union.<sup>68</sup> It is necessary to promote policies to ensure the availability and accessibility of healthy foods, associated with a healthy environment.<sup>69,70</sup>

# CONCLUSIONS

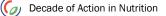
Despite Brazilian advances in the nutritional situation and the current priority given to nutritional problems through the 2030 Agenda for Sustainable Development and the Decade of Action on Nutrition (2016 - 2025), it is noteworthy that there is still a need for directing efforts to groups in situations of vulnerability that need to be differentiated, with a focus on reducing social inequities and promoting nutritional status. The period in question coincides with the weakening or dismantling of social protection and health policies and strengthening of sustainable food systems and promoters of healthy eating, as well as the questioning of mechanisms of fighting obesity, with deterioration of living conditions and increase of poverty. In this sense, policies related to the expansion of basic health care and the increase in purchasing power/family income in low-income households stand out.

The great challenge of including nutrition in health systems is the expansion of nutritionists in PHC, interdisciplinary work and the training of professionals for the implementation of food and nutrition actions. Another challenge is that social protection programs must promote structural changes and nutrition education initiatives. In addition, interventions such as the production of healthy food, family farming and the National School Meal Program are important to achieve the goals of the Decade of Action on Nutrition, associated with structural changes responsible for malnutrition in the country.

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## Contributors

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