MEASUREMENT AND ANALYSIS TO APPROACH INEQUALITIES AND BUILD ACCOUNTABILITY ON HEALTH POLICIES IN BRAZIL

MEDIÇÃO E ANÁLISE PARA ABORDAR AS DESIGUALDADES E CONSTRUIR RESPONSABILIDADE SOBRE POLÍTICAS DE SAÚDE NO BRASIL

Mirella Veras [1]
Luciane Machado Freitas de Souza [2]

ABSTRACT

Health inequalities have been broadly documented especially by the Commission on Social Determinants of Health. To reduce their impact on health outcomes, policy encompassed intersectoral approach should be taken into consideration. This paper draws on the recommendations of the Rio Political Declaration on Social Determinants of Health (2011) specifically on monitoring inequalities and accountability, which is one of the themes of the conference. The paper is divided into four sections: brief history of the social determinants, measuring and monitoring inequalities and accountability to reduce health inequalities. Finally, obesity is taken as an example to clarify how to use monitoring and accountability to design strategies and inform policies. It concludes by emphasizing the need for adequate information in terms of equity to monitor health inequalities. There is a lack of indicators on the impact of different policies on social determinants of health. This requires a high degree of political commitment from all sectors of society, as well as to strengthen citizen participation to enhance accountability and promote health equity nationally and globally.

Key words: *Socio Determinants of Health, Health Inequalities, Accountability, Monitoring, Equity.*

RESUMO

As desigualdades em saúde têm sido amplamente documentadas, especialmente pela Comissão dos Determinantes Sociais da Saúde. Para reduzir o impacto delas nos resultados de saúde, devem ser sistematizadas políticas intersetoriais. Este artigo se baseia nas recomendações da Declaração dos Determinantes Sociais da Saúde do Rio de Janeiro (2011) especificamente no tema - monitoramento das desigualdades e prestação de contas. Para tanto, apresenta-se um breve histórico dos determinantes sociais da saúde e uma discussão sobre avaliação, monitoramento e prestação de contas como instrumento para a redução das desigualdades em saúde. Além disso, a obesidade é tomada como exemplo para clarificar como usar o monitoramento e a prestação de contas na sistematização de políticas.

Palavras-chave: *Determinantes Sociais da Saúde, Iniquidades em Saúde, Prestação de Contas, Monitoramento, Equidade.*

1. MSc, PhD Candidate in Population Health and Research Assistant. Center for Global Health. University of Ottawa, Canada.
2. MSc, PhD student in Population Health. University of Ottawa, Canada.

1. INTRODUCTION

Significant health inequality persists in Brazil. These inequalities are not randomly distributed; they are dispersed differently among specific populations by race/ethnicity, access to health care, quality of care, socioeconomic condition, education level and other indicators of unfair opportunities. Existing research suggests that these health inequalities are a result of a population which is characterized by high poverty rates, low levels of education, limited fair employment opportunities and inadequate housing conditions.

Health inequality is a fundamental term to this paper. It is defined as the differences in health status that are both unnecessary and avoidable and also unfair and unjust[1]. Socioeconomic determinants interplay and affect the health of populations. Concentration of wealth, governmental policies favoring global marketplaces rather than welfare, weakening support networks, unemployment and social exclusion are broadly identified as factors that cause health inequalities.

An effective way to approach health inequalities and track the results of policies intended to promote health equity is through measurement and accountability. Having a reliable measure of health inequalities in comparative analysis is important to visualize trends and develop policies to tackle avoidable unfair health differences. Accountability is also a key element to build a fair society and a sustainable health system. Its actions can start from government anti-corruption campaigns to local, state and national health policies.

This paper reflects and furthers the discussion on measurement and accountability of health inequalities taking into consideration the recommendations from the Rio Conference on Social Determinants of Health. The paper is divided into four sections: socio determinants of health: placing the field of action, measuring and monitoring inequalities in Brazil, accountability to reduce health inequalities and following an action determinant framework. Obesity is an example on how to systematize strategies to overcome this problem in line with the recommendations established in the Rio Declaration.

2. SOCIO DETERMINANTS OF HEALTH (SDH): PLACING THE FIELD OF ACTION

Traditionally in approaching health problems, physiological and mental disturbances are considered as main causes of disease. However, this approach has limitations. The means by which people provide their existence, the place where they live and the position they hold in the social hierarchy impact their health status [2-4]. These non-biological factors are termed social determinants of health. They are related to the ways society regulates economic cycles, provides education, assists its members with economic or other difficulties, sets up strategies to counter poverty, etc[5]. Many of the social determinants of health lay outside of the health sector, which means that health is not exclusively dependent on medical care[3].

An effective way to approach health inequalities and track the results of policies intended to promote health equity is through measurement and accountability.

From this perspective differences in health status are not associated to life styles or individual choices; instead they are related to socioeconomic forces, since "those people who are worse off in socio-economic terms have worse health outcomes and higher death rates than those who are better off"[4. [p.196]] Every year millions of people become disabled or even die from causes that are easily preventable or treatable. Poverty and lack of access to health care are identified as the main contributors of these outcomes[6]. Studies[7-8] have shown that unfavorable social conditions have a negative impact on people's lives. The environment exposes people to a variety of risk factors that may cause infectious, chronic and noncommunicable diseases and injuries. People living in poverty are malnourished, live in houses that expose them to pests, pollution, violence, discrimination and social isolation[8]. They also have less education, consequently, they are more likely to work in jobs that expose them to hazardous environments which can cause many diseases, mutilation and death[9].

Considering the role of social determinants on health outcomes is not a new approach. During the 19th century, Mckeown pointed out that socio-structural improvements are important factors in the reduction of diseases and Engels stated that capitalism is a main cause of disease. Additionally, Virchow and other authors emphasized that public health services were also struggling for more basic social change[10]. Public policies such as Alma Ata (1978)[11], Charter of Ottawa for Health Promotion (1986)[12] and Millennium Development Goals[13] addressed socio-economic and political forces as conditions that damage health and well being.

However, in 2005 the World Health Organization

established the Commission on Social Determinants of Health (CSDH). The commissioners' primary responsibility is advocacy for reduction/elimination of health inequalities for both vulnerable groups and entire populations[14-15]. Brazil also has its own National Commission on Social Determinants of Health which works closely with the global Commission. It works to guide policies, programs and interventions to tackle inequalities on health and produce evidence of the role of SDH in the Brazilian context.

The Commission achieved a milestone in 2011, the Rio Declaration of Social Determinants of Health. The Declaration positions health as a collective and cross-governmental responsibility. That is, its actions include different sectors and levels of government as well as multilateral organizations in the development and implementation of policies. Thereby, new capacities must be built not only in the health system, but in all collaborative sectors, since offering equitable care transcends medical boundaries. Consequently, monitoring local and international progress of actions developed in all collaborative sectors is crucial in gathering evidence to base policies, and to define allocation and use of resources[15].

To achieve equity in health requires eradication of poverty and the whole burden it provokes, such as malnutrition and/or deprivation, lack of potable water and sanitation, unemployment, environmental pollution, social protection policies, etc[15]. Good medical care is vital, but unless the root social causes that undermine people's health are addressed, the opportunity of well being will not be achieved[16]. Indeed, the health system concentrates its efforts and structure to treat sick people, although when people recover, they return to the same environment, which probably caused the disease in the first place. The continuous process of treat/cure sick people - that return to "sick" environments - ends up generating not only high costs for the health system, but plays a substantial role in: morbidity rate, infant mortality, impoverishment, etc. In this sense, traditional medical care plays only a small role in the overall health of the population[17] because inequalities in health will exist as long as social inequalities do[18].

3. MEASURING AND MONITORING INEQUALITIES IN BRAZIL

Brazil is the fifth largest country in the world with the fifth largest population. Brazil is considered a rich middle-income country with huge natural, human, and technological resources[19]. Although the country is the leading economic and political power in South America, the benefits of its prosperity are not equally distributed. Millions of Brazilians face poverty and exclusion in their life[19]. 54 million Brazilians are living on less than US$ 2 a day and 17 million

Brazil also has its own National Commission on Social Determinants of Health which works closely with the global Commission.

live on less than US$ 1 a day (extreme poverty). The poorest Brazilians live in the Northeast region and peripheries of main urban centers. Brazil ranks as one of the most unequal countries in the world with a Geni coefficient of 0.6.

Inequalities in Brazil are expressed in terms of socioeconomic status, ethnicity, and gender, among others factors. The Human Development Index for the black population is 108th while for the white population it is 50th. Regarding gender, the median wage for women is around 63% of that of men[19].(1) A study conducted in 2007 demonstrated that poor women were over 20 times more likely not to be attended by a trained person during delivery compared to wealthy women[20]. The infant mortality rate in Brazil varies extremely by region. The infant mortality rate in the South is (17,1 per 1,000 live births), followed by the Southeast region (20.6 per 1,000 live births), Center-east (25.6 per 1,000 live births), North (32.4 per 1,000 live births and finally the Northeast (52.5 per 1,000 live births). In the Northeast, the risk of child mortality in the first year of life is 3.1 times higher than in the Southern region[21].

In 2006, the Northeast region of Brazil had about 23% of households with an income per capita less than one quarter of the minimum wage, while this percentage in the Southern region was 5.5%. In addition, in 2005, the proportion of the poor population in the Northeast was about three times higher than in the South[22]. Poverty is directly linked to the incidence of Neglected Tropical Diseases (NTD). Brazil has nine out of the ten Neglected Tropical Diseases listed by the World Health Organization (WHO). Leishmaniasis, tuberculosis, dengue fever and leprosy are some examples of diseases that are present in almost all Brazilian regions. More than 90% of malaria cases occur in the Northern region. North and Northeast regions of Brazil have the highest rates of NTDs and are the lowest on the Human Development Index[23].

Several methods have been used to measure health inequalities[24-25]. Generally, the instruments to measure inequalities involves a comparison of health indicators with one or more population groups[26]. However, when the measure is made in an area in which the majority of the population has a social disadvantage, the results of the inequalities can be less expressive. In a geographic area where the majority

of the population is socially disadvantaged, the health status of the most disadvantaged group may be prominently different from the best-off social group. Nevertheless, this health status is not different from the average[26].

According to Scanlan, there are different methods to measure differences between rates that can be affected by the overall prevalence of an outcome. Absolute differences tend to be influenced by the overall prevalence of an outcome. For example, where rates remain under 50% for all groups, increases in rates tend to increase absolute differences. On the other hand, for rates above 50% for all population groups increases in rates tend to decrease absolute difference[27]. In a complex way, relative and absolute differences can be useful when measuring inequalities. Other important methods are: population attributable risks, the slop and relatives indices of inequalities and concentration curves, the use of a comparison among more than two groups considering the group sizes change over time[26].

The methods to measure inequalities are useful not only for research. They are also important for surveillance, mainly to evaluate the extent of health gaps, and how they are affected by health policies over time in all sectors that directly and indirectly influence health[26]. The monitoring of inequalities should have an "equity lens" to disaggregate data over time at the geographic level[28-29]. An equity lens refers to a metaphoric pair of glasses that guarantees that we will ask " who will benefit" from some policies or practices[30]. A set of indicators is required to demonstrate the links between health and its main determinants. Then, the monitoring of inequalities is linked to disadvantages of populations and enables an interdisciplinary dialogue and a diverse theoretical/methodological approach among disciplines[31]. The World Conference on Social Determinants emphasizes the necessity of disaggregating data (eg.: socio economic position, gender, race/ethnicity, indigenous status, and sexuality) to show relevant aspects of the health inequalities. In addition, indicators for the Millennium Development Goals[32] need to be disaggregated and organized for international comparison across countries and over time[15]. All these approaches converge and emphasize that civil participation and accountability are central elements in monitoring and reducing inequalities[15].

4. ACCOUNTABILITY TO REDUCE HEALTH INEQUALITIES

To tackle inequalities requires actions beyond the health sector, since health is a product of structural conditions in which people are born, grow, work and age[33]. In this sense, accountability is an instrument for promoting equity. It can be used to monitor and evaluate how the financial and political commitments of a range of institutions - including the private sector and the civil society- impact on both the structural determinants (housing, education, work, etc) and the everyday conditions of life. In doing so, accountability has become essential in making-policies that encompass the recommendations of the Commission on Social Determinants of Health acknowledged in the Rio Declaration.

Accountability is a relatively new concept in building an equity health system. Transparency, mutual assessment and answerability to citizens play an important role in implementing a commitment and in making intersectoral policies aligned with the social determinants of health. In essence, it denotes "having the obligation to answer questions as well as making decisions and/or taking actions"[34] [XI] It highlights keeping agreements and performing responsibilities in a respectful way[35]. The key strategies in building accountability are: a) The role of the community is essential; b) There is a need for a new framework to better understand the questions that are being addressed; c) The involvement of other sectors in planning to promote equity; d) The participation of disadvantaged populations is encouraged in the formulation of public policies[15]. These four overarching elements are interconnected and allow better coordination of the actions each sector is developing.

The community is the principal source of credible and up-to-date data to inform policy-making[15] and is the mechanism to confirm if the agreed actions are being implemented. (15) Governments can legitimate the civil participation in the policy-making process through the acknowledgment of civil society advisory bodies and engaging with watchdogs initiatives. Civil society organizations can provide shadow reports, which are independent assessments that present research outcomes that can complement or challenge the official information about a specific problem (i.e. obesity). Civic participation should also actively engage the gypsy population, street children and youth, inmate population

Accountability is a relatively new concept in building an equity health system. Transparency, mutual assessment and answerability to citizens play an important role in implementing a commitment and in making intersectoral policies...

and other marginalized and disadvantaged populations. Equally important is to encourage a strong partnership among decision makers, researchers and civil society for a successful implementation and sustainability of accountable actions in all policies.

A remarkable fact that strengthens the power of civil organization is a successful experience of creating a universal health system in Brazil. In the 1980s the Brazilian health system was structurally weakened and it was only offered to people that contributed to the social security system, generally, those that had a formal job[37]. As a result, disadvantaged populations were prevented from receiving medical care. This context generated dissatisfaction with the health care model, and it fostered the organization of social movements from various sectors of civil society, which claimed a change in the health system model[37]. These movements created the basis for the current universal health care system in Brazil, which has the civil participation as a "structural pillar" to plan, develop and evaluate health actions.

The creation of the Brazilian universal health care system focused only on the provision of health care as a crucial element to promote health. However, the Rio Declaration emphasized that to overcome the causes of health inequalities, actions across the government is required. Therefore, it is necessary to have a framework in place which encompasses strategic actions from all collaborative sectors such as housing, education, transport, employment, etc. This framework can guide mutual accountability and answerability to citizens. This process can enforce actions to reduce social disadvantages including low education level, inadequate housing, lack of potable water, sanitation, and social protection.

There is a need to develop a schedule to assure that the civil participation will review all sectors and programs on a periodic basis. The frequency for monitoring each sector may vary based upon its significance and necessity. Some activities will need monitoring weekly; others may be monitored monthly or annually. The results of the accountability should be written and discussed among the policy makers, stakeholders and civil society. Similarly, training is needed on the accountability process including on how to plan, prioritize and schedule activities. Training is also needed for conducting monitoring reviews, understanding laws and regulations and how to submit written reports. It also emphasizes that civil participation in the accountability of public services has an important link with the social determinants of health, especially education which is a condition *sine qua non* for sustainable accountability. Education is a power that enables a person to contribute to a fair and equal society. A population with a higher educational level will be more capable to make reflections on health services and participate more actively in influencing health policies through accountability.

There is a need to develop a schedule to assure that the civil participation will review all sectors and programs on a periodic basis.

An educated population may contribute in making health care more transparent and accountable. However, this is an exercise which demands practice. If we took as an example, research on patient satisfaction with the health system, we can see that it indicates that the individual behaves as a rational "consumer", choosing and buying services related to health[38-39]. The individual must guarantee their right not only as consumers, but also as participant and contributor of the system. Considering an individual just as a "consumer" is to deny his/her rights to citizenship[40]. The definition of citizenship involves concepts of justice, representation, participation and equal opportunities that are not present in the concept of consumer[41]. The participation of the population should include not only accountability but also formulation and implementation of public policies.

5. MEASUREMENT AND ANALYSIS ON HOW TO APPROACH OBESITY ACCORDING TO THE SOCIAL DETERMINANTS OF HEALTH

Obesity is used here as an example of how to monitor the epidemic, taking into account the recommendations suggested in the World Conference on Social Determinants of Health held in Rio de Janeiro, Brazil, 2011. Obesity cases have increased globally and have reached epidemic proportions. Each year around 2.8 million people die as a result of being overweight or obese. Obesity is prevalent in middle and high-income countries[42]. Several diseases can result from obesity: cardiovascular disease, type 2 diabetes, cancer, hypertension, etc[42]. Although the epidemic has risen to the top of policy and health programs agendas in many countries, there is a lack of evidence for policy interventions to reduce inequalities in obesity[43].

According to a survey conducted by the Ministry of Health,

the percentage of overweight people in Brazil increased from 42.7% in 2006 to 48.5% in 2011. The obesity rate increased from 11.4 to 15.8% over the same time period. In this study, 54,000 adults were interviewed across Brazil from January to December 2011. It is expected that Brazil is on track to be as obese as the US by the early 2020s[44]. Considering this scenario the following framework was developed to approach obesity. It has four elements: laws and regulations; supportive environments; food security and use of research and a surveillance system to inform policies. Each element has strategic plans as well as monitoring and assessment of actions.

Policies, laws and regulations have been used as an effective strategy to reduce tobacco consumption. They are also essential to address the environmental and social changes required to promote a sustainable impact on reducing the amount of overweight and obese people[45]. The World Health Organization Global Strategy on Diet, Physical Activity and Health includes 'soft paternalism' and 'hard paternalism' as policy instruments to tackle the obesogenic environment. 'Soft paternalism' strategies are: social marketing, health promotion programs and advocacy for changes in individual and organizational behavior. 'Hard paternalism' strategies are: laws, regulations, enforceable policies, and fiscal instruments[46]. Moreover, legislation regarding agriculture, food production, transport, marketing for foods, sugary foods for children in schools and taxes can have a huge impact on the obesity epidemic over time[45].

A practical example is a policy banning high fat or sugar in food and beverages from school cafeterias in some states in Australia and New Zealand[47]. In Brazil, a suggested strategy is to develop laws and regulations for protecting adults, children and babies from the marketing of foods and beverages high in unhealthy fat, sugar and/or sodium. This approach should have support from organizations and civil society in order to promote a sustainability of the strategy.

Social and physical environments can promote opportunity for families to eat healthy and increase their physical activity practices[48]. Urban environments can impact the physical activity levels such as transport systems, spaces and facilities for leisure activities, street designs that facilitate walking or biking[48]. Social and cultural environments can also impact the way people consume food and practice physical activity[45].

Improving living and school environments is also cited by Whitehead as an intervention that can be used to tackle inequalities[49]. The strategies to tackle an obesogenic environment are: a) Establish high-level political commitment to address social determinants in obesity; b) Design neighborhoods that encourage physical activity; c) Offer healthy foods within school and work environments; d) Develop support programs for children and adults who are overweight or obese; e) Improve security in the community to encourage more walking and affordable physical activities in public spaces like parks, soccer fields, etc.

Social and physical environments can promote opportunity for families to eat healthy and increase their physical activity practices.

Food insecurity is another important element in addressing obesity and overweight prevention. Food insecurity can be also used to monitor inequalities[50]. Several characteristics such as low income, ethnicity minority and female-headed households top a list of great risks for food insecurity[51]. Many studies have explored the association between food insecurity and its impact on obesity. A recent literature review found a significant association between food insecurity and obesity. The review selected 19 studies since 1995 and the results confirmed that food insecurity and obesity are strongly associated with women. There is also evidence found for adolescents, but for children it remains unclear[51]. The action framework identifies the following strategies to improve food security: a) Making nutritious food available and affordable for all populations; b) Accessibility of proper nutrition for pregnant women and c) Support breastfeeding and the provision of healthy baby foods.

Obesity is a complex condition with no easy solution. Tackling the obesity epidemic requires a massive effort that involves several sectors – universities, schools, families, civil society, health professionals, industry and government. Research can provide evidence for its causation, prevention and treatment. An equity lens when applied to study designs can identify a number of key issues to guide policies and interventions in reducing obesity and overweight. Investments in obesity research can save life and reduce health care spending. Table 1 shows an action framework using an equity lens for monitoring and assessing obesity.

Table 1: Action framework for monitoring obesity

Actions	Strategies	Monitoring and assessment
Laws and regulations	Developing laws and regulations for protecting adults, children and babies from the marketing of foods and beverages high in unhealthy fat, sugar and/or sodium.	- Monitor changes and results from laws and regulations regarding obesity and its impact overtime. - Strengthen civil participation in the formulation, implementation and monitoring of the laws and regulations.
Supportive environment	-Establish high-level political commitment to address social determinants in obesity; -Design neighborhood that encourage physical activity and regulate healthy foods within schools and work environments; -Develop support programs for children and adults who are overweight or obese; -Improve security in the community which can encourage more walking and affordable physical activities in public spaces like parks, soccer fields, etc.	-Identify children and adults in risk of being overweight and obese in schools and work environments; -Identify the number of spaces for physical activities and their impact on the activity level.
Food security	-Making nutritious food available and affordable for all segments of the population; - Promoting good nutrition and making it more accessible for pregnant women; - Protecting, promoting, and supporting breastfeeding and provide healthy baby foods.	-Monitor food access, availability and use.
Use of research and surveillance to inform policies	-Improving the quality of health information system; -Supporting linkages between data on social context and health inequalities across different sectors and programs; -Creating mechanisms to establish partnerships between health services, universities, other sectors and civil society to produce information; - Increasing the access and use of the national and international journals and databases to provide evidence and information to inform policies.	-Identify infants and children who are overweight or obese; -Establish goals to reduce obesity and overweight rates according to stratified indicators; -Develop obesity and overweight indicators stratified by sex, education, age, urban/rural, race/ethnicity, indigenous status, gypsy populations, socioeconomic status, social position, education, etc. -Develop and disseminate reports using an equity lens.

6. CONCLUSION: IMPLICATION FOR THE FUTURE

Brazil is one of the most unequal countries in the world and social inequalities persist as a key political concern. The Rio Conference highlights important points which address the root causes of health inequalities. Health inequality is an issue that should be analyzed and reported. Data disaggregation can be improved to capture inequalities between geographical location, economic quintile, gender, ethnicity, age and marital status. Monitoring and reporting inequalities play a significant role in reducing health inequalities. This paper summarized a practical example of how to monitor social inequalities in obesity. However, this exercise should be extended for all health concerns. High quality data needs to be routinely available for all health professionals in order to help them to address their practice to reduce inequalities in health care systems. It is essential to use an equity lens to assess the interaction between inequalities and evaluate the "health gaps" over time. Similarly, there is a need to develop a framework and analytic tools to consider measurement, monitoring and accountability from a systemic perspective. These analyses are fundamental to tailoring policies to specific geographic areas, regions and populations in Brazil.

7. REFERENCE LIST

1. Whitehead M. The concepts and principles of equity and health. Regional Office for Europe Copenhagen: World Health Organization; 1990.

2. World Health Organization - WHO. A conceptual framework for action on the social determinants of health. Geneva: 2007.

3.Baum F. Cracking the nut of health equity: top down and bottom up pressure for action on the social determinants of health. Promotion & education 2007;XIV(2):90-5.

4.Shaw M, Dorling D, Smith G. Poverty, social exclusion and minorities. Second ed. Oxford/UK: Oxford University; 1999.

5.Renaud M. The future: Hygeia versus Panakeia. In: Evans R, Morris L, Marmor T, editors. Why are Some People Healthy and Others Not? The Determinants of Health of Populations. New York: Aldine de Gruyter; 1994. p. 317-34.

6.World Health Organization. World Health Report 2004: Changing History. Geneva; 2004.

7.Evans R MLMT. Why are Some People Healthy and Others Not? The Determinants of Health of Populations. New York: 1994.

8. Marmot M, Wilkinson R. Social Determinants of Health: the solid facts. 2 ed. Copenhagen/Denmark: WHO; 2003.

9.Marmot M, Wilkinson R. Social determinants of Health. Oxford-UK: Oxford University; 1999.

10.Waitzkin H. The social origins of illness: a neglected history. International Journal of Health Services 2012;11(1):77-103.

11.Declaration of Alma-Ata. 1978 Sep 6; 1978.

12.The Ottawa Charter for Health Promotion. 1986 Nov 21; 1986.

13. Millennium Development Goals . http://www who int/topics/millennium_development_goals/en/ 2012 [cited 2012 Aug 1];

14. Buss P, Pellegrine Filho A. A saúde e seus determinantes sociais. Physis: Revista de Saúde Coletiva 2007;17:77-93.

15. World Health Organization - WHO. World conference on social determinants of health: Meeting report. Rio de Janeiro, Brazil 19-21 October 2011.

16. Labonté R, Shrecker T. Globalization and social determinants of health: Introduction and methodological background (part 1 of 3). Globalization and Health 2007;3(5).

17. Goel V. Why Are Some People Healthy and Others Not? The Determinants of Health of Populations. CMAJ 1995;152(12):2004-5.

18. Link B, Phelan J. Understanding Sociodemographic Differences in Health-The Role of Fundamental Social Causes. American Journal of Public Health 1996;86(4):471-3.
19.Canadian International Development Agency. A synthesis of Canada's corporation strategy in Brazil 2005-2010. Avaliable at: http://www acdi-cida gc ca/acdi-cida/ACDI-CIDA nsf/eng/NIC-22312535-N32 Accessed on July 10, 2010 2005.

20. Houweling T, Kunst A, Huisman M, Mackenbach J. Using relative and absolute measures for monitoring health inequalities: experiences from cross-national analyses on maternal and child health. International Journal for Equity in Health 2007;6(1):15.

21. Duarte EC, Schneider MC, Paes-Sousa R, Ramalho WM, Sardinha LMV, Da Silva Junior JBS, et al. Epidemiologia das desigualdades em saude no Brasil: Um estudo exploratorio. Brasilia Organizacao Panamericana de Saude 2002.

22. Comissão Nacional dos Determinantes Sociais da Saúde (CNDSS). As causas sociais das iniquidades em saúde no Brasil. Brasília-DF/Brasil; 2008.

23. Lindoso JAL, Lindoso AAPB. Neglected Tropical Disease in Brazil. Rev Inst Med Trop S Paulo 2009;*51*(5):247-53.

24. Galal O, Quereshi A. Dispersion index: measuring trend assessment of geographical inequality in health- The example of under-five ortality in the Middle East North African region, 1980-1994. Social Science and Medicine 1997;44(12):1893-902.

25. Carr-Hill R, Chalmers-Dixon P. A review of methods for monitoring and measuring social inequality, deprivation, and health inequality. Available at: http://www ihs ox ac uk/sephp/publications/carrhill 2002.

26. Braveman P. Health Disparities and Health Equity: Concepts and Measurement. Annual Review of Public Health 2006 Apr 1;27(1):167-94.

27. Scalan J. Can we actually measure health disparities? American Statistical Association 2006;19(2):47-52.

28. Veras M, Zakus D. Equity aspects of Canadian immunization program: differences within and between countries. Health, Culture and Society 2011;1(1):112-31.

29. Braveman P. Monitoring equity in health: a policy-oriented approach in low- and middle-income countries. WHO/CHS/HSS/981 - Equity Initiative Paper 1998;(3).

30. Signal L. Tacking inequalities through health promotion action. Health promotion forum of New Zeland: Newsletter 56:10. 2002.

31. Magalhaes R. Monitoramento das desigualdades sociais em saude: significados e pontencialidades das fontes de informacao. Ciencia e Saude Coletiva 2007;12(3):667-73.

32. Wirth M, Delamonica E, Sacks E, Balk D, Storeygard A, Minujin A. Monitoring Health Equity in the MDGs: A Practical Guide. Avaliable at http://www.ciesin.columbia.edu/repository/povmap/analysis/Health_equity_Guidelines.pdf. 2006.

33. Marmot MFS, Bell R, Houweling TA, Taylor S. Closing the gap in a generation: health equity through action on the social determinants of health. The Lancet 2008;372(9650):1661-9.

34. Brinkerhoff D. Accountability and health systems: overview, framework and strategies. Bethesda, MD: The partners for health reformplus project, Abt Associates Inc; 2003.

35. Harber B, Ball T. From the blame game to accountability in health care. Available at: http://www irpp org/po/archive/nov03/harber pdf Acessed on August 04 2012.

36. Braga C. Enfermagem transcultural e as crencas, valores e praticas do povo cigano. Revista da Escola de Enfermagem 1997;31(3):498-516.

37. Pereira C. A Política Pública como Caixa de Pandora: Organização de Interesses, Processo Decisório e Efeitos Perversos na Reforma Sanitária Brasileira - 1985-1989. Dados 1996;39.

38. Wensing M. Evidence-based empowerment. Qual Health Care 2000;9:200-1.

39. ALMEIDA VL. Saude e cidadania: a experiencia de Icapui-CE. Fortaleza. Fundacao Cearense de pesquisa e Cultura 1999.

40. VERAS MMS. A satisfacao dos usuarios dos SUS com o servico de ouvidoria em saude de Fortaleza-CE. Dissertacao de mestrado. 2005. Available at: http://www repositorio ufc br:8080/ri/bitstream/123456789/1339/1/2005_dis_mmsveras pdf Accessed on August 21 2011.

41. IMBROISI DO. Ouvidoria como instrumento de eficiencia e eficacia da administracao publica. In: Encontro Nacional de ouvidores/ombudsman, 2002. Recife-PE, Brazil. Available at: http://www abonacional org br/min_fazenda htm Accessed on September 24 2011.

42. World Health Organization (WHO). 10 facts on obesity. Available at: http://www who int/features/factfiles/obesity/en/ Acessed on: August 05 2012.

43. Bambra C, Hillier F, Moore H, Summerbell C. Tackling inequalities in obesity: a protocol for a systematic review of the effectiveness of public health interventions at reducing socioeconomic inequalities in obesity amongst children. Systematic Reviews 2012;1(1):16.

44. Nahal S, Lucas-Leclin V, King J. Globesity- the global fight against obesity. Equity/Global/ESG & Sustainability 2012;1-141.

45. Swinburn BA. Obesity prevention: the role of policies, laws and regulations. Australia and New Zealand Health Policy 2008;5(12):1-7.

46. Milio N. Nutrition and health: patterns and policy perspectives in food-rich countries. Soc Sci Med 1989;29(3):413-23.

47. Bell AC SB. School canteens: using ripples to create a wave of healthy eating. MJA 2005;183(1):5-6.

48. Swinburn B, Egger G, Raza F. Dissecting obesogenic environments: the development and application of a framework for identifying and prioritizing environmental intervention for obesity. Preventive Medicine 1999;29(6):563-70.

49. Whitehead M. A typology of actions to tackle social inequalities health. J Epidemiol Community Health 2007;61:473-8.

50. Panigassi G, Segall-Correa AM, Marin-Leon L, Sampaio MFA, Maranha LK. Inseguranca alimentar como indicador de inquidade: analise de inquerito populacional. Cadernos de Saude Publica 2008;24(10):2376-84.

51. Franklin B, Jones A, Love D, Puckett S, Macklin J, White-Means S. Exploring mediators of food insecurity and obesity: a review of recent literature. Journal Community Health 2012;37(1):253-64.