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Obesity and Hunger in Brazil

According to the Brazilian Institute of Geography and Statistics (IBGE). (Consume Expenditure Survey, <http://www.ibge.com.br>), because we are a country with an abundance of food, poor nutrition causing obesity is the most serious problem related to poverty in Brazil. Obesity overloads our health system with a growing demand of service to chronic diseases resulting in an estimated 200 thousand deaths from complications.

Obesity is a disease that occurs when excess fat is at a level that can be harmful to health. The main causes of obesity are a sedentary life and a diet rich in fat and calories. The obese people vary and accumulated fat, the distribution of fat in the body, the risks to the health associated to the type of diseases that the obese can suffer. Diabetes mellitus, arterial hypertension, dislipidemias, alterations osteomusculares, the increment of the incidence of some carcinoma types and breathing problems are among the most common complications (The crisis of growing proportions, 21-24).

One would think that the problem of people who are overweight is exclusive to the people with higher income in Brazil however, there are more fat than thin in the low income population. Among the 20 percent poorest people of the country, 27 percent of the men are above the appropriate weight and 9.5 percent are below appropriate weight standard. Thirty eight point two percent of the women in this classification are obese but only 6.6 percent are below the recommended weight (Research of family budgets, 2004).

In Brazil, obesity is generated by interaction with genetic and cultural factors, as well as family genes and habits. Of the 40 percent of Brazilians who suffer from obesity, millions of them fall victim to this problem because of their low incomes. These people cannot afford healthy and nutritious foods to eat at least once a day (Research of family budgets, 2004).

According to IBGE and Ministry of Health, as a consequence of new alimentary habits, Brazilians have put on more weight in the last three decades. The country has about 38.6 million people who weigh above recommended levels. (Consume Expenditure Survey, <http://www.ibge.com.br>). This is the equivalent to 40.6 percent of adult population, in other words 10.5 million are considered obese.

What kind of country is this that allows the paradox between the beautiful models of international fame, whose bodies are healthy and slender and people whose poverty helps increase weight and an obesity problem? Because we are a country that can produce food to distribute, food stability exists however nutrition needs are not the focus of those at poverty level who are hunger. It is the belief that obesity is a comfort of the upper classes, while poverty and hunger is a fault of social structure than poor people often consider their obesity as a blessing. Obesity in Brazil is the fault of individuals who lack of education to take care of themselves nutritionally.

Let's think about a poor family who lives in Brazil. There are at least five people: father, mother, two boys and one girl. The parents are 24 and 23, respectively, while children are from five to ten years old. They live in a very poor slum, in the urban zone of a little town.

Children are at school a part-time of a day. The parents have a low education level. – The mother seldom completes the first grade of primary school; she stays at home, taking care of the kids. The father may study until the third grade of primary school, to make possible access to workstations of low productivity and remuneration they demand little qualification. For example the

father must pick up paper around the city to be recycled and sometimes his children will help him with the job. Monthly family income is around 17 reais or 6.10 dollars for a family like this.

While some believe infrastructure is more important, to most families in Brazil the access to the basic infrastructure is shown less deficient than anyone could imagine, if you consider the family is a poor part of the population have water at home and electric light that are provided by clandestine connections at homes, resulting in "free" or cheaper this service.

The family, living with this low income, often eats poorly. Their consumption includes soft drinks and junk, and greasy foods. For this type of families there are not the habit of eating natural food like vegetables and fruits. The shortage of this food provokes obesity. Fat accumulation becomes worse with the lack of physical activity. The man moves during his work, when he is walking around the town. However, woman puts on weight, and the fat is the one of the abdominal type, considered the most dangerous - it reaches the heart.

The mother in this scenario is a typical woman resident of a Brazilian slum. At 23, she has never had abundance of food at home and, now, children don't have anything to eat. But the hunger doesn't make the smallest effect in her scale. In the health center of the slum, she notices she puts on weight. She might be 123 kilos.

In a supermarket, the food of a buying list - banana, orange, apple, tomato, onion, carrot and lettuce - corresponds to 41.23 percent of the bill; while the energy ones - bread, rice, potato and pasta - correspond to 19.41 percent of the bill; the others - milk, chicken and beans - take 39.96 percent of that bill. It is natural that to a family that lives with a little income, the cheaper alimentary group is prioritized. Unfortunately, it is also the most caloric group.

According to Dr. Clóvis Eduardo Tomasi, specialized doctor in public health, food without nutrients, much fat and sugar, considering that a quarter of the adults make meals out of house, is almost always high in calories, poor in fibers and in vitamins, and 'fast-food'. (Tomasi, Clóvis. 18 August 2005).

In Brazil we have nutritional food quality problem. While the family is consuming energy foods, they have more caloric food than if they had consumed a balanced meal. Consuming a traditional meal with rice, beans, fries, fat meat and pasta, for example, they have 47.9 of proteins, 34.4 of fats, 175.3 of carbohydrates and it means 1.435 calories for 600 grams. It has a lot of carbohydrates and provides a lot of calories. It wouldn't be a problem if the family had vegetables and fruits on their diet, and milk.

This composition doesn't provide a balanced diet. The family needs vitamins, minerals, fibers, and macronutrients like carbohydrate, protein and fat. Also drinking enough water is one of the most important factors to maintain the individual in good hydration conditions (Amabis and Martho, 298 - 320). The result of a diet like the one the family eats is disease that could easily change with an educational program.

Government policy has supplied alternatives so that a family with low purchasing powers can receive nutritious meals with less caloric value that already are place by our government. Carrot leaves, beet, broccolis and another are given away by the merchants. These are excellent sources of vitamins and minerals that could be used in soups and other meals. With base in the basic menu based on nutritional food, it is arrived to a monthly list of purchases of products considered usually cheap, like banana, orange, apple, rice, beans, pasta, chicken, bread, milk, lettuce, tomato, carrot, onion, potato, salt and oil ("Alimental and nutritional security human rights to a nutritional food", <http://www.opas.org.br>).

The Brazilian government implemented a program called “Bolsa Família” with popular restaurants, in agreement with the General Office of Alimentary and Nutritional Safety, guaranteeing the access to a quality feeding of thousands of people that don't have money to eat well. Last year, 20.5 million reais were liberated for the implantation of 30 restaurants of the program. For 2005, there are available 38 million reais to install 55 new restaurants.

The “Bolsa Família” and popular restaurants programs, in agreement with the General Office of Alimentary and Nutritional Safety, have selected municipal districts that will formalize agreements with federal government which gives a financial compensation and the warranty of maintenance of those programs. The meals cost just one real in popular restaurants, which serve about two thousand meals balanced a day. The variety of meals can combat the bad nutrition, to control the obesity and to eliminate the hunger of a lot of populations that don't have access to a rich and balanced meal. This program is very interesting, because it can give the government some time to think in other practices that could make everyone sustainable. It's necessary to build people that can survive alone, because that's the only way to build real individuals that will correspond with future demands. Actually, the federal government had already made some investments.

In Brazil, families at the lowest levels are receiving supplemental funds similar to US food stamps. However there are no requirements of what foods to buy with government funds, therefore people without educational understanding of what is good for them will not know what to buy and will probably buy what is cheaper, forgetting about nutritional value on food. This will let their bodies in properly way to suffer from lots of diseases.

Since food programs like “Bolsa Família” are in place, it is important for the government create programs to educate the population about the risks of malnutrition, possibly using The World Bank as a model for poor people to be educated, how to eat well. In fact, the community could help, just providing some audiences with local doctors; making ads that speak about basic rules of a balanced diet. The point is, people must have in their minds that they need to change their nutritional habits to be able to have a healthfully life.

Since recent studies suggest that being overweight is responsible for 64 percent and 77 percent of the cases of diabetes of the type II in men and women, respectively (Monteiro, Carlos. August 2001) and since fat excess is the main factor that results in diabetes, as a micro explanation of my thesis of educational need and economic, I will focus on diabetes cost analysis – just one of many related diseases but comparable in price of treatment to others related to the cost of education.

If families earned sufficient income to purchase food or dietary supplements and had orientations to a healthy diet, the government who practices socialized medicine would be operating more effectively. Fat excess and malnutrition cause a lot of diseases and, of course, expenses. Using the cost analysis of what it costs to educate a class of High School students, government pays around three reais, proximally one dollar each class hour. It'll be much more economical spend in education than in medicine to try to recover health or maintain alive a person who is sick. The investment to educate a whole class, during eleven years (fundamental to high school), should be 1.815 reais, proximally to \$ 660, while to a single person with diabetes, a disease which is caused for fat excess, would be from 4,950 to 19,800 reais, close to US\$ 1,800 and US\$ 7,200, respectively (due the different kinds of the illness) during his life. Government would have an profit of 3.135 and 17.985 reais, respectively.

Doctor Tomasi also tells, in the case of diabetes “there are two types of diabetes, one that begins early in the childhood and is dependent of insulin and last all life long, and another one that usually starts after 35 years of age and, most of the time, can be treated with oral drugs. Our government uses to liberate for free delivery only the most

common type of insulin which has a cost of about 28 reais, close to US\$10 a month. If any patient uses it for about 60 years, the total cost is 20,160 reais, close to US\$ 7,330. In the case of older patients with type II diabetes the mensal cost is of about 13.75 reais, close to US\$ 5 and the patients will use the medication around 30 years, the total cost is 4,950 reais, close to US\$ 1,800” (Tomasi, Clóvis. 22 August 2005). The disease has an incidence of about 3 to 5 percent of the population, if we consider that the population is about 180 million habitants, it corresponds to 9 million people with the disease, around 44,550,000,000 reais during those 30 years, it’s about 1,485,000,000 reais per year, only considering the diabetes type II.

The program to teach classes about nutrition during fundamental and high school is very good, although we can’t forget about people that are not in school anymore, so we must find a program for them. Considering the cost of one hour class in Brazil, that is three reais, with around four classes in a month, it would cost 12 reais that multiplied by 10 months, which is enough time to teach people, we will have 120 reais, considering that there will be 100,000 teachers working on it, and the cost would be 12,000,000 reais. The government could also provide a free special book about nutrition, spending one real to make each book. If we think about 100,000 classes around the country with 50 students each, on those 10 months, the final cost would be 17,000,000 reais.

The government spends 1,485,000,000 reais in a whole year with medication for 9 million people with diabetes type II and would spend just 17,000,000 reais educating 5 million people in a year. In numbers, the 17,000,000 reais that would be spend, corresponds just to 1.14 percent of the 1,485,000,000 reais spent. In 30 years, the government would spend 510,000,000 reais corresponding to 34.3 percent of the 1,485,000,000 reais spent in one year and there would be 150 million people educated in this time.

The government and all the people must work together to control the paradox of hunger and obesity. While of in the beginning would be useful the economic would allow for self participation of international organizations, like Provision and Pharmaceutical industries, academic institutions, scientific and professional associations, the community's organized groups and private voluntary organizations, to create a entire group that will work together to end the malnutrition. These movements must be seen like a global compromise, to be the solution of malnutrition not only in Brazil, but al over the world.

In conclusion, governments are like families when they need to do what is in the best by its members and be cost effective education. Considering all the Brazil’s harms, it is clear that the best, smartest and quickly solution for nutrition problems is to invest hard on education. A country with healthily people, is a country with future, which have the possibility to grow with a successful development.

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