

MEDICC Review

Cuba Health Reports

This article is the first in a series on obesity that analyzes and follows the nascent public health challenge in Cuba.

Obesity: A Growing Problem in Cuba

By Gloria Giraldo, MPH

December 1, 2006 -- Worldwide, 1.6 billion adults are overweight and at least 400 million are obese[1]. Once considered a problem only in high-income countries, overweight and obesity are now dramatically on the rise in low- and middle-income countries. In Mexico for example, one of the leading causes of premature death is obesity[2]; even in Cuba, a Third World country with First World health indicators, obesity is on the rise.

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health.

Body Mass Index (BMI) is a number calculated by dividing a person's body weight by the square of their height. BMI is commonly used in classifying overweight and obesity.

The World Health Organization (WHO) defines "overweight" as a BMI equal to or more than 25, and "obesity" as a BMI equal to or more than 30. These cut-off points provide a benchmark for individual assessment, but there is evidence that risk of chronic disease in populations increases progressively from a BMI of 21.[3]

Cuba's 2004–2005 Comprehensive Childhood Study found 10.2% of children are overweight and 8.8% are obese.[4] Although lower than in other countries, obesity is becoming a major public health problem in Cuba.

The latest data on adult overweight and obesity are not yet available since results from the most recent National Risk Factors Survey are still being analyzed. Nevertheless, a 1996 study of four Cuban provinces with a sample size of 16,099, found the global prevalence rate of obesity for adults over age 35 was 8.0%.

Nationally meanwhile, the prevalence of overweight and obesity for the population over age 15 in Cuba was 61.1% for women and 59.2% for men. The data for obesity exclusively for the same population were as follows: 14.9% for men and 24.6% for women[5].

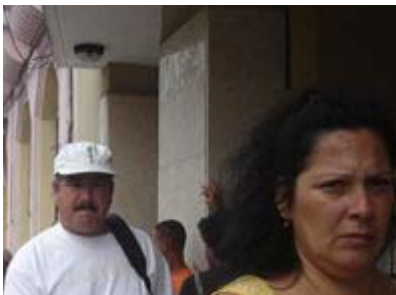
In the United States, between 1990 and 2000, the prevalence of obesity increased from 22.9% to 30% and the prevalence of overweight increased from 55.9% to 64.5%[6]. Currently, one third of US children and youth are either obese or at risk of becoming so, rates that have increased dramatically over the past three decades (see chart).

Obesity Rates in US Children 1975 & 2005

Age group	1975	2005
2-5 years of age	5%	14%
6-11 years of age	4%	17%
12-19 years of age	5%	17%

Source: Institute of Medicine. *Progress in Preventing Childhood Obesity: How do we measure up?* September 2006.

Background & History



Just as the problem of world hunger and malnutrition cannot be understood solely in terms of food production and agricultural expansion, obesity is a complex phenomenon that defies the narrow confines of the biomedical model, says Dr. Sergio Santana, a physician from the nutritional support unit of Havana's Hermanos Ameijeiras Hospital. The International Obesity Task Force agrees, noting that a different lens is needed to understand the big picture of obesity causes: the Task Force suggests research should include examinations of health, global food marketing, national food policy, agriculture, urban design, education and transportation.[7]

“The Cuban experience with obesity is radically different from other Third World countries,” explains Dr. Jorge Bacallao, co-editor of the book *Obesity and Poverty*. The fundamental difference he says, is that Cuba eradicated the severe manifestations of malnutrition early on, which currently co-exist with obesity in other Third World countries.[8] This means that rather than having to fight the nutritional battle on two fronts simultaneously – malnutrition and obesity – Cuba can focus more closely (and devote more resources) to the problems of overweight and obesity.

Changes in Caloric Intake for Select Countries in the Region

Country	Caloric intake	
	Year 1979	Year 1989
Haiti	2039	1734
Guatemala	2191	2405
Chile	2660	2485
Mexico	2982	3087

Source: FAO Food Balance Sheets

Obesity made its debut in Cuba in the early 80's. The Second National Growth and Development Survey in 1982 found that 31.5% of men and 39.4% women were obese.[9] Dr. Santana explained that the problem led to the establishment of obesity summer camps for children run by the Endocrinology and Metabolic Diseases Institute. The camps were designed to provide a space for obese and overweight children to strengthen their self-esteem, increase their understanding of a healthy diet in combination with physical activity, and promote outdoor recreational activities. Simultaneously, healthy eating and active living were promoted in the national media.

However, the sudden collapse of the socialist bloc in 1990 had a dramatic impact on Cuba's economy and directly affected the food supply and the nutritional status of the population. Concurrently, there was an increase in the level of physical activity due to the general scarcity of motorized transport. As a result, the population began to walk and use bicycles for their daily movements, leading to a marked decrease in obesity.[10] One study in Havana City of 3,618 people in 1995 found obesity rates of 10.2% for women and 7.1% for men.[11]

As a result of the economic downturn, the obesity problem was turned on its head, and the health system found itself dealing with micronutrient and other nutritional deficits widely held to be at least one cause of the 1993 neuropathy epidemic that affected 50,000 Cubans.[12]

Twin Culprits: The Couch and the Potato



Today, Cuba's economy has recovered from the severe crisis and is again facing the prospect of rising obesity rates. According to Dr. Susana Pineda, a pediatrician with the Institute of Nutrition and Food Hygiene, sedentarism is also on the rise with increased television viewing and videogame playing. Furthermore, physical education classes may not always meet the recommendations for physical activity.

The traditional Cuban diet, composed of pork, chicken, plantains, root vegetables, beans and rice, is partly to blame. Furthermore, sugar consumption in Cuba is one of the highest in the world, representing more than 20% of the daily energy intake.[13] Dr. Pineda explains, “Cubans have a fondness for sweets and a low preference for fruits and vegetables. We also love pork, so for all of our special occasions, there are always sweets and pork.” Several researchers have also observed that the recent proliferation of fast-food vendors who offer products of questionable nutritional quality at accessible prices is making a major contribution to the increase in obesity, especially among young people. Inconsistent availability of healthy alternatives including fruits and vegetables is also a factor, whether due to seasonal scarcities or prohibitive pricing.

Trimming the Indicators

The public health system is confronting the growing problem through its established programs, among them, the National Maternal-Child Health Program(PAMI) and the program for prevention and control of non-communicable chronic diseases.

For example, patients suffering from obesity-related pathologies are treated through the primary care network of doctor-and-nurse teams, which cover over 98% of the population and act as the basic service units for the Maternal-Child Health Program. In the case of children specifically, the family physician may refer an overweight child to a specialist for further evaluation. For adults, the health system provides chronic disease care for diabetes, hypertension, and other obesity-related complications; Cuba has one of the highest rates of hypertension treatment and control in the world.[14]

However, one of the greatest barriers to prevention and treatment is the lack of general public awareness about obesity and its consequences. Dr Pineda said that “many families may not come back for the specialized obesity consultation until the young girl is a few months away from her *Quinceañera* (15th birthday celebration) and the dress doesn't fit.”

The Institute of Nutrition and Food Hygiene collaborates with the media, especially TV and radio, to create nutrition-related programming. But Dr Pineda admits that not enough is being done to educate the population and disseminate healthy eating guidelines. According to Dr Santana, many other institutions need to be involved in policy design as well as education across the board— including the ministries of education, agriculture, sports, food industry, and domestic trade.

New Developments

The Cuban Obesity Society was founded at the First National Conference on Obesity in October by a group of endocrinologists, nephrologists, pediatricians, cardiologists, primary care physicians and other health research scientists. The conference agenda reflected the state of clinical and epidemiological research on obesity across life-span and through a gender lens, highlighting the different impact obesity has on women's health. The conference also represented a departure point for increasing the national dialogue on obesity.

Three recurring themes were the well-established relationship between obesity and cardiovascular disease, diabetes, and hypertension; the importance of early detection through population screening, intervention and control; and the critical role of prevention.

The conference also addressed research being conducted to establish early atherosclerosis signs in children and youth. Dr. Jose Fernandez-Brito presented the results of a multi-site study in Chile, Brazil, Panama and Cuba that found that by age 16, 33% of study participants showed four warning signs: pre-hypertension, overweight, smoking and CV family history. This study has ramifications for prevention in Cuba and Latin America because it identifies early signs that can alert parents and health care professionals at a time when intervention can be most effective in preventing the development of chronic diseases.[15]

Experts agreed unanimously that the only way out of the encroaching obesity epidemic is prevention through lifestyle modification and a wider social approach to the problem. However, the experts did not agree on a specific course of action: some support the creation of a national prioritized program to address obesity specifically, while others advocate strengthening the current programs and working to create awareness in the population of the risks of obesity. This includes changing commonly-held cultural beliefs that view “chubbiness” favorably.

Cuban health professionals concur with their global counterparts that the prevalence of obesity is not primarily a medical problem and cannot be controlled by primarily medical approaches.[16] The rising obesity rates will test the strength of the Cuban health system and its agility to mobilize the population around this new epidemic. Still, some express optimism that ample community participation and the capacity to work intersectorially are two advantages to the Cuban system that should work towards curbing the obesity trend. ■

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