

Fatness to fitness

Obesity, which causes heart disease, strokes and diabetes, has become a global epidemic, say Janet Voûte and Valentin Fuster. For many adults it is too late, but we must prevent our children getting fat. If press interest is a measure of public concern, fat has become a fundamental issue. In 2001 obesity was featured 17,000 times in major English language media. In 2003 references reached 46,000, and the subject was mentioned twice as frequently again in 2004. However, this explosion of media coverage has generated only a superficial awareness of the challenge of obesity. A deep understanding of the potential health consequences for our children, as well as acceptance of the need for social change, remains elusive.

We might be too late to do very much for already extremely overweight and obese adults, but for the sake of future generations we must create healthier environments for our children. This means changes in our schools, in offerings from television and entertainment, in the food and beverage industries, restaurants and supermarkets, in healthcare systems, in how food is advertised and in everyday family life. Individual willpower alone is not enough to reverse the obesity trend, and not particularly relevant when considering children.

The size of the problem

In 1995, 200 million adults were considered obese; by 2004 that number was estimated to have risen to 300 million. The definitions of overweight and obese for adults are typically based on the body mass index (BMI). This is a measure of weight relative to height, using the formula weight in kilograms divided by height in metres squared (kg/m^2). A BMI of 20–25 is considered optimal, 25–30 indicates that the subject is overweight, and BMIs of 30 and over indicate obesity.

An increasing proportion of young people are overweight and, indeed, obese. Today, 10% of children – 155 million individuals – are overweight and some 30–45 million are classified as obese. The more commonly agreed measure is based on BMI, but, unlike that used for adults, the level indicating overweight varies by sex and age. The definitions of childhood obesity are, however, hotly debated. Under one measure, children are

considered obese if they weigh more than 20% above their ideal weight.

Childhood obesity used to be a problem of developed countries, but is now emerging as a challenge in low- and middle-income countries as well. In the Americas as a whole, almost a third of children aged between five and 17 are overweight or obese; in Europe 21%; in the Near and Middle East 18%; and in Asia-Pacific 5%. In Beijing, 20% of children are obese – not overweight but obese. In the Middle East, rates of female obesity are at an all-time high, setting a dangerous lifestyle precedent for future generations of young women. Even in sub-Saharan Africa, obesity and malnutrition coexist not only in the same country, but even in the same community. In Tanzania, 7% of men and 13% of women in urban areas are obese. In South Africa, 10% of men and 33% of women in urban areas are obese.

In a number of countries, globalization has changed the face of obesity. In Mexico and Brazil, for example, where being overweight used to be a mark of wealth, it now often indicates poverty. Higher-calorie processed and fast foods are now widely and cheaply available. Although the elite can choose to adopt a healthy lifestyle, the poor have fewer affordable healthy food choices and more limited access to education on nutrition.

In developed countries, the poor are both more likely to be overweight and are also more likely to smoke, leading to a higher prevalence of disease. Poorer communities lack a basic understanding of a healthy lifestyle and also lack access to healthier foods and physical activity. The 2004 International Obesity Taskforce report found that, in America during the 1990s, the proportion of pre-teens who were overweight rose twice as fast among Hispanics and African-Americans as among white children.

The consequences

Overweight children are three to five times more likely to suffer a premature heart attack (before the age of 65) than are children of normal weight. In other words, the next generation faces the distinct possibility of a shorter, less healthy life. The risk of heart disease, stroke and type two diabetes increases on a continuum with body mass index. Risk factors for heart disease and stroke are interrelated and include being overweight or obese, taking little exercise, unhealthy diets, smoking, high blood pressure, high cholesterol and diabetes, as well as family history.

Recent studies in America have highlighted the impact of a cluster of health risks associated with abdominal obesity – what is called “metabolic syndrome” – including insulin resistance, raised blood pressure, lipid abnormalities and other risk factors. Around 4% of all American youngsters aged 12–19 are thought to be affected by metabolic syndrome, and that number is rising. Fatty streaks, precursors of arterial plaque disease, normally found to develop between the ages of 15 and 35, have been found in the arteries of children as young as 10.

There is also a frightening increase in type two diabetes (normally found in adults over 40) in both adults and children worldwide. This is worrying because, when left untreated, diabetes can damage the sight and even lead to blindness. It is the most common cause of amputations not associated with accidents. Those with diabetes are some 15–40 times more likely to require a lower-limb amputation than the general population. Almost 200 million people now have diabetes, and this number is projected to rise to 333 million in 2025. At least half of those with diabetes are unaware of their condition. Moreover, more than 314 million people worldwide are estimated to have impaired glucose tolerance, a state that often precedes diabetes. And there is a new trend of increasing cases of type two diabetes in children worldwide.

Prevention not cure

Treatment of such an increased risk profile across the world as a whole is not affordable. Most health systems in developing countries do not have sufficient insulin available to treat the current and projected explosion in diabetes. Heat-stable insulin does not yet exist. Appropriate medications for controlling diabetes, high blood pressure and lowering cholesterol are today not even reaching all western European patients in need. One can hardly imagine a global population being treated with medications for risk factors at ever lower ages, because of obesity. Obesity in itself must be prevented, then the additional risk profile and disease burden will not develop.

Heart disease and stroke, as well as much of the burden of diabetes, is largely preventable. Changing lifestyle – using well-known measures such as exercising more, eating more healthily and cutting out smoking – can reduce the risk by as much as half, if not more. Four big studies of lifestyle interventions on diabetes incidence found clear benefit from diet and exercise. Weight loss in obese children has been proven to reduce the risk of heart disease and dia-

betes. However, because the problem of childhood obesity has only recently been recognized, the research base on successful weight-loss programmes is limited. What we do know is that whenever weight-loss programmes have been successful, they have been associated with extensive social or community support and involve both healthy nutrition and increased physical activity.

Healthier environments

Given what is known about obesity, its health consequences and the need for community support, the World Heart Federation believes we must create healthier environments for our children. To do so will take strong commitment from the corporate world, national and local governments, the media, non-governmental organizations and healthcare providers. Creative public–private partnerships are urgently needed. According to the World Health Organization, 60% of the world’s children lead inactive lives. There are some steps that must be taken immediately:

» Governments must stop debating the pros and cons of the nanny state when it comes to children. They need to come out strongly in favour of healthier lifestyles. More money will need to be spent on preventing obesity and its associated disease, especially in the areas of education and primary healthcare. Marketing to children might need to be regulated. A “fat tax” on high-calorie, high-sugar food, beverages and on salty snacks must be considered a tool in the government’s arsenal. Taxes on tobacco products have been shown to reduce youth smoking.

» Schools must be converted into health supporting environments. We need to increase exercise and make sure the approach is one of “sports for all”. Food in school cafeterias must be healthier than it is today, and vending machines should be purged of high-sugar, high-calorie snacks. Fruit and vegetables must be available and affordable. Experience shows that children will choose fruit for a snack if it is readily available. Safe walking and bicycle paths are needed to liberate children from being driven to school. Healthy nutrition and healthy cooking must be taught in a new way to include the concept of calories in/calories out.

» In communities, safe parks and playgrounds are a must, as are community health education programmes with a new look at nutrition and physical activity focused on achieving energy balance. Families will need community support to begin to

make lifestyle changes. Doctors and nurses will need to reinforce positive behaviour change by getting involved earlier in childhood weight gain, healthy nutrition and exercise.

» Restaurants, particularly fast food restaurants that appeal to children, need to continue to improve their product offerings. Salads and fruit have been introduced recently by some chains. This is a step in the right direction, but we need to see healthier options for children, not just salads for mothers. Healthy eating ought to be encouraged with the toy or prize associated with a healthy meal, and not the high-sodium high-calorie option.

» Beverage companies need to reduce portion sizes, stop infinite refills in restaurants and begin to put more marketing dollars behind healthy low-calorie drinks. Soft drinks manufacturers can make low-calorie drinks fashionable. The public confusion over which fruit juices are high in calories and sugar, and which are healthier, needs to be cleared up and not exploited.

» The media need to reinforce healthy lifestyle choices. This and future generations are influenced by all kinds of media – from the television and movies to the Internet and instant messaging. Healthy lifestyles can become fashionable given the right support. Advertising should reinforce healthy lifestyle choices.

» Food companies can no longer assume that the excess calories come from a rival's products. All food companies must improve their product portfolio and make changes in marketing practices that help children. Our children and our grandchildren can still "grow out of" the problem of obesity, if and only if all stakeholders accept their responsibility to change.

NOTE TO EDITOR

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About the World Heart Federation

The World Heart Federation, a non-governmental organization based in Geneva, Switzerland, is committed to helping the global population achieve a longer and better life through prevention and control of heart disease and stroke, with a particular focus on low and middle-income countries. It is comprised of 180 member societies of cardiology and heart foundations from 100 countries covering the regions of Asia-Pacific, Europe, East Mediterranean, the Americas and Africa.

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