

Manuel García-Goñi and [Cristina Hernández-Quevedo](#)
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THE EVOLUTION OF OBESITY IN SPAIN

By: Manuel García-Goñi and Cristina Hernández-Quevedo

Summary: Considered the epidemic of the 21st century, obesity is a worldwide problem, affecting 260 million adults and 12 million children in the European Union (EU) alone. In Spain, adult and child obesity rates are increasing, in particular for women. Income-related inequalities in adult obesity in Spain also have increased over time, especially for women aged over 45. Although some regulatory initiatives have been approved to tackle child obesity, an evaluation of the effectiveness of alternative measures in other countries, such as “fat taxes” and improving education and availability of information for the population, would provide a better understanding of their application in the Spanish context.

Keywords: Obesity, Female, Child, Inequalities, Spain

The prevalence of chronic conditions increases with age, and it is estimated that before 2030, chronic diseases will account for 70% of the global disease burden and will be responsible for 80% of deaths across the world.¹ Although women present lower rates of mortality, there is a perception that they suffer higher levels of depression, psychiatric disorders, distress and a variety of chronic illnesses compared to men.²

Here, we focus our attention on obesity, which is one of the chronic illnesses considered to be the epidemic of the 21st century by the World Health Organization, given its impact on morbidity, quality of life and health care expenditure.³ Recent data for 2010 from the International Obesity Task Force (IOTF) illustrate the worldwide dimension of the problem: 1 billion adults are overweight and around 475 million are obese. The IOTF estimates that around 200 million children of school aged five to seventeen are overweight,

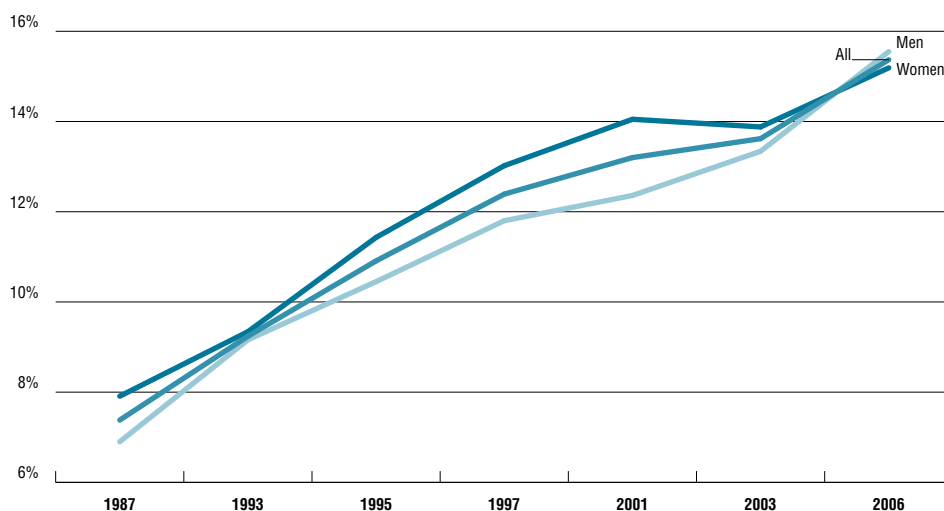
of which 40–50 million are classified as obese. In the European Union, approximately 50% of adults and more than 20% of children of school age are overweight or obese, corresponding to 260 million adults and more than twelve million children.

Spain is not an exception in the European context. According to the World Health Organization, Spain is one of the countries in the EU with the greatest prevalence of overweight (and obese) children. In addition, Spain is one of the countries where this condition has increased more substantially.⁴

Trends and inequalities in obesity in Spain

Evidence from the Spanish Health Survey shows how obesity prevalence, measured as a Body Mass Index greater than 30 kg/m², has substantially increased over time for the population aged over sixteen (see Figure 1). Although initially,

Manuel García-Goñi is Associate Professor, Department of Applied Economics II, Universidad Complutense de Madrid, Spain. **Cristina Hernández-Quevedo** is Technical Officer, European Observatory on Health Systems and Policies, London School of Economics and Political Science, UK. Email: C.Hernandez-Quevedo@lse.ac.uk

Figure 1: Prevalence of obesity in adults in Spain by gender, 1987–2006

Source: [5]

in 1987, there was a higher prevalence of obesity for women compared to men, a trend maintained throughout most of the period considered, in 2006, the prevalence rate was slightly lower for women compared to men. [5] However, as these data are self-reported, they may not be providing the true picture. As Gil and Mora [6] show, self-perceived weight is underestimated, especially among women, and the size of that bias could be interpreted as the degree of women's dissatisfaction with their own body image.

“significant inequalities in obesity suffered by women aged 45 or under”

In Spain, not only do women present a higher prevalence of obesity over time, but being female is also relevant when inequalities in obesity are measured. A recent study by Costa-Font et al. [7] has shown evidence of income-related inequalities in obesity in Spain for the years 1987 and 2006, although patterns differ by gender and age groups. Inequalities in obesity for both men

and women are concentrated among the poorest individuals in society, especially among women, for whom inequalities have tripled during the period of study. Results by age group confirm that the above patterns remain for all subgroups, with significant inequalities in obesity suffered by women aged 45 or under in 2006. Hence, women at the bottom of the income distribution scale, aged 16–45, suffer more from obesity. Results also show that while income-related inequalities were similar for both men and women in 1987, by 2006, their magnitude had remained relatively stable for men while for women, these inequalities nearly tripled. Moreover, compared to men, the inequalities for women in 2006 were three times higher (see Figure 2).

These results are in line with results obtained for other countries such as England, where there is evidence of income-related inequalities in obesity for both women and men during the period 1997 to 2007. In England, the magnitude of income-related inequalities in health for female individuals was three times higher than for men in 1997, and they have not decreased over time, while for men, income-related inequalities in obesity are no longer significant. [8]

Whether these inequalities are persistent over time and hence, are also shown by children in Spain, is of special interest as the prevalence of obesity in children is the most important determinant of the

prevalence of obesity in adults. Spain presents the second highest prevalence of both obesity and being overweight in children in Europe. [9]

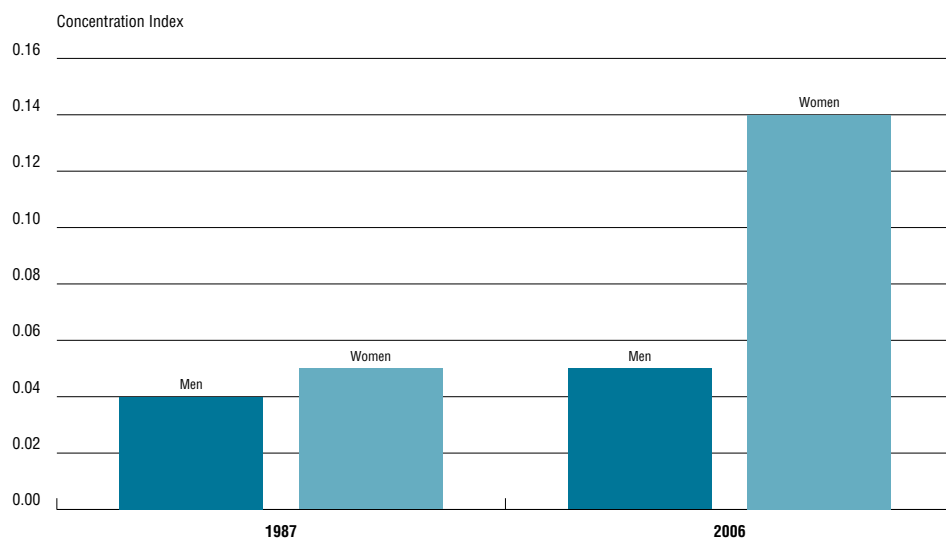
Child obesity trend in Spain

There have been a few studies providing data on the prevalence of obesity and overweight children in Spain. Deriving such data is controversial, as the Body Mass Index has to be considered together with both the age and sex of the child. Some studies on child obesity in Spain allow for international comparison following the IOTF methodology. These are the ENKID Programme (1999), developed in the late 1990s, and the PERSEO Programme, with data obtained in 2007 and 2009.

“evolution of obesity in children depending on gender”

These studies give us two important lessons. Firstly, the prevalence of obesity in children has increased in the last decade. Thus, in the Spanish regions for which we have data, the prevalence of obesity was 8.11% for children aged six to nine, and about 7.93% for children aged ten to thirteen in 1999. [10] These rates had increased to 10.79% in 2007, and 9.66% in 2009 for the two groups respectively. [11] Although other sources (albeit no international comparisons are feasible) show that the prevalence rate has stabilised in recent years [12] compared to the rapid increase in earlier decades (from the 1980s) [13], there are increasing concerns in the Spanish public health arena, particularly, as mentioned above, childhood prevalence is a determinant of adult obesity.

Secondly, these studies show the different levels and evolution of obesity in children

Figure 2: Income-related inequalities in obesity in Spain, 1987 and 2006 by genderSource: ⁵

Note: Results from Costa-Font, et al.⁴, are based on the Concentration Index (CI), which is a measure of association between the health-lifestyle variable considered and the ranking of individuals by socioeconomic status. A negative (positive) CI indicates that the lifestyle factor is disproportionately concentrated within the poorest (richest) individuals of the society. Although results are negative for the CIs obtained in Costa-Font, et al.⁴, here we present them in absolute terms to facilitate comparison.

depending on gender. The prevalence of obesity was high in boys aged 6 to 9 and 10 to 13 in 1999 (12.06% and 6.77%, respectively, according to data from the ENKID programme), while its level was significantly lower for girls in those age ranges (7.82% and 2.71%, respectively).⁹ However, about one decade later, according to data from the PERSEO Programme, the prevalence rate for obesity is fairly similar for both boys and girls, having remained stable for boys but increased significantly in the case of girls (11.13% for boys and 10.45% for girls aged six to nine years in the population of reference in 2007; and 10.01% for boys and 9.29% for girls aged ten to thirteen years in the population of reference in 2009).

Hence, since 1999 the child obesity prevalence rate increased substantially, with the exception for boys aged six to nine, especially for girls.

Moving forward

In Spain, a lifestyle change has taken place, together with an increase in the labour market participation of women. This has implied an increase in calorie intake due, among other reasons to the greater use of pre-cooked food or a reduction in its relative price.

Moreover, human energy expenditure has been reduced with less physical effort associated with production processes, the mechanisation of domestic tasks and the availability of transportation that has substituted for walking.

Since the late 1990s, some programmes and strategies have been developed to tackle obesity, such as the NAOS (Nutrition, Physical Activity and Obesity prevention) strategy by the Spanish Ministry of Health. Established in 2005, the strategy focuses on promoting healthy nutrition and physical activity, with special attention given to the lowest socioeconomic groups.

On 16 June 2011, the Spanish Law on Food Safety and Nutrition was passed by Parliament, containing measures related to combating child obesity and promoting healthy diets. Measures include: establishing a legal framework for implementing the NAOS strategy and the creation of an Observatory to study nutrition and obesity. The Observatory is charged with undertaking periodic analysis of the nutritional situation of the population and the evolution of obesity, reporting on policy evolution, providing the required evidence for policy design, and promoting education on nutrition and the benefits of physical activity.

In addition, the Law will establish mechanisms to monitor food served in schools; regulate the type of food and drinks sold in education centres; and facilitate the provision of information on food habits and physical activity by health services. A code of practice that regulates the advertising of food and drinks targeted at children under fifteen also has been implemented.

“reducing the spread of obesity, with special attention to child obesity”

With this Law, Spain has started a regulatory phase with the objective of reducing the spread of obesity, with special attention to child obesity, through educational and health system activities. However, there is a need to complement these measures with decisions at the private level, e.g. within the family environment, and to ensure that the scale of the problem is acknowledged by the population. In this respect, the current regulatory actions need complementary measures in the long-term. If income is a determining factor of the prevalence of obesity, the design of economic policies that promote healthy habits in the lowest income groups are required, and for that purpose, an evaluation of the effectiveness of measures such as the so-called “fat taxes” in Norway, Denmark and the US, should give us some guidance. However, jointly with the influence of inequalities in the distribution of income, inequalities in education are also related to obesity. This is particularly important for women, given that greater educational levels are associated with a lower prevalence of obesity and being overweight, although in the case of men, this relationship is not well documented.¹⁰ Existing evidence tells us two things: firstly, the worse-off are those more affected by the prevalence of obesity; secondly, individuals who

present the lowest level of income also have less information and lower levels of education. These factors may result in increased medical needs and health care utilisation, as well as encountering more barriers to access to health care due to suffering social exclusion. Therefore, policy measures focused on improving education and increasing the availability of information to the population, as well as the use of income redistribution mechanisms, may go some way to contributing to reduce the negative effects of rising obesity levels.

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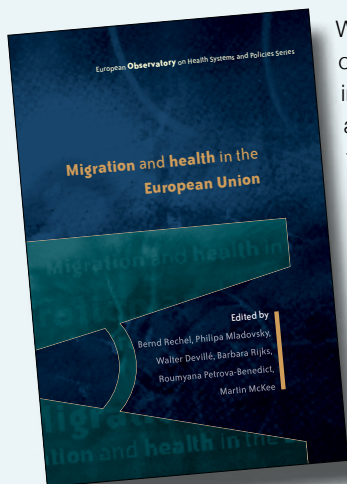
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