

**Regional disparities in obesity: pathways and policies in decentralized Spain**

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Objetivos (Objectives): Obesity is an expensive illness both in economic and societal terms for individuals and health systems. The incidence of obesity has tremendously increased in the last decades. It derives consequences in the quality of life of individuals, their incidence of other illnesses through its influence in co-morbidity, or in their participation rate in the labour market and productivity. In fact, the World Health Organization has pointed out obesity as a pandemic. It is therefore crucial to understand which type of actions might be implemented from public policies in order to reduce the problem so as to their expected effectiveness through observation of what has been done in the last decades in Spain. The main objective of this analysis is to study the regional disparity in the incidence of obesity. The devolution of health competences to the regional level (Autonomous Communities) as from the end of 2002 has implied regional differences in the productive model, and hence, in lifestyle and nutritional factors, family composition and immigration. In this study, we try to disentangle which are the factors that could explain the modification of the regional differences.

Metodologia (Methodology): The data used for this analysis is the Spanish National Health Survey (SNHS) 1987- 2006. The Health Survey is designed to be nationally representative of people of different age, sex, geographic area and socio-demographic circumstances. It combines questionnaire answers and physical measurements that allow us to estimate the underlying effect of socio-economic status on obesity. This information will be combined with both GDP per capita and the relative weight of primary, secondary and third sector in the regional GDP. We will also account when available for other indicators as public expenditure (education, health care, infrastructures, or green zones), among others that may be highlighted of interest. Infant obesity is of particular interest and a huge concern given that it is the best predictor for future adult obesity. Therefore, we devote a section to the analysis of differences in the rate of incidence of infant obesity in Spain. The empirical strategy of this study is as follows. Firstly, we present some evidence on the association between obesity and income variables across regions, using the SNHS. This will provide some insight on the level of income-related inequalities in obesity for each Autonomous Community, which will allow the policymaker to rank regions according to their performance on this regard. Secondly, a decomposition analysis is performed to understand which are the factors that explain regional differences in obesity, including GDP per capita and the relative weight of primary, secondary, and third economic sectors; public expenditure (education, health care, infrastructures, green zones), together with other demographic and socioeconomic variables of interest.

Resultados (Results): Provisional findings show that there are regional variations in the ratio of incidence of obesity which are correlated with income variables. Also there have been different trends in the implementation of social and public policies that might have affected the spread of obesity.

Conclusões (Conclusions): Results obtained from this analysis would allow policymakers to identify which public policies from those already in use in different regions are most effective in reducing the increase in the incidence of obesity. At the same time we expect to find new proposals of economic, public, and social policy based on the findings in the model.