

New WHO research reveals wide gradient of severe child obesity across Europe

April 30 2019



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New research from WHO Europe presented at this year's European Congress on Obesity in Glasgow, UK (28 April-1 May) shows there is a wide gradient of severe child obesity across Europe, with countries in

Southern Europe generally having the highest rates. The paper is led by Dr. Angela Spinelli, National Institute of Health, Rome, Italy and colleagues across Europe. The research paper is part of the WHO Childhood Obesity Surveillance Initiative (COSI) led by Dr. João Breda, Head of the WHO European Office for Prevention and Control of Noncommunicable Diseases, Moscow, Russia and his team.

Severe obesity in children is associated with immediate and long-term cardiovascular, metabolic, and other [health outcomes](#). When compared with children with overweight or obesity children with severe obesity have notably a much worse cardiometabolic risk factor profile. Furthermore, treatment and management options have limited impact and are not widespread in the WHO European Region.

While multiple studies in the past have compared 'regular' child obesity between countries, to date, no comparative studies with data on severe childhood obesity from European countries have been published.

COSI was established more than 10 years ago to estimate prevalence and monitor changes in overweight and obesity in children aged 6-9 years. Since then, more there have been five rounds of data collection in more than 40 countries and more than half a million children. The aim of this paper is to present the prevalence of severe obesity in [school-aged children](#) from 21 countries participating in the first three COSI rounds of data collection (2007/2008—2009/2010—2012/2013).

The total number of children aged 6-9 years included in the analysis was 636,933 (boys 323,648 / 50.8% and girls 313,285 / 49.2%). The researchers found great differences in the prevalence of severe obesity between the participating countries. According to the WHO definition, the prevalence of severe obesity ranged from 1.0% in Swedish and Moldovan children to 5.5% in Maltese children (Table 2). Countries from Southern Europe (Greece, Malta, Italy, Spain and San Marino) had

the highest levels of severe obesity, above 4%. In countries from Western and Northern Europe, such as Belgium, Ireland, Norway and Sweden, the prevalence was below 2%.

Although in the first three rounds of data collection of COSI some of the most populous European countries, such as Russia, Germany, France and the UK were not included, this data suggests there are almost 400,000 children aged 6-9 years living with severe obesity, out of around 13.7 million children living in the participating 21 European countries in 2013.

The authors say: "The presence of higher prevalence rates of severe obesity in the south is in line with previous studies of obesity and overweight among European children, adolescents and adults. The explanation for it remains elusive, but some possible reasons can be suggested. For example, studies of European children and adolescents suggest that the lower height- for- age found in Southern European countries may be one explanation. Other explanations may be linked to birth weight, sleep duration, dietary or physical activity patterns. The loss of the Mediterranean diet in Southern European countries could be linked to this severe obesity problem."

They add: "Relatively low prevalence rates of overweight and obesity were observed in countries that are experiencing a nutrition transition (e.g. Albania and Moldova). Without timely, appropriate and effective policy measures to prevent obesity, there is a risk that prevalence rates in these countries will eventually match the levels seen in other European countries."

The authors also suggest a possible link between parental education and child severe obesity. In 6 out of 8 countries that had [parental education](#) data included in the analysis, children whose mothers had only a primary or secondary school education had a higher prevalence of severe obesity

than children whose mothers had a higher education, but only in 3 cases was the difference statistically significant.

The authors say: "Differences in the mother's education level reinforce that a problem of inequality does exist and that it should be considered when devising strategies to tackle childhood severe obesity. School-based health promotion interventions have the potential to reach children from all socioeconomic backgrounds, and may, therefore, provide an important avenue for addressing health inequalities."

They conclude: "Acting on childhood obesity—including severe obesity—can have major benefits for child health and well-being but also for national health care services and economies. When countries develop processes for monitoring childhood obesity like COSI, it ensures that national obesity strategies—both for prevention and treatment—can be evaluated. This study is the first that investigates the prevalence of [severe obesity](#) in schoolchildren with a representative sample from 21 European countries. Severe obesity is a serious public health issue and the results of this study show that a large number of [children](#) in Europe suffer from it. Given its impact on education, health, social care and the economy, [obesity](#) needs to be addressed via a range of approaches, from prevention to early diagnosis and treatment."

Provided by European Association for the Study of Obesity

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