

## **Economic impact of obesity set to reach average 3.6 per cent of GDP by 2060**

*Total costs projected to double in Spain and rise 19-fold in India, finds 8-country study  
But keeping obesity prevalence at 2019 levels could cut average annual costs by 13%*

The economic impact of obesity is set to make up 3.6%, on average, of a nation's Gross Domestic Product (GDP)--the total value of annual goods and services--by 2060, if current trends continue, finds an 8-country modelling study, published in the open access journal **BMJ Global Health**.

The total costs of obesity are projected to double in Spain and increase 19-fold in India over the next 40 years, if current "policy inertia" continues, warn the researchers.

But cutting the prevalence of obesity by 5% from projected levels, or keeping it at 2019 levels, could translate into an average annual reduction in these costs of 5% and 13%, respectively, their calculations suggest.

Between 1975 and 2016, the prevalence of obesity increased in every country in the world. It's a factor in over 5 million non-infectious disease deaths every year, over half of which are among those aged under 70.

And obesity is associated with higher direct and indirect personal and societal costs in terms of healthcare needs, lost productivity, and reduced quality of life.

The researchers set out to estimate the current and future economic impact of obesity, using a modelling framework applicable to different national contexts around the world.

They used a 'cost-of-illness' approach for 28 diseases known to be associated with obesity to estimate the economic impact of overweight (body mass index (BMI) of 25 to 29.9 kg/m<sup>2</sup> in adults) and obesity (BMI of 30 kg/m<sup>2</sup> and above) in eight countries for 2019 and for 2060.

Australia, Brazil, India, Mexico, Saudi Arabia, South Africa, Spain and Thailand were chosen to reflect different geographic regions and income levels.

Direct costs included medical and non-medical costs--the travel and time required to receive care. Indirect costs included financial losses from premature death and lost productivity.

The costs of long term disability and early retirement, as well as those associated with 'weight bias', such as lower academic achievement and reduced likelihood of promotion, were excluded as it wasn't feasible to measure these across countries.

To inform their calculations, the researchers drew on the results of 59 published studies on the economic impact of obesity and a very wide range of official national data from credible sources including the World Health Organization and the World Bank.

In 2019, they calculated that the total per capita costs of obesity ranged from US\$17 in India to US\$940 in Australia, equivalent to 1.76% of GDP, on average, across the 8 countries, but ranging from 0.8% in India to 2.4% in Saudi Arabia.

Annual GDP growth rate in 2019 averaged 1.6% among the 8 countries, ranging from -0.12% in Mexico to 5% in India.

Medical costs made up 90% of direct costs, on average, across all countries, while informal caregivers constituted more than 90% of direct non-medical costs, on average. Losses from premature death comprised around 56%–92% of indirect costs across all the countries.

Amid rising obesity prevalence, population changes, and economic growth, the researchers calculated that between 2020 and 2060, obesity costs would double in Spain and increase 19-fold in India.

The researchers then assessed the impact of two hypothetical scenarios. The first, a 5% reduction in obesity prevalence from the projected levels would result in total costs of obesity as a proportion of GDP, ranging from 2.4% in Spain to 4.9% in Thailand by 2060.

Compared with 2019 projections, this implies average annual savings of around 5.2% across all 8 countries between 2021 and 2060.

The second hypothetical scenario estimates the total costs of obesity if obesity prevalence remains constant at 2019 levels. This would result in an average annual reduction in obesity prevalence ranging from 9% to 22% by 2060, calculate the researchers.

As a proportion of projected GDP, total costs in 2060 would range from around 1.4% in India to 4% in Mexico, resulting in average annual savings of 13% compared with baseline projected costs.

The researchers acknowledge various limitations to their study, including that the estimates of future obesity prevalence assume that historical and current trends relating to age, sex, and nutrition will continue, while excluding changes, such as technological advances or medical breakthroughs in obesity treatment or prevention.

And they are clear that it's not those living with obesity who create or are responsible for the associated costs or economic losses, but an increasingly obesogenic environment.

But they conclude: "Our findings suggest that there are enormous economic impacts associated with obesity across countries irrespective of geography or income level. There is tremendous variation across countries in the level and impacts of obesity but—as seen in these eight countries—historical and current trends demonstrate that economic costs will rise over time."

They emphasise: "We project that the prevalence of obesity will increase to about 57% of the population in India and to about 93% of the population in Saudi Arabia in 2060."

They add: "The scenarios underscore the need to take urgent action to reduce potential economic impacts in the future. This will not be achieved if current levels of underinvestment in treatment and the social determinants of obesity continue."

"Overall, our findings make the case for a concerted increase in national efforts to combat the global rise in obesity prevalence and overcome the existing policy inertia that has hampered progress on obesity policy implementation."