

# Spiralling obesity costs could be solved by Ozempic and other weight-loss drugs

Weight loss drugs are effective and could help solve the obesity epidemic. The economic case for weight loss drugs is strong. Yet there are caveats: governments should prioritise prevention first and foremost, while access to medicines containing semaglutide should be safeguarded as there is a global shortage



The societal costs of obesity mainly stem from the loss of productivity

## Weight loss drugs can help solve the obesity epidemic

The active ingredient in weight loss drugs (semaglutide) acts like glucagon-like peptide 1 (GLP-1). By connecting to your GLP-1 receptors, weight loss drugs make you feel less hungry and fuller, helping people to lose weight.

Weight loss drugs offer a less expensive and less invasive alternative to other obesity treatments like gastric bypass surgery. This is fundamentally a good thing, as obesity rates have risen sharply over the past few decades. In fact, there are currently more people overweight than malnourished worldwide. Weight loss drugs can help reverse this trend.

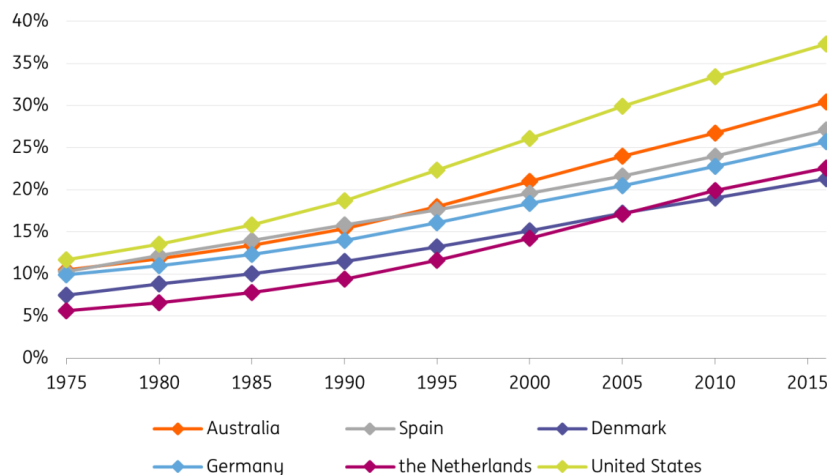
Obesity carries significant societal costs. It is linked to health issues such as cardiovascular diseases, joint problems, and diabetes, all of which are costly to treat. Additionally, the

Organisation for Economic Co-operation and Development (OECD) has shown that obesity reduces labour force participation and lowers productivity. Obesity also negatively impacts physical and mental well-being, adding to societal costs.

In short, there is a clear demand for weight loss drugs and they can help solve a real problem that bears significant societal costs.

## Obesity rates have risen worldwide

Percentage of obese adults in selected countries



Source: Our World in Data

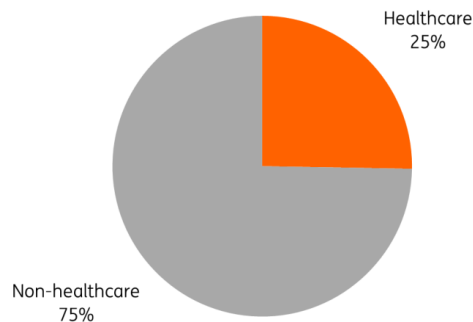
## How high are the societal costs of obesity?

Costs from obesity can be categorised into three types: healthcare, economic, and private costs. Healthcare costs are medical expenditures that stem from the diagnosis and treatment of other diseases caused by obesity, such as diabetes. Economic costs, on the other hand, are costs that stem from lower productivity. People with obesity are sick more often and longer than employees with a normal Body Mass Index (BMI), which means that their labour productivity is lower. Private costs are costs incurred by the individuals themselves. These are costs such as informal care and additional household expenditures, but also costs related to health-related quality of life such as self-care, pain and depression or anxiety.

These costs differ per country of course: healthcare and indirect costs are not the same across the globe. Yet, what is similar is that the societal costs of obesity mainly stem from the loss of productivity (i.e. more frequent sick days), and less so from healthcare costs. So much so that in the US and the Netherlands, three-quarters of the costs of obesity are not healthcare-related, but mainly caused by a productivity loss. However, the share of healthcare costs does increase as people become more overweight. In the US, for instance, adults with class 1 obesity experienced 68.4% higher healthcare costs than people with normal weight, whereas people with class 3 obesity had 233.6% higher costs. As people's BMI increases, healthcare costs rise at a faster rate compared to non-healthcare costs.

## Productivity loss is the greatest societal cost of obesity

Percentage of societal costs of obesity that stem from healthcare and non-healthcare sources



Source: Hecker et al. (2022); Cawley et al. (2021)

## How do societal costs of obesity compare to the costs of weight loss drugs?

As there are high societal costs associated with obesity, there is a strong economic incentive to solve the obesity epidemic. Yet, weight loss drugs are not free either. The costs of these drugs are one of the reasons that [the Dutch Care Institute recently argued](#) that Wegovy should not be covered under basic health care insurance. The Institute argued that the costs could amount to €1.3bn annually, which would be a significant dent in the Dutch healthcare budget of €95bn.

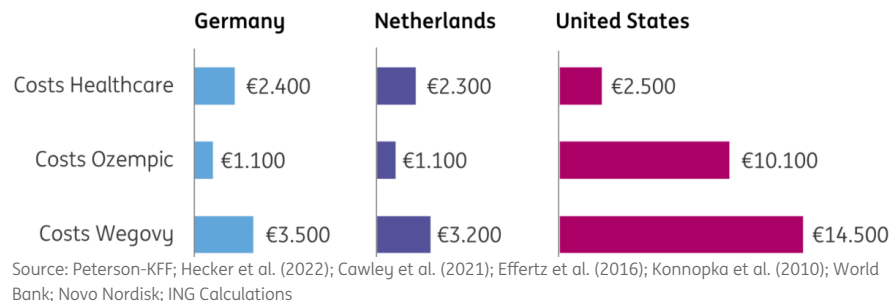
So, how do the prices of a year's supply of Novo Nordisk's Ozempic and Wegovy compare to the costs of additional healthcare? In Germany and the Netherlands, there is a clear economic case for weight loss drugs, as the annual costs of Ozempic are lower than the costs of additional healthcare and the costs of Wegovy are slightly higher. In the US, however, prices of weight loss drugs outweigh the yearly additional medical costs.

The US generally pays higher prices for both on-patent and generic drugs, which is also the case for Ozempic and Wegovy, but also for other weight loss drugs Rybelsus and Mounjaro. Both these drugs have similar price points as Ozempic in the US, and cost roughly fivefold (Rybelsus) and threefold (Mounjaro) more than they cost in Europe.

In addition, we have chosen to only look at additional healthcare costs, as the payment for weight loss drugs would likely come from healthcare budgets. Yet, as we know healthcare costs are roughly 25% of societal costs of obesity, so in reality the economics of weight loss drugs are better still. Moreover, the prices of the weight loss drugs are based on list prices, which can be higher than the actual prices paid, as healthcare insurers and providers can negotiate.

## Business case of weight loss drugs in the short term differs per region

Annual costs per person of additional healthcare to treat obesity-related diseases versus the use of Wegovy and Ozempic



## Long-term economic effects of weight loss drugs are uncertain

However, the long-term effects of weight loss drugs are still uncertain. The most poignant question is whether weight loss results are sustainable when the use of weight loss drugs is tapered off. In short, is weight loss a short- or long-term result?

If weight loss results are sustainable then the economic case for weight loss drugs becomes stronger. This likely means less medical costs later in the life of patients when costs of obesity tend to be higher, as this is generally the time when more invasive procedures (e.g. gastric bypasses) take place. If weight loss results are not sustainable, this hurts the cost efficiency of weight loss drugs and creates life-long patients which is not desirable. Therefore, more research into the long-term effects of weight loss drugs needs to be done, as the second-round effects largely determine their cost-effectiveness.

## Semaglutide shortage hinders wider application

As more people are overweight globally, and weight loss drugs are an easy short-term way to lose weight, demand for weight loss drugs is strong. However, this substantial demand comes with another important drawback of weight loss drugs. Semaglutide is also the active ingredient in medicines used to treat diabetes. Due to the run on weight loss drugs, there is currently a shortage of diabetes medication worldwide.

Producers of weight loss drugs and diabetes medicine such as Novo Nordisk and Eli Lilly have recently made investments to scale up production. Yet, diabetes medication is likely to stay in short supply for a while as [medicine shortages are notoriously hard to solve](#). In light of the semaglutide shortage, it is not prudent for healthcare authorities to approve the over-the-counter sale of weight loss drugs right now. If weight loss drugs become easier to access, the shortage will likely worsen and diabetes patients might not be able to get the treatment they need.

## Prevention remains key

It is a good thing that policymakers and doctors now have an additional instrument to combat the obesity epidemic. Moreover, the economic case for weight loss drugs (in Europe) is strong, especially if the long-term effects of weight loss drugs are positive.

However, as drug manufacturers like Novo Nordisk have stated: weight loss drugs are not a replacement for a healthy diet and exercise. This means that weight loss drugs are not of much use if prevention and healthier lifestyle choices are not encouraged more. Even though doctors tend to only prescribe weight loss drugs alongside a diet and exercise plan, governments need to do more. Especially because the obesity epidemic is a clear example of a market failure: the costs of a healthy lifestyle are higher than those of fast food.

To enhance collective prevention, prioritising the promotion of (moderate) exercise and increasing engagement with the food industry are essential. Governments should allocate resources towards these efforts. Interventions such as limiting the exposure of consumers to unhealthy foods, and differentiating VAT for healthy and unhealthy food could be policy options. In addition, engagement with supermarkets to stock more nutrient-dense foods could also be an avenue to pursue. Currently, it is too lucrative to promote unhealthy foods, which is something governments should act on.

For individual prevention, the use of weight loss drugs is a useful tool to get people from obesity to overweight. Yet, because of the short supply of semaglutide worldwide and the need to ensure sufficient diabetes medication, we believe it is unwise to approve weight loss drugs containing semaglutide for over-the-counter sale right now. However, we believe it should be covered in the basic health insurance for people with class 3 obesity. Weight loss drugs can make a difference for the most serious cases of obesity, and, depending on geographic location, the benefits will likely outweigh the costs.

### Ozempic's rise to fame

Weight loss drugs, and Ozempic in particular, have gained significant media attention in recent years due to their use by celebrities. Elon Musk admitted using it to help him lose 30lbs, while Oprah Winfrey told *People* magazine last year that it was key to her dramatic weight loss. She said: "The fact that there's a medically approved prescription for managing weight and staying healthier, in my lifetime, feels like relief, like redemption, like a gift, and not something to hide behind..."

Some users of weight loss drugs experience side effects such as nausea, stomach pain, and changes in taste which can reduce their ability to enjoy food. Therefore, it is important to only use weight loss drugs while under the supervision of a doctor and in combination with an improved diet and exercise. This is stressed by both doctors and the producers of weight loss drugs.



## Looking ahead

In short, as part of a balanced approach to fighting the obesity epidemic, weight loss drugs do have their part to play, but governments should be careful in their decision-making. The shortage of semaglutide and the accessibility of diabetes medication should be top priority. In addition, governments should encourage broad societal debates on obesity and prevention. Only then can weight loss drugs play their role in tackling the obesity epidemic.

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