



THE OBESITY AND ITS ECONOMIC COST

Gyan Prakash Ghosh (Department of Economics)

ABSTRACT

Obesity is gradually becoming a worldwide public health challenge bringing with it significant health and economic impacts. It has an adverse effect on society and individuals along with a major impact on the economy. The main objective of this study is to look into different aspects of how obesity can lead to a heavy burden on the economy. Estimation has been done on the economic impact of overweight and obesity for 46 countries being part of OECD using a cost-of-illness approach. Direct and indirect costs of obesity from 2020-2050 were estimated from a social perspective and future projections were done on global GDP.

KEYWORDS : obesity, overweight, health, economy,disease

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INTRODUCTION

Obesity is defined as a disease involving an accumulation of excessive body fat that leads to a situation of being overweight. It is not just a concern of physical appearance of a person but it is more associated with giving birth to countless diseases inside the body.

There are several ways to determine obesity although the most widely used method is Body Mass Index(BMI). It is a measure that compares a person's weight in kilograms to their height in meters (kg/m²). For adults, a BMI greater than or equal to 25 is considered as overweight while obesity is a BMI above or equal to 30.

According to recent report published by WHO, More than 1 billion people worldwide are obese – 650 million adults, 340 million adolescents and 39 million children. This number is still increasing. WHO estimates that by 2025, around 167 million people including adults and children will become less healthy because they are overweight or obese.

Overweight people and those living with obesity have been affected to a great extent by the consequences of the COVID-19 pandemic . During the worldwide pandemic, There have been

unfavorable shifts in food consumption and physical activity patterns that will have effects on population health in the years ahead, and will need significant effort to reverse.

It is a well known fact that obesity comes along with risk to health related issues .This article will draw a hypothesis stating that obesity can lead to a heavy burden on the economy. Through observations and analysis ,we would see the impact of obesity and overweight on the economy.

THE HEAVY BURDEN OF OBESITY

Based on an OECD report on obesity where analysis is being done across 46 countries, being overweight has become a widespread issue and it will gradually take the shape of a global epidemic. More than half the population is overweight in the vast majority of OECD countries out of which approximately 25 percent which implies almost one in four people is obese. Average rates of adult obesity in OECD countries have increased from 21% in 2010 to 24% in 2016, so marginal change in number of obese people is 50 million. We are only held responsible for this worldwide problem and there are some reasons which

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support this fact stated below

- 50% of people have an unhealthy diet and are more inclined towards junk food.
- Sedentary activities account for 40% of awake time (e.g. watching tv)
- 1 in 3 people do not perform sufficient amount of physical activity
- 2 in 5 individuals do not consume a required amount of fruit and vegetables

ANALYSIS

Now this study will aim to analyze how obesity can impact the economy, society and individuals to a great extent.

IMPACT ON ECONOMY

Some might wonder how overweight and obesity can impact the economy but it's a harsh reality. We will use the cost of illness(COI) approach to evaluate the economic cost of obesity. COI, also known as burden of disease (BOD), is an approach that analyzes various aspects of the disease's impact on the health outcomes in a country, specific regions, communities, and even individuals. The fundamental goal of COI study is to determine the economic burden that illness imposes on society as a whole. Cost of illness (COI) studies help policy makers understand the economic burden of a certain disease.

IMPACT ON SOCIETY AND INDIVIDUALS

Obesity can be linked with having an excessive impact on society as well as on individuals. Cost of obesity is divided into two parts : direct costs and indirect costs. Firstly,we will look into different aspects of direct cost.

REDUCE LIFE EXPECTANCY

Over the period of next 30 years, overweight will result in 462 million new cases of cardiovascular disease in the 52 countries, and 212 million cases of diabetes. As being overweight affects people's health , it also leads to premature mortality. In OECD, on average

61 people per 100000 population will die prematurely each year due to being overweight .Countries like Japan and Korea where overweight prevalence is low and life expectancy is high ,they usually have lower Premature mortality. Over the next 30 years , around 3 million people in total will die prematurely every year in the 52 countries due to being overweight .The impact of obesity on mortality can also be measured in years of life lost. The impact of overweight on premature mortality translates into a great fall in overall life expectancy. On average, life expectancy in OECD countries will be 2.7 years lower due to being overweight in the time span of 2020-50. Besides reduction in life expectancy due to being overweight, it also reduces the amount of time available to develop a disease or condition. To calculate the number of years lived in perfect health using disease disability weights which refers to healthy life expectancy– will be reduced even further, by 3.2 years on average in OECD countries, 3.0 in G20 countries and 3.3 in EU28 countries.

RISE IN HEALTH EXPENDITURES AND HEALTH BUDGETS

Obese people are more prone to health related risk which lead to rise in health expenditures. Since being overweight is a major risk factor for several NCDs,cancers, CVDs, dementia and diabetes, , on average people with overweight require health care services more often and even for more complicated issues. The large health burden followed by obesity related problems negatively impacts many relevant health outcomes (e.g. mortality, disability, and quality of life) and results in higher healthcare expenditure. As a result, the per capita health expenditure in countries with a high obesity rate is higher than in the no-overweight scenario. Some Countries with lower overall health care budgets but high overweight prevalence, such as Turkey and Saudi Arabia, will end up spending a high proportion of their health expenditure on overweight and related issues. It has been estimated that On average, OECD countries will spend 8.4% of their entire health budget on treating the outcomes of

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high body mass - but this is highly variable across countries. However, as being overweight reduces life expectancy, it also reduces the health expenditure on other medical conditions. This is because the lower life expectancy implies there is less time to develop other health related issues, reducing the overall expenditure on these situations. This is applicable to conditions less strongly associated with high BMI. In total, OECD countries will have to spend USD PPP 311 billion per year on treating overweight and related conditions. Over the period 2020-50, all 52 countries together will spend USD PPP 425 billion per year – equivalent to the GDP of Austria in 2018.

Indirect costs

In addition to steadily increasing healthcare costs, obesity goes along with indirect costs through reduction in workforce productivity. This article provides a concise overview of economic consequences associated with excess-weight and obesity. there are four effects on the labour market that should be taken into account namely absenteeism, presenteeism, employment rate and early retirement.

It has been estimated that presenteeism, for overweight employees compared to people having normal weight is 10% higher and for obese employees 12% higher. High obesity potentially leads to loss in the cost of productivity. Existing estimates suggest that the productivity loss associated with presenteeism is even larger than related with absenteeism. This accounts for up to two thirds of the monetary value of total productivity losses. Absenteeism related to being overweight will lead to a decrease in labour market outcome (which combines workforce participation, employment, and productivity when employed) by 0.38% on average across OECD countries. Presenteeism is a situation where employees are present at work but less productive. On average, this will decrease the labour market output of individuals by 0.81%.

Obese people become less productive due to more days of sick leave and longer work absence. while at work, their performance usually

witnesses a fall down. Moderately and severely obese manufacturing workers experience greater difficulties with job-related physical tasks and in completing work demands on time than normal-weight workers which resulted in low labour productivity.

In addition to issues linked to productivity, obesity can also have a negative impact on employment. For females, being **obese** at age 42 is associated with a 4.9 percentage points reduction in the **employment** probability and a 2.3 percentage for male workers. People with overweight are less likely to be employed than normal-weight persons. Obese people report unequal wage as they earn (up to 18%) less than non-obese, even when they have equivalent positions and discharge the same work profile. On average, OECD countries will see 0.43% reduction in labour market output due to unemployment as overweight reduces the likelihood of being employed.

In addition to unemployment, Overweight also increases the number of people who retire early which further lead to decrease in the labour market output by 0.05% average in OECD countries. Economy has to bear costs due to reduction in labour market participation and productivity caused by overweight. In the case of absenteeism and presenteeism, employees are paid wages without a return in productivity. Unemployment and early retirement both result in the loss of productive workers from the workforce. Finally, due to their increased health care expenses, obese people may have reduced earnings.

Negative employment results can cause depression and low self-esteem, which might result in weight gain. Employers who hire obese people might have to pay higher premiums for health insurance. In order to retain the same overall expenses for the combined wages and benefits necessary to be profitable, they may consequently compensate obese employees with lower wages.. People who are paid less might become obese in part because they cannot afford healthful food and must rely instead on low-cost, low-nutrition, calorie-dense foods. In most



countries, there is an income-education-obesity gradient: poor and less-educated people are more likely to be obese.

IMPACT ON GDP

On average in OECD countries, GDP will be lower by 3.3% each year due to the impact of obesity. The impact in G20 and 23 EU countries is similar to some extent, at 3.5% and 3.3%, respectively. The impact of obesity on GDP varies by country: from 1.6% in Japan to over 5% in Mexico. Developing countries like India will witness the difference of 2.7 % in GDP due to overweight. Across all the 46 countries included in the analysis, this equates to a total of USD PPP 5.3 trillion from 2020-50 which is equivalent to the average annual GDP of Germany or Japan. Importantly, these findings ignore the possibility that people may work longer and retire later due to an increase in life expectancy brought on by reduced obesity. For every year of longer life expectancy, the retirement age should be raised by two-thirds of a year, which would double the effect of obesity on GDP, raising the average for OECD nations from 3.3 percent to 6.8 percent.

It is predicted that from 2005 to 2015, obesity-related illnesses cost the Indian economy \$200 billion. The projected cost for the upcoming ten years may double or triple that of the prior ten. India would spend a staggering \$13 billion on diseases linked to obesity by 2025. Before 2030, non-communicable diseases and ailments linked to obesity will cost India \$4.58 trillion. Obesity and related health issues (\$1.03 trillion) and cardiovascular illnesses (\$2.17 trillion) will cause the greatest economic loss. Compared to underweight women, there is a far greater correlation between national income growth and women being overweight or obese: a 10% rise in GDP per person is predicted to result in a 7% increase in female prevalence of these conditions. These results demonstrate that the prevalence of overweight or obese women rises quicker than the prevalence of underweight women when GDP per person rises.

Policies to tackle obesity

Community initiatives should concentrate on promoting healthy eating and active living in a range of contexts in order to reverse the obesity epidemic. Over the past ten years, nations have made significant headway in enacting regulations to combat unhealthy eating and insufficient exercise. The vast majority of nations have national policies promoting a healthy diet and active lifestyles, as well as particular action plans to combat childhood obesity. In general, nations have been very active in enacting laws that will disseminate information and expand the range of healthy options available to individuals.

Less frequently used are policies to control unhealthy choices, including prohibitions on advertising, and to change the cost of health-related decisions, like taxes on energy-dense foods and drinks or subsidies for healthy choices. OECD nations must put comprehensive prevention strategies into place to combat the rising obesity epidemic. The population's health benefits from policy initiatives to encourage healthy habits, and these initiatives are a great investment for nations. Three policy packages have been put into use by different countries under OECD:

- A communications package that includes proper food labelling along with mention of calories contained in a food packet, restrictions on advertisements and mass media campaigns. Although these policies are present in many nations to some form, they are not implemented to their full potential.
- a diverse range of standards including menu labelling, physical activity guidelines, and initiatives for workplace health.
- A physical package to promote physical activity through public transport interventions, mandatory physical education in schools and actions to counteract workplace sedentary behaviour.



Conclusion

These study findings have proven the hypothesis true which implies that the impact of overweight on life expectancy, health expenditure and labour market productivity can be combined into one overall macroeconomic effect. It is evident that obesity and related health problems can actually affect the labour market. It is a fact that various economic factors get affected by the change in one due to correlation. The fact that overweight rates are still increasing despite this clear progress indicates that the approach has not yet been sufficient to meet the situation. Multiple factors make it difficult for policies to be implemented "on the ground" and to be effective at the population level. Numerous times, actions are not uniformly carried out across the nation or policies are used in ineffective ways. Other times, a lack of funding or practical issues limit the number of people who could potentially gain from the strategy. Now time has come to wake up from deep slumber and make health a first priority. It should not be ignored by anyone no matter the age and weight.

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