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The GLP-1 Revolution: Miracle Drugs, Market Chaos, and the Cost of Slimness

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Abstract:

In modern society, unhealthy dietary patterns and sedentary lifestyles have made weight management a pressing challenge for many individuals. Therefore, people are seeking more effective approaches that fit contemporary living. Since 2021, GLP-1 receptor agonists have expanded beyond their original role in diabetes treatment and entered the field of weight control. As novel therapies, they provide effective weight reduction and lower risks of obesity-related diseases such as stroke, hypertension, and heart failure. This article explores the global rise of GLP-1 drugs, considering not only their clinical benefits but also the cultural and economic factors behind their popularity. Cultural norms, beauty standards, and social media have played an important role in fueling public enthusiasm. The trend is especially visible in the United States, China, and Japan, where differences in regulation and pricing strongly shape access. While GLP-1 drugs represent a significant advance, concerns about side effects and access highlight the need to weigh their benefits against potential risks.

Keywords: GLP-1 receptor agonists, weight management, public health, drug accessibility, pharmaceutical regulation

Weight management has always been a major worry, particularly in today's world of abundant food choices and widespread availability of processed foods. In 2021, Semaglutide, a type of GLP-1 (Glucagon-Like Peptide-1) receptor agonist, was approved by the FDA for obesity treatment, quickly becoming a rising star for weight management. Since then, GLP-1 drugs have gained great popularity from the global market and attracted huge public attention, which even leads to occasional shortages. Novo Nordisk, a leading manufacturer of GLP-1 drugs, has become a major driver of Denmark's economic growth, making the country's economy now lean heavily on its success (Blum). Although many people have been benefited from these new drugs, the risks and accessibility associated with their use are often overlooked or underestimated, which can result in problems like overdose and misuse. New drugs are always emerging powers that bring people hope, but the potential risks should be carefully evaluated, particularly in light of the wide variations in how they are used and regulated around the world.

GLP-1 drugs have achieved success in the global market not only because of their effects on diabetes

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patients but also due to their appeal to healthy individuals with potential weight control problems. Obesity has been a prevailing public health issue in U.S. and the CDC data shows that more than one in five U.S. adults is suffering from obesity (Centers for Disease Control and Prevention). Dr. David A. Kessler attributes American people's obesity problem to the addiction of the ultra-formulated foods, and he believes that GLP-1 drugs can help people feel full, therefore reducing their reliance on unhealthy diets. The success of GLP-1 drugs in the U.S. market seems to be obvious, and J.P. Morgan Research expects the GLP-1 market to top $100 billion by 2030, with growth equally driven by its use in treating diabetes and obesity. Despite their success in the U.S. market, GLP-1 drugs also gain popularity globally. In China, GLP-1 drugs are described as "wonder drugs" on its major social media platforms and Chinese people's craving for weight loss leads to the shortage of popular GLP-1 products like Ozempic (He). Although GLP-1 drugs were approved in China to treat Type-2 diabetes and obesity, many people are using them as an easy way for weight loss, even if they are medically healthy. Japan is known to have a healthy diet and low obesity rates, yet Novo Nordisk still expects a $216 million market there due to the country's stricter definition of obesity (Hakariya, Ohnishi, and Tanimoto 3007). Therefore, GLP-1 drugs have successfully emerged as a powerful force that started in the U.S. market but quickly spread globally for various complex reasons.

Drugs can bring benefits, but they also come with side effects. Does GLP-1 drug have side effects? They do, but the focus on their benefits often overshadows or downplays the potential risks. The overlook of GLP-1 drug side effects stems from both health concerns and body shape anxiety. Admittedly, GLP-1 drugs are clinically proven to be revolutionary for diabetes and obesity as they not only aid in weight loss but also help prevent weight-related diseases like stroke, heart failure, and hypertension. However, GLP-1 drugs can cause symptoms like vomit, diarrhea, constipation, etc. In several cases, they can cause pancreatitis, gastroparesis, or bowel obstruction that might be life-threatening (Catanese). Misuse or overdose of GLP-1 drugs can even bring more harm than good to people's health. In China, GLP-1 drugs can be purchased online without a prescription, raising concerns about misuse and overdose, particularly among female consumers (He). Chinese social media apps like Douyin and Xiaohongshu are filled with posts from users sharing how they easily lost 10 pounds or more in just a month after taking a few injections of Ozempic, the brand name for semaglutide. And this trend is mostly driven by the prevailing beauty standard in China, where being slim is considered attractive (He). The western beauty standards have also evolved significantly over time. During medieval Europe, when famine and disease were widespread, a fuller figure became a symbol of wealth and status. However, by the 20th century, being thin became the prevailing beauty ideal in the West, a sign of wealth and status (Collins).

Today, a fuller body is often equated with a lack of willpower, making the stringent beauty standard push people to pursue a slimer body shape even if they are medically healthy. As a result, the use of GLP-1 drugs by healthy people to achieve a slimmer body is becoming a global trend, despite the potential risks of these new drugs. By October 28, 2024, the MHRA (the UK's regulatory agency for medicines and healthcare products) received 7,228 Yellow Card reports of adverse reactions to GLP-1 drugs used for weight loss, with 68 people ending up in the hospital. Therefore, instead of just chasing a slimmer body to fit today's beauty standards, it's worth considering how to handle the risks of using these drugs for weight loss.

Regulations for GLP-1 drugs vary widely across countries, leading to significant differences in price and accessibility. Wegovy and Ozempic are two major GLP-1 drug brands sold in the U.S., a giant market where 40% of the population is living with obesity. The growing demand for GLP-1 drugs is only making the already steep drug prices in the U.S. even worse. As a result, data shows that in 2023, Americans were paying way more for GLP-1 drugs than people in other countries — about $936 a month for Ozempic compared to just $93 in the UK. Wegovy was even pricier, costing $1,349 a month in the U.S., while in the Netherlands, it was only $296 (Glenza). The high cost of these drugs makes them less accessible to low-income individuals, who make up a significant portion of the diabetes and obesity population in the U.S. Although some companies, like Eli Lilly, are trying to offer lower-cost doses, GLP-1 drugs are not covered by most insurance plans, and even the discounted price remain a burden for most people (Lovelace Jr.). Consequently, people who really need the GLP-1 drugs often cannot afford it.

In China, GLP-1 drugs are included in its National Reimbursement Drugs List when prescribed for diabetes treatment but not for weight management. People who need GLP-1 drugs for diabetes treatment can get access to them at a more affordable price. However, China's regulation on GLP-1 drug accessibility is quite lax. Except for hospitals, people can easily get these drugs through many channels, including e-commerce platforms. The rising demand for GLP-1 drugs has led to soaring prices online, with costs ranging from 36% to 151% higher than the prescribed price (He). The huge profit not only attracts resellers but also counterfeit drug manufacturers. E-commerce platforms in China have become a source of illicit or counterfeit GLP-1 drugs being supplied to overseas markets

(Turnock et al.). The UK regulation agency has decided to tighten the rules for obtaining GLP-1 drugs through online pharmacies after finding out many inappropriate private prescriptions issued through these platforms (Davis).

The future of GLP-1 drugs is both promising and challenging. Its powerful effects on diabetes and obesity can relieve many people from weight-related diseases, but global regulatory disparities can act as a counterforce to safe access to these so-called miracle drugs.

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