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Date: Feb.29th. 2024

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(Pharmacy Planet, n.d.)

I. Introduction

Ozempic and Mounjaro are the latest craze – drugs that were meant to be breakthrough drugs for individuals diagnosed with type-2 Diabetes, have become the get-skinny-quick drug for the rich and powerful. Medical care inequality and the world's obsession with thinness are nothing new. However, the abuse of diabetes drugs for weight loss has cast an illuminating spotlight on the harsh reality of these concerns that can't be ignored.

II. What are Ozempic and Mounjaro?

Ozempic and Mounjaro are medications used to treat type-2 diabetes. Type-2 diabetes is a metabolic disorder characterized by high blood sugar levels, known medically as hyperglycemia. Hyperglycemia results from the body's inability to use insulin or insufficient production of insulin, a hormone produced by the pancreas that helps regulate blood sugar or glucose levels by facilitating glucose uptake into cells for energy.

III. A Brief Summary of Type-2 Diabetes Drugs Used for Weight Loss

Metformin:

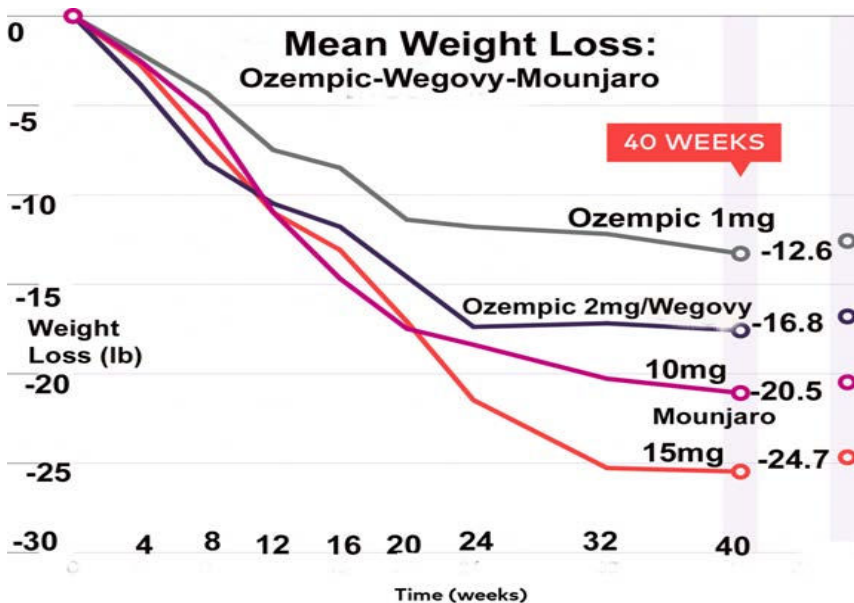
Metformin, approved by the FDA in 1994, reduces glucose production in the liver and increases the body's sensitivity to insulin in type-2 diabetes patients. Metformin is often recommended as the first-line medication for type 2 diabetes. It is generally prescribed when diet and exercise are not sufficient to control blood sugar levels. In a randomized controlled study of adults with obesity but without type-2 diabetes run by Rodriguez, Pantalone, Griebeler, and Burguera, approximately 30% of participants on metformin lost more than 5% of their body weight in the first year. Metformin can be taken as a liquid or a tablet, the liquid is usually taken with meals one or two times a day and the tablet is usually taken with meals two or three times a day.

SGLT-2 Inhibitors:

SGLT-2 inhibitors block the action of the SGLT-2 protein in the kidneys, which is responsible for reabsorbing glucose back into the bloodstream. By inhibiting SGLT-2, these medications increase the excretion of glucose through urine, lowering blood sugar levels. These drugs can lead to weight loss because of their diuretic effects, leading to a reduction in fluid retention. Invokana (Johnson & Johnson), approved by the FDA in 2013 and Farxiga (AstraZeneca) and Jardiance (Boehringer), approved by the FDA in 2014 are examples of SGLT-2 inhibitors. These medications are typically taken once a day, orally.

GLP-1 Receptor Agonists:

GLP-1 receptor agonists activate the GLP-1 receptors, a hormone naturally produced after eating. This leads to increased insulin secretion, reduced glucagon (a hormone that increases blood glucose levels) release, and an enhanced sense of fullness. These actions collectively improve blood sugar control and weight loss from increased satiety. *Ozempic* (Novo Nordisk), FDA-approved in 2017 and *Mounjaro* (Eli Lilly), FDA-approved in 2022 are both GLP-1 receptor agonists. Both medications are taken through subcutaneous injection, typically once a week.



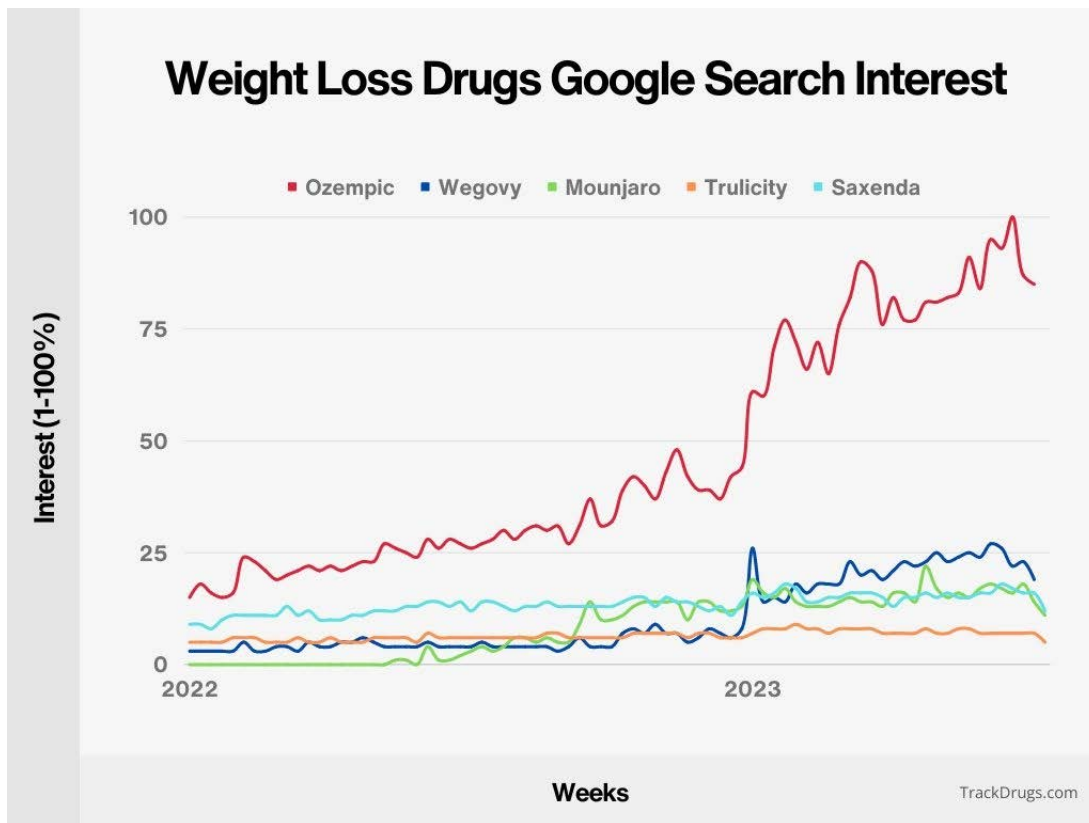
(Richard Lipman MD, n.d.)

IV. Newsworthy Wonder drugs

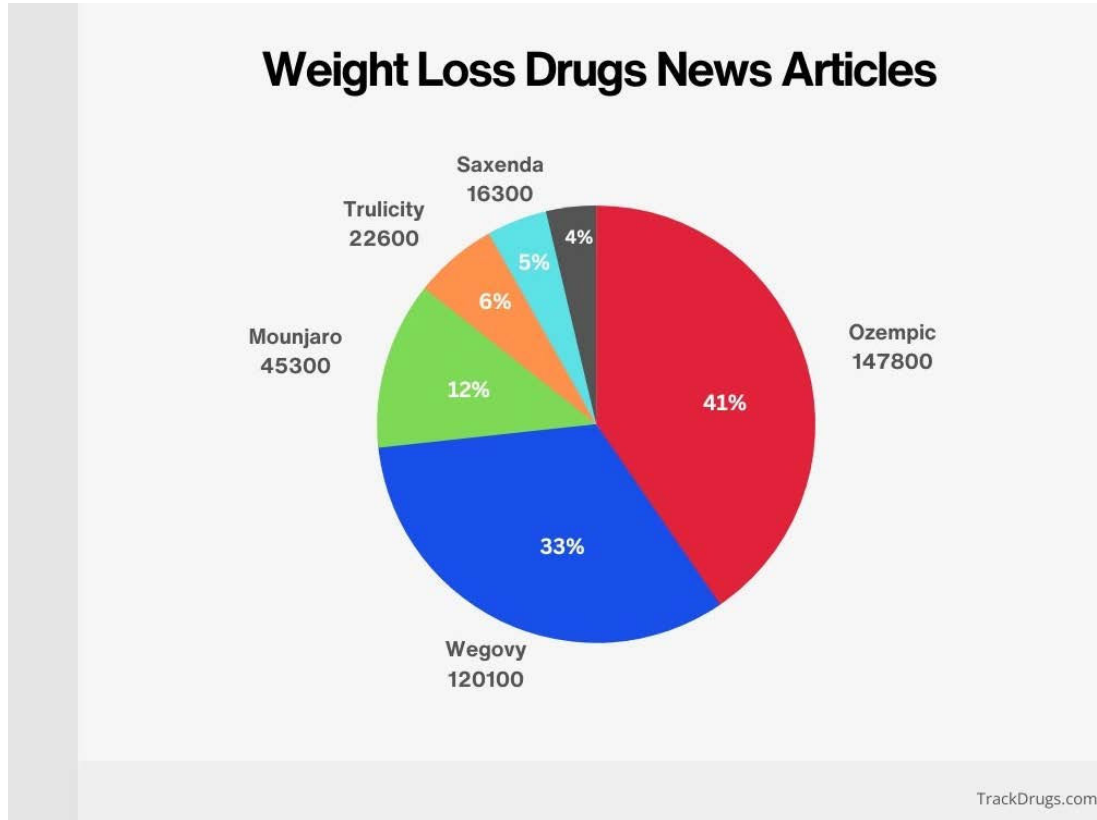
Ozempic and Mounjaro are medical miracles in their own right. They provide the luxury of less frequent drug administration – requiring weekly injections compared to daily or multiple times a day oral ingestion compared to predecessors. Moreover, these two drugs offer higher type-2 diabetes treatment effectiveness for those who struggle to lose weight with diet and exercise alone.

Since 2022, headlines have been filled with reports of drugs’ rapid weight loss side effects, the celebrities speculated to be on Ozempic, and the dramatization of the competition between Ozempic and Mounjaro’s manufacturers, Novo Nordisk and Eli Lilly, respectively.

Monthly searches for “how to get Ozempic for weight loss” were as high as 8,000 per month in March of 2023, up 2,531% from 2022. In 2023, Ozempic was the most-mentioned weight loss drug with 147,800 mentions, and Mounjaro was the third most-mentioned drug, with 45,300 mentions falling behind Wegovy. (Wegovy is a sister drug to Ozempic also made by Novo Nordisk, it’s a higher-dose version of Ozempic that’s designed and approved for weight loss)



(TrackDrugs, 2024)

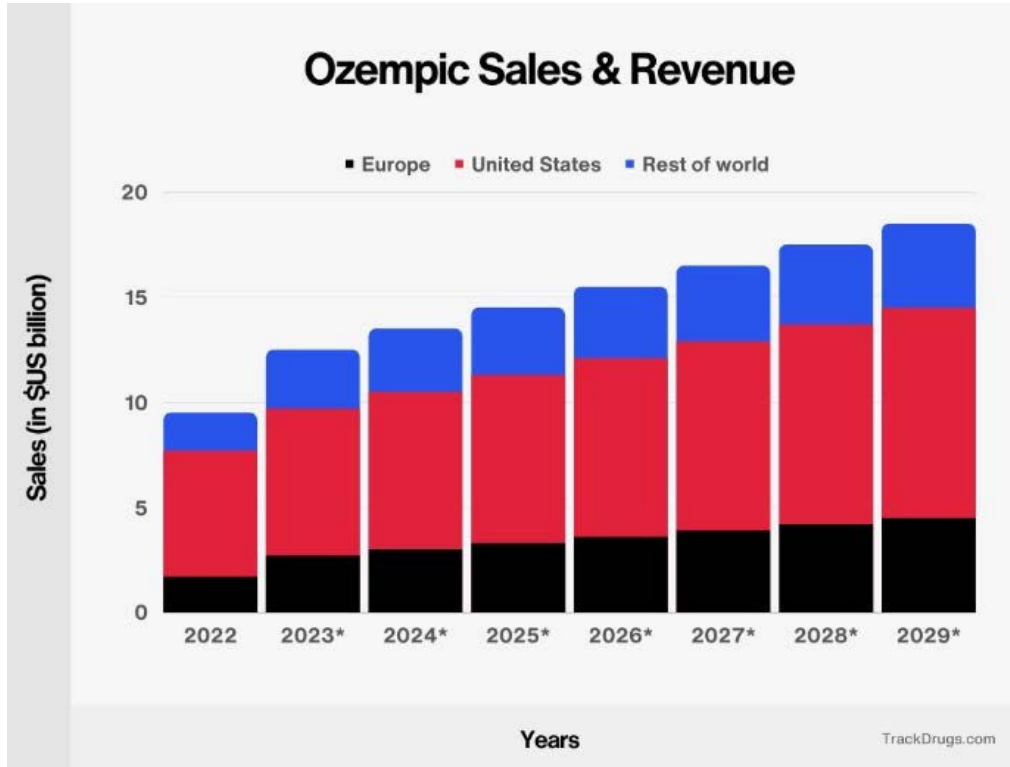


(TrackDrugs, 2024)

V. Cash Cow

Novo Nordisk (NYSE: NVO), Ozempic’s inventor, is a Danish multinational pharmaceutical founded in 1923 in Denmark by August Krogh, Marie Krogh, and August Kongsted. The company has been a pioneer in the development, production, and commercialization of insulin products. Novo Nordisk offers a range of insulin analogs, including long-acting and short-acting formulations, providing options for individuals with both type 1 and type 2 diabetes.

Ozempic and Wegovy brought in \$4.8 billion in sales during its 2023 Q3. Ozempic and Wegovy accounted for 52% of Novo Nordisk’s \$23.6 billion of total revenue through the first 3 quarters of 2023, up from a 36% share during the same period in 2022. Novo Nordisk is now the highest-valued company in the EU, at a market cap of \$527.56 billion. Ozempic is projected to surpass \$15 billion in total sales in 2025.



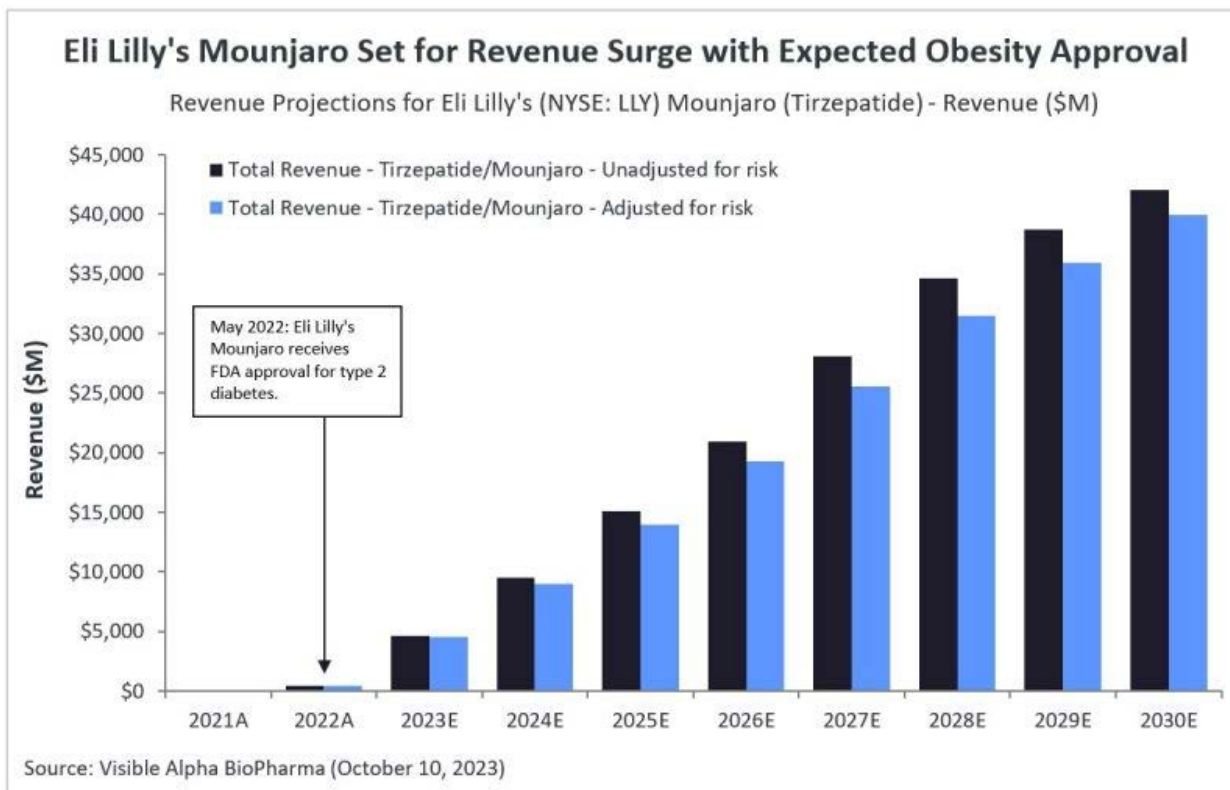
(TrackDrugs, 2024)



(TrackDrugs, 2024)

Eli Lilly (NYSE: LLY) is a pharma giant, founded in 1876 by Colonel Eli Lilly in Indianapolis, USA. Eli Lilly has succeeded in numerous health avenues, most known for its clinical depression drugs Prozac and Cymbalta. It has a rich history in the field of diabetes, in 1923, Eli Lilly became the first company to mass-produce insulin on a large scale, making it widely available to people with diabetes. Today, it's making waves in the diabetes field once again for its breakthrough drug, Mounjaro.

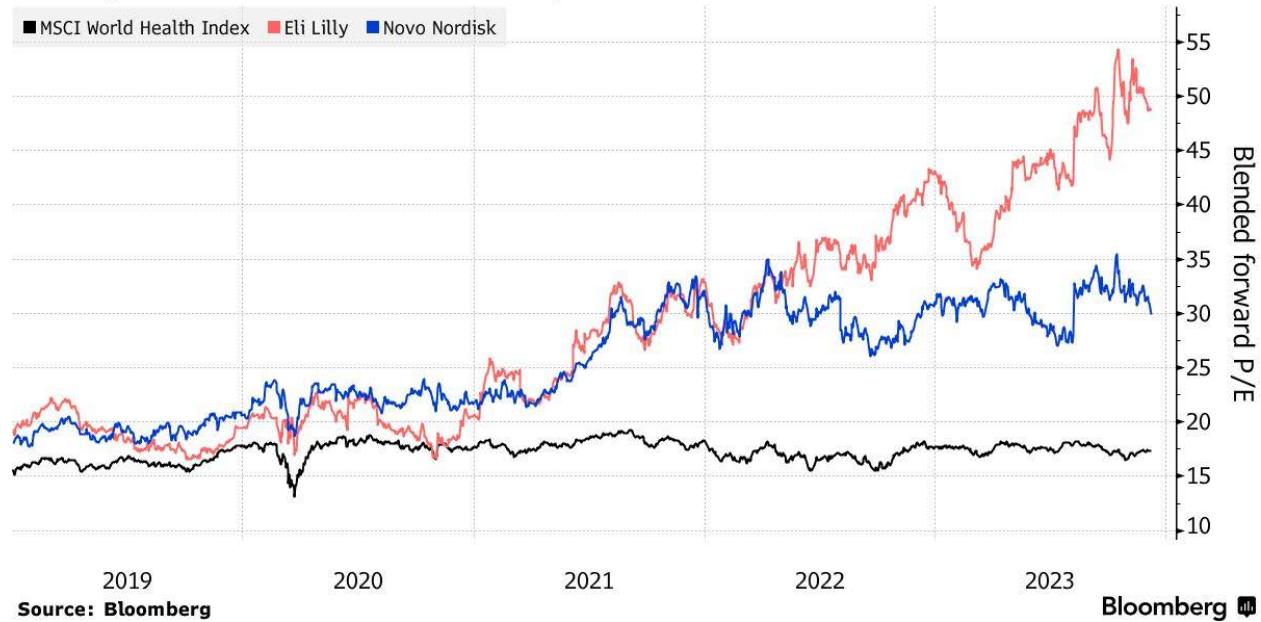
Mounjaro accounted for \$1.41 billion of Eli Lilly's 2023 Q3 sales of \$9.5 billion, or about 15%. In Q4, Mounjaro booked \$2.21 billion in sales, up \$0.8 billion from the previous quarter and surpassing its \$279.2 million sales figure in the same period a year ago in 2022. It's important to note that Mounjaro is still a new growth drug that was granted FDA approval in 2022, 5 years later than Ozempic. These figures are imposing and demonstrate the rapid adoption and acceptance of the drug. Mounjaro is also projected to surpass \$15 billion in total sales in 2025.



(Visible Alpha BioPharma, 2023)

Valuation Premium

Eli Lilly and Novo Nordisk trade at a premium to the healthcare sector



(Bloomberg, 2023)

Why are Ozempic and Mounjaro so profitable? – The beauty standard for men and women to have thin, fit and aesthetic bodies. The weight of this pressure is heavier than ever with social media, filters, photoshop and the desire to look perfect fueling body image issues in users.

VI. Diabetes Care Access Struggles

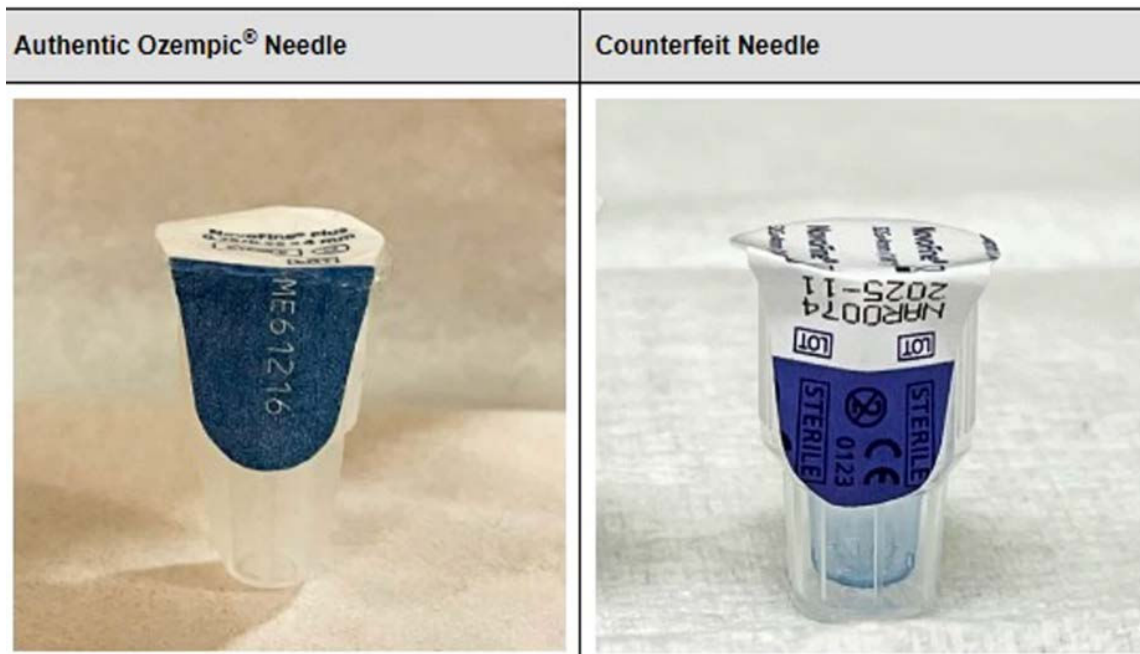
A monthly dose, or four injections of Ozempic and Mounjaro costs around \$900 to \$1100 without insurance in the US and around \$300 in Canada. The total prescriptions for Ozempic in 2022 reached 2.2 million but only a fourth of prescriptions were written for patients with diabetes. This means around three-quarters of prescriptions were for weight loss, despite not being approved as a weight-loss drug.

The soaring demand for Ozempic and Mounjaro has led to supply shortages around the world. Novo Nordisk and Eli Lilly have advised that short supply due to increased demand is estimated to last until March 31, 2024. Both companies are aggressively upscaling manufacturing and even cutting back production of other drugs to fully capitalize off their blockbuster drugs.

This unfortunate situation has left those with type-2 diabetes unable to get their hands on life-saving medicine, and a rise of scalpers, scammers and bad faith doctors claiming to sell the drugs far above market price. In the end, it's the rich and powerful that can afford these upcharge prices to consistently bypass shortages.

Greg interviewed by Vogue’s Margaux Anboubas, is prescribed Ozempic for his type-2 diabetes. “I’m currently [on] the 1 mg dose [of Ozempic] because I can’t get the 2mg dose consistently,” he says. “As a diabetic, it does infuriate me to know that there is a shortage of medicine that highly benefits me and that there are people who are using it [for weight loss] and have different options [when it comes to losing weight]. But I also know that losing weight is hard, so I try to give them the benefit of the doubt.”

Moreover, many patients have reported failed attempts at procuring Ozempic online. One patient paid \$1500 upfront to a doctor who claimed they could provide Ozempic, then offered a lesser weight loss medication she could’ve sourced from any doctor. Health regulators are also warning of counterfeit Ozempic versions circulating worldwide, with unsterile needles and an unknown composition. Austrian regulatory authorities believed the counterfeit products contained insulin instead of semaglutide, the active ingredient in real Ozempic, observed by serious side effects including hypoglycemia and seizures.



(NBC News via FDA, 2023)

VII. Warning: Not a Weight Loss Drug

Ozempic and Mounjaro’s common side effects may include nausea, vomiting, diarrhea, constipation, indigestion and abdominal pain. These side effects are often temporary, lasting a few days to weeks and improve over time for those who take these drugs to treat type-2 diabetes.

Both Ozempic and Mounjaro websites warn that the drug is supposed to be used for weight loss. *So what happens when you take Ozempic and Mounjaro without having type-2 diabetes?* — You feel too sick to function properly, according to Amy Schumer, who admitted to trying then stopping Ozempic due to the severe side effects.

Ozempic and Mounjaro are meant to be long-term drugs and used indefinitely as advised by a healthcare professional. Coming off these drugs results in patients gaining back all the weight they lost and developing sarcopenic obesity where a body has a high amount of fat, but a low amount of muscle mass. Another observed side effect of Ozempic and Mounjaro users is “Ozempic Face,” aging that’s driven by the rapid loss of body fat.



(Zelken Institute, 2023)

VIII. Conclusion

IX.

Pharma companies and bad actors will continue profiting off body image insecurities as long as being skinny is trendy. We are not promoting obesity or being ‘fat’ but rather pointing out unrealistic goals that goes well beyond a healthy BMI. The truth is that those with money and influence will get to cut the line in all aspects of life, including procuring whatever scarce off-label drugs it takes to look the best. To limit this, we must regulate medical professionals to prioritize prescribing Ozempic and Mounjaro to those who need them for their primary purpose, treating type-2 diabetes and controlling blood sugar.

Eli Lilly recently launched Zepbound in November 2023, a direct competitor to Novo Nordisk’s Wegovy. Wegovy and Zepbound treat obesity and are for people who don’t already have diabetes but whose excess weight puts them at risk of health complications. These medications will hopefully alleviate demand pressures on supplies of Ozempic and Mounjaro, allowing more access to patients with type-2 diabetes.

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