VISASQ / COLEMAN

Weight Loss Drug (GLP-1) Market

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About Our Expert:

- Head U.S. Ozempic Commercialization at Novo Nordisk Inc (August 2015 – March 2022)
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- Senior Vice President Sales and Marketing at Bryn Pharma, LLC （May 2023 - Present）

During his more than 10-year tenure at Novo Nordisk, he led Ozempic® commercialization and achieved blockbuster status faster than any other diabetes product ever and faster than any other product in chronic disease. He led the US core launch team across 5 commercialization tracks—product supply, organizational readiness, brand marketing, scientific and medical affairs, and market access. He oversaw the largest portfolio at Novo Nordisk US—Victoza® and Ozempic® representing >$6B in revenue. He additionally was responsible for all in-line and lifecycle management activities with full P&L accountability and budget responsibility of +$400M.

Moderator:
Max Le Sieur

Founder & Managing Partner at Rosemont Legacy

- MBA, Harvard Business School 2022
- Investment Banking Associate at BMO Capital Markets (July 2016 – August 2020)

Expert Insights On:

- Background of GLP-1s and the split between Weight Loss vs Type 2 Diabetes
- Drugs in the market: Ozempic, Wegovy, Mounjaro, Zepbound, Tirzepatide, Victoza etc
- What is the drug development process and how do these drugs work?
- The commercialization playbook, challenges, and the establishment of the market
- What are the impacts of being the first to market vs coming in later?
- What contributed to the success of these drug?
- What influences pricing and what goes into pricing strategy?
- Estimated size of the weight loss market worldwide. What is the expected growth by 2030 between Type 2 Diabetes and Weight Loss?
- How are weight loss drugs characterized by insurance companies? Who is the payer, usually, for these drugs?
- Impact of the Inflation Reduction Act on the GLP-1 market
- Expected growth in competition and innovation within the space
- Largest contributing factors to the outlook of the market

Introduction

Max:

Hi Jeremy, my name is Max, and I'll be leading this call on behalf of Coleman. And I have a bit of a preamble here, and then we can hop right in. So look, as you know, the purpose of the discussion is to learn about the diabetes, and weight loss medication market, including key players, and industry trends. I'd like to remind you that we are in no way soliciting any material non-public information, or any information that is confidential. And if you ever feel like the answer gets us to some place that is uncomfortable for you, please do not hesitate to let me know, and I'll take us in a different direction.

I just want to reiterate what Alex said. We have a bit of a structure, and a guide for the conversation, but we can take this in whatever way we feel is the most interesting. So, we're just excited to get your insights. So, please don't hesitate to let me know if there's areas you're less comfortable with.

Jeremy:

That's great.

Max:

Any questions before I start?

Jeremy:

Nope.

1.Weight Loss Drug Market Overview

Max:

Awesome. So, to kick things off, I'd like to just start really from the top, and maybe talk about a market overview first. So, can you set up the landscape for us, and help us understand who are the most prominent companies in diabetes, and weight loss drug development?

Jeremy:

Yeah, great question. What I would say is as it relates to diabetes and obesity today, and obviously there's numerous players coming to the market down the road, but they're really Nova Nordic and Eli Lilly, those are the two prominent ones, kind of really over, I would argue the past 50 to a hundred years. And that starting out with insulin, and then obviously as things progress with different types of compounds, and receptors that have come to... Through research, those are really the two that are prominently... And dominating the market. Specific to GLP-1, there are a few others such as Boehringer Ingelheim with Jardiance, which is probably one of the other big players, which is that's in a class of medications called SSGLT2's. Those are really indicated specifically for diabetes, chronic kidney disease, not necessarily weight loss, but those are the major players. I guess I'd be remiss not to call Sanofi-Aventis was a major player with its Lantus, which was arguably the largest insulin in the market for diabetes. But those are the four that come to my mind, as I think about diabetes.

Max: Awesome, thank you. And when we were discussing prior to the call starting, you mentioned the distinction between obesity and diabetes. Can you help us understand that distinction, and why it's important?

Jeremy: Yeah, so I think when you think about these markets, sometimes it's a little confusing because you, honestly, with the sensationalism with the media, Ozempic was sort of seen as this weight loss drug. And the fact is that it's the same molecule. Semaglutide is the same molecule in diabetes in Ozempic, as well as in Wegovy. The same thing on the Eli Lilly side with Mounjaro and Zepbound being diabetes and obesity respectively.

These drugs, kind of going back to the early 2000s, they saw for the first time that in this category people were actually losing weight, and Novo Nordisk was the first one, with Liraglutide, to pursue a weight loss indication, or an obesity indication with a product called Saxenda. So, it is a little confusing because again, they're the same molecule. However, the important distinction is that they're studied in clinical trials completely differently.

So, with Ozempic, you're looking at a type two diabetes population with certain elevated A1Cs, pardon me. And within obesity, it's a completely separate population, which these people do not have, for the most part, do not have type two diabetes. Obviously there's clearly an overlap, but it's specifically the trials are to look at weight loss, or the amount of weight reduction, not their A1C reduction. So, it's a little confusing, but different trial populations, the way they're both set up, the length, the inclusion, exclusion criteria, they're all different, but arguably the molecule doesn't change how it acts in the body.

Max: Got it. That's a super helpful distinction. And Jeremy, let me push just a little bit, I don't want to push too much on this, but I want to push a little bit, but does the confusion not arise with how the drug is used, as well? So I completely understand upstream, the distinction in how it's researched and how it should be classified and what it's doing. But, are there some people that use a diabetes drug for weight loss, and hence a bit of the confusion there, too?

Jeremy: Yeah, so what I would say is that the answer to that is yes, right? Novo Nordisk never... When I was there, there was never anything that we did to promote off-label use. But it doesn't take... When a healthcare professional, which can write products off label when they understand it's the same molecule, that certainly happened, despite the fact that it wasn't necessarily indicated for certain patients. And that was something that was always a challenge, because it wasn't the indicated use, but like I said, their semaglutide is semaglutide, and they obviously have that opportunity to use something off label.

Max: Got it. Okay, that's super helpful, thank you. Okay, so, there's been a new class of drug, and maybe, or maybe not new class, but for the less familiar with healthcare, these new drug names that have emerged are arguably spearheaded by Ozempic. What is it? Is it new, or not? What's your explanation as to what's happened recently?

Jeremy: Yeah, so the class of medications that Ozempic, Wegovy, Mounjaro, Tirzepatide, Victoza, et cetera, et cetera, is called a class of medications called GLP-1's. And the first one that was actually approved was called Byetta. It was in early 2007, or so. That was a twice daily medication. Victoza came along in 2009 as a once daily, followed by Bydureon, which was also once daily. And then Trulicity, which was launched by Eli Lilly was the first true... Sorry, Bydureon was a once weekly, forgive me. But Trulicity was the first really kind of true once weekly GLP-1 that was launched in 2014. And then in 2018, Ozempic was launched. It was actually the seventh GLP-1 to market when it launched. And that's an interesting fact, because typically as you look at how products get launched in sort of order, it's very atypical that you would see a product accelerate in the way that Ozempic did.

And then following that was Mounjaro in 2000 and I believe it was maybe '21 or so. So yeah, they're not necessarily new, but what I would say is that when Ozempic launched, it really did, I would argue, change the paradigm. There were studies that showed superiority in A1C reduction compared to Trulicity, as well as double the weight reduction in the diabetes population. Historically, these products were... They were injectables, and there's always this needle phobia kind of issue, but that sort of, with Trulicity, doctors started to overcome that because they didn't see the needle with their particular device. But as they began to see how effective these drugs were and A1C reduction, but also the side effect of losing weight, or the secondary benefit of losing weight, their popularity began to increase pretty significantly. And I would say that between 2018 and 2022, obviously along that timeline, Wegovy was also approved for chronic weight management. The category just absolutely bloomed.

Max: Got it. And so when you say that category, who are we talking about? Are we talking about Ozempic? Are we talking about Wegovy?

Jeremy: Yeah. Yeah, great question. I would say the GLP-1 category, but yeah, I was more specifically talking about diabetes, and then after a couple of issues that Novo had, you saw... When Wegovy launched, there had never been a product that had seen that magnitude of weight loss. If you were to compare what Saxenda did, which was about a 7% weight loss compared to the clinical trials, which roughly 18 to 20% in Wegovy, those are staggering numbers that had absolutely never been seen in chronic weight management. And in that kind of efficacy halo on the category really ballooned both diabetes, and obesity in a very, very significant way.

Max: Got it. That's helpful. So, when we talk about Novo, we're talking about Ozempic, and then we're talking about Eli Lilly, we're talking about with Wegovy? Is that the right so far?

Jeremy: So Novo has Ozempic for diabetes, and Wegovy for obesity. And on the Eli Lilly side, it's Mounjaro for type two diabetes, and Zepbound for obesity. And I'll point out there is one distinction, and between both of those, Tirzepatide, which is the generic molecule, and semaglutide, Tirzepatide is considered a GLPGIP, so it actually has... While it's one molecule, it has an effect on two different receptors, but it's really largely considered by most healthcare professionals as in the GLP-1 category.

Max: Got it. That's the distinction between the...

Jeremy: Semaglutide

Max: Yeah. Between the drug for diabetes and the drug for weight loss?

Jeremy: No, it's between... So, Ozempic and Wegovy are just a pure play GLP-1.

Max: Okay. Oh, sorry. Okay, okay.

Jeremy: Mounjaro And Zepbound are a dual agonist called a GLP-1/GIP.

Max: Got it. Then, so that's the between Novo's drug, Eli Lilly's drugs, and then what's the difference between Ozempic and Wegovy?

Jeremy: It's the same active molecule. The dosage is different between... The dosing, and the highest dose is different from Ozempic, which the highest dose is two milligrams, indicated for type two diabetes, and 2.4 milligrams indicated for chronic weight management, but it is literally the exact same molecule.

Max: Got it. And I understand that... Well, the actual factual distinction you just drew, but in practice, for someone who isn't learned in drugs, generally, is there a difference between Mounjaro and Ozempic?

Jeremy: Yes, in the sense of the... I mean, no, I would say for a common person who's not steeped in healthcare, and not looking at this, I would argue that... So let me say it a different way. A healthcare professional, when they're looking to prescribe these, they're, "walking into the refrigerator," and they're making a choice between one of those two. So, they are seen as similar. To an average consumer, they have no clue they would be pitted against one another. They have no idea that they're actually a dual agonist versus a single agonist.

Max: Got it, got it. Super helpful. Thank you. All right, Jeremy, that was great.

2. Commercialization and Launch

Max: I want to move on to a slightly... I guess more of the development process for these products.

Jeremy: Sure.

Max: And maybe I want to start with the framing around what is the GLP-1 exactly?

Jeremy: Yeah, so we all have... It is actually a hormone that we have in our body, and the way that it works is that it's a hormone that's released basically in your gut. And what it does is it helps the body to release more insulin when you're eating something, and maintain those glucose levels. So, unlike an insulin, which basically takes that sugar and uses it as energy, what GLP1s do is that it also helps to regulate glucagon. So, part of the issue within insulin is that you can have hypoglycemia, it reduces your blood sugar so low that you have a hypo event. This actually will raise your glucagon, so that it balances out. So think of it like a seesaw. So the great part about these is that not only are they super effective in reducing blood sugar, but you don't have the hypoglycemic event. That's kind of how it works on the type two diabetes side. I can explain how they work necessarily on the... Or some of the other effects that they have in obesity, if you'd like.

Max: Sure. Can we do that briefly?

Jeremy: Yeah, sure. So real quick, there's two hunger hormones that it helps regulate, leptin and ghrelin. One is for satiety, meaning the feeling of fullness, and one is for cravings. It also helps to modulate those two hormones so you don't feel as hungry as much. You feel full faster, and you don't have these, they call it food noise, or these cravings. And then the other thing it does is it slows down gastric emptying, meaning how quickly your stomach empties. So, that's also the effect and that's kind of how they work on the obesity front.

Max: Awesome. That's a great framing. Thank you. So, now that we have a bit of a sense for how it works, and the hormones at play, can you describe, or provide an overview of the drug development process, from conceptualizing a drug like this, to testing, et cetera? What are the steps from start to finish?

Jeremy: Yeah, that one is probably a really long... I'll capture it this way. These drugs prior market are probably being studied for at the beginning, meaning being discovered in a lab, all the way to a commercialization process, as it's probably a ten-year process. So you do clinical toxicity studies, you do your first human study, which is called a phase one study. You then move into a dose ranging study, which is a phase two study that helps you to develop what should the dosage be, and then ultimately you have your phase three studies, which are your pivotal studies that you submit to FDA, which are really your efficacy and safety studies. So, I would say it's a very protracted process, and obviously very, very costly. But yeah, that's kind of, at a top line, how I would kind of answer that question.

Max: Got it. And just to understand the parties involved, so it's kind of like Eli Lilly, or a big drug company conceptualizes it, and then they're putting it through a bunch of tests, and then it's like FDA approval. Is FDA is the big gatekeeper?

Jeremy: That's right. Yep. So, I would say up to this point, there are a couple now smaller organizations that have some products that are in development for obesity, and type two that are GLP-1's. But yeah, you got it right. FDA is obviously in the U.S. anyway, is the big gatekeeper along the way in approving these drugs to be able to use in market.

Max: Got it. And then what is the commercialization playbook for a drug like this, in your view?

Jeremy: Yeah, I guess I'll go back a little bit. When these drugs are coming to market, the commercialization play is obviously much different. You have to teach the marketplace, specifically healthcare providers, about how these drugs work, the safety associated with them. They were GLP-1's when they were first developed back with Victoza, and Byetta, they had black box warnings related to elevated risk for MTN, which was a medullary thyroid carcinoma that was seen in rats, as well as pancreatitis. So that was one of the main reasons, and challenges with why they didn't have the uptake early on. But what I would argue is that that challenge becomes very different when you have an established marketplace. So, by the time Ozempic is coming in, again, as the sixth or seventh GLP-I in the market, they're known from an efficacy and safety perspective.

So then the challenge becomes how do you disrupt inertia? So you have habitual prescribing of a certain drug, doctors feel comfortable, you have... Patients have access to it. The biggest challenge in commercializing any drug today is getting the access for patients, because doctors do not want to spend time trying to write prior authorizations, which is a way for them to go back to an insurance company, and get coverage. It takes too much time, and they're getting paid less and less, and that's not something they want to spend time on. So, getting that access is a pivotal component to not just this class, but arguably any class of drugs. Then it just becomes how do you differentiate, how do you do things differently? How do you activate patients, and so on.

Max: Got it. That's super helpful. I do want to double click on the history, and that a little bit more, but I just want to make something clear at the onset. Commercialization comes down to the doctor, or the patient? Is it the patient saying, "Hey, I saw this ad for Ozempic. Why haven't you suggested it yet? What the heck?" Or do you have to convince the doctor that, "Hey, you should be prescribing this more," or, "It's a better solution than what you were prescribing earlier?

Jeremy: Yeah, that's a really good question. The first thing you need to do is establish the safety, the efficacy of the drug. So, you have to go and educate the doctor about those things, and getting them comfortable that this is something that they should consider using for appropriate patients. And then secondarily is that you actually have that in market access that I talked about, because if a patient can't get it, that's irrelevant. So, I would say in a step-wise fashion, it's first about getting the doctors, or the healthcare professionals on board, as I just described. And not everyone... I mean, this is a huge category. So, to your point, you see a lot of direct to consumer advertising, but there's also many, many other categories. Oncology is an example. You see a little bit here and there. You're not really activating patients, and it's a far more complicated and complex disease to treat.

Jeremy: So yeah, the doctor is definitely the learned intermediary. In certain categories like diabetes, and obesity, you can absolutely activate patients to go and ask their healthcare provider. And most of the time what you see is that there's very high grant rates for these drugs in this particular category, meaning that when a patient comes in, I used to say, "Doctors don't want to fight the disease," sorry, "Doctors don't want to fight the patients. They want to fight the disease." So if somebody's coming in to say, "I want to use this for my type two diabetes," they have a high likelihood of prescribing it, so long as they're covered.

Max: Got it. Got it. That's helpful. So, going back to what happened in this market in particular, it sounds like what you're describing is, there was a period when the drugs were already pretty good, but those drugs faced the uphill battle of having to teach the market. And I know technically you described Ozempic as the seventh mover, but if we broadly categorize first movers, and late movers, the late movers benefited from already having... The foundation was laid with the healthcare community, and the doctors such that it was easier to overcome that hurdle. Is that the right way to think about it?

Jeremy: That's exactly right. Yep. So, you educated the market on the class of drugs, how they worked, obviously on some of the safety concerns. Those safety concerns, by the way, ended up kind of going away. They came out, as an example, they came out of the challenge with the label. So there was something called a REMS that you had to have certify that for Victoza as an example, you had to certify a doctor actually understood these very serious risks, though that was not part of Ozempic when it launched. But yeah, it's far easier to commercialize a drug when the category is understood, and then when you're making meaningful differences from an efficacy perspective. And the case of Ozempic, it launched with cardiovascular data, and that was right after actually Victoza had shown to reduce major adverse cardiovascular events, which is people don't die of type two diabetes, they die of cardiovascular disease, in large part. So Ozempic had actually come to market with some of that data, and Trulicity at that time didn't have it.

Max: I see. So you attribute the success of Novo's drug to one, the foundation having been laid, two, having this complement of cardiovascular data, and then three, efficiencies? It doesn't sound like Ozempic was that different, or am I misunderstanding? Were there significant efficiencies and improvements in the actual drug?

Jeremy: It was, again, studied against Trulicity, which was the market leader at the time. It was demonstrated superior A1C reduction in a head-to-head trial, as well, all the weight loss. It had cardiovascular data, but not an indication. But there was a number of things that proprietary can't share, that we did things very, very, very differently in our approach to the marketplace. So, going into it, I wouldn't say it's a home run, and I'll give you one stupid example, and at that time, there was 30 different branded drugs in diabetes. How do you get a patient to remember your drug?

If you turn on the TV, it was one diabetes ad after another. One of the key things we did was look to how do you have a DTC ad, direct-to-consumer ad, TV ad that was very different? And we created the Ozempic jingle as an example. We made a parody off of the song Pilot. "Oh, oh, it's magic," or the song was Magic, but that's how the song went. Instead, it was, "Oh, oh, Ozempic." There's a lot of things. I mean, everyone's probably seen that commercial, so that's an easy one to share. But there were a lot of things that we did differently. But yes, I would argue it was one of the best diabetes drugs at the time. At least it showed head-to-head versus Trulicity. So, that was probably a major contributor to success. You have to first have a good product, and then it's how do you do things strategically, and outsmart the competition?

Max: Right. Right, right, right. That's super helpful. What about pricing for drugs like this? How does the market think about pricing?

Jeremy: That's not something that I... I'll tell you by and large part, so not specific to Ozempic, it's much harder to determine when you're launching a new drug in a new category, and you look at things like budget impact models, and how do you show, demonstrate cost to a system, or to a payer? How do you look at health economics, outcome research? What are things that you can actually show and demonstrate? When you're coming to market as a late entrant, you really have to look at the dynamics that are in the market, what the current pricing is, and then can you really argue that your product is that much better, that it deserves a premium? But that's oftentimes very, very challenging. So, I would say when you're a late stage product, it's really looking at what the current pricing in the category is, is really a baseline.

Max: Got it. And just to level set, for people less familiar with healthcare, the ultimate payer most of the time is the insurance company, and it's usually pretty well covered. I guess, is there a distinction between the prescription for diabetes versus prescription for weight loss?.

Jeremy: Yeah, great question. It's very, very different in type two diabetes. So, in type two diabetes, if you look at Mounjaro or Ozempic, I've been out of the market for a little while, you got 97 98% coverage, meaning that you can prescribe these drugs, and they'll go through. In the weight loss category, it's dramatically different. And part of the reason is that in weight loss, insurance companies... They're not standard listed products. Meaning that if you have asthma, COPD, cardiovascular disease, diabetes, I can go on and on, those categories are automatically covered by insurance companies. For specifically for weight loss today, those are not covered. An employer actually has to opt in to cover those drugs.

So, you find that there's a lot, a lot, a lot, there's a major difference, and a major chasm between diabetes, and weight loss, where weight loss drugs are not necessarily covered. Now, up until recently, Medicare, and CMS, which is the government center for... Jeez, Medicaid Services, Medicare services, they didn't cover weight loss drugs. So every 65 plus year old person in the U.S. didn't have access to those drugs. With the data that came out recently with Wegovy that showed reduction in major adverse cardiovascular events, for those patients who have established cardiovascular disease, and obese, I believe I read in a headline that they're now going to be covering those.

So yeah, there's a big difference in the coverage of weight loss, and the coverage of type two diabetes. And my personal opinion on this is that it has in large part to do with this idea that weight loss is a willpower thing, it's an aesthetic thing, or obesity, I should say, and they don't face the downstream consequences of the comorbidities associated with obesity for way, way, way down the road. Their position is, "Why would I cover a drug that these patients aren't going to really cost me a lot in the long term on the medical side?" So that's in my opinion, why there hasn't been a lot of coverage on the obesity front, but maybe that change is afoot, and we'll see a big difference in the coming years.

Max: Got it. That's helpful. And that distinction lies in the employers, or lies in the big plan providers?

Jeremy: So, the standard benefit lies within the plan, and then the employer has to say, "Well, that's the standard formulary and the standard benefit. I as," I'm making it up, "I as Amazon, am going to decide for all my employees to actually allow those weight loss drugs to be paid for," because ultimately the employers is footing that bill. That's really how it ends up working. So, that's the big difference in that, between those two.

Max: Yeah. So, the employer in theory is incentivized to do it from a talent attraction perspective, because their employee base is asking, and then the employer lobbies the plan cover to include it. And then the more people do that, the more it converges towards a standard covered thing.

Jeremy: That's right.

Max: Got it. That's kind of the sequence. Got it. Okay. Super helpful. Awesome, Jeremy. I think that covers this part of the questions, but maybe we can come back to it if it comes up.

3. Market Trends and Outlook

Max: So, I want to move on now to the broader set of questions we have around market trends, and outlook. And I think to help kick off this section, it'd be helpful to hear you riff on... Let's just start with the size of the market. And obviously I'm sure there's a bunch of public information out there, but what is the generally accepted view for the size of the market? And then, is it helpful here also to distinguish between type two diabetes, and general weight loss?

Jeremy: Yeah. Specifically for weight loss, I think... And again, this is kind of to your point, public, and what have you. I would say that that number is probably around 6 to 7 billion today. I may be off. Well, that's U.S. I don't have as much of a insight worldwide, but maybe that number is closer to 9 or 10. In diabetes... Again, are you looking specifically within GLP-1, or the entire diabetes market?

Well, how would you break it down?

Max: Yeah, I mean, I guess for the purposes of this, I think it's important that we'll stick to GLP-1, because I think that's really what your people may be thinking about.

Jeremy: The size of the GLP-1 market is probably north of 15 billion, something like that. I think the real growth opportunity that we're going to see is, look, there's only 33 million people in the U.S. that have type two diabetes, so how much you can penetrate that, who knows? Obviously, Ozempic and Mounjaro have taken a pretty significant part of that market now.

Jeremy: I recently read that with Eli Lilly in their latest financials, just the other day, that Trulicity has taken about a 26% hit year over year. So, Trulicity is obviously transitioning to Mounjaro, which obviously has a longer patent life, and it's arguably a better drug. But within weight loss, what I've read very consistently is that there's a belief that this is a $100 billion market, and if we're kind of teetering on, let's call it $10 billion today, or seven or eight to $10 billion, the growth... And that number, by the way, was a 2030 number. The growth is expected to be very, very significant over the coming years, especially with some of the other drugs that are being developed with other companies.

Max: Got it. That's super helpful. Yeah, I mean the way you described it today is weight loss is a third of the size of the type two diabetes market, but I guess in theory, weight loss is a much bigger market, to your point.

Jeremy: Yeah, I mean in the U.S. you got 120 million people that are obese or overweight. So, the opportunity is much larger, and yeah, to your point, it's a third of the size in terms of the population.

Max: Awesome. I guess, this brings up another question that I think helps us define the market a little bit, but, have these drugs gotten to the point where the healthcare community believes that 100% of the type two diabetes population should be on a drug like this? We're talking about just type two diabetes as the target market, which makes sense, but is there this kind of discount where, well, for a portion of these people, it's not the appropriate clinical solution, and it only really applies to a subset of type two diabetes people? And then same thing for obesity, is it realistic that 100% of people with obesity convert into the drug? Why or why not?

Jeremy: Yeah. So, I think there's a couple pieces that frame that. Number one is that in any market, in these two, you're going to have people who do not... A, don't want to treat it, period. Or at best, they want to treat it with a pill. They don't want to use an injectable. So you still have people who are just not going to, no matter what, are not going to want to do that. Now, what the size of that is, is hard to tell, because again, there's been a major transition since 2014, when Trulicity was launched, to now, of the openness to taking an injectable.

Jeremy:

Then obviously you have in diabetes, you have different classes of drugs. So, what also is happening, is does somebody have, as an example, chronic kidney disease. Right? Well, and today Ozempic have, or Mounjaro doesn't have that indication. So, that may be a reason why they may choose to use a product Jardiance. So, there's different kind of, I would say, variables at play that make a healthcare provider choose one drug over another. And then obviously, like I told you, kind of market access certainly plays into that As it relates to weight loss, there's really only GLP-1s that are in the market, so you don't have different classes. So that's kind of taken out.

But then I would argue again, you find subsets, or cohorts, or segments of the market who, they just don't want to be treated. Or you even find cultural differences. Certain cultures, that's a sign of... I mean, in certain parts of the world, being overweight is a sign of success, and wealth. And so, in the U.S. there's different cultures that want people to be... That sort of relish on people being a little bit more curvy.

So, you're never going to get 100% of the market, for a variety of reasons. And then clearly, as we talked about 100 times is going to be that access. Now, if you take that away, and I think that's arguably... If this marketplace does start to get more and more coverage, I think that is going to be... And demonstrating that, the health benefits of doing that, and the downstream comorbidities, I mean, as an example, obesity is associated with 13 different types of cancer. Type two diabetes is another one. Obviously, as a comorbidity. Fatty liver disease. There's all kinds of... Chronic kidney disease. There's all these dowsing consequences. And as people begin to say, "I can be in better health," and payers and employers see that, they may start to cover that, and that may change things dramatically.

And I don't want to get ahead of myself here real quick, but there's something called the Inflation Reduction Act that was passed a couple of years ago, where the government is going to start to... They call it negotiate, but it's really price fixing. And I know that Novo Nordisk in Ozempic, because of the size of that drug, it's going to be on the list fairly quickly.

Jeremy: And the implication of that is those drugs are going to be negotiated down significantly. And when that happens, then the cost of these drugs, and payers' willingness to pay for them... because I don't see how, this is my opinion here. I don't see how they just say, "Well, I'm going to negotiate Ozempic, semaglutide, down to," I'm making a number up, "$200," or whatever the number may be. "But on the Wegovy side, we're willing to pay the $1,400 that it is." That simply doesn't make any sense to me, but I am not steeped enough to really be able to speak. This is just my business sense saying the implications there. So, the market's going to go from a value market to a volume market, I think, and that's going to, I believe, open up this market over the next... Into 2030, where a lot more patients are probably going to be treated, because there's going to be better access.

Max: Got it. Super helpful. That $100 billion number you alluded to earlier, I understand it's just a projection from a third party. It's not necessarily yours, but was that a U.S. number, or a worldwide number?

Jeremy: I believe that that was a worldwide number.

Max: Got it. Okay. That's super helpful. I guess, when you allude to this, going from value to volume, you're squarely referring to how easy it will be to include it into payer plans. You're not referring to that the retail population then can just start affording it, and whether or not it's covered doesn't make a difference, and therefore that unlocks a significant portion of the market on the obesity side? I guess help me think... How do you think about that?

Jeremy: Yeah, no, I think it's going to be driven by, if the IRA, Inflation Reduction Act, reduces the price in the GLP-1 market on type two diabetes, there's going to be a convergence where that also is reduced on the obesity side. If, as an example, I don't know what the exact number is, 13, $1,400 for Wegovy, gets negotiated down to $200, or that's all the... Then a payer, meaning a big payer is going to say, "Well, I'm not going to pay that delta." Even for what they're currently doing.

So it's going to drive the cost of these drugs down significantly, and on both sides of the equation, in my opinion, and then when that happens, then the payers are going to be more willing to cover these drugs, so now more patients have access to them, and now they're paying their $25 copay, versus right now they don't have any access, and if they wanted to get it, they'd have to pay a $1,400 cash price. So, it's driven by the government really, in my mind, and then the implications on the commercial insurance side, and what that would mean in price, and coverage, and then ultimately for the patient.

Max: Got it. Super helpful. Okay, now I want to... On the weight loss side, so it sounds like... I don't want to put words in your mouth, but I just want to tee up the question. It sounds like on the diabetes side, the foundation was set by the number of drugs who came to market before, and it was easy to bring another diabetes drug to market, but on the obesity side, would you say that the same foundation has been laid with regards to prescription drugs like this being used as a form of treatment? Or is there still hesitation, or negative perception, either from the doctors, or the ultimate patient around using a prescription drug as a form of treatment? Help us understand that side of the... Like the obesity side.

Jeremy: Yeah, so in my view, the market on the obesity side is still very, very nascent. And yes, Saxenda was the first kind of GLP-1 indicated for weight loss, but it's important to frame up that going back a decade and a half ago before that was a drug commonly known as Fen-Phen, and it was pulled from the market quite a number of years ago for known safety risks. There's absolutely a hangover from that Fen-Phen thing in terms of "weight loss drugs."

Max: And then, sorry, Jeremy, sorry, Jeremy to interrupt. That's a hangover that exists at the doctor level?

Jeremy: Yes, yes, yes, yes. And arguably patients too, but more at the physician level. Yes.

Max: Got it. Got it. Sorry.

Jeremy: But I think, so while it's nascent, and there was only Saxenda, and then second Wegovy, and third, Zepbound, there's also a bit more confidence that these GLP-1s, which are used by millions and millions of patients on the type two diabetes side, are safe and effective. So, you have a halo, if you will, of the utilization of GLP-1 drugs, and their understanding of them. But again, not all physicians are aware of that, and not all physicians understand it. But I would say that that absolutely has helped the obesity market, in terms of a willingness to use, and prescribe.

Max: Got it. Super helpful. Super helpful. Okay. And then, so if we agree that this market is already pretty developed on the diabetes side, is set to 10x, more than 10x on the obesity side within the next seven years, what does that mean for the market generally? And does that mean there's going to be a lot of challengers? Does that mean it becomes easier to bring drugs to market? How should we think about the second and third order implications of what that growth would mean, like in terms of how the market is structured? And I don't know, maybe there's a precedent for another category of drugs where this happens, but I'm curious, as someone who's in the industry, yeah, what are some of those implications for growth like that?

Jeremy:

Yeah. So, I think first and foremost is that sort of value to volume play, and more patients having access. I think that's a very large contributor, but I would also argue that there are a number of different companies, with different drugs that are coming to market. And if you look at, Amgen has a product that is probably... I don't know, four or five years out, something like that. They have some data, they're publishing some more data this year. But part of the thinking there is that that's going to be a once monthly. And I know, I think there's other companies working on that. Those are sorts of innovations that drive even more people to use it. And I think companies are looking at how do they create... One of the challenges in the weight loss market is, how you lose weight, but then how do you maintain it?

And companies are looking at how do you show maintenance, as an example, to actually sustain that weight loss in maybe a different way. Maybe it's an injection every two months, or it's an injection every month. So those are things that also drive the market. And then obviously as you look at the pipeline for Lilly, they have what they call a triagonist, right? So, there's three different kind of components to the drug. Novo Nordisk has something called... It's a amylin, or Symlin, and GLP-1 sort of coagonist. So, there's innovation that's happening, and I think what's going to ultimately happen is these drugs are going to start showing, as an example, Wegovy just showed an impact on cardiovascular disease in reducing heart attacks and strokes, right? They're going to start looking at things like chronic kidney disease or other facets. So, it's a way of expanding outpatient populations, making it more affordable, making it more accessible, making it easier, more convenient, and all of those things contribute to this expansive growth that you see in the marketplace.

I mean, some of them are even looking at things like heart failure, and how do you think about patients that have osteoarthritis, right? And knee pain, sleep apnea, all of these kind of different potential indications leads to a growing patient cohort that can be promoted in the marketplace, where more patients are going to be considered for these drugs. So, that's what I would say I think is going to be driving the expansion of the market. It's not just pure play weight loss, but the drugs that are there, it's innovation that's happening, it's expanded indications in patient populations that are going to ultimately, I think, really drive that growth over the long-term, along with greater coverage.

Max:

Got it. That's helpful. That's helpful. I guess, help us understand the innovation dimension. Is there that... Where would new drugs compete? Is it just like ingestion? Or the method? Like you don't want it to be an injection, you want it to be a pill? I guess, is there a lot to do on the innovation front? Or have these drugs gotten to the point where they're pretty good, and there's not a ton of room to make them better just from a science perspective, and it'll become more about just expanding the use case, getting better at go-to market, converting users, et cetera?

Jeremy: Yeah, so I think on the ingestion side, certainly there's some orals being evaluated. I think the reality, at least in my opinion, is most people would rather take... Especially the size of these needles, and the ease of these products that are in the market today, a once a week injection that takes 60 seconds is far easier than taking a pill. And then you're really going to have to show that you have efficacy that's similar in nature for it to ever stand a chance. But certainly there are people who are injection phobic, and so if you can get an oral, you're going to open up another part of the market. Then I think it comes down to frequency. Can you get a once monthly, a once bimonthly, a once quarterly? How do you start thinking about an easier maintenance dosing regimen than what's in existence now?

And then arguably, I would say GLP-1 is here to stay, but are there other things that they combine GLP-1s with that either show a greater effect on weight loss, and the magnitude of weight loss, or on different, and associated, or adjacent disease states? So, that could be another way that innovation is thought of, but I think, while these drugs are great, it is very clear by the number of drugs that are being evaluated, and looked at, that there is innovation at play. It's not a fully satisfied market, and that's how I would think about innovation, and where and how people will innovate.

Max: Got it. Who do you think is best positioned to capture this growth, in terms of companies?

Jeremy: I think it's going to be really challenging to unseat, specifically in weight loss, Lilly and Novo Nordisk. I mean, I don't know what the size of... I mean, I guess I do financially, when I looked at Novo's and Lilly's latest financials. But I think Zepbound made a pretty fast entrance into the marketplace, and I think it's going to be... When you have established drugs, again, momentum is hard to create. It's also hard to destroy. You have to have some pretty significant innovation, or access coverage that's pretty different in order to change those dynamics. But I think Lilly and Novo, especially with their pipelines, are going to be tough to challenge in the short term.

Max: Got it. That's super helpful. That's super helpful. So, Jeremy, we've covered a lot of ground today. This has been fantastic. I kind of want to open it up in the last five minutes here, and ask you, are there dimensions to this market, or to these drugs, or to the science that we haven't touched on today, that you think are super important? We haven't talked a lot about regulation. I don't know if that's important, for example. Yeah, open-ended, other things that we haven't touched on that you think are worth mentioning?

Jeremy:

I actually think that... And I touched on it briefly, but I think one of the biggest contributing factors is will the government, through Medicare, open up that market? Is that going to be something that Medicare is going to start covering? That is a huge dimension in terms of how I see this market evolving, and the size and the magnitude. It was, I think, a very positive indication recently that they're going to cover people with obesity and established cardiovascular disease. I think it's more of those comorbid indications come to market, whether they be heart failure, or some of the other ones I described. Hopefully that gets the government to start thinking that this is truly about human health, and this is something that they need to be considering, and covering for patients. So, that's kind of one.

Two, and I hit on the Inflation Reduction Act. That's going to have a very profound impact on pricing, I think, across both categories. I don't see how it's possible that it doesn't. So, when you look at it, again, you have X millions of patients on these drugs today across diabetes and obesity. But, the truth is, is that that is largely going to, I think, unlock many, many more patients that will have access to these particular drugs, and that's going to unlock the obesity market, I would say.

And then third and last, I guess, is some of the innovation, and some of these different ways to think about adjacencies with cardiometabolic disease, and how they can have an impact on some of those disease states beyond just the pure play weight loss. Those are probably the three things that I think will have a material impact, specifically on the obesity market. Somewhat same idea for diabetes, over the ensuing 5 to 10 years.

And then I think once you get out past the patent life of GLP-1's, then I think that's going to be real interesting to see how people are going to be able to tackle that. And are generic manufacturers able to come in, and actually satisfy the market? Because these drugs aren't easy to manufacture or make. And you look at Lilly, and Novo Nordisk have talked about publicly, they're making major, major investments in manufacturing. I mean, Novo Nordisk announced they're buying one of the biggest contract manufacturers in the world, in Catalent, because the demand is so high. Can any generic, or multiple generic companies come into the market and satisfy it? And so, what does that actually mean? That's a very... I don't know that a scenario like that exists in any drug category today. So, that's going to be interesting, as you get out in the 2030s. And then how do you... From a branded drug perspective, that looks very, very different if you have generics in the marketplace.

Max: That's a great way to end the conversation. Jeremy, this was fantastic. This is exactly the kind of insight we were looking for, and I think it's as good a place as any to wrap. So, we really appreciate you taking the time to speak to us today. I can't think of a better person with whom to have this conversation. Thank you so much for your time.

Jeremy: Thank you, Max.

Max: All right, enjoy the rest of your day.

Jeremy: Take care.