

VettaFi

THINR

Weight Loss & Treatment Index (THINR)

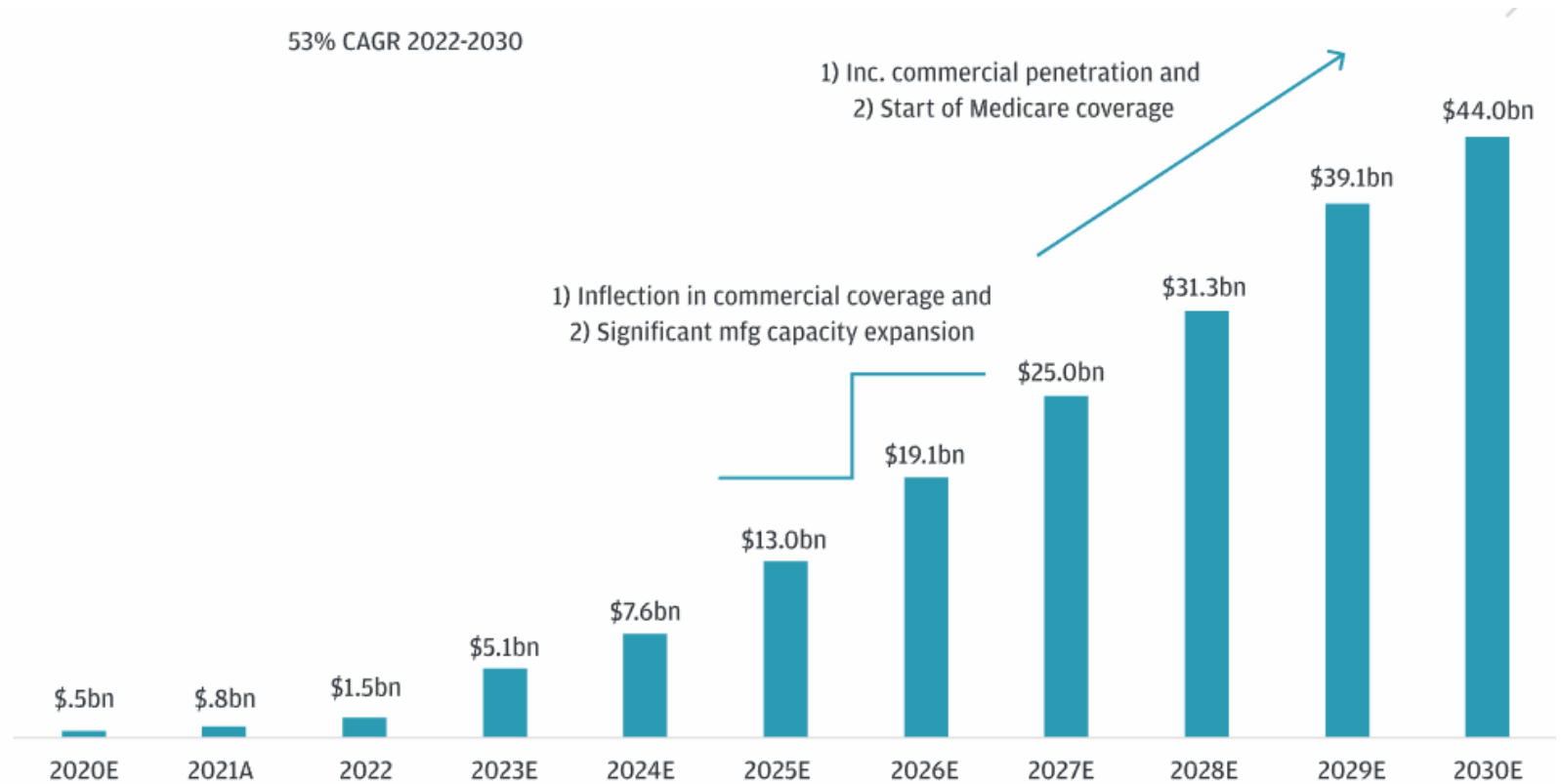
VettaFi Weight Loss Drug & Treatment Index (THINR)

A play on the medical weight loss revolution

- Obesity is a global problem, with more than *1 billion* people (43% of the world's adult population) now overweight or obese.
- Glucagon-like peptide 1 (GLP-1) agonists not only improve blood sugar control, but also promote weight loss.
- GLP-1 drugs have been approved since 2005 as a treatment for type-2 diabetes. New formulations of the drugs for obesity can now promote reductions in body weight by 10-20%.
- Holding segments include GLP-1 drug manufacturers and enablers
- 70% weight to GLP-1 drug manufacturers, 30% to enablers. Quarterly rebalance.

Investment case for THINR

Growing demand for innovative weight-loss treatments, combined with accommodative reimbursement policies, could help the market for weight-management medicines reach more than \$100 billion in the next decade, with far-reaching implications for healthcare and other industries.



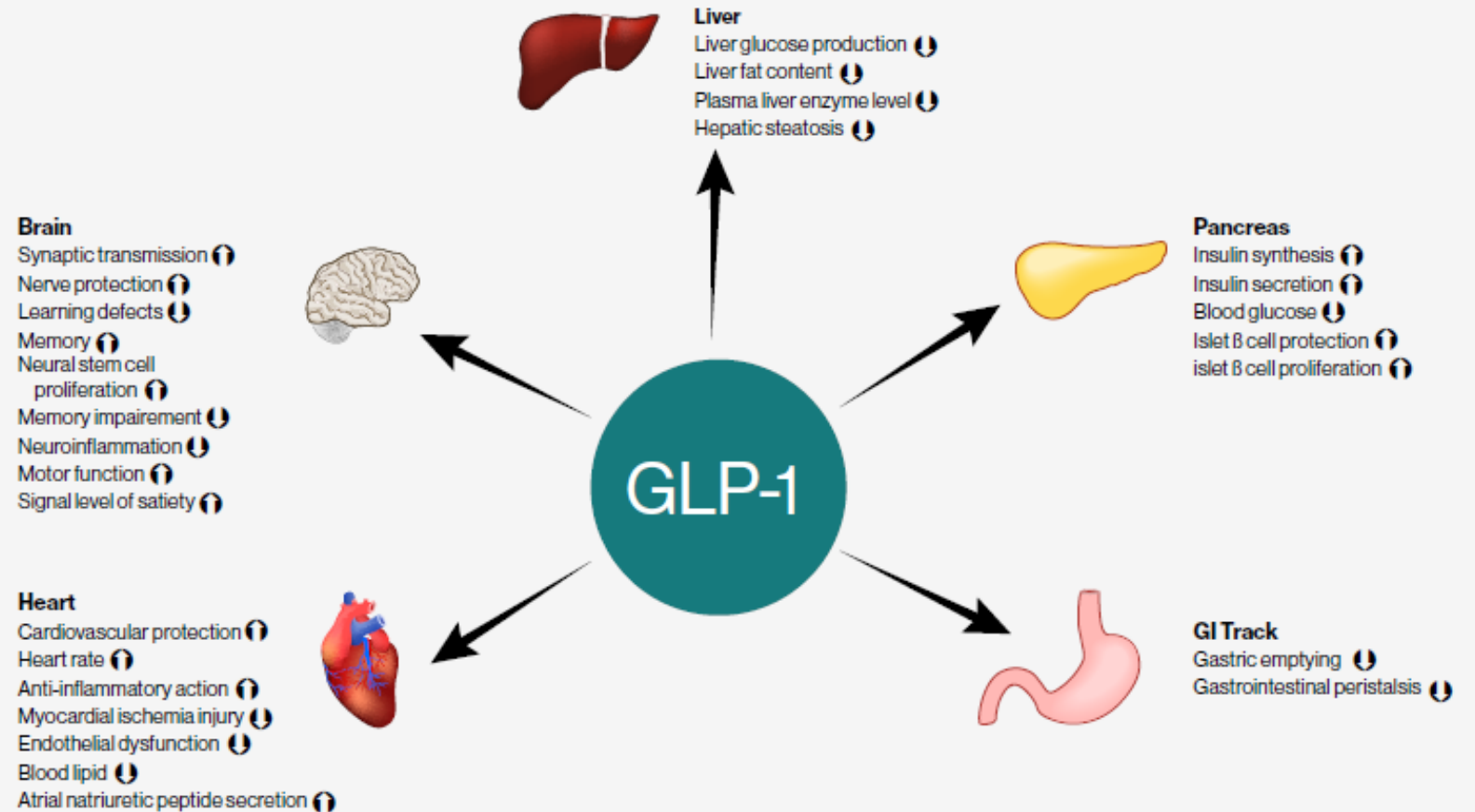
Source: JP Morgan Research

VettaFi Weight Loss Drug & Treatment Index (THINR)

GLP-1 agonists work by mimicking the action of glucagon-like peptides, which are naturally released by the intestines after eating food that assist in:

- Triggers insulin release from the pancreas. This essential hormone lowers the amount of glucose (sugar) in the blood. Without enough insulin, blood sugar increases, leading to diabetes.
- Blocks glucagon secretion: Glucagon is a hormone the body uses to raise blood sugar levels when necessary. GLP-1 prevents more glucose from getting into the bloodstream.
- Slows stomach emptying: Slower digestion means that the body releases less glucose into the bloodstream.
- Increases satiety (how full you feel after eating): GLP-1 directly impacts areas of the brain that controls hunger and satiety.

GLP-1 has multiple biological effects beyond diabetes and weight loss



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The first use of GLP-1 drugs date back to 2005 for Type-2 diabetes patients, with current formulations now being approved for obesity and weight loss management.

Today's generation of GLP-1 drugs



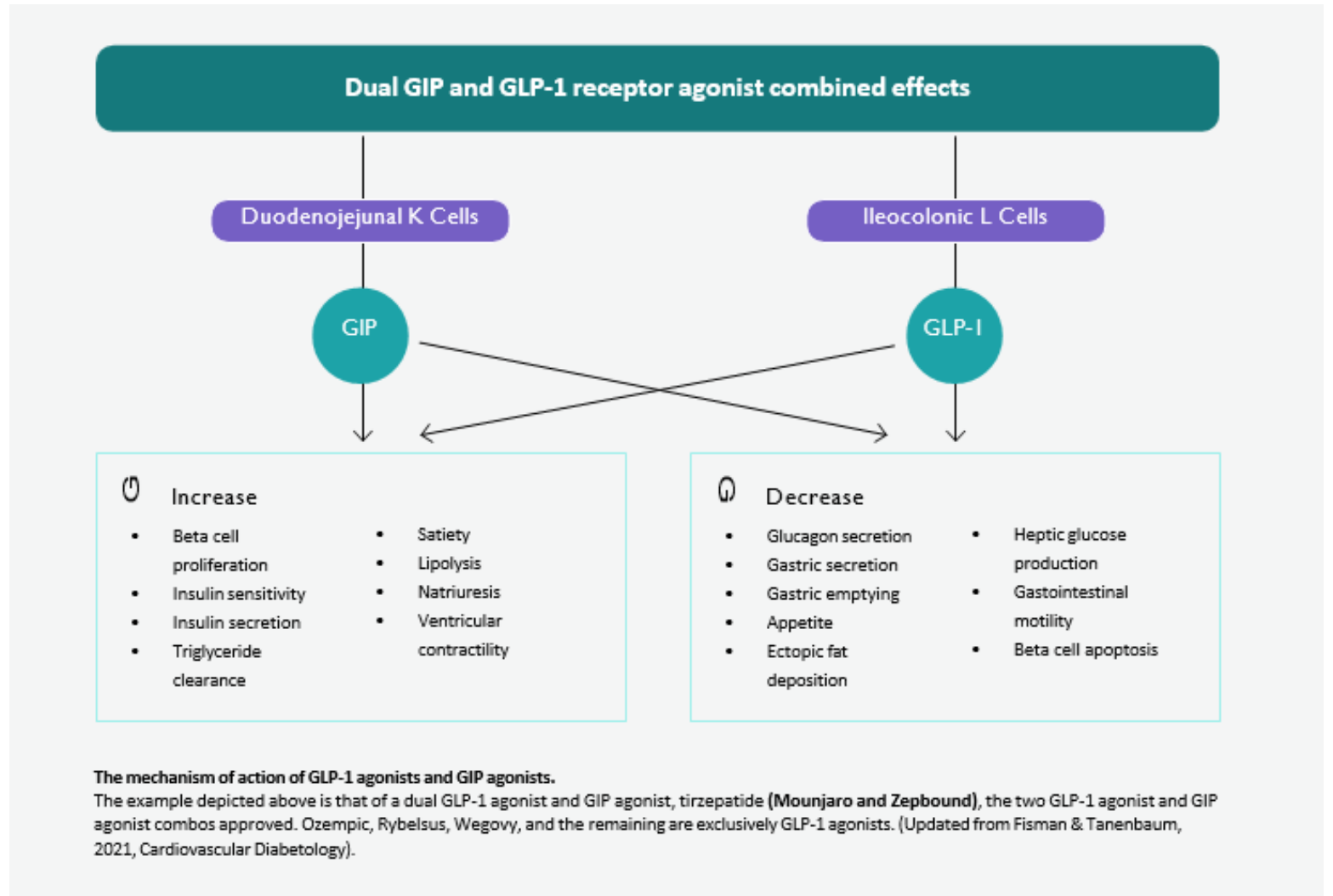
Approval year	GLP-1 agonist	Marketer	Frequency of dose	Approval indication
2023	Zepbound (tirzepatide)	Eli Lilly	Weekly injection	Obesity/weight management
2022	Mounjaro (tirzepatide)	Eli Lilly	Weekly injection	Type-2 diabetes
2021	Wegovy (semaglutide)	Novo Nordisk	Weekly injection	Obesity/weight management
2020	Rybelsus (semaglutide)	Novo Nordisk	Weekly oral	Type-2 diabetes
2017	Ozempic (semaglutide)	Novo Nordisk	Weekly injection	Type-2 diabetes, cardiovascular
2014	Trulicity (dulaglutide)	Eli Lilly	Weekly injection	Type-2 diabetes
2012	Bydureon Bcise (exenatide)	AstraZeneca	Weekly injection	Type-2 diabetes
2010	Victoza (liraglutide)	Novo Nordisk	Daily injection	Type-2 diabetes, cardiovascular
2005	Byetta (exenatide)	AstraZeneca	Twice daily injection	Type-2 diabetes

There are currently several GLP-1 agonist drugs on the market that are generally taken by injection on a daily or weekly basis.

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The introduction of second-generation GLP-1's crossing the 10% weight-loss threshold (and the dual agonist drugs Mounjaro & Zepbound) crossing the 20% threshold) has been gaining attention around the world.

New generation of dual GIP and GLP-1 receptor agonists



VettaFi Weight Loss Drug & Treatment Index (THINR)

“If 40% of all Americans with obesity took these drugs at current prices — roughly \$15,000 per year per person— [the bill] would total over \$1 trillion annually.”

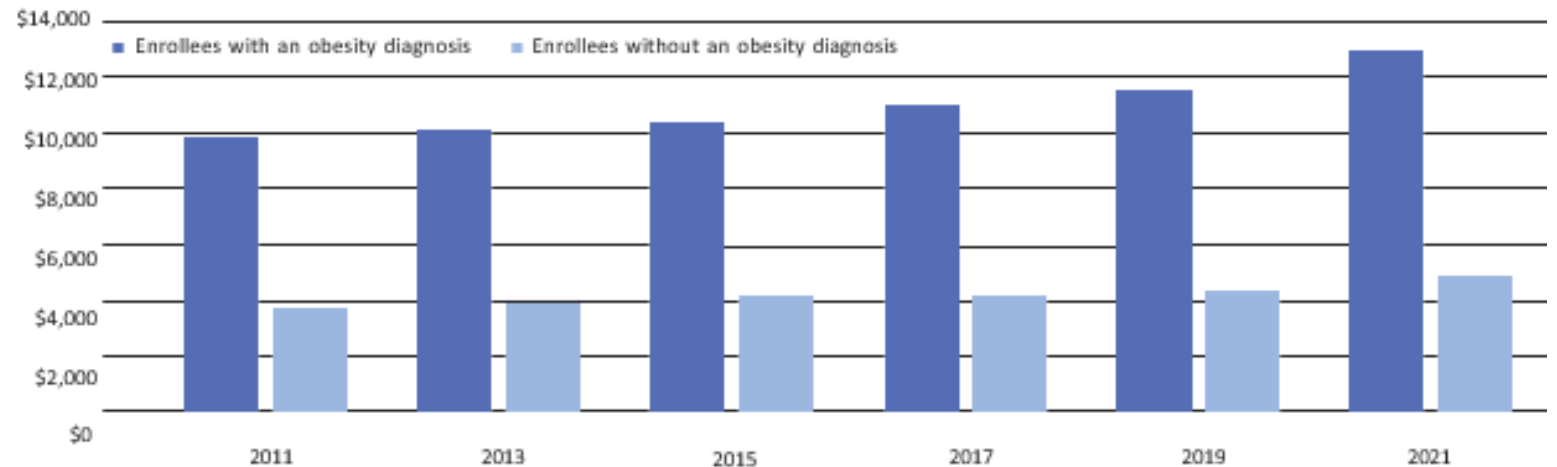
-Goldman Sachs

Weighing the economic costs of obesity

Pricing (\$1,000 a month) and insurance reimbursement costs are high amid supply constraints, but the widespread use of these new weight-loss drugs could boost GDP by 1% in the coming years by lowering obesity-related complications and boosting workplace efficiency.

Obesity is an economic burden and health risk

Average annual health spending for enrollees in US employer insurance plans with or without an obesity diagnosis, 2011-21



Source: KFF analysis of Merative MarketScan Commercial Database

VettaFi Weight Loss Drug & Treatment Index (THINR)

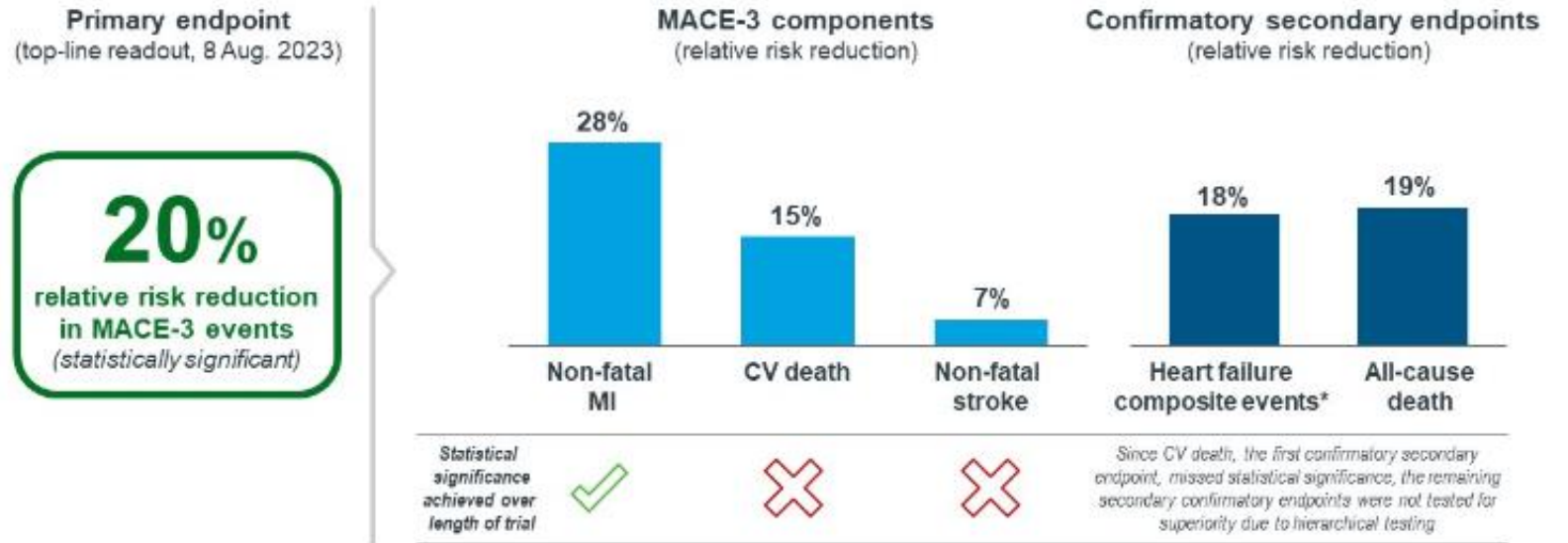
In 2023, data from the largest clinical trial of GLP-1's to date, the SELECT trial of nearly 18,000 non-diabetic participants showed evidence of reduced heart attacks, strokes, and deaths due to cardiovascular disease; and **73%** of patients did not progress to diabetes.

Subjects also saw a 19% reduction in all causes of morbidity.

Safety and efficacy

SELECT trial: primary and confirmatory secondary endpoints

Beneficial effects of semaglutide 2.4 mg on cardiovascular risk vs. placebo



* Including cardiovascular death, urgent heart failure visits and hospitalisations

Source: LuscoFA, Brown-Pandain K, Colhoun H, et al. Semaglutide and Cardiovascular Outcomes in Obesity without Diabetes. N Engl J Med. DOI: 10.1056/NEJMoa2307583. IQVIA EMEA Thought Leadership



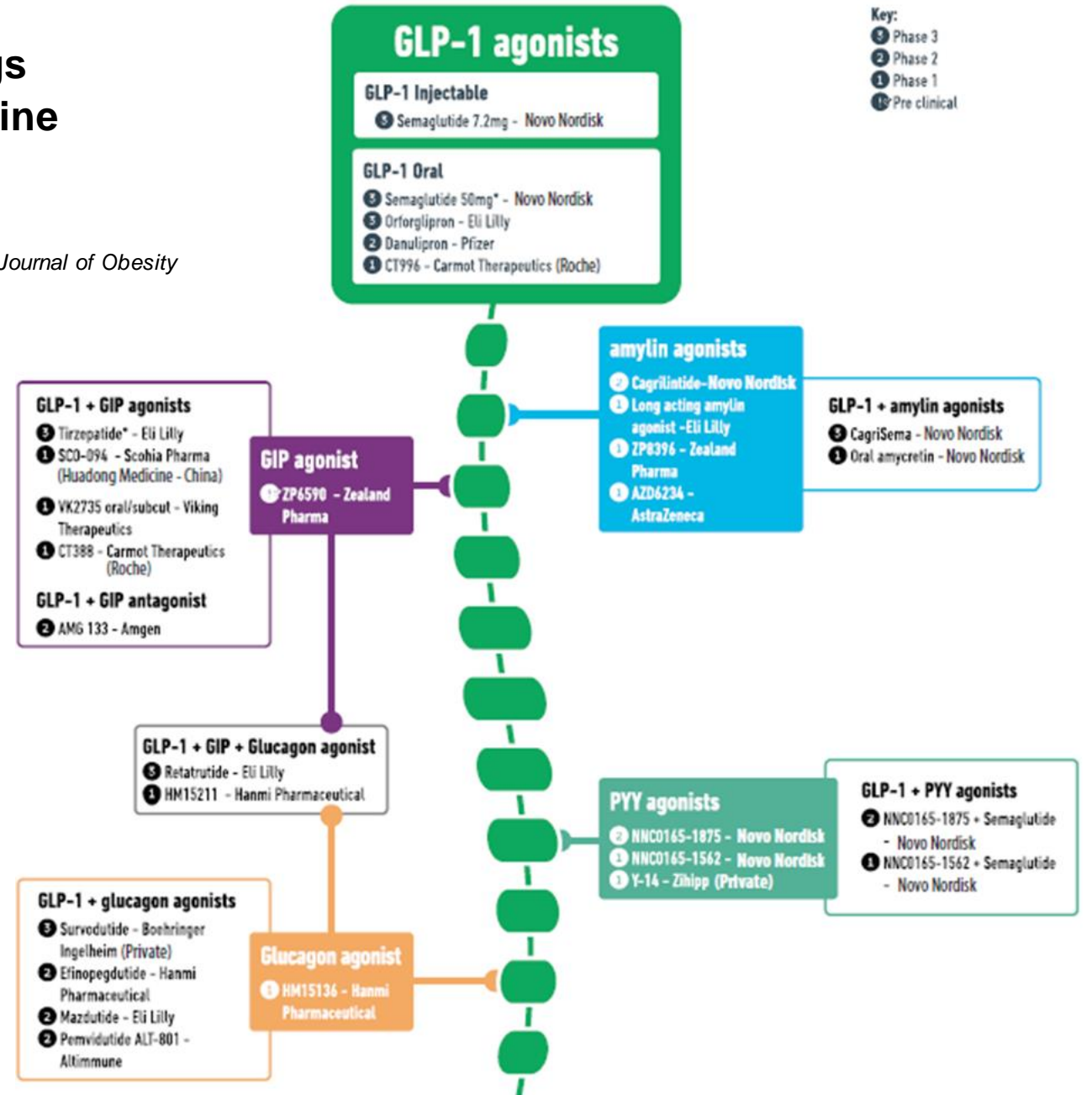
VettaFi Weight Loss Drug & Treatment Index (THINR)

Two companies, Novo Nordisk and Eli Lilly, accounted for 98% of the revenues derived from GLP-1 drugs in 2023.

They generate \$37.3 billion of the \$37.9 billion in revenue, but there are many new drugs in the pipeline including oral forms of the drug.

GLP-1 drugs in the pipeline

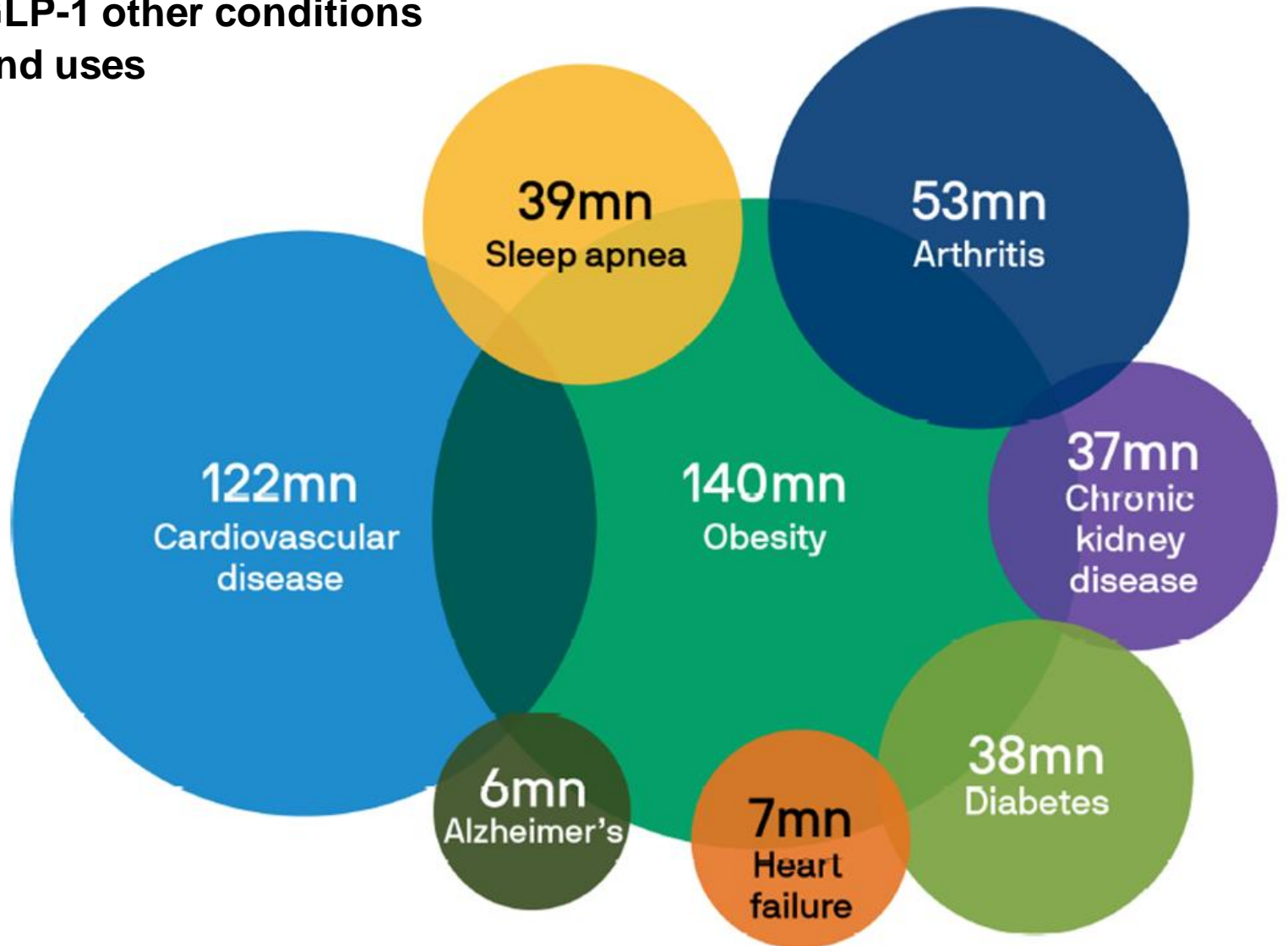
Source: *International Journal of Obesity*



VettaFi Weight Loss Drug & Treatment Index (THINR)

There is ongoing research on GLP-1 drugs for other conditions and uses including: addiction, alcohol use disorder, Parkinson's, non-alcoholic fatty liver disease, Alzheimer's, and colon cancer.

GLP-1 other conditions and uses



Source: Alzheimer's Association, American Diabetes Association, American Heart Association, Centers for Disease Control and Prevention, Journal of Cardiac Failure, National Council on Aging, National Institute of Diabetes & Digestive & Kidney Diseases, World Obesity Federation, J.P. Morgan Asset Management; as of January 2024.

VettaFi Weight Loss Drug & Treatment Index (THINR)

The GLP-1 diet-drug revolution is expected to disrupt many sectors and industries.

Within healthcare, GLP-1 drugs will transform how obesity is viewed and managed.

On the medical device side, the market for insulin pumps and continuous glucose monitors (CGMs) could be negatively impacted. Kidney dialysis centers could see less business. Better cardiac outcomes could avoid the need for cardiac devices such as implantable defibrillators.

Disrupting health care and other industries

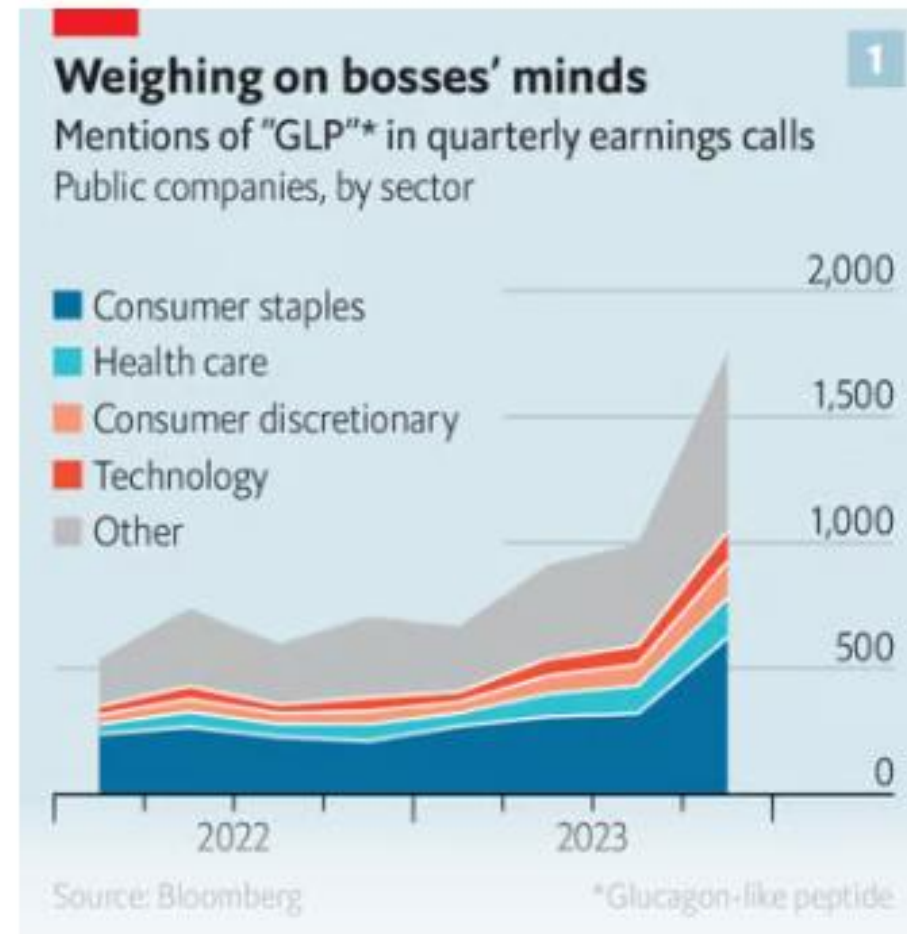


CHART: THE ECONOMIST

As of March 4, 2024

From medical device companies to life insurance agencies, hospitality, and airlines, many sectors and industries are expected to be disrupted.

Airlines could save 27.6 million gallons of fuel per year, at a cost of \$80 million, if the average passenger weighed 10 pounds less than they do currently.

VettaFi Weight Loss Drug & Treatment Index (THINR)

Side Effects:

- “Ozempic Face” – rapid loss of fat in the face can cause a hollowed look
- Gastrointestinal symptoms such as nausea, vomiting, diarrhea, and constipation.
- Increased risk of pancreatitis and gastroparesis.
- Increased risk of thyroid cancer for those at high-risk.

How long do the drugs work?

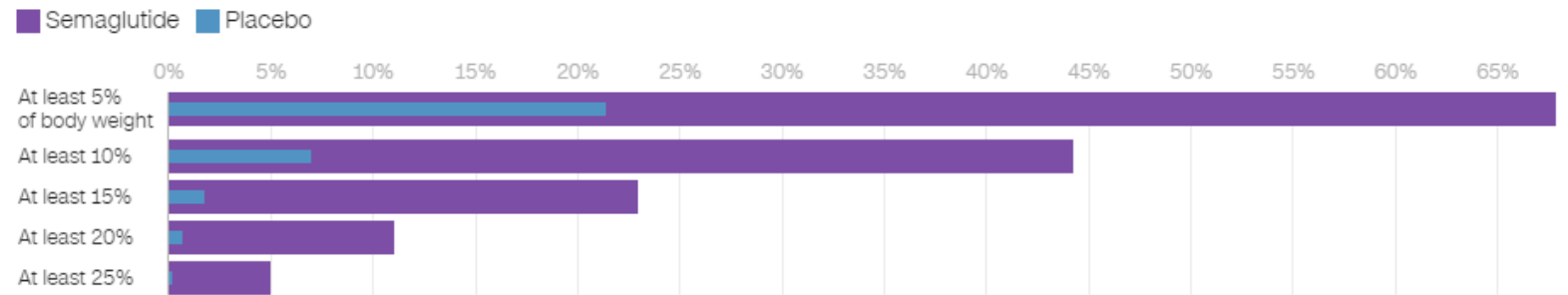
Do patients need to stay on the drugs for the rest of their lives?

The most recent study on people taking Wegovy (SELECT Trial) suggests people lost an average of 10% of their body weight. The weight loss continued for more than a year and it was sustained for up to for four years. But more importantly, not only do patients continue to have a reduction in weight, they continue to have a reduction in cardiovascular outcomes.

Long-term weight loss is more common among people who take semaglutide

After two years, people who took semaglutide were three times more likely than others to lose at least 5% of their starting body weight and six times more likely to have lost at least 10% of their body weight.

Share of patients with weight loss after 104 weeks



Findings based on results from nearly 18,000 people enrolled in a clinical trial. Patients treated with semaglutide received weekly subcutaneous injections of 2.4 mg and were compared against a control group who received placebo injections.

Source: Nature Medicine

VettaFi Weight Loss Drug & Treatment Index (THINR)

Index methodology

Starting universe:

VettaFi Developed Market Indices (SNDW5K and VFDW)

Minimum Market Cap of \$500,000,000

2 Segments: GLP-1 Drug Manufacturers and Enablers

Drug manufacturers:

- Companies that have GLP-1 Agonist Drugs that are either launched or in FDA clinical trials (i.e., Eli Lilly and Novo Nordisk)
- Total weight in index 70%, float market cap weighted within segment
- Companies with Drugs in phase 2 or below max weight 5%
- Companies with commercial or phase 3 max weight 15%

Enablers:

- Companies involved with the outsourced development and manufacturing of GLP-1 Agonist Drugs (i.e., Catalent). Includes companies conducting measurement and analysis of said drugs (i.e., Thermo Fisher). Typically, these are contract development and manufacturing organizations (CDMOs).
- Total weight in index 30%, float market cap weighted within segment
- Max weight 5%

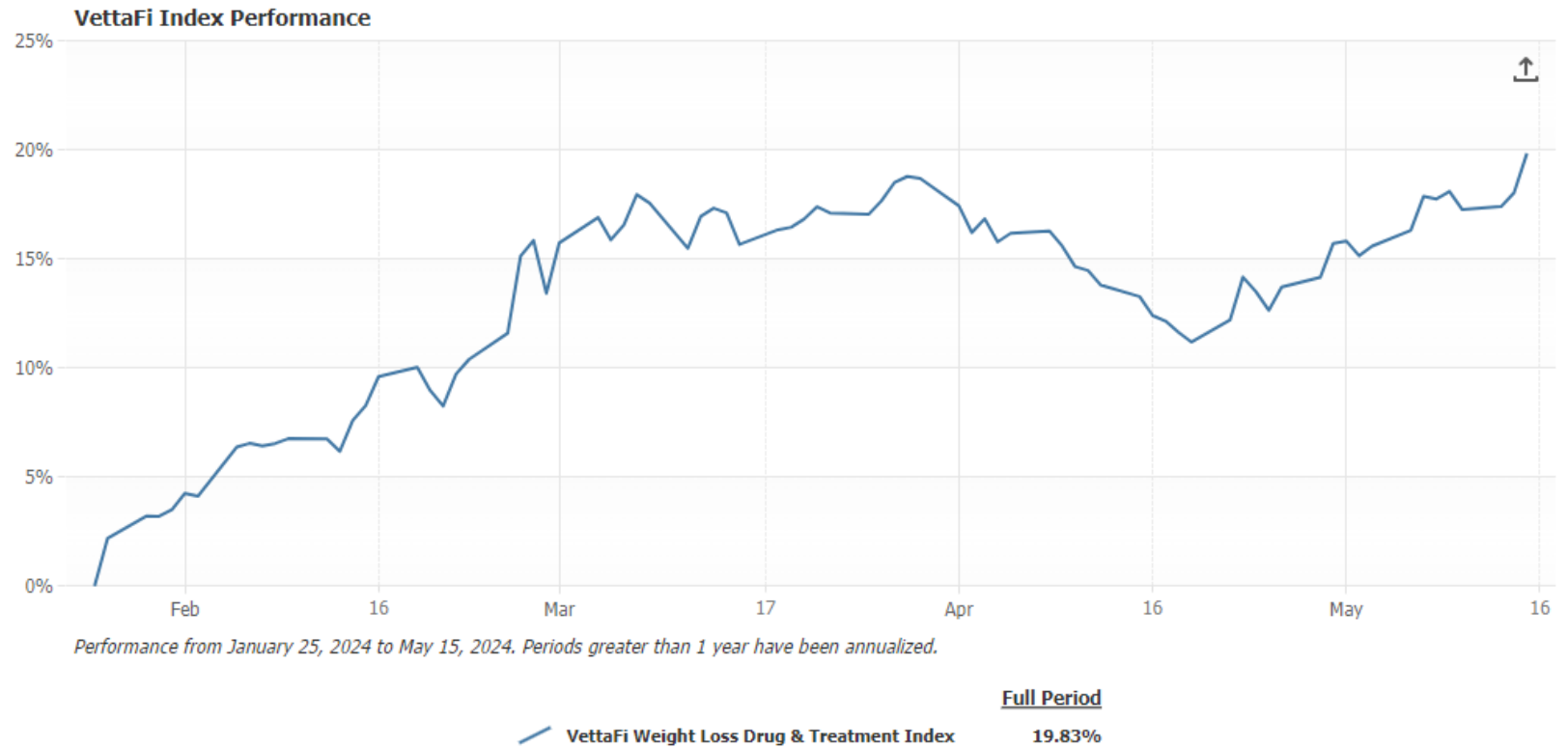
The sum of weights > 5% must be less than or equal to 45% of the total index. Capped weights are redistributed within segment to ensure total weights are equal to set amounts.

VettaFi Weight Loss Drug & Treatment Index (THINR)

Live index inception date:
1/25/24



THINR index live performance



VettaFi Weight Loss Drug & Treatment Index (THINR)

THINR Index Holdings (as of 5/15/2024)

21 Current Holdings

13 Drug Manufacturers

8 Enablers

Tick	Name	HQ	Sector	Industry Group	Category	Details	Index Weight
LLY	Eli Lilly & Co.	US	Healthcare	Biopharma	Drug Manufacturing	Mounjaro/Zepbound/Trulicity (retatrutide/tirzepatide)	14.91%
NOVO B	Novo Nordisk A/S	DK	Healthcare	Biopharma	Drug Manufacturing	Ozempic/Wegovy/Rybelsus (semaglutide/liraglutide)	14.63%
AZN	AstraZeneca PLC	GB	Healthcare	Biopharma	Drug Manufacturing	Phase 1/2 AZD9550 Oral GLP-1 receptor agonist	5.79%
AMGN	Amgen Inc.	US	Healthcare	Biopharma	Drug Manufacturing	Phase 2 Maridebart cafraglutide	5.76%
PFE	Pfizer Inc.	US	Healthcare	Biopharma	Drug Manufacturing	Phase 2 Danuglipron	5.30%
MRK	Merck & Co., Inc	US	Healthcare	Biopharma	Drug Manufacturing	Phase 2 Efinopegdutide	5.23%
MRK GR	Merck KGaA	DE	Healthcare	Biopharma	Enabler	Owns Millipore Sigma ELISA GLP-1 test kits	5.18%
VKTX	Viking Therapeutics Inc.	US	Healthcare	Biopharma	Drug Manufacturing	Phase 2 VK-2735	4.97%
TMO	Thermo Fisher Scientific Inc	US	Healthcare	Healthcare Equipment & Services	Enabler	Engaged by Novo as an outsource manufacturer	4.94%
4901	FUJIFILM Holdings Corp.	JP	Technology	Tech Hardware & Equipment	Enabler	GLP-1 (Active) ELISA Test Kit (Wako Chemicals)	4.88%
CTLT	Catalent Inc	US	Healthcare	Biopharma	Enabler	Being acquired by Novo as manufacturer	4.86%
WST	West Pharmaceutical Services	US	Healthcare	Healthcare Equipment & Services	Enabler	Maker of components used in GLP-1 injection devices, such as seals, plungers and cartridges.	4.78%
ROG	Roche Holdings AG	CH	Healthcare	Biopharma	Drug Manufacturing	Acquiring Carmot Therapeutics - Phase 1 CT-388	4.58%
4188	Mitsubishi Chemical Group Corp.	JP	Materials	Chemicals	Drug Manufacturing	Owns Mitsubishi Tanabe Pharma partner Eli Lilly Japan	4.42%
ZEAL	Zealand Pharma As	DK	Healthcare	Biopharma	Drug Manufacturing	Phase 3 Survodutide GLP-1 receptor agonists & glucagon receptor agonist	3.39%
GXI	Gerresheimer AG	DE	Healthcare	Healthcare Equipment & Services	Enabler	Makes the injector pens	2.16%
BANB	Bachem Holding AG	CH	Healthcare	Biopharma	Enabler	Prouces several GLP-1RAs for the generic market	1.95%
128940	Hanmi Pharmaceutical Co Ltd	KR	Healthcare	Biopharma	Drug Manufacturing	In drug partnership with Merck and others	0.94%
YPSN	Ypsomed Holding AG	CH	Healthcare	Healthcare Equipment & Services	Enabler	Makes the autoinjector pen	0.74%
ALT	Altimune Inc.	US	Healthcare	Biopharma	Drug Manufacturing	Phase 2 Pemvidutide	0.30%
OPK	OPKO Health, Inc.	US	Healthcare	Biopharma	Drug Manufacturing	Phase 2 Oxyntomodulin	0.28%

VettaFi Weight Loss Drug & Treatment Index (THINR)

Holding overlap ETF Comparisons

THINR index holdings

	THINRT Index	XLV US	IHE US	SPY US
Equity Holdings	21.00	65.00	35.00	503.00
Effective Number of Holdings	13.00	23.00	8.00	57.00
Effective Holdings Ratio	0.62	0.35	0.23	0.11
Weight in Top 10 Names	71.93	55.58	79.85	33.22

EQUITY MEMBER OVERLAP	THINRT Index	XLV US	IHE US	SPY US
THINRT Index		27.61%	28.79%	3.46%
XLV US	27.61%		29.68%	12.11%
IHE US	28.79%	29.68%		3.76%
SPY US	3.46%	12.11%	3.76%	

Top 10 Holdings

Bold styling indicates company is a top holding in 2 more funds

THINRT Index	%	XLV US	%	IHE US	%
Eli Lilly and Company	14.83%	Eli Lilly and Company	11.33%	Eli Lilly and Company	23.03%
Novo Nordisk A/S Class B	14.67%	UnitedHealth Group Incorporated	8.95%	Johnson & Johnson	22.64%
AstraZeneca PLC	5.88%	Johnson & Johnson	6.87%	Merck & Co., Inc.	4.95%
Amgen Inc.	5.73%	Merck & Co., Inc.	6.13%	Pfizer Inc.	4.91%
Pfizer Inc.	5.35%	AbbVie, Inc.	5.42%	Zoetis, Inc. Class A	4.42%
Merck KGaA	5.32%	Thermo Fisher Scientific Inc.	4.24%	Royalty Pharma Plc Class A	4.28%
Merck & Co., Inc.	5.30%	Abbott Laboratories	3.33%	Viatis, Inc.	4.20%
Thermo Fisher Scientific Inc.	4.99%	Danaher Corporation	3.23%	Catalent Inc	4.10%
FUJIFILM Holdings Corp	4.93%	Amgen Inc.	3.08%	Bristol-Myers Squibb Company	3.85%
Catalent Inc	4.92%	Pfizer Inc.	2.98%	Elanco Animal Health, Inc.	3.47%

VettaFi Weight Loss Drug & Treatment Index (THINR)

Earnings and fundamentals

	MARKET CAP	THINRT Index
	Large-Cap	80.81%
	Mid-Cap	18.64%
	Small-Cap	0.55%

METRIC	THINRT Index
Market Cap - Weighted Avg (\$MM)	247,088.87
Market Cap - Median (\$MM)	22,211.37
Market Cap - Lowest (\$MM)	554.46
Market Cap - Highest (\$MM)	726,090.70
Liquidity - Weighted Avg (\$MM)	646.20
Liquidity - Median (\$MM)	113.58
Liquidity - Lowest (\$MM)	6.17
Liquidity - Highest (\$MM)	2,176.76
Trailing Price/Earnings	20.32
Forward Price/Earnings	17.54
Trailing EV/Sales	5.61
Forward EV/Sales	5.16
EPS Growth (%)	13.42
Sales Growth (%)	6.32
Percent of Net Debt < 0 (Cash Positive)	15.09
Dividend Yield (%)	1.56

THINR - VettaFi Weight Loss Drug & Treatment Index

Earnings Analysis

Weighted Average Median

Growth Revisions Reports

	2024 Q1 Growth	2024 Q1 Surprise	2024 Q1 % Beat	2024 Q1 % Miss	FY 2023 Growth	FY 2024 Est Growth	FY 2025 Est Growth	FY 2026 Est Growth	3-Year Est Growth
EPS	▲ 7.52%	▲ 2.16%	76.22%	12.18%	▼ -8.80%	▲ 48.71%	▲ 43.44%	▲ 17.50%	▲ 118.59%
SALES	▲ 5.40%	▲ 1.61%	63.53%	30.39%	▲ 15.27%	▲ 10.10%	▲ 11.78%	▲ 13.45%	▲ 37.11%
EBITDA	▲ 21.14%	▲ 5.86%	54.72%	25.33%	▼ -6.78%	▲ 40.26%	▲ 18.32%	▲ 13.28%	▲ 92.07%
PROFITABLE	86.20%	—	—	—	91.06%	91.06%	91.06%	94.44%	—

For 2024 Q1, 16 of 21 companies (76%) have reported. 7 companies (44%) have reported positive YoY EPS growth. 7 companies (44%) have reported positive YoY sales growth.

Earnings Analysis

Weighted Average Median

Growth Revisions Reports

	FY 2024			FY 2025			FY 2026		
	30 Day Change	90 Day Change	365 Day Change	30 Day Change	90 Day Change	365 Day Change	30 Day Change	90 Day Change	365 Day Change
EPS	▼ -1.06%	▼ -12.87%	▼ -40.04%	▼ -0.80%	▼ -5.92%	▼ -10.13%	▼ -0.82%	▲ 9.87%	▼ -0.75%
SALES	▲ 0.73%	▼ -0.18%	▲ 1.40%	▲ 0.55%	▼ -3.57%	▼ -0.49%	▲ 0.47%	▲ 3.67%	▲ 4.75%
EBITDA	▲ 0.41%	▼ -16.02%	▼ -34.87%	▼ -8.40%	▼ -2.88%	▼ -2.62%	▲ 0.70%	▲ 30.26%	▲ 9.07%

As of 5/15/2024

VettaFi Weight Loss Drug & Treatment Index (THINR)

GLP-1 drugs are a disruptive economic force, with investment research firms estimating the market for GLP-1 drugs will grow to \$100 billion by 2030.

By promoting healthier living and boosting productivity, these new drugs hold the potential to increase U.S. GDP levels by as much as 1% in the coming years.

Summary and conclusion

Obesity is a Growing Global Problem

One-eighth of the global population is living with obesity. Beyond the mental and physical toll obesity poses at the individual level, it has a negative macroeconomic impact on the global economy due to negative health impacts and lost productivity.

GLP-1 is Spurring a Diet Drug Revolution

GLP-1 drugs are proving to be a breakthrough treatment for weight loss, promoting reductions in body weight by 10-20% and reducing consumption volumes by as much as 50%.

GLP-1 Drugs May Have Therapeutic Indications Beyond Diabetes and Weight Loss

In a recent landmark study, GLP-1 drugs were found to reduce the incidence of cardio events and stroke by 20% in non-diabetic patients. But beyond cardiovascular disease, research is being conducted to explore its effectiveness as a treatment for many other medical conditions as well.

GLP-1 Drugs a Disruptive Economic Force

GLP-1 drugs are expected to disrupt not just health care, but many other sectors and industries. GLP-1's are a disruptive economic force, with investment research firms estimating that the market for GLP-1 drugs will grow to \$100 billion by 2030. By promoting healthier living and boosting productivity, these new drugs hold the potential to increase U.S. GDP levels by as much as 1% in the coming years.