THE OBESITY BUSINESS: A $400 BILLION MARKET AND BEYOND

— CREATING VALUE THROUGH THE INTEGRATION OF PHARMACEUTICALS, DEVICES, AND DIGITAL SOLUTIONS —

Yu Toguchi
Consumer Innovation Dept., Technology & Innovation Studies Div.
Mitsui & Co. Global Strategic Studies Institute

SUMMARY

- The emergence of obesity therapeutics is expected to drive rapid expansion of the obesity-related market to around USD 400 billion. At the same time, challenges are becoming increasingly apparent, including shortages in manufacturing capacity, high drug costs, and rebound weight gain after treatment discontinuation.
- The industry is shifting from stand-alone pharmaceuticals to a comprehensive ecosystem integrating pharmaceuticals, devices, and digital solutions. This transition is being accompanied by the development of next-generation drugs that enhance convenience, the restructuring of supply networks through the use of CDMO (contract development and manufacturing organization), and the advancement of care models that promote behavioral change.
- Beyond next-generation drug development, competitive advantage will be derived from the buildout of infrastructure that supports supply networks, the demonstration of treatment cost-effectiveness through digital integration, and the creation of low-cost, sustainable models to capture latent demand.

1. OBESITY AS A CHRONIC DISEASE AND THE EXPLOSIVE EXPANSION OF THE MARKET

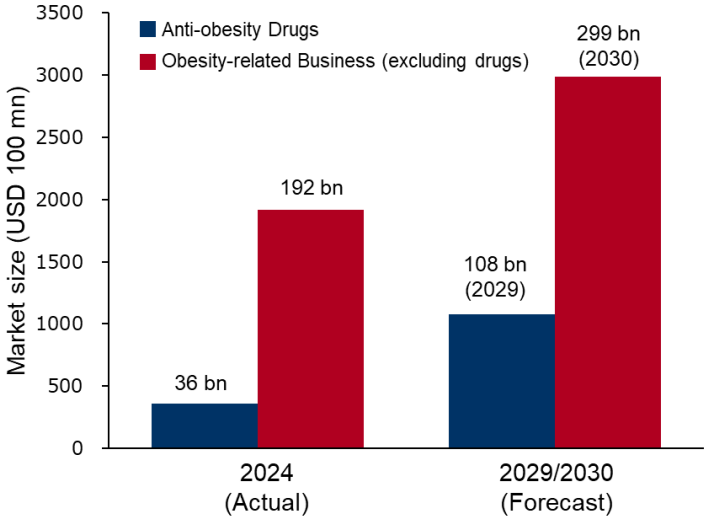
Obesity treatment has reached a historic turning point. By defining obesity not merely as being overweight but as a chronic disease, WHO has shifted perceptions away from it being an issue of individual willpower toward one requiring medical treatment.[1] In recent years, this shift has been cemented by the emergence of obesity therapeutics known as GLP-1 receptor agonists, which suppress appetite by mimicking hormones in the body. Particularly significant was the demonstration that Wegovy, developed by Novo Nordisk (Denmark), reduces the risk of major cardiovascular events such as myocardial infarction and stroke,[2] establishing its status as a medical intervention that goes beyond weight loss to reduce future health risks.

Worldwide, 2.9 billion people are overweight or obese,[3] and in OECD countries the resulting rise in healthcare costs and decline in labor productivity are a growing burden, with economic losses estimated at 3.3% of GDP.[4]

[1] WHO "Obesity and overweight" Fact Sheet
[2] Novo Nordisk press release (SELECT Trial: 20% Reduction in Major Cardiovascular Events, 2023)
[3] WHO "Obesity and overweight" Fact Sheet (2022 data)
[4] OECD "The Heavy Burden of Obesity: The Economics of Prevention" (2019)

Against this backdrop of a serious social challenge and a massive potential market, companies such as Novo Nordisk and Eli Lilly (US) have successively launched new drugs. The therapeutics market, expected to grow rapidly to USD 100 billion, together with an associated business market of USD 300 billion, is projected to exceed USD 400 billion by 2030 (Figure 1). The medical community is also reinforcing this trend.

Figure 1: Rapid growth of obesity therapeutics and the obesity-related business market



Note: The obesity-related business sector includes diet foods and beverages, supplements, fitness equipment, and slimming services, but does not include pharmacological treatments for obesity.
Source: Compiled by MGSSI based on IQVIA (2024/2029) for anti-obesity drugs, and Market Research Future (2024) and Grand View Research (2030) for the obesity-related business market

In May 2025, The Obesity Society published new clinical guidelines calling for the elimination of stigma and the rigorous application of evidence-based treatment. This is expected to lower barriers to seeking care and unlock substantial latent demand. At the same time, however, the rapid surge in demand is outstripping the capacity of existing industry structures and healthcare infrastructure. This paper, therefore, outlines the challenges that have emerged alongside market expansion and the shift toward a comprehensive ecosystem encompassing pharmaceuticals, manufacturing, devices, and digital care.

2. SUPPLY–DEMAND GAP AND EMERGING CHALLENGES CAUSED BY RAPID MARKET EXPANSION

2-1. INSUFFICIENT MANUFACTURING CAPACITY AND SUPPLY BOTTLENECKS

While demand has surged rapidly, the build-out of supply systems has lagged behind. Expanding manufacturing lines that require advanced aseptic filling takes time, and the resulting supply and demand gap, in which medicines physically cannot be delivered, has become a constraint on further market growth.

2-2. BARRIERS TO TREATMENT QUALITY AND ADHERENCE

The difficulty of maintaining adherence is becoming increasingly apparent in clinical settings. Data indicate that more than 60% of patients discontinue treatment within the first year due to factors such as side effects and resistance to injections, raising concerns about risk of symptom rebound after treatment discontinuation.[5] In addition, shortages of specialists are leading to an influx of patients into primary care, but given the limits on appropriate management in these settings, treatment is reduced to the simple issuance of a prescription in some cases. This has raised questions about maintaining treatment quality.

[5] Prime Therapeutics "Real-world analysis of GLP-1a drugs for weight loss" (2023)

2-3. IMPACT ON HEALTH CARE ECONOMICS AND THE DILEMMA FACING PAYERS

Costs also represent a major barrier. Obesity treatment is an investment in preventing future disease, but in the near term, the substantial cost of pharmaceuticals is placing significant financial strain on payers such as governments and insurance associations. In the US, measures to curb rising insurance premiums have accelerated the tightening of eligibility requirements, including mandatory participation in behavior modification programs. In Japan and Europe as well, coverage under public health insurance remains limited. Amid the dilemma between future benefits and the immediate increase in financial burden, the key issue is how to establish an economically sustainable system.

2-4. EMERGING HEALTH RISKS AND MARKET GROWTH IN ASIA

Obesity is no longer a problem confined to Europe and the US. Of particular note are future risks. According to the World Health Organization, nearly half of children under the age of five who are overweight or obese are reported to be Asian.[6] If current trends continue, Asia is likely to develop a massive patient population that could eventually exceed that of Europe and the US. However, Asia differs significantly from the West in terms of healthcare systems, including the scope of public insurance coverage, as well as economic conditions. It is therefore essential to develop strategies tailored to the circumstances of each country.

3. NEXT-GENERATION OBESITY THERAPEUTICS

The development of leading obesity therapeutics is progressing along three directions: improved convenience, maximization of efficacy, and expanded access (Figure 2).

3-1. DEVELOPMENT TREND (1): PURSUIT OF CONVENIENCE (ORAL FORMULATIONS AND LOW DOSING FREQUENCY)

Leading products on the market today, such as Wegovy from Novo Nordisk and Zepbound from Eli Lilly, require once-weekly subcutaneous self-injection. Fear of needles, the need to learn injection techniques, and the inconvenience of refrigerated storage all act as barriers to long-term treatment adherence. In response, next-generation drugs are moving away from injections and toward less frequent dosing. Oral medications such as Orforglipron, being developed by Eli Lilly, eliminate the need for injections and allow room-temperature storage,

Figure 2: Development trends and market positioning of major obesity therapeutics

Category	Product Name (Generic/Code)	Company	Max. Weight Loss*	Dosing Frequency/ Route	Mechanism of Action	Development/Approval Status	Strategy/Positioning
Current	Wegovy (semaglutide)	Novo Nordisk (Denmark)	15% (68 weeks)	Once weekly subcutaneous	GLP-1 receptor agonist	**Approved in the US, EU, and Japan**	A standard therapy that leverages first-mover advantage and also addresses secondary prevention of cardiovascular disease.
Current	Zepbound (tirzepatide)	Eli Lilly (US)	**21%** (72 weeks)	Once weekly subcutaneous	Dual GLP-1/GIP agonist	**Approved in the US, EU, and Japan**	Expanding share through superior weight-loss efficacy relative to Wegovy. A benchmark in weight reduction.
Next generation (oral medication)	Product name TBD (orforglipron)	Eli Lilly	15% (36 weeks)	Once daily **oral**	GLP-1 receptor agonist	Phase 3 trials ongoing	As the first full-scale oral agent, targets patients averse to injections and the primary care market.
Next generation (oral medication)	Product name TBD (high-dose semaglutide)	Novo Nordisk	15% (68 weeks)	Once daily **oral**	GLP-1 receptor agonist	Positive Phase 3 results; preparing for regulatory submission	Positioned as an "oral Wegovy," enabling switching within the company's product portfolio and broader treatment options.
Next generation (high efficacy)	CagriSema (cagrilintide+ semaglutide)	Novo Nordisk	20% (68 weeks)	Once weekly subcutaneous	Amylin analog/GLP-1 agonist combination	Positive Phase 3 results; regulatory submission planned for Q1 2026	Targets obesity cases with insufficient response to existing drugs through complementary mechanisms.
Next generation (long acting)	MariTide (maridebart cafraglutide)	Amgen (US)	20% (52 weeks)	**Once monthly** subcutaneous	Long-acting dual GLP-1/GIP agonist	Positive Phase 2 results	Aims to improve treatment adherence by significantly reducing dosing frequency.
Next generation (high efficacy)	Product name TBD (retatrutide)	Eli Lilly	**24%** (48 weeks)	Once weekly subcutaneous	Triple GLP-1/GIP/glucagon agonist	Phase 3 trials ongoing; completion expected in 2026	Targets high weight-loss efficacy and metabolic improvement through triple-hormone action.
Current (China)	Xinermei (mazdutide)	Innovent Biologics (China)	15% (48 weeks)	Once weekly subcutaneous	Dual GLP-1/glucagon agonist	Approved in China	China's first full-scale obesity therapeutic developed in partnership with Eli Lilly. A leading option in the Chinese market.
Next generation (China)	Product name TBD (ecnoglutide)	Sciwind Biosciences (China)	15% (48 weeks)	Once weekly subcutaneous	Biased GLP-1 receptor agonist	Phase 3 completed; preparing for regulatory submission in China	Matches Wegovy in efficacy while offering advantages in price competitiveness and supply capacity.
Next generation (China)	Product name TBD (HRS9531)	Hengrui Pharma (China)/ Kailera Therapeutics	**19%** (48 weeks)	Once weekly subcutaneous	Dual GLP-1/GIP agonist	Regulatory submission filed in China	Comparable mechanism to Zepbound. Efficacy approaching leading Western products.

* Maximum weight loss refers to the percentage reduction in body weight from baseline among obese, non-diabetic patients in high-dose groups of major Phase 2/3 trials.
Source: Compiled by MGSSI based on press releases, academic papers, and other sources

[6] WHO "Obesity and overweight" Fact Sheet (2024 data)

significantly easing these constraints. In addition, MariTide from Amgen (US) is being developed as a long-acting formulation requiring only once-monthly administration, with the aim of minimizing the burden of clinic visits and self-management, while improving long-term adherence.

3-2. DEVELOPMENT TREND (2): DIVERSIFICATION OF MECHANISMS OF ACTION AND MAXIMIZATION OF EFFICACY

While oral drugs emphasize convenience, competition in the injectable segment is intensifying, with developers aiming for even greater weight-loss efficacy. Retatrutide, currently under development by Eli Lilly, is a triple agonist that simultaneously targets three hormones: GLP-1, glucagon (which increases energy expenditure), and GIP (which is involved in metabolic regulation), thereby aiming to achieve superior weight-loss outcomes.

3-3. DEVELOPMENT TREND (3): EXPANSION OF ACCESS AND THE RISE OF CHINESE COMPANIES

Following improvements in convenience and efficacy, the third major trend is the expansion of access. With the vast Asian market in view, Chinese companies are following Western players in pursuing strategies to lower barriers to treatment by leveraging production capacity and price competitiveness. Xinermei, developed by Innovent Biologics (China), combines high efficacy comparable to leading Western drugs with stable domestic production and cost advantages. It is emerging as a potential challenger to the dominant market share of Western companies.

4. VALUE CREATION THROUGH INTEGRATION OF PHARMACEUTICALS AND DEVICES

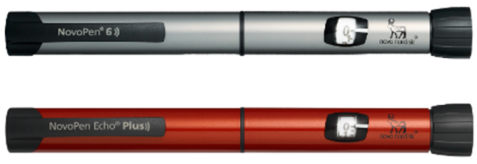
4-1. DEVICE TECHNOLOGIES AND DATA INTEGRATION THAT SUPPORT TREATMENT ADHERENCE

Advances in delivery devices hold the key to the challenge of drugs that are difficult to continue using. The development of auto-injectors that reduce pain and pen-type devices that are discreet and easy to carry lessens the burden on patients and supports treatment adherence. Moreover, devices are evolving beyond simple delivery tools to become points of data integration. Monitoring activity levels and vital signs through wearable sensors and using these data in treatment enables more precise therapy tailored to individual lifestyles (Figure 3). Such integration of devices and data is expected to maximize the effectiveness of pharmacological treatment.

Figure 3: Key examples of device technologies and data integration in the obesity field

DEVICE TECH

Administration support: smart pens and attachments



NOVO NORDISK

NovoPen® 6

A connected insulin pen that automatically records dose and dosing time. By linking with apps and cloud platforms, it supports improved treatment adherence and dose optimization. Since 2019, it has been rolled out globally as an infrastructure-type device for users of the company's diabetes and GLP-1 products.

BIOCORP (MERCK GROUP)

Mallya®

A smart cap that attaches to existing pen injectors. It transmits dose and timing data via Bluetooth to visualize medication adherence. Through a global partnership with Novo Nordisk, it is widely compatible with major pharmaceutical companies' pens as an ecosystem component for diabetes and GLP-1 pens. The device is applicable to the obesity field from the perspective of supporting long-term use of GLP-1 products.

DATA MONITORING

Biometric data visualization: CGM and metabolic sensors

DEXCOM

Stelo™

Approved by the FDA in 2024 as the world's first OTC continuous glucose monitoring (CGM) system. It provides continuous blood glucose monitoring for people with type 2 diabetes not using insulin, as well as for the general adult population seeking to understand glucose variability. It can also serve as a learning tool for GLP-1 users and individuals seeking weight loss, helping them understand the relationship between diet, exercise, and glycemic responses, thereby reaching a broad range of users, including those with obesity.

ABBOTT

Libre® Portfolio / Lingo

FreeStyle Libre is a CGM platform used by more than 7 million people across over 60 countries worldwide and is one of the standard technologies for diabetes management. Building on this technology, Lingo has been positioned as a concept brand that visualizes metabolic states such as glucose and ketones, with expectations for integration into weight management and obesity prevention programs.

Source: Compiled by MGSSI based on publicly available sources
Novo Nordisk（https://www.novonordisk.com/content/dam/nncorp/global/en/our-products/images/Content-NP6-NEP.jpg.corpimgw.2000.2000.jpg）
biospectrumasia（https://www.biospectrumasia.com/uploads/articles/3-21318.png）
stelo（https://cdn.media.amplience.net/i/dexcom/stelo-packaging-box-hires?qlt=default&fmt=auto&w=414）
myehcs（https://marvel-b1-cdn.bc0a.com/f00000000276877/myehcs.com/wp-content/uploads/FSL3Plus_800.jpg） All accessed January 21, 2026

4-2. ELIMINATING SUPPLY BOTTLENECKS AND RESTRUCTURING THE SUPPLY CHAIN

Over the past decade, the pharmaceutical industry has trended toward horizontal specialization, with manufacturing increasingly outsourced to contract development and manufacturing organizations (CDMOs). In the obesity therapeutics segment, however, a reversal toward vertical integration by well-capitalized major pharmaceutical companies is underway in response to surging demand, exemplified by the acquisition of Catalent (US) by Novo Holdings. At the same time, for companies without in-house manufacturing capabilities, technologically advanced CDMOs remain indispensable, and supply-side players are expected to fill gaps in the supply network and support a stable, reliable supply.

5. BUILDING A SERVICE PLATFORM THROUGH CARE INTEGRATION

5-1. THE NEED TO TRANSFORM PRIMARY CARE

To address the shortage of specialists, efforts are underway to standardize obesity treatment within primary care. In the US, through the PATHWEIGH model, care protocols integrated with electronic health records are being introduced to enable a system in which appropriate weight management can be provided even without specialist involvement. To absorb the rapidly growing number of patients, an infrastructure that streamlines clinical operations in frontline care settings is indispensable.

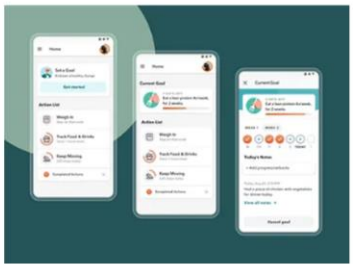
5-2. COST MANAGEMENT AND REBOUND PREVENTION THROUGH DIGITAL HEALTH

For payers, a major concern lies not only in high drug costs but also in the risk that rebound weight gain after treatment discontinuation will undermine long-term cost-effectiveness. In response, digital health companies are offering services that combine medication with lifestyle improvement programs (Figure 4). For example, data from Omada Health (US) show that among patients receiving behavioral change support, body weight increased by only 0.8% one year after discontinuing medication, indicating that digital interventions can function as an exit strategy to enhance cost-effectiveness.

Figure 4: Key examples of digital therapeutics and GLP-1 integration in the obesity field

DIGITAL THERAPEUTICS

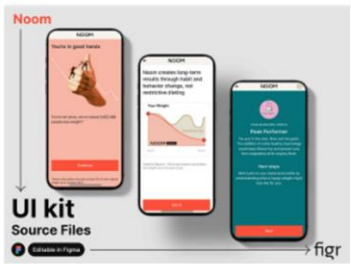
Digital therapeutics and behavioral change: GLP-1 integration



OMADA HEALTH

Enhanced Care Track

A virtual care program for chronic conditions with more than 750,000 members as of 2025. From the initiation of GLP-1 therapy through post-discontinuation, it provides comprehensive support, including diet and exercise guidance by dedicated coaches and curricula aimed at maintaining muscle mass. It is strengthening its presence as a supporting infrastructure for obesity treatment.



NOOM

Noom GLP-1 Companion

A psychology-based weight-loss app with more than 45 million users worldwide. For employers and payers, it offers a companion program specifically for GLP-1 users, firmly positioning itself in the obesity field as a solution that maximizes the effectiveness of high-cost GLP-1 drugs while controlling costs.

Source: Compiled by MGSSI based on publicly available sources
dribbble (https://cdn.dribbble.com/userupload/11794167/file/original-6b948c434e87e581a9d88917e7aa96cc.jpg?resize=752x&vertical=center)
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All accessed January 21, 2026

6. TOWARD THE NEXT PHASE OF THE OBESITY BUSINESS

The essence of the obesity business lies in creating massive added value by integrating pharmaceuticals with adjacent domains. Three approaches are key to capturing this market. First is strengthening the supply network. In response to surging demand, there is an urgent need not only for vertical integration by major players but also for the establishment of horizontal specialization that supports emerging companies, such as that offered by CDMOs and component suppliers. Second is the development of services that demonstrate the cost-effectiveness of treatment. For payers burdened by high drug costs, mechanisms that use devices and digital interventions to prevent treatment dropout and demonstrate cost-effectiveness are indispensable. Third is a shift toward a mass-market model for Asia. High-priced Western models will not gain broad traction in Asia. In this market with significant potential, the competitive edge lies in building low-cost, sustainable models in

partnership with local companies. In this area, where pharmaceuticals, devices, and digital solutions converge, a vast frontier beyond the USD 400 billion market awaits those who design value chains that create integrated value.