# GLOBAL 24 CBS CASE COMPETITION

Driving change in obesity

**TEAM VIKSIT** 

# **OBESTRIA**

Obestria, a newly established republic, emerged from a peaceful revolution.

The country's history is rich with tales of resilience and innovation, shaped by its strategic location as a trade nexus. Today's Obestria is a testament to its tumultuous yet triumphant history. The country has harnessed its rich historical experiences to build a progressive society.

It has become known for its commitment to democracy, social equality, and innovation, making it an attractive location for global companies like Novo Nordisk.

Obestria faces a significant healthcare challenge with 65% of its adult population grappling with overweight or obesity issues, a condition that not only impacts individual health but also places a considerable strain on the healthcare system.

This chronic disease, characterized by an excess of body fat, has farreaching consequences, including increased risk for various chronic conditions such as diabetes, cardiovascular diseases, and certain cancers. The fight against obesity in Obestria is not just a health issue but a societal challenge that demands collective action and sustained commitment from all stakeholders.

#### **DEMOGRAPHICS**

The population is 55 million.

Patient Pull is expected to make up 50-60% of total Obesity Medication prescriptions.

65% of the adult population lives with overweight (BMI ≥25) or obesity (BMI ≥30).

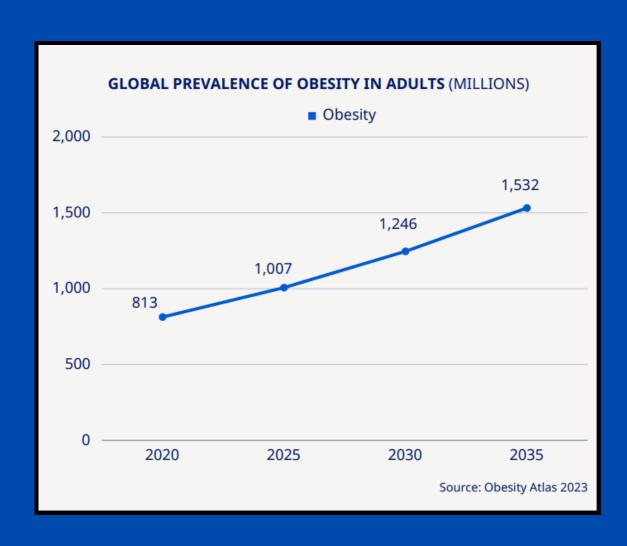
Aging population with a life expectancy higher than the global average.

Well-functioning health-care system and a highly technologised population.

Obesitria is a unicameral parliamentary democracy with a multi-party system.

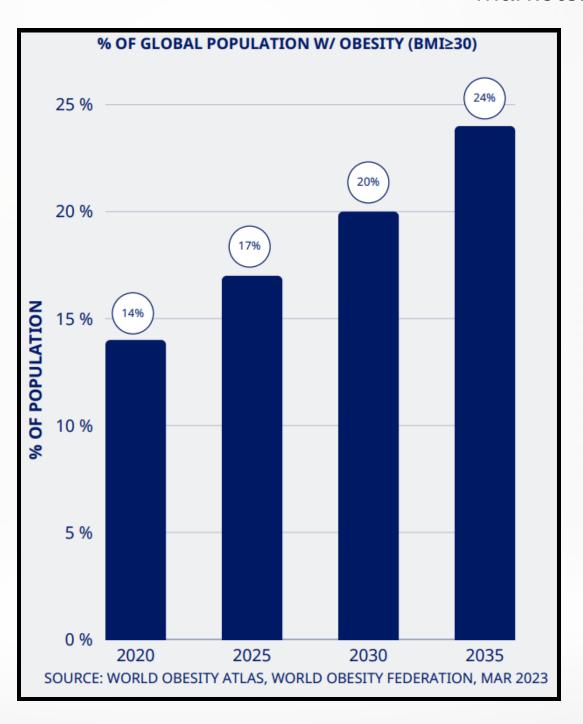
# **OBESITY**

Obesity is a complex chronic disease and is influenced by factors such as genetics, physiology, environment, job and education, and what is going on in the brain. Understanding these factors is crucial as obesity is linked to various diseases such as type 2 diabetes, heart disease, and specific types of cancer.



#### **MARKET SIZING**

The Obesity Medications market is poised for tremendous development, anticipating a compounded annual growth rate (CAGR) of 31.1% over the projection period to 2031, reaching a sizable \$37.1 billion across the seven key markets.



#### **Growth and Evolution**

Even with the implementation of obesity treatments, there is a significant expected growth in the global population of PwO aged 5 and above, increasing from 14% in 2020 to 24% in 2024.

The economic burden of managing obesity and its consequences is set to escalate from US\$1.96 trillion to US\$4 trillion by 2035, potentially leading to a 2.9% reduction in global GDP in the same year

# CUSTOMER OVERVIEW

John, a 45-year-old software engineer, struggles with obesity, a condition deeply entwined with his genetics, lifestyle, and psychological state. Inherited traits like a slow metabolism and intense food cravings, coupled with a tendency to eat in response to stress, have made weight management a constant battle for him.

These challenges are compounded by societal stigma, feeding into cycles of depression and anxiety that hinder his psychological wellbeing. John's story reflects the complexity of obesity, highlighting not just the physical, but also the mental hurdles that come with it.

Determined to turn his life around, John seeks a holistic approach to obesity care, focusing on medical support tailored to his unique needs and engaging with digital health tools to make sustainable lifestyle changes.

His journey is a testament to the resilience required to navigate the personal challenges of living with obesity, advocating for a broader understanding and a more supportive environment for those on similar paths.

# CONSEQUENCES OF OBESITY

#### **Health Consequences**

Heart Disease and Stroke
Type 2 Diabetes
Fatty Liver Disease

#### **Psychological Consequences**

Mental Health Issues (anxiety, depression)
Body Image and Self-Esteem

#### **Social and Economic Consequences**

Stigma and Discrimination

#### **Lifespan and Mortality**

Reduced Lifespan Increased Mortality

#### **Quality of Life**

Mobility Issues
Impact on Physical Activity

# NOVO NORDISK

Novo Nordisk is a leading global healthcare company, founded in 1923 and headquartered in Denmark

As a global healthcare leader, Novo Nordisk is at the forefront of addressing chronic diseases, with a particular focus on diabetes and obesity. Founded on a century of innovation and dedication, the company's vision extends beyond drug development to fundamentally change the diseases' trajectories

Novo Nordisk's approach is holistic, aiming to drive societal and healthcare transformations by increasing disease awareness, improving patient care, and challenging the stigma surrounding obesity. By leveraging cutting-edge technology and forging strategic partnerships, Novo Nordisk aspires to create a future where chronic diseases like obesity are no longer barriers to living full, healthy lives

> million people living with diabetes and obesity reached

232,261

DKK million in **DKK million** operating profit in net sales

102,574

68,326 DKK million in free cash flow

64,319

employees worldwide 80

countries with

affiliates

countries with R&D facilities

- Global Headquarters Denmark
- 5 Regional Headquarters China, Japan (Japan & Korea), Switzerland (Europe and IO), US
- 5 Strategic Production sites Brazil, China, Denmark, France, US
- 3 Strategic R&D centres China, Denmark, US

Novo Nordisk is the largest player in the Obesity Medications market in Obestria.

The objective is to cement its leading position and stay ahead of competition. The strategy in Obestria is aligned with Novo Nordisk's global corporate strategy and the 2025 strategic aspirations.

# **THREATS**

#### FOR NOVO NORDISK

## Innovation and Technological Advancements:

Novo Nordisk faces the challenge of innovating and effectively integrating new technologies into its offerings to enhance the patient experience and treatment outcomes.

#### **Regulatory and Compliance Challenges:**

Pharmaceutical regulations in various markets, including the hypothetical Obestria market, pose a significant challenge by requiring solutions to focus on this hypothetical market and avoid branded medicinal products.

#### **Market Competition and New Entrants:**

Novo Nordisk faces increasing competitive pressure in the FMCG sector due to diverse players entering the market, requiring differentiation to maintain leadership and stay ahead of the competition.

## **Changing Healthcare and Patient Behaviors:**

Emerging trends in patient behavior, such as increasing demand for personalized and consumer-like healthcare experiences, require Novo Nordisk to adapt its strategies.

#### **Economic and Financial Implications:**

The financial performance and investment in research, development, and market expansion are crucial. Novo Nordisk must manage its financial resources efficiently to support growth in the obesity medications market

#### **Societal and Cultural Shifts:**

The evolving narrative around obesity, from stigma to recognition as a complex, multifaceted chronic disease, requires Novo Nordisk to engage in public health messaging, patient education, and advocacy.

# STRATEGY PILLARS

**AWARENESS** 

COLLABRATIONS & PARTNERSHIPS

TECH & DIGITAL TRANSFORMATION

SUSTAINABILITY

# 1. AWARENESS

#### Why need of awareness?

- Obesity is not solely caused by overeating or poor diet; other factors can contribute significantly.
- Address the common misconception that merely increasing normal activities can lead to significant weight loss, which may not be effective for everyone due to the underlying causes of their obesity.

#### Causes that people should be aware of regarding weight reduction in awareness campaigns

- Diabetes ,Cessation of Smoking,
   Hypothalamic Obesity ,
   Hypothyroidism,Physical Inactivity
   etc
- Find the importance of understanding the specific cause of one's obesity to tailor the most effective treatment and weight loss strategy.
- Recommend a comprehensive health checkup to determine the underlying cause(s) of obesity.
- Emphasize that a proper diagnosis can guide more effective, personalized treatment plans for weight management.
- Awareness should also spread knowledge that including more fibre into one's diet might improve gut health and lower cholesterol.

The government has an important role in campaigns, and campaigns should take place at the national level, such as in legislative offices, schools, societies, and television.

#### **Empathy Walks**

Organize nationwide "Empathy Walks" where participants can join guided walks wearing weighted vests or suits designed to simulate the physical experience of obesity.

Pair these walks with health fairs that offer free screenings, consultations, and educational workshops on nutrition, physical activity, and mental health.



# 2. COLLABRATIONS & PARTNERSHIPS

#### **START-UPS**

Novo Nordisk's creation of a
HealthTech Innovation Hub
encourages startup
collaboration to pioneer
digital health solutions,
leveraging AI and wearable
tech for obesity management,
promising new revenue
streams and solidifying its
digital health leadership
through startup agility and
innovation.

#### HEALTH INSTITUTIONS

By forming Integrated Care
Partnerships with health
institutions Aand hospitals,
Novo Nordisk integrates its
obesity treatments into
comprehensive care models,
enhancing patient outcomes
through holistic approaches
and strengthening
relationships with healthcare
providers, driving increased
product use.

#### **SCHOOLS**

Novo Nordisk can initiate a collaborative program with schools to make sports activities a compulsory part of the curriculum, earning students credits. This initiative, aimed at combating child obesity, leverages research showing physical activity's positive impact on children's health, fosters partnerships with educational institutions, and demonstrates Novo Nordisk's commitment to public health, enhancing its corporate social responsibility profile.

#### **FMCG SECTOR**

Novo Nordisk will partner with the food sector to introduce new healthy alternatives, addressing the fundamental nutritional requirements of individuals with obesity

When individuals begin their healthy journey, they require an alternative, which might be a wonderful selling product used by patients.

# 3. TECH & DIGITAL TRANSFORMATIONS

# Leveraging AI for better disease insights and predictions:

Novo Nordisk utilizes AI and machine learning to analyze data from clinical trials, real-world evidence, and health records. This aids in predicting disease progression, treatment responses, and identifying new therapeutic targets.

# Virtual Health Coaches & AI-Powered Apps:

Personalized patient engagement through AI-driven platforms offering diet, exercise, and medication adherence programs.

#### **Cost-Efficiency:**

Reducing long-term healthcare costs by improving disease management and patient outcomes through proactive digital interventions.

#### **Scalable Solutions:**

Designed for easy integration into existing healthcare infrastructures, ensuring broad accessibility.

# INNOVATION

#### Microbiome-Optimizing Digestive Tracker (MODT)

The MODT is a wearable device that monitors digestive health and the gut microbiome in real-time, offering personalized dietary recommendations to promote weight loss and improve metabolic health. It leverages non-invasive biosensing technology to analyze gut microbiota and digestive metabolites through the skin

#### **HOW IT WORKS**

#### **Non-Invasive Biosensing:**

The device uses advanced biosensors capable of detecting specific metabolic markers and changes in the gut microbiome through the skin. These biosensors analyze substances like short-chain fatty acids (SCFAs), which are critical for gut health and have been linked to obesity.

#### **Integration with Smart Devices:**

The MODT can be seamlessly integrated with other smart health devices and apps, allowing for comprehensive health tracking and management. It can sync with fitness trackers to adjust dietary recommendations based on physical activity levels and with smart kitchen appliances to suggest recipes and meal plans.

#### **AI-Powered Analysis**:

Data collected by the biosensors is processed by an AI algorithm that interprets the gut microbiome's composition and its metabolic by-products. This AI considers the user's dietary intake, physical activity, and physiological data to provide personalized feedback.

#### **Personalized Dietary Recommendations:**

Based on the AI analysis, the MODT app generates personalized dietary recommendations aimed at optimizing the gut microbiome for weight loss and improved metabolic health. These recommendations are designed to encourage the growth of beneficial gut bacteria linked to lean body mass and improved glucose metabolism.

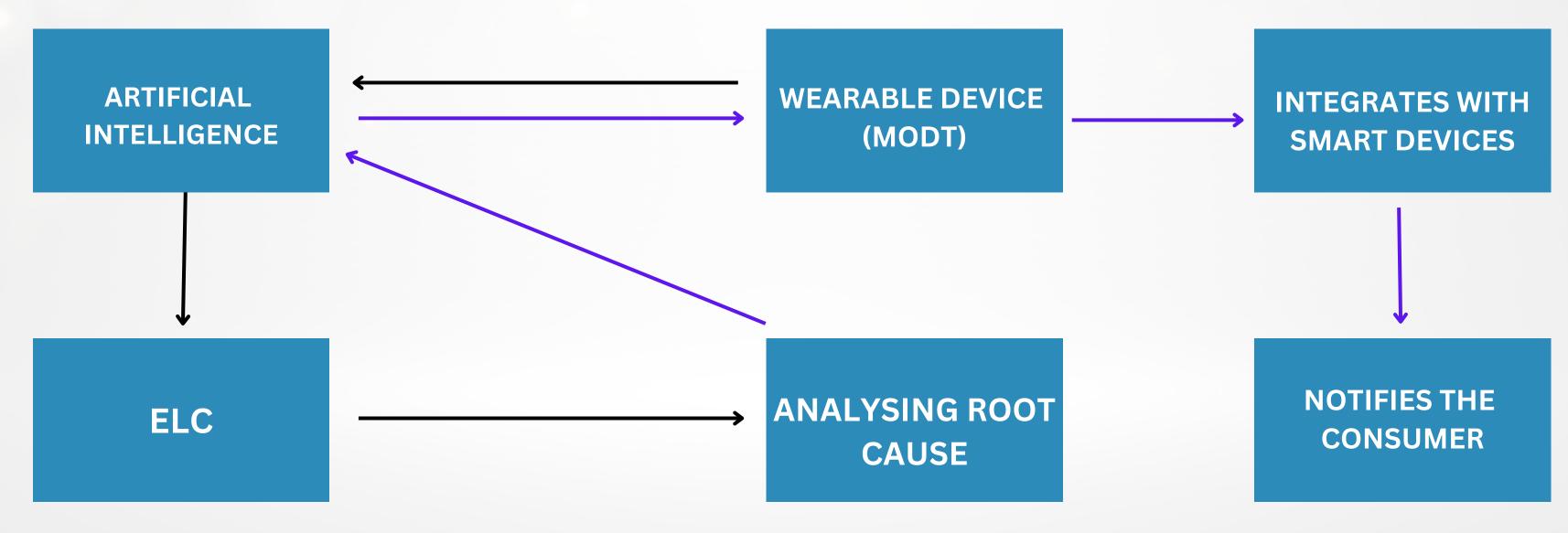
#### **Innovative Features:**

Real-Time Gut Health Monitoring
Dynamic Dietary Adjustments
Educational Component

#### Epigenetic Lifestyle Coach (ELC)

The ELC system is a personalized health platform that combines wearable technology, real-time data analytics, and epigenetic profiling to provide customized lifestyle recommendations aimed at reversing epigenetic markers associated with obesity.

OMEGA Therapeutic platform in collaboration with Novo Nordisk (who is also working in the field of epigenetics) enables control of fundamental epigenetic processes to correct the root cause of disease by returning aberrant gene expression to a normal range.



Similar to a product such as an insulin pen introduced by Novo Nordisk earlier

# 4. SUSTAINABILITY

#### Why need of sustainability

- Progress towards zero environmental impact
- Being respected for adding value to society
- Being recognised as a sustainable employer

Novo Nordisk aims for zero environmental impact by 2030, focusing on eliminating CO2 emissions from operations and transport, and implementing water conservation and waste management, while investing in renewable energy like wind power.

A Multi-Dimensional Obesity Care

Create a multi-dimensional obesity care ecosystem that integrates digital health technologies, community-based programs, and personalized medicine to revolutionize the treatment experience for People with Obesity (PwO).

Eco-Friendly Packaging and Drug Delivery Systems

Develop biodegradable and reusable drug packaging and delivery systems for obesity medications. Introduce a return and refill program for certain drug delivery devices, such as insulin pens, to reduce waste.



