Unlocking the full value of GLP-1s for people, health systems and society

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Glucagon-like peptide-1 receptor agonists (GLP-1s) represent a class of therapeutics with the potential to advance public health and drive societal value. Initially developed for managing type 2 diabetes, GLP-1s rapidly demonstrated efficacy in promoting weight loss[1]. Some long-acting GLP-1s have also been shown to reduce the risk of heart attack, stroke and all-cause mortality in individuals with, or at risk for, cardiovascular disease (CVD)[2–4]. Emerging evidence further highlights the potential of some long-acting GLP-1s to lower the incidence of kidney and cardiovascular (CV) complications in high-risk populations[5] as well as reduce the severity of sleep apnoea[6].

By addressing multiple facets of chronic disease management, GLP-1s offer a pathway to unlock benefits for:

The potential for impact

One in three adults globally live with multiple chronic conditions[15], and the numbers are set to double over the next few decades[16–18]. GLP-1s have the potential to address the significant and interconnected global burden of chronic diseases such as type 2 diabetes, obesity and CVD[1,19].

DIABETES

> 500 million

people globally live with diabetes, mostly type 2 diabetes*[16]

x2 This number will more than **double** to 1.31 billion by 2050[16].

Every five seconds, someone dies due to type 2 diabetes, and global diabetes healthcare expenditure is estimated at USD 966 billion[20].

OBESITY

> 1 billion

people† globally live with obesity[17]

x2 This number will almost **double** to 1.9 billion by 2035[17].

High body mass index (BMI) causes 5 million deaths yearly and costs USD 1.96 trillion[21].

CVD

598 million

people live with CVD[18]

x2 This number will nearly **double** to 1.14 billion by 2050[18].

CVD is the leading cause of death globally, causing one in three deaths, and is the most costly chronic disease, constituting up to 21% of national health expenditures[22,23].

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* The estimate is as per 2021.

† Includes adults and children.

Unlocking value for people living with **chronic diseases**

Chronic diseases such as obesity, type 2 diabetes and CVD can impact daily living and quality of life. They can limit physical function, compromise mental well-being and reduce overall quality of life[24–26]. Moreover, these conditions lead to a shorter life expectancy. For example, obesity can cut life expectancy by an average of four years over the age of 40[27], while type 2 diabetes can reduce life expectancy by 2–12 years[28].

Healthier lives

GLP-1s offer a pathway to enhanced health outcomes for individuals with type 2 diabetes and obesity[29,30]. Compared to non-GLP-1 medicines, GLP-1s have been associated with significantly greater improvements in mental and emotional health[7,31]. Studies have shown that GLP-1 therapies improve quality of life by[‡]:

- improving emotional well-being[8]
- reducing symptoms of depression[8,31]
- improving physical functioning by enhancing mobility and self-care in people with type 2 diabetes[7,8,32]

GLP-1 therapies can deliver holistic benefits – driving weight loss while boosting psychosocial well-being, physical function and CV health[7–9].

People living with obesity and taking long-acting GLP-1s reported improved physical functioning compared to those on diet and exercise alone[32].

[‡] GLP-1s are not approved for the treatment of depression and other mental health or emotional issues and should only be used as prescribed by a qualified medical doctor.

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Unlocking value for **health systems**

Global healthcare spending has been on a steady upward trajectory over the past few decades – and this trend shows no signs of slowing[33]. With worldwide expenditure projected to surge from USD 10.2 trillion in 2021 to 15.9 trillion by 2050, healthcare will soon command an even larger share of many countries' budgets[33]. As spending rises, enhancing system efficiency becomes critical to managing resources and delivering sustainable, quality care[34]. GLP-1s have been shown to **reduce health complications significantly, as well as the number of hospital visits and duration of hospital stays**, which are major burdens on healthcare systems[10–13].

Reduced disease burden and healthcare resource utilisation

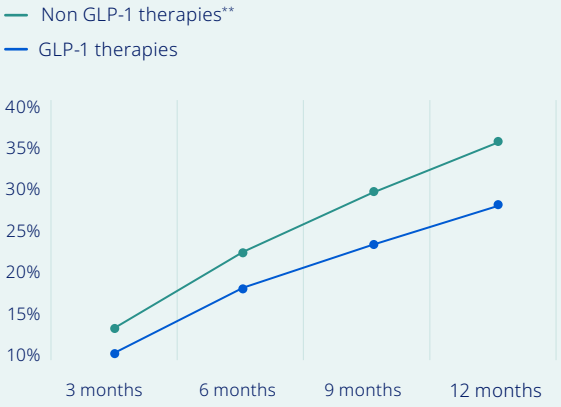
Historically, diabetes treatment has primarily concentrated on blood glucose control. However, recent international guidelines advocate for a holistic approach that encompasses overall health[35–39]. This includes addressing comorbidities, serious CV issues, kidney disease and weight management, in addition to managing blood glucose levels[37–39].

A modelling study of the UK population with type 2 diabetes has demonstrated that managing diabetes according to clinical guidelines and considering overall health could lead to significant savings in the health, social and personal burdens associated with diabetes-related complications[12]. From 2023 to 2040, a holistic treatment approach is estimated to result in **a cumulative reduction of 171,000 hospitalisations, 1.32 million fewer bed days and a direct healthcare cost reduction of GBP 1.68 billion** (USD 2.1 billion)[§], compared to managing diabetes solely based on blood glucose levels[12].

GLP-1s in a holistic treatment approach for type 2 diabetes can reduce complications and healthcare utilisation[28]

A US study involving people with type 2 diabetes and CVD revealed that 20% fewer patients with both conditions required hospitalisation for any reason when taking GLP-1s compared to those on non GLP-1 therapies[**13]. In addition, patients not receiving GLP-1s had longer overall hospital stays, with an average hospital stay that was 17% longer per admission compared to the GLP-1 group[13].

GLP-1s can reduce all-cause hospitalisations for people with type 2 diabetes and CVD compared to non-GLP-1 therapies[13]



Note: The graph shows the cumulative hospitalisation rate over 12 months. The time points indicate the proportion of patients hospitalised at each stage after starting treatment with GLP-1s or compared to non-GLP-1 therapy.

In the US[40], where more than 90 million adults living with overweight or obesity are eligible for GLP-1 treatments, **widespread use could reduce prevalence by nearly half (45%), translating to 43 million fewer individuals living with obesity**. Over a decade, this reduction could prevent up to 1.5 million CV events, significantly alleviating the clinical and economic burden of obesity and CVD[††40].

§ Converted from GBP 1.68 billion at a conversion rate of GBP 0.81 per USD 1.

** Any anti-diabetic medication other than GLP-1.

†† The study used data from 3,999 people (NHANES 2015–18) to model the effects of semaglutide over 10 years.

Unlocking economic growth for **society**

Population health is the foundation of a prosperous society. **When people are healthy, they work, innovate and drive economic growth**[41]. Historical data reveal that public health improvements have contributed to roughly one-third of economic growth in advanced economies over the past century[14]. In contrast, poor health comes at a steep price – not only in terms of direct healthcare expenses but also through lost productivity and reduced workforce performance[42].

Today, poor health is estimated to reduce global GDP by 15% annually[14]. The McKinsey Global Institute estimates that **improving population health could significantly reverse this trend, adding up to USD 12 trillion to global GDP by 2040**[14]. This potential growth stems from increased productivity and a larger, healthier workforce[14].

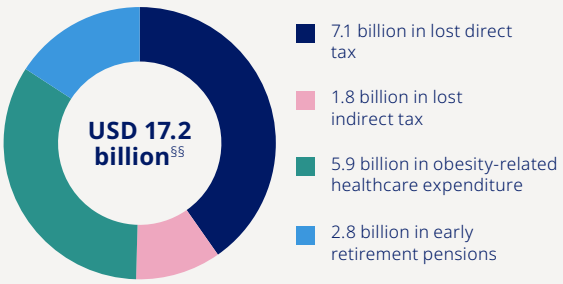
Many institutes have recently alluded to the positive impact GLP-1 could have on unlocking value for society through reducing the economic burden and releasing productivity[14,43–45]. In the future, this potential promise should be further monitored, investigated and scientifically documented.

The impact of obesity prevalence on fiscal balance

The economic burden of chronic diseases can strain government budgets through lost tax revenues, increased social benefits and healthcare spending[46,47]. **Even modest reductions in obesity can yield millions in fiscal returns** by increasing workforce participation and enhancing tax revenues that could be allocated to public health programmes aimed at further reducing obesity rates, such as preventative healthcare services, nutrition education or other community initiatives, or could fund system capacity and thereby creating a positive feedback loop.

Canada[46]

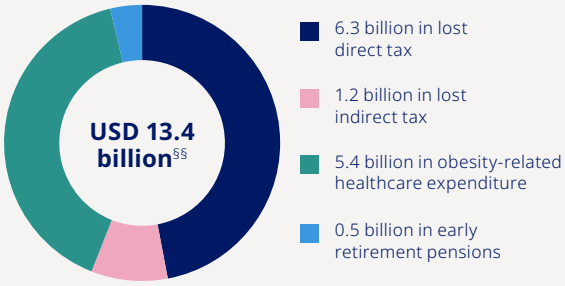
In Canada, where 25.6% of the population lives with obesity, the annual fiscal burden is estimated at USD 17.2 billion (CAD 22.9 billion)[‡‡]:



A 1% reduction in the prevalence of obesity could yield annual net gains of USD 127 million[46], equal to the annual salaries of over 2,100 registered nurses in Canada[*48].**

Japan[47]

Although Japan has a relatively low obesity prevalence by international standards, the fiscal impact of overweight and obesity (BMI ≥ 25)[†††] is estimated at USD 13.4 billion (JPY 1.92 trillion) annually[‡‡‡]:



Every 1% reduction in the prevalence of overweight and obesity could result in net fiscal gains of USD 629 million annually[47], equal to the annual salaries of approximately 15,000 nurses in Japan[§§§49].

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‡‡ Conversion rate CAD 1.33 per USD 1.

§§ The individual cost components presented do not add up exactly to the total fiscal burden due to rounding adjustments and additional unlisted factors.

*** Based on the average annual salary for a registered nurse (5–10 years' experience) in Canada, which is approximately CAD 80,000[48].

††† In Japan, obesity is defined as BMI ≥ 25, whereas the World Health Organization (WHO) typically defines obesity as BMI ≥ 30.

‡‡‡ Conversion rate JPY 143.02 per USD 1.

§§§ Based on the average annual salary for a registered nurse (8–10 years' experience) in Japan, which is approximately JPY 6,000,000[49].

Looking ahead

The future of managing chronic diseases depends on innovative and comprehensive solutions. **GLP-1s are changing the way we approach chronic diseases, offering value for people, health systems and society as a whole**. They have already demonstrated clinical benefits across a spectrum of metabolic and CV conditions, and further research is evaluating other potential benefits. Continuous monitoring and learning from real-world experience will help harness the full potential of GLP-1s to benefit various populations and will ensure that opportunities can be effectively leveraged and scaled.

As the global prevalence of chronic diseases continues to increase, **investing in GLP-1 therapies offers a strategic opportunity to improve the lives of millions worldwide and promote long-term economic growth**.

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