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World Health Organization Guideline on the Use and Indications of Glucagon-Like Peptide-1 Therapies for the Treatment of Obesity in Adults

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Abstract

Importance Obesity is a chronic, relapsing disease affecting over 1 billion people worldwide, driving substantial morbidity, mortality, and economic burden. Glucagon-like peptide-1 therapies (GLP-1 therapies) provide clinically meaningful weight loss and broad metabolic benefits. In response to Member State requests, the World Health Organization (WHO) has issued guidelines for adults living with obesity.

Observations The guidelines recognize obesity as a chronic, relapsing disease requiring lifelong care and emphasize early diagnosis and integrated, person-centered approaches combining behavioral, medical, surgical, and other interventions alongside prevention and management of comorbidities. WHO recommends long-term GLP-1 therapies combined with intensive behavioral therapy to maximize and sustain benefits. Both recommendations were graded *conditional*, reflecting that GLP-1 therapies—with or without behavioral therapy—are effective, but limited long-term data, cost, system readiness, equity, variability in patient priorities, and context-specific feasibility remain

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centered, nondiscriminatory, and universally accessible. Given the time required to implement these measures, a priority is a transparent, equitable, evidence-based framework to identify those at highest need while allowing incremental expansion of eligibility as access, capacity, and readiness evolve; this will be the next focus of the WHO guideline.

Conclusions and Relevance Medication alone cannot solve the global obesity burden. The availability of GLP-1 therapies should galvanize the global community to build a fair, integrated, and sustainable obesity ecosystem. Countries must ensure equitable access not only to comprehensive disease management, but also to health promotion and prevention policies and interventions targeting the general population and those at high risk.

Introduction

Obesity as a global public health issue is a relatively recent but growing problem for all countries. Obesity arises from a set of complex interactions in individuals including genetics, neurobiology, and eating behaviors, as well as obesogenic environments resulting from shifts in diet, activity, and lifestyle alongside globalization and industrialization of food production and marketing.

Defined by the World Health Organization (WHO) as a chronic and relapsing disease, obesity is an increasing public health challenge with over 1 billion people affected and with cases rising in almost every country in the world.[1] In 2024, there were 3.7 million obesity-related deaths from noncommunicable diseases, representing 12% of all deaths due to noncommunicable diseases worldwide.[2,3] Global costs are predicted at US $3 trillion per year by 2030 and in a country with obesity prevalence rates of 30% the disease could absorb up to 18% of national health expenditure.[4]

Initially developed for the treatment of people with diabetes, glucagon-like peptide-1 (GLP-1) therapies and related medications have emerged as an important innovation in addressing the global obesity challenge, offering benefits that extend beyond individual clinical outcomes. By targeting mechanisms that reduce appetite and enhance satiety along with other physiologic effects, these agents provide an important complementary treatment to traditional behavioral interventions for managing obesity. The advent of these medicines represents a tipping point in the treatment of obesity, its complications, and related comorbidities.[5-7]

Following the approval by several regulatory authorities, and in response to requests from Member States, WHO publishes today an evidence-informed guideline on the use of GLP-1 therapies in the

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current evidence base, details the development process, and distills the implications for expanding equitable access to these medications while shaping a more comprehensive ecosystem for obesity management.

GLP-1 Therapies

GLP-1 therapies were initially approved in 2005 by the US Food and Drug Administration (FDA) for the treatment of type 2 diabetes, based on their ability to enhance glucose-dependent insulin secretion and suppress glucagon.[9] By 2015, increasing evidence of their central nervous system effects—particularly in hypothalamic pathways regulating appetite, promoting satiety, and delaying gastric emptying—and related weight loss led to the approval of liraglutide 3.0 mg for chronic weight management.[5]

Since then, the clinical potential of GLP-1 therapies has expanded. Recent trials, systematic reviews, and translational research have demonstrated therapeutic benefits for major cardiovascular events, heart failure with preserved ejection fraction, diabetes prevention, systolic blood pressure and LDL cholesterol, obstructive sleep apnea, peripheral artery disease, kidney diseases, metabolic dysfunction–associated steatohepatitis, and neurodegenerative diseases.[10-18]

As of October 2025, 12 GLP-1 therapies have been approved for indications in type 2 diabetes and/or obesity, while over 40 agents—including multireceptor agonists—are in active development across various indications and with different formulations.[19,20]

WHO Guideline on the Use of, and Indications for, GLP-1 Therapies for Management of Adults Living With Obesity

Since 2009, WHO has continually evolved its guideline development process to remain rigorous, transparent, and adaptable to diverse contexts. Using the GRADE approach, evidence is assessed together with values, preferences, feasibility, and equity. Multidisciplinary guideline development groups (GDGs) weigh all elements of the GRADE assessment to shape recommendations that are inclusive, applicable across settings, and robust. Each guideline is reviewed by the Guidelines Review Committee and external experts, with input from public consultation.

This WHO guideline on the use and indications of GLP-1 therapies for adults living with obesity is grounded in the recognition of obesity as a chronic, relapsing disease that requires lifelong care. It emphasizes the importance of early diagnosis and the need for integrated, person-centered approaches that combine behavioral, medical, surgical, and other interventions, alongside the prevention and management of obesity-related comorbidities.

Within this framework, WHO recommends the long-term use of GLP-1 therapies for adults living with

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semaglutide, and tirzepatide,[10-12] the GDG opted to consider GLP-1 therapies as a class. In a second recommendation, WHO also recommends pairing pharmacotherapy with intensive behavioral therapy (IBT), including structured goal setting for physical exercise and diet, energy intake restriction, weekly counseling sessions, and routine assessments of progress. IBT represents a component of a comprehensive multimodal care approach and can amplify and sustain the therapeutic benefits of the medication.

Box. World Health Organization Guideline on the Use and Indications of Glucagon-Like Peptide-1 (GLP-1) Therapies for the Treatment of Obesity in Adults

Good Practice Statement 1

> Obesity is a chronic disease requiring lifetime care. This should include screening, early diagnosis and management of obesity-related complications and comorbidities, and consideration of pharmacological, surgical, or other treatments to manage the disease and prevent or treat comorbidities.

Recommendation 1

In adults living with obesity, GLP-1 therapies may be used as a long-term treatment for obesity. **(conditional recommendation, moderate certainty evidence)**

Good Practice Statement 2

> People living with obesity should receive context-appropriate counseling on behavioral and lifestyle changes—including, but not limited to, physical activity and healthy dietary practices—as an initial step toward more structured behavioral interventions. For individuals who are prescribed GLP-1 receptor agonists or GLP-1/glucose-dependent insulinotropic polypeptide (GIP) dual agonists, counseling on behavioral and lifestyle changes should be provided as a first step to intensive behavioral therapy to amplify and support optimal health outcomes.

Recommendation 2

In adults living with obesity who are prescribed GLP-1 therapies, intensive behavioral therapy may be provided as part of a comprehensive multimodal clinical algorithm. **(conditional recommendation, low certainty evidence)**

Both recommendations were graded as conditional, indicating that the desirable consequences do not clearly outweigh the undesirable ones from patient, clinical, and public health perspectives. In this guideline, the effectiveness of GLP-1 therapies—with or without IBT—for treating obesity and

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with the high current cost of GLP-1 therapies, inadequate health system preparedness, and potential equity implications, reduced the GDG's confidence that the benefits of this intervention clearly outweigh its undesirable attributes.

For the second recommendation conditionality was attributed to the low certainty evidence of IBT enhancing the efficacy of GLP-1 therapies across tirzepatide, semaglutide, and liraglutide as well as variability in patient weight outcome priorities, potential health equity impacts, and context-specific feasibility and cost of delivering IBT.

As introduced above, WHO developed this guideline with the advice of a GDG composed of experts from the fields of obesity, epidemiology, clinical management, pharmacology, health economics, public health programs, and policymaking. The GDG included individuals whose lived experiences with obesity provided critical insights into the need for clarity around indications, values and preferences, and equitable access. The guideline development followed WHO's established standards, grounded in the principles of evidence-based recommendations using GRADE methodology to assess the quality and certainty of evidence and strength of recommendations. Robust procedures to manage potential conflicts of interest ensured independence and credibility.

The process also included a structured evidence-to-decision framework, which supported the panel's deliberations around benefits and harms, the values and preferences of interest holders, resource use and cost-effectiveness, health equity, acceptability, and feasibility. This approach enabled the development of recommendations that are globally relevant, context-sensitive, and scalable, while maintaining scientific and ethical rigor.[23]

The GDG also considered key implementation challenges, recognizing that effective chronic obesity care requires strong health systems that are dependent on adequate workforce training, supply chains, and referral systems. Financial coverage under universal health care and national insurance schemes is also deemed essential to ensure affordability and equity. Research priorities to inform the evolution of the living guideline were also agreed upon as follows: evaluating long-term effects of GLP-1 therapies on kidney disease, cognition, addiction, and quality of life, assessing cost-effectiveness and delivery models, identifying predictors of individual treatment response, and, finally, understanding impacts of initiation, titration, maintenance, and discontinuation on body composition and health outcomes.

The status of intellectual property and global access to GLP-1 therapies was also assessed, with technical input from the Medicines Patent Pool (covering patent landscape, current pricing, and availability across low-, middle-, and high-income countries). The GDG deliberations and draft recommendations informed the inclusion of GLP-1 therapies in primary care on the WHO Model List of Essential Medicines, specifically for a subgroup of high-risk individuals living with obesity, type 2

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The Challenge of Ensuring That Medication Reaches Those Who Need It

The burden of obesity currently stands at over 1 billion people and is projected to rise to 2 billion by 2050.[2-4] The challenge of unmet need and the imperative for scale are not confined to high- or low-income countries alone but are universal.

An inclusive implementation of this guideline depends critically on 3 key factors: first, the achievement of more widespread and fair access to affordable GLP-1 therapies; second, the readiness of health systems to deliver high-quality obesity care that integrates these therapies along with behavioral therapy effectively; and third, and most importantly, the assurance that such care is person-centered, nondiscriminatory, and oriented toward universal access, ensuring that all individuals in need are reached.[25]

This triple challenge—production capacity and availability and affordability, health system preparedness, and person-centered universal access —confronts the global health community not only as a technical problem but as a profound equity dilemma that lies at the very heart of global public health and the pursuit of health for all.

Even under the current highest projected scenario, the production of GLP-1 therapies could only cover around 100 million people.[26-28] While significant, this number represents less than 10% of people currently living with obesity.[2-4] Addressing this unprecedented scale of need requires new and ambitious approaches that enable action while building the foundations for an integrated global obesity management ecosystem.

High costs, limited production capacity, and supply-chain constraints remain major barriers to universal access to GLP-1 therapies. Following their addition to the WHO Model List of Essential Medicines for the highest-risk populations, WHO is considering prequalification to facilitate broader availability. However, creating a global access ecosystem will require collaboration among public and private partners, including generic manufacturers, particularly as the semaglutide patent expires in 2026. Strategies such as enabling generic production, pooled procurement, tiered pricing, voluntary licensing, and local manufacturing will be critical. Emerging formulations, including oral GLP-1 therapies, may further improve production, distribution, and access by simplifying production, logistics, and storage.[29]

Effective and inclusive delivery also requires integration into primary care–based chronic care platforms. Key elements include training health care providers, establishing patient registries and referral pathways, strengthening procurement and cold-chain systems, and implementing robust monitoring frameworks. Digital tools and telehealth can further support adherence, follow-up, and patient empowerment, while engaging people living with obesity ensures culturally appropriate,

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Given the time required to implement these measures, an urgent priority is a transparent, equitable, and evidence-based approach to prioritization. This framework should guide identification and selection of those at highest need, within current supply and health system constraints, and allow for incremental expansion of treatment eligibility as access, capacity, and readiness evolve. This will be the next area of focus of the WHO guideline when the GDG group meets in early 2026. At this time, the group will support WHO in defining what and *how* of prioritization—stratifying people with obesity by risk related to severity of the disease and comorbidities (such as diabetes, hypertension and cardiovascular risk, and other metabolic conditions), and expected efficacy across health outcomes. In addition, as the cost-effectiveness of this class of medicines on the overall burden of obesity to the individual, health systems, and societies is still unproven across global settings, WHO will support Member States in a cost-effectiveness analysis for the global population currently living with obesity and for the high-risk subgroup that the next phase of the guidelines will identify. The GDG will also review the emerging evidence for managing GLP-1 therapies discontinuation, titration, maintenance or replacement, and clinical and programmatic-related implications. Finally, the emerging area of multimodal clinical algorithm components in addition to IBT such as therapeutic nutrition, the use of food as medicine, and surgery to enhance the effectiveness of this class of medicines will also be considered.

While the introduction of this class of therapeutic agents is critical at this stage, selective and targeted treatment with medication alone cannot solve a crisis of this scale. What is needed is a comprehensive, system-wide response addressing prevention, care, and the underlying determinants of obesity.

Toward a New Obesity Management Ecosystem

GLP-1 therapies mark more than a scientific breakthrough. They represent a new chapter in the gradual conceptual shift in how society approaches obesity—from a "lifestyle condition" to a complex, preventable, and treatable chronic disease. This promise of effective treatment can catalyze the broader transformation needed to build an integrated ecosystem that redefines health promotion, disease prevention, and care with a focus on equity.

The first urgent step is shifting from risk factor control to comprehensive disease management, using therapeutic innovation as a catalyst to alter the epidemiological trajectory of obesity and related noncommunicable diseases through large-scale chronic care.

By targeting metabolic, neuroendocrine, and behavioral pathways, GLP-1 therapies address a broad set of morbidities beyond obesity and provide a pharmacological foundation for a multidisciplinary care model. Large-scale, long-term programs that embed obesity treatment alongside prevention and care interventions within existing service platforms, guided by primary health care and a life-

conditions that threaten health system capacity.

However, building a broader obesity ecosystem requires more than individual therapies or large-scale chronic care programs. Countries must ensure equitable access not only to comprehensive disease management, but also to health promotion and prevention policies and interventions targeting the general population and those who are at high risk. Achieving this requires a long-term, integrated framework of system-level interventions, pathways, and commitments, designed so that all components of the ecosystem reinforce and amplify one another. While each element of this transformation is well known on its own, meaningful change will occur only when they are implemented together in a coordinated and mutually supportive manner.

Starting with the concept of power sharing and collective responsibility, the elements of the ecosystem will include improved understanding of the underlying causes of obesity including social, commercial, and environmental determinants and the genetic, metabolic, and biological drivers. In tandem with equitable and sustainable health system–led approaches, upstream solutions that address the social determinants of obesity such as food systems, urban design, and economic inequities must be incentivized to achieve lasting, systemic change.

Embedding obesity prevention and treatment within universal health coverage frameworks, primary care benefit packages, national insurance plans, and other financial coverage schemes will be essential to ensuring equitable access across populations and settings. In parallel, large-scale medicine distribution mechanisms must be leveraged to ensure that interventions reach all those in need fairly and a robust platform is built to integrate innovations as they enter the market. Most importantly, the programmatic introduction of these therapies and emerging innovations will require a strong focus and investment on the core functions of health systems.

Sustaining progress will require a scientific research landscape empowered to develop next-generation therapies and combination treatments that are not only effective but also acceptable, feasible, and affordable. Building robust, agile collaborations among people living with obesity and comorbidities, health care providers, researchers, industry, and policymakers will enable real-time course correction of innovation strategies, ensuring they remain impactful and responsive to evolving needs. The ecosystem will need clear targets embedded by design and transparent tracking mechanisms along with interconnected platforms that facilitate data sharing and dissemination of best practices to drive improvement.

People living with the disease must be positioned as co-creators of their own health journeys, ensuring care models are person-centered by design. Engaging communities, educators, media, workplaces, and industry as equally responsible partners will foster collective accountability and reshape social narratives and environments that underpin health.

anticipatory governance.

Though their contribution to establishing the conditions for change, the availability of GLP-1 therapies must also now galvanize the global health community to build the new ecosystem needed to offer fair, integrated, and sustainable solutions—embracing pharmacological innovation to deliver a wider and more holistic system transformation.

The publication of the WHO guideline marks a first step, and, with this, WHO issues a global call to all Member States and other stakeholders to join forces in a shared endeavor to stall the epidemiological trajectory of obesity and associated noncommunicable diseases and reboot the system.

A system that, above all, must ensure that services to prevent, treat, and manage the disease are universally available, accessible, affordable, and sustainable. Effective management and reversal of obesity across all ages, with early, sustained intervention to reduce and possibly eliminate related comorbidities, is now a realistic prospect. The way societies respond to this opportunity will determine whether this is truly the dawn of a new more equitable era or a missed opportunity to record a historic global health success story.

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Correction: This article was corrected on December 22, 2025, to fix the year of the projected increase in obesity to affect 2 billion people, updated from 2030 to 2050.

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