

# Strengthening the establishment of weight management centres and clinics, empowering the construction of a Healthy China

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## Executive Summary

In recent years, the prevalence of overweight and obesity has significantly increased both globally and in China, becoming a major public health concern and drawing the attention of the international community. According to predictions from the World Obesity Atlas 2024<sup>1</sup>, nearly 3.3 billion adults may be affected by 2035, up from 2.2 billion in 2020. In 2020<sup>2</sup>, 50% of adults in China were overweight or people with obesity, making China the second highest globally after the United States. Overweight and obesity are major risk factors for a range of chronic and metabolic diseases<sup>3</sup>, many of which contribute significantly to mortality rates. Furthermore, these conditions can lead to a reduction in labour force participation, lower family income, and are associated with declining fertility rates<sup>4</sup>. The World Obesity Atlas 2024<sup>5</sup> predicts that without intervention, the global economic impact of overweight and obesity will reach USD 3 trillion annually by 2030. In China, the economic burden is forecasted to hit RMB 418 billion by 2030, representing 22% of the country's total health expenditure<sup>6</sup>. In response, international organizations and the Chinese government have increasingly focused on addressing overweight and obesity issues. Policies and strategic initiatives have been introduced to promote obesity prevention and management. Since 2021, the World Health Organization (WHO) has issued several important documents, including the "Draft Recommendations for the

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1 World Obesity Atlas 2024. World Obesity Federation. <https://www.worldobesity.org/resources/resource-library/world-obesity-atlas-2024>

2 Disease Prevention and Control Bureau of the National Health Commission. *Report on Nutrition and Chronic Diseases of Chinese Residents (2020)*. 2021

3 Obesity is a major risk factor for chronic non-infectious diseases such as type II diabetes, cardiovascular diseases, respiratory diseases, various types of cancers<sup>3</sup>, and depression.

4 Liu, Y. Ma, Y. Preconception assessment and pregnancy management of obese patients. *Journal of Practical Obstetrics and Gynecology*. 2023;39(5):347-350. Accessed March 14, 2025. <https://d.wanfangdata.com.cn/periodical/syfckzz202305010>

5 World Obesity Atlas 2024. World Obesity Federation. <https://www.worldobesity.org/resources/resource-library/world-obesity-atlas-2024>

6 Wang Y, Zhao L, Gao L, Pan A, Xue H. Health policy and public health implications of obesity in China. *The Lancet Diabetes & Endocrinology*. 2021;9(7):446-461. doi:[https://doi.org/10.1016/s2213-8587\(21\)00118-2](https://doi.org/10.1016/s2213-8587(21)00118-2)

Prevention and Management of Obesity over the Life Course”, the “WHO Acceleration Plan to Stop Obesity”, and the “Health Service Delivery Framework for Prevention and Management of Obesity”. These guidelines encourage member countries to actively engage in obesity management, adapting their efforts to their healthcare systems. In China, the government has highlighted the importance of preventing and controlling overweight and obesity in the “Healthy China Action Plan (2019-2030)”. In June 2024, 16 departments, including the National Health Commission, jointly launched the “The Weight Management Year Activity Implementation Plan”, identified 2024 to 2026 as *Weight Management Years*. This initiative provides comprehensive guidance on prevention, diagnosis and treatment. In October 2024, the General Office of the National Health Commission officially released the “Obesity Diagnosis and Treatment Guidelines (2024)”<sup>7</sup> to guide health professionals in clinical obesity management. Additionally, the establishment of weight management centres and specialised outpatient clinics is being recognized as a critical component of obesity policy implementation, and calling for further planning and development.

Currently, there are two multidisciplinary approaches to weight diagnosis and treatment adopted internationally and domestically: weight management centres and clinics. Weight management centre is a platform that integrates resources from multiple disciplines, such as gastrointestinal surgery and endocrinology, operating with independent management and accounting structures. Examples include the Metabolic and Weight Management Centre of Columbia University in New York City and the Multidisciplinary Bariatric and Metabolic Surgery Weight Management Mode of Beijing Friendship Hospital, Capital Medical University. These centres typically feature a team of professionals including doctors, nurses, dietitians, psychological counsellors, etc., offering comprehensive services ranging from consultation and diagnosis to surgery and follow-ups. On the other hand, weight management clinics usually are part of the endocrinology and metabolic disease department, primarily focus on lifestyle interventions and internal medicine. Examples include the Obesity Clinic of the University of Tokyo Hospital and the Obesity Comprehensive Treatment Clinic of Zhongshan Hospital, Fudan University, which involve joint consultations with gastrointestinal surgeons when necessary. The development of weight management centres and outpatient clinics in China is still in its early stage. In the future, promoting their growth in public hospitals will be crucial, as it will benefit national health and economic development, hospital management, clinical development, and patient experience, and will support the implementation of obesity policies, advance the

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7 Disease Prevention and Control Bureau of the National Health Commission. *Guidelines for Diagnosis and Treatment of Obesity (2024 Edition)*. 2024. Accessed March 14, 2025. [https://www.gov.cn/zhengce/zhengceku/202410/content\\_6981734.htm](https://www.gov.cn/zhengce/zhengceku/202410/content_6981734.htm)

clinical obesity discipline development, and improve the patient-centred diagnosis and treatment system.

Furthermore, it is recommended that more national policies be established to ensure the professional and standardized development of weight management centers and clinics. These policies should include **adding obesity as a tertiary clinical discipline, the development of specific policies for obesity multidisciplinary treatment, strict quality control for weight management services, and include the treatment of clinical obesity into the reimbursement scope of City Supplementary Insurance, List C and National Reimbursement Drug List.**

Strengthening the establishment of weight management centres and clinics plays an important role in promoting the implementation of weight management in public hospitals and achieving the goals of Healthy China. This requires the joint efforts and cooperation of all sectors of society. Novo Nordisk, as a global leading biopharmaceutical company, focuses on the prevention and treatment of serious chronic diseases such as diabetes and obesity. We hope to persist in deepening our collaboration with the Chinese government, actively share international experiences and offer support for relevant public cooperative projects, to jointly contributing to the realization of the Healthy China 2030 strategy.

# **1. The global prevalence of overweight and obesity has resulted in a significant disease burden**

## **1.1 In recent years, the prevalence of overweight and obesity<sup>8</sup> has surged, becoming a major public health concern that has garnered international attention.**

In 2022, about 159 million children and adolescents, and 879 million adults worldwide were suffering from obesity<sup>9</sup>. According to a prediction by the World Obesity Atlas 2024<sup>10</sup>, nearly 3.3 billion adults may be globally affected by 2035, compared with 2.2 billion in 2020, reflecting an increase from 42% of adults in 2020 to over 54% by 2035. More than half of adults will suffer from overweight or obese in the future.

## **1.2 In China, the issue of overweight and obesity is becoming increasingly severe, with prevalence rates continuing to rise.**

According to 2020 statistics<sup>11</sup>, the overweight and obesity rate of Chinese residents is continuing to rise. The average weight of adult men and women was 69.6 kg and 59 kg, respectively, an increase of 3.4 kg and 1.7 kg compared with results released in 2015. 50% of adults in China were overweight or people with obesity, the second highest in the world after the United States. Other research<sup>12</sup> shows that China's obese prevalence will reach nearly 20% of its total population in 2030.

## **1.3 Overweight and obesity contribute to a significant disease burden, leading to both health complications and economic and social challenges.**

**From the perspective of health damage**, obesity is a major global risk factor for chronic diseases such as type II diabetes, cardiovascular disease, respiratory

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8 Obesity and overweight. WHO. <https://www.who.int/zh/news-room/fact-sheets/detail/obesity-and-overweight> According to the standards of WHO, standards of overweight and obesity for adults herein should be: overweight:  $24 \leq \text{BMI} < 28$ ; obesity:  $\text{BMI} \geq 28$ .

9 NCD Risk Factor Collaboration (NCD-RisC). Worldwide trends in underweight and obesity from 1990 to 2022: a pooled analysis of 3663 population-representative studies with 222 million children, adolescents, and adults. *THE LANCET*. 2024;403(10431):1027-1050. Accessed March 14, 2025.

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(23\)02750-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)02750-2/fulltext)

10 World Obesity Atlas 2024. World Obesity Federation. <https://www.worldobesity.org/resources/resource-library/world-obesity-atlas-2024>

11 Disease Prevention and Control Bureau of the National Health Commission. *Report on Nutrition and Chronic Diseases of Chinese Residents (2020)*. 2021

12 Wang, Y, Sun, M, Yang, Y, etc. *Blue Book on Obesity Prevention and Control in China*. Beijing: Peking University Medical Press; 2019

disease, musculoskeletal disease, various types of cancers<sup>13</sup>, and depression. In addition, obesity is also the metabolic disease causing the most fatalities<sup>14</sup>. In 2019, the number of deaths caused by obesity in the world reached 5 million<sup>14</sup>. In China, overweight and obesity were responsible for 11.1% of deaths related to chronic diseases in 2019, marking a significant increase from 5.7% in 1990<sup>15</sup>.

**From the perspective of social and economic burdens**, obesity leads to a loss of labour force and a reduction in family income, and one of the factors affecting fertility<sup>16</sup>. The World Obesity Atlas 2024<sup>17</sup> shows that, without intervention, the global economic impact of overweight and obesity will reach USD 3 trillion per year by 2030, and will exceed USD 18 trillion by 2060<sup>18</sup>. As per local statistics, the annual medical expenses related to overweight and obesity in China from 2000 to 2009 were approximately RMB 24.35 billion<sup>19</sup>. The economic burden resulting from overweight and obesity is predicted to hit RMB 418 billion by 2030, constituting 22% of China's total health expenditure<sup>20</sup>.

**In summary, to address the growing prevalence of overweight and obesity and reduce the associated health, social and economic burdens, strengthening capacity for weight management and obesity diagnosis and treatment is crucial.**

## **2. International organizations and the Chinese government have paid great attention to overweight and obesity issues, actively launching policies and strategies to strengthen advocacy and implementation of obesity prevention measures**

### **2.1 WHO has issued several initiatives and strategies to systematically guide the implementation of weight**

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13 According to WHO, related cancers include endometrial, breast, ovarian, prostate, liver, gallbladder, kidney, and colon cancers.

14 Nicholas W.S. Chew, Cheng Han Ng, Darren Jun Hao Tan, et al. The global burden of metabolic disease: Data from 2000 to 2019. *Cell Metabolism*. 2023;35(3):414-428. Accessed March 14, 2025. <https://www.sciencedirect.com/science/article/pii/S1550413123000396>

15 Pan XF, Wang L, Pan A. Epidemiology and determinants of obesity in China. *Lancet Diabetes Endocrinol*. 2021;9(6):373-392. doi:[https://doi.org/10.1016/S2213-8587\(21\)00045-0](https://doi.org/10.1016/S2213-8587(21)00045-0)

16 Liu, Y. Ma, Y. Preconception assessment and pregnancy management of obese patients. *Journal of Practical Obstetrics and Gynecology*. 2023;39(5):347-350. Accessed March 14, 2025. <https://d.wanfangdata.com.cn/periodical/syfczz202305010>

17 World Obesity Atlas 2024. World Obesity Federation. <https://www.worldobesity.org/resources/resource-library/world-obesity-atlas-2024>

18 Obesity and overweight. WHO. <https://www.who.int/zh/news-room/fact-sheets/detail/obesity-and-overweight>

19 Qin X, Pan J. The Medical Cost Attributable to Obesity and Overweight in China: Estimation Based on Longitudinal Surveys. *Health Econ*. 2016;25(10):1291-1311. doi:<https://doi.org/10.1002/hec.3217>

20 Wang Y, Zhao L, Gao L, Pan A, Xue H. Health policy and public health implications of obesity in China. *The Lancet Diabetes & Endocrinology*. 2021;9(7):446-461. doi:[https://doi.org/10.1016/s2213-8587\(21\)00118-2](https://doi.org/10.1016/s2213-8587(21)00118-2)

## **management.**

### **2.1.1 Draft Recommendations for the Prevention and Management of Obesity over the Life Course<sup>21</sup>**

In 2021, WHO published the Draft Recommendations for the Prevention and Management of Obesity over the Life Course, covering recommendations for the prevention and management of obesity throughout the life cycle. The Draft proposes that a variety of interventions should be carried out at different stages of obesity, and recommends that corresponding policies be issued in the fields of medical care, catering, social security, the built environment, sports, health propagation, education, etc.

### **2.1.2 WHO Acceleration Plan to Stop Obesity<sup>22</sup>**

At the 75th World Health Assembly in 2022, member states adopted new recommendations for the prevention and management of obesity and approved the WHO Acceleration Plan to Stop Obesity. The programme aims to encourage and support countries around the world to undertake multi-departmental actions for obesity prevention and control, including social production (i.e. food production, marketing and pricing) and health policymaking. The program provides an initial framework for obesity prevention and control for countries around the world, helping them to respond more effectively to obesity issues and achieve obesity prevention and management.

### **2.1.3 Health Service Delivery Framework for the Prevention and Management of Obesity<sup>23</sup>**

In 2023, WHO published the Health Service Delivery Framework for Prevention and Management of Obesity. As part of the WHO Acceleration Plan to Stop Obesity, this Framework aims at implementing the prevention and management of obesity via health service delivery systems. The framework is based on public healthcare, with reference to chronic disease diagnosis and treatment, and integrates obesity prevention and management into existing health service delivery frameworks covering communities and families. In addition, the framework provides recommendations for resource inputs to scale up and sustain services, including training courses and programmes for front-line health workers.

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21 WHO Discussion Paper: Draft recommendations for the prevention and management of obesity over the life course, including potential targets. [www.who.int. https://www.who.int/publications/m/item/who-discussion-paper-draft-recommendations-for-the-prevention-and-management-of-obesity-over-the-life-course-including-potential-targets](https://www.who.int/publications/m/item/who-discussion-paper-draft-recommendations-for-the-prevention-and-management-of-obesity-over-the-life-course-including-potential-targets)

22 World Health Organization. WHO acceleration plan to stop obesity. [www.who.int. Published July 3, 2023. https://www.who.int/publications/i/item/9789240075634](https://www.who.int/publications/i/item/9789240075634)

23 WHO. Health service delivery framework for prevention and management of obesity. [www.who.int. Published 2023. https://www.who.int/publications/i/item/9789240073234](https://www.who.int/publications/i/item/9789240073234)

## 2.2 China has issued several obesity-related policies, guidelines and action plans, with ongoing improvement to the policy framework.

In recent years, overweight and obesity issues have been mentioned in several policy documents. In The State Council Notice on Issuing the 13<sup>th</sup> Five-Year Plan for Health and Wellness Planning<sup>24</sup> in 2017, under the section for chronic disease prevention and control, a step-by-step process for risk assessment and intervention targeting individuals at high risk for chronic conditions such as obesity and overweight was proposed. The Healthy China Action Plan (2019-2030)<sup>25</sup> released in 2019 highlighted interventions for people living with overweight and obesity in areas like dietary management, national fitness, maternal and child health, and disease management. Simultaneously, it included related public outreach programs in the key tasks of the Healthy China Action Plan 2022-2023. Furthermore, the 14<sup>th</sup> Five-Year Plan for National Health Planning<sup>26</sup> released in 2022 placed emphasis on the crucial role of diagnosing and intervening in obesity in children and teenagers, specifying them as the main demographic for obesity intervention.

In June 2024, the National Health Commission and another 15 departments jointly issued the “The Weight Management Year Activity Implementation Plan” (“the Plan”), identified 2024 to 2026 as *Weight Management Years*. The Plan focuses on the entire population, providing comprehensive guidance from prevention to diagnosis and treatment of overweight and obesity, and puts forward specific measures and requirements in five aspects. **First, strengthen scientific outreach and raise national awareness of weight management. Second, mobilise social participation to enhance weight management efficiency**, encouraging the public to foster a supportive social environment for weight management. **Third, implement weight management measures across the entire life cycle**, with tailored strategies for groups like pregnant women, infants, children, students, workers and the elderly. **Fourth, improve weight monitoring and evaluation**, enhancing data sharing and interconnection mechanisms. **Fifth, promote the application of scientific research and findings.** The Weight Management Year

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24 General Office of the State Council. Notice on Issuing the 13th Five-Year Plan for Health and Wellness Planning.

Published January 2017. Accessed March 14, 2025. [https://www.gov.cn/zhengce/content/2017-01/10/content\\_5158488.htm?trs=1](https://www.gov.cn/zhengce/content/2017-01/10/content_5158488.htm?trs=1)

25 Healthy China Action Promotion Committee. Healthy China Action Plan (2019-2030). Published July 2019. Accessed March 14. <http://www.nhc.gov.cn/cms-search/xxgk/getManuscriptXxgk.htm?id=e9275fb95d5b4295be8308415d4cd1b2>

26 General Office of the State Council. Notice on Issuing the 14th Five-Year Plan for National Health Planning. Published May 2022. Accessed March 14, 2025. [https://www.gov.cn/zhengce/content/2022-05/20/content\\_5691424.htm](https://www.gov.cn/zhengce/content/2022-05/20/content_5691424.htm)

Activity Implementation Plan provides a practical goal for the whole process management, diagnosis and treatment of the obesity, and strives to achieve the extensive establishment of a supportive environment for weight management within about three years, leading to increased awareness and skills in weight management and the better popularity of a healthy lifestyle. This can create a good situation for weight management, with increasing national participation and benefits for all individuals, and helping people of abnormal weight.

With the release of the Plan and the implementation of special action initiatives on weight management, policymakers are paying more and more attention to the diagnosis and treatment of obesity. **On the one hand, the General Office of the National Health Commission officially released the Obesity Diagnosis, Treatment Guidelines (2024)<sup>27</sup> in October 2024**, addressing the previous gaps in obesity-related guidelines, their limited practicability, and the timeliness of information. The Guidelines systematically elaborate on the etiology, epidemiology, definition, diagnosis, assessment, treatment and multidisciplinary collaborative diagnosis and treatment approaches for obesity, and provide guidance for practitioners in medical institutions, at all levels, for carrying out clinical work. **On the other hand, metabolic diseases associated with obesity were included in the capacity-building initiatives for key clinical specialties in 2023**. In 2023 and 2024, the Department of Medical Affairs of the National Health Commission issued the Guidance on Promoting Clinical Specialty Capacity Building” and the “14<sup>th</sup> Five-Year Plan for National Clinical Specialty Capacity Building”, which clearly states that capacity-building for clinical specialty should focus on major diseases of high incidence and serious endangerment to people’s health, among which **metabolic diseases** are of high significance. The prevalence of adult (over 18 years-old) obesity in China is 16.4%<sup>28</sup>, with a characteristic of high incidence. In addition to being an independent disease, obesity itself is also a risk factor for various diseases such as hypertension, hyperglycemia, dyslipidemia, and strokes, in line with the characteristics of seriously endangering people’s health and will be given more attention in the future. In terms of specialisation, the policy proposes to adhere to the principle of “patient-centred and connected to disease-based diagnosis and treatment” to break the original barriers of medical disciplines and diagnosis and treatment subjects, with weight management centres being an outstanding representative of this approach.

**In summary, while weight management has gained significant attention at**

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27 Disease Prevention and Control Bureau of the National Health Commission. *Guidelines for Diagnosis and Treatment of Obesity (2024 Edition)*. 2024. Accessed March 14, 2025.

[https://www.gov.cn/zhengce/zhengceku/202410/content\\_6981734.htm](https://www.gov.cn/zhengce/zhengceku/202410/content_6981734.htm)

28 Disease Prevention and Control Bureau of the National Health Commission. *Report on Nutrition and Chronic Diseases of Chinese Residents (2020)*. 2021



the macro-policy level, the development of policies related to obesity diagnosis and treatment in China is still in its early stage. The establishment of weight management centres and clinics is crucial for implementing these policies, also requires further planning and development.

### **3. The establishment of weight management centres and clinics domestically and abroad has begun to bear fruit, and it is necessary to further promote the localisation of weight management centres and clinics in China**

There have been series of best practices regarding development of weight management centres and clinics overseas, with the weight management of patients being effectively promoted through multidisciplinary collaborative diagnosis and treatment, and the development of personalised solutions, etc. At present, the creation of weight management centres and clinics in China is still in its early stage, and the multidisciplinary bariatric and metabolic surgery weight management mode represented by Beijing Friendship Hospital, Capital Medical University and the obesity comprehensive treatment clinic of Zhongshan Hospital, Fudan University have begun to pay off. In the future, further encouragement of the establishment of weight management centres and clinics in public hospitals will contribute to the exploration and implementation of the national obesity diagnosis and treatment policy, the development of the obesity clinical diagnosis and treatment disciplines, and the improvement of the “patient -centred” diagnosis and treatment system.

#### **3.1 Weight management centres and clinics established by health institutions in the United States and Japan have run for years, which could be referred to when establishing weight management institutions in China.**

##### **3.1.1 The Metabolic and Weight management Centre of Columbia University**

Founded in 2000, the Metabolic and Weight management Center of Columbia University Vagelos College of Physicians and Surgeons is staffed by a professional team of surgeons, dietitians, psychologists and nurses<sup>29</sup>. This centre is dedicated to the treatment and management of obesity and related metabolic diseases, using a multidisciplinary approach for diagnosis and treatment, combining surgical intervention with long-term maintenance.

The centre provides one-stop obesity diagnosis and management services,

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<sup>29</sup> Metabolic and Weight Loss Surgery. ColumbiaDoctors. Published December 13, 2023. Accessed March 14, 2025. <https://www.columbiadoctors.org/specialties/gastroenterology/our-services/metabolic-and-weight-loss-surgery>

including consultation and assessment, personalised diagnosis and treatment solutions, and integrated care. During the **patient consultation and assessment** phase, individualised assessment by an endocrinologist and a registered dietitian helps patients develop **personalised weight-loss treatment solutions** that includes behavioural therapy, medication, surgery, and innovative treatments. **Behavioural therapy** includes individual and group behavioural therapy sessions for 12 weeks, covering diet, exercise and psychological support to help patients change their unhealthy eating and lifestyle habits. **Medication** uses drugs to help patients control their weight, such as the new drug GLP-1 receptor agonist<sup>30</sup>. **Surgery** includes gastric bypass surgery, sleeve gastrectomy, and adjustable gastric banding surgery, etc. **Comprehensive care** refers to lifelong follow-up after surgery to ensure that patients achieve and maintain their weight goals, including nutrition advisory, psychological support, and regular health monitoring<sup>31</sup>.

This centre has achieved remarkable results in terms of **patient benefit, discipline development, and policy promotion**. Patients treated at the centre typically have better mobility, reduced arthritis pain, and improved mental health, as well as a reduced risk of diabetes, heart disease, high blood pressure, and other obesity-related diseases, resulting in a better quality of life. The centre has made significant progress in minimally invasive bariatric surgery and has established systematic procedures for long-term follow-up and patient education<sup>32</sup>. Experts at the centre regularly participate in national and international conferences to share the latest research results and provide a scientific basis for policy development. In addition, the centre is actively involved in community education and public health projects, and is committed to raising public awareness and the prevention of obesity and its related health problems<sup>33</sup>.

### 3.1.2 The Outpatient Obesity Disease Clinic of the University of Tokyo Hospital

The Outpatient Obesity Disease Clinic at the University of Tokyo Hospital is part of the Department of Diabetes and Metabolism, with a team of Japanese diabetes

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30 New Weight Loss Drug Approved by FDA: Is It Right for You? Columbia University Irving Medical Center. Published August 2, 2021. <https://www.cuimc.columbia.edu/news/new-weight-loss-drug-approved-fda-it-right-you>

31 Metabolic and Weight Control Center, Columbia Endocrinology CUMC. Accessed March 14, 2025. <https://www.columbiaendocrinology.com/wcc>

32 Metabolic and Weight Loss Surgery. ColumbiaDoctors. Published December 13, 2023. Accessed March 14, 2025. <https://www.columbiadoctors.org/specialties/gastroenterology/our-services/metabolic-and-weight-loss-surgery>

33 Metabolic and Weight Loss Surgery. ColumbiaDoctors. Published December 13, 2023. Accessed March 14, 2025. <https://www.columbiadoctors.org/specialties/gastroenterology/our-services/metabolic-and-weight-loss-surgery>

experts and certified diabetes educators of Japan (CDEJ)<sup>34</sup> dedicated to providing comprehensive weight management and holistic treatment for patients with diabetes, obesity, dyslipidemia, metabolic syndrome, and other diseases.

The hospital's obesity clinic provides weight management services that combine dietary therapy, exercise therapy, and drug therapy<sup>35</sup>. Doctors collect information about the patient's medical history and lifestyle, conduct a comprehensive medical examination and blood tests to determine the appropriate treatment solution, and tailor this to the patient's individual needs, including helping the patient develop and implement a low-carb diet. The clinic guides patients through a unique "self-care" support program that steers patients through daily self-management, such as blood glucose self-monitoring, four-times-a-day weight measurement, etc. In addition, the patient's ability to secrete insulin is assessed by Meal Tolerance Testing (MTT), and continuous glucose monitoring (CGM) services provided to patients with unstable blood glucose levels. The clinic is certified by the Japanese Diabetes Society as a teaching hospital and by the Japan Society for the Study of Obesity as a specialised hospital for obesity, with more than 7,000 outpatient visits per year<sup>36 37</sup>.

## **3.2 China's weight management centres and clinics are still in the early stage of development and need further strengthening and expansion.**

### **3.2.1 The Multidisciplinary Bariatric and Metabolic Surgery Weight Management Mode of Beijing Friendship Hospital, Capital Medical University**

In 2019, Beijing Friendship Hospital, Capital Medical University, established the

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34 The Japanese Certification Board for Diabetes Educator was established on 29 February 2000 as a collaboration between the Japanese Diabetes Society, the Justice, Science, Practice and Education for Nutrition, and the Japan Academy of Diabetes Education and Nursing. The Diabetes Educator of Japan is a nurse, dietitian, pharmacist, clinical laboratory technician, or physical therapist with a wide range of expertise in the field of diabetes who has passed the prescribed relevant examinations and has been approved by the certification committee.

35 Diabetes and Metabolic Diseases - The University of Tokyo Hospital. U-tokyo.ac.jp. Published 2015. Accessed March 14, 2025. <https://www.h.u-tokyo.ac.jp/english/centers-services/clinical-divisions/diabetes-and-metabolic-diseases/index.html>

36 MHPC International Medical Health Promotion Centre. Japanese-style comprehensive treatment and management of diabetes.

[https://mp.weixin.qq.com/s?\\_\\_biz=MzU3MzgZODczNw==&mid=2247521443&idx=5&sn=12de21c97ff8ca97c7edaa913d04adbb&chksm=fcc4acb6400773fe8fc6e0643b219405f9456043312d6193a888fd8c3320d3f763015334f704&mpshare=1&scene=1&srcid=1107E4vDD4KAMd4gxGoPcxoz&shareinfo=40027b98ab1a9c649f4a182358c06c79&shareinfo\\_first=40027b98ab1a9c649f4a182358c06c79#rd](https://mp.weixin.qq.com/s?__biz=MzU3MzgZODczNw==&mid=2247521443&idx=5&sn=12de21c97ff8ca97c7edaa913d04adbb&chksm=fcc4acb6400773fe8fc6e0643b219405f9456043312d6193a888fd8c3320d3f763015334f704&mpshare=1&scene=1&srcid=1107E4vDD4KAMd4gxGoPcxoz&shareinfo=40027b98ab1a9c649f4a182358c06c79&shareinfo_first=40027b98ab1a9c649f4a182358c06c79#rd)

37 the University of Tokyo Hospital. The Department of Diabetes and Metabolic Medicine of the University of Tokyo Hospital.

<https://dm.m.u-tokyo.ac.jp/training.html>

Beijing Bariatric and Metabolic Surgery Quality Control and Improvement Centre, which adopt the multidisciplinary weight management mode, is the first specialised bariatric and metabolic surgery quality control centre in China.

The Centre provides patient-centred, evidence-based, multidisciplinary, standardised, one-stop weight management services. **In terms of professional staffing**, a multidisciplinary MDT team is composed of endocrinology and metabolism, bariatric and metabolic surgery, obstetrics and gynecology, anesthesiology, clinical nutrition, sports rehabilitation, and traditional Chinese medicine. **In terms of service modules**, there are four main ones: nutritional therapy, medication, surgical treatment, and specialist nursing advisory. The four clinics in the Bariatric and Metabolic MDT Centre are both independent and interconnected, focusing on different patient groups. Among them, the nursing advisory clinic provides initial advisory and triage, and also undertakes patient guidance, follow-ups, and re-education after medication. **In terms of service process**, a dedicated person is responsible for the corresponding procedures. In the initial screening stage, once the patient is registered, the doctor will conduct an initial diagnosis. This will be followed by a body composition measurement, blood tests, sleep monitoring, and fatty liver testing, all performed by a specialist nurse. The results of these examinations are issued by medical technicians and patients are triaged according to their condition. During the visit, a multidisciplinary expert customises the solution according to a standardised process. According to the needs of the patient, they can be directly referred to cardiovascular medicine, otolaryngology, obstetrics and gynecology, orthopedics, or other related departments for targeted treatment. During the execution and follow-up, patients are consulted by multidisciplinary experts and followed up on by specialist nurses, including bariatric program guidance, data entry, follow-ups, patient education, communication, and follow-up appointments.

**With regard to discipline development**, the centre has achieved remarkable results in the fields of clinical research, talent training, and standard setting. In terms of clinical research, the centre pays equal attention to clinical research and basic research, taking the lead in carrying out a number of multi-centre, high-quality clinical studies, and in writing and publishing a number of guideline consensus and position statements in the professional field of bariatric and metabolic surgery, having a great academic influence in the industry. Regarding standard setting, the centre has established a database of bariatric and metabolic surgery in Greater China to promote nationwide quality control and continuous improvement. In terms of talent training, as chair of the Bariatric and Metabolic Surgery Subcommittee of the Surgical Expert Committee of the National Health Commission Capacity Building and Continuing Education Center, the centre carries out the formulation of bariatric and metabolic surgery standards and

standardised training for physicians. **In the matter of patient benefits**, patients receive comprehensive treatment and intervention around obesity and its complications, and receive one-stop solutions for weight-related problems such as polycystic ovary syndrome, fatty liver, gastroesophageal reflux, obstructive sleep apnea-hypopnea syndrome, lumbar disc herniation, insulin resistance, anxiety disorders, etc., achieving the principle of being patient-centred.

### **3.2.2 The Obesity Comprehensive Treatment Clinic of Zhongshan Hospital, Fudan University**

In 2020, the Department of Endocrinology of Zhongshan Hospital, Fudan University, set up a special clinic for the comprehensive treatment of obesity. It is a special clinic with a multidisciplinary diagnosis and treatment approach led by the Department of Endocrinology, and jointly created by the Department of Nutrition, Bariatric Surgery, Reproductive Department and Respiratory Department of the hospital. It is staffed by professional doctors, nurses and dietitians.

Relying on the Endocrinology and Metabolism Alliance for Obesity (EMAO) and the Obesity and Fatty Liver Diagnosis and Treatment Centre, the special clinic has formed a standardised comprehensive management model for the whole course of obesity. **In terms of service process**, the dietitian of the special clinic makes a comprehensive nutritional assessment of the patient, the doctor formulates a targeted treatment solution based on the patient's assessment results, and the patient manager conducts a long-term follow-up and regular obesity-related science publicity. **As for service plans**, individualised weight-loss treatment solutions are provided, including a variety of dietary interventions such as a ketogenic diet, a calorie-restricted and balanced diet, and aerobic and resistance exercise guidance, to be combined with medication or bariatric surgery if necessary.

With an annual outpatient volume of more than 3,000 cases, Zhongshan Hospital, Fudan University, has formed a mature diagnosis and treatment model and process. After six months of treatment, the proportion of patients losing 5% of their weight was as high as 80%, a remarkable result.

## **3.3 The development of weight management centres and clinics is crucial for the country, medical institutions, and the public, requiring further policy support.**

### **3.3.1 At the national level**

The development of weight management centres and clinics is not only of great significance to the improvement of individual patient health, but is also an

important part of the national chronic disease prevention and control strategy. Strengthening the management of obesity and its related complications can effectively reduce the incidence and progression of diabetes, hypertension, and other related diseases, not only helping reduce the country's medical burden, but also improving the overall health level of society, thereby supporting the implementation of the “Healthy China” strategy and promoting the sustainable development of the national economy.

### **3.3.2 At the hospital management level**

The establishment of weight management centres and outpatient clinics conforms to the national requirements for the high-quality development of public hospitals, fully embodies the patient-centred development concept, and can greatly improve the efficiency of diagnosis and treatment and patient satisfaction through interdisciplinary collaborative diagnosis and treatment that improves the overall management ability of public hospitals and achieves rapid development. For example, the Multidisciplinary Weight management Centre of Beijing Friendship Hospital, Capital Medical University, and the Obesity Comprehensive Treatment Clinic of Zhongshan Hospital, Fudan University, have realised the standardisation and continuous optimisation of the weight management process through years of exploration and practice, improving the operational efficiency of the hospital and improving the compliance and satisfaction of patients.

### **3.3.3 At the clinical construction level**

The establishment of weight management centres and clinics can effectively promote the improvement of obesity diagnosis and treatment capacity in China. With weight management centres and clinics as important carriers, the establishment of quality control centres, the formulation of diagnosis and treatment standards, the development of standardised training, and participation in clinical trials will help promote the standardisation of obesity diagnosis and treatment, promote the improvement of disciplinary capabilities, and promote the research and development process for drugs and related technologies. For example, Columbia University has conducted a large number of clinical studies into minimally invasive bariatric surgery and innovative drug applications, accumulating rich data and experience. It not only promotes technological innovation in the field of bariatric treatment, but also lays the foundation for personalised and precision medicine for bariatric treatment in the future. The weight management centre of Beijing Friendship Hospital has also made outstanding contributions to the formulation of standards and talent training, and has promoted the development of obesity diagnosis and treatment in China through multi-centre clinical research and standardised training.

### 3.3.4 At the patient level

Using a multidisciplinary collaboration model, the weight management centres and clinics provide personalised diet and exercise plans, and help patients develop healthy lifestyle habits and achieve long-term weight loss through systematic treatment and education and advanced electronic health tools, and provide patients with convenient and one-stop standardised weight management services which can effectively control their weight, improve complications, and improve the health literacy and medical experience of patients' weight management.

Overall, the development of weight management centres and clinics domestically and abroad not only provides patients with comprehensive health management services, but also shows their multi-dimensional reference value by promoting the development of related disciplines, improving the operational efficiency of hospitals, and helping the prevention and treatment of chronic diseases in China.

While learning from international experience, China also needs to further promote the localisation of weight management centres and clinics, tailored to its national conditions, to support the “Healthy China” strategy. To strengthen the establishment of weight management centres and clinics, it is recommended that government develop policies in the following areas. **Firstly, supplement obesity as a tertiary clinical discipline in public hospitals** to provide integrated medical services based on patient needs. **Secondly, introduce specific policies for multidisciplinary collaborative diagnosis and treatment of obesity** to guide the development in this area. **Thirdly, implement strict quality management and controls** in established centres to ensure service quality and patient safety. **Fourthly, include ‘clinical obesity treatment’ in the reimbursement scope of City Supplementary Insurance, List C list and National Reimbursement Drug List**, to enhance the significance of clinical obesity treatment, and use real-world data from weight management centres and clinics for actuarial insurance actuary and claims, and scientifically design commercial insurance products for ‘clinical obesity treatment’. These measures will promote the professionalisation and standardisation of weight management centres and clinics in China, and ultimately benefit patients.

## 4. Conclusion

Strengthening the establishment of weight management centres and clinics is crucial for implementing weight management in public hospitals and advancing the Healthy China initiative and requiring collective efforts from all sectors. Novo Nordisk, a leading global biopharmaceutical company established in Denmark in 1923, has consistently concentrated on severe chronic diseases such as diabetes and obesity. The company is dedicated to preventing and ultimately eradicating

these diseases through pioneering scientific research and increased accessibility to medication. Leveraging Novo Nordisk's resources across 80 countries and regions worldwide, and its product and management expertise in 170 markets, we will persist in deepening our collaboration with the Chinese government, actively share international experiences and offer support for relevant public cooperative projects, to jointly contributing to the realization of the "Healthy China 2030" strategy.