HGPI Health and Global Policy Institute

[Policy Recommendations] Obesity Control Promotion Project 2023

The Next Steps for Engaging and Cooperating with Patients, Citizens, and Communities for Implements of Obesity Control Measurements

March,2024

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1. Objectives and background of the obesity project

In both advanced industrial countries as well as in low- and middle-income countries, the number of people with obesity is increasing. This has been accompanied by rapid growth in the number of people with obesity-related chronic diseases. In 2022, it was estimated that the total number of people with obesity worldwide exceeded 1 billion.[1] In Japan, all insurers have been obligated to conduct specific medical checkups and provide specific health guidance for obesity since 2008, and progress has been made in various measures to prevent and control chronic diseases. However, as made clear in the final evaluation of the Second National Health Promotion Movement in the 21st Century, or "Health Japan 21 (Second Term)," life expectancies continue to increase, but there have been no improvements in criteria related to lifestyle habits. For example, the number of people living with metabolic or pre-metabolic syndrome has not decreased.

Given these circumstances, Health and Global Policy Institute (HGPI) launched the Obesity Control Promotion Project in 2022 to build interest toward obesity and related issues throughout society and to advance more effective, organic countermeasures for this issue. In FY2022, we brought together an advisory board of specialists in a broad variety of areas, hosted a public symposium, crystallized discussion points to examine in the future, and compiled policy recommendations. The main discussion points included the importance of defining obesity from a medical perspective and broadly disseminating that definition throughout society; establishing various types of guidelines that are rooted in science; diversifying intervention methods, including for both medical- and non-medical interventions; encouraging multidisciplinary collaboration and launching initiatives that cut across fields of specialty; and expanding domestic research on obesity and related issues. Correlations have been established among health and conditions like income and living environment, which are known as "Social Determinants of Health (SDH)."[2] Without resorting to the concept of personal responsibility, all of society must work to promote better health to prevent income and education disparities from becoming health disparities.

In 2023, to deepen and implement the recommendations made in 2022, interviews were conducted with patients suffering from obesity and with medical professionals. Advisory board meetings were also held consisting of experts from industry, government, academia, and the private sector. Based on our understanding of the actual conditions and issues surrounding people living with obesity taken from the perspectives in the medical field and within society, we propose the following obesity countermeasures that are required in society and medical care.

1. 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." Lancet (London, England), S0140-6736(23)02750-2. 29 Feb. 2024, doi:10.1016/S0140-6736(23)02750-2
2. WHO [Social determinants of health] https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1. Last retrieved on March 13, 2024.

2. Definitions and references for terminology used in these recommendations

Terms used in these recommendations are defined below.

Body Mass Index (BMI)

Body Mass Index (BMI) is calculated using the formula of weight in kilograms divided by height in meters squared (BMI =W [kg]/H [m]^2).

Metabolic syndrome[3]

- A person is diagnosed for metabolic syndrome when they present an increase in visceral fat (intra-abdominal fat) evaluated using waist circumference and meet two or more of three criteria: high blood glucose, abnormal lipid metabolism, or high blood pressure.
- The person in question does not have to satisfy BMI criteria for obesity (BMI≥25).

Obesity (condition)

A state of excessive fat accumulation in adipose tissue with BMI≥25. The World Health Organization (WHO) considers a BMI of over 30 as obese, but standards used to determine obesity vary by country.

Obesity (disease)

A disease with a medical need for weight loss due to complications or potential complications resulting from or related to the condition of obesity. Also referred to as “obesity disease.”

Severe obesity (condition)

Individuals who meet the criteria for the condition of obesity and with BMI≥35. This excludes people with secondary obesity.[4]

Severe obesity (disease)

This is a disease that is diagnosed when an individual is determined to have severe obesity with a BMI≥35 according to the definition of obesity and has obesity-related health concerns or has visceral fat accumulation.

(Works referenced)

Japan Society for the Study of Obesity (JASSO). Guidelines for the Management of Obesity Disease 2022. Life Science Publishing Co., Ltd. Tokyo. 2022.

3. The criteria for metabolic syndrome in Japan were defined in 2005 through joint efforts from eight academic societies: the Japanese Society of Internal Medicine, the Japan Atherosclerosis Society, the Japan Diabetes Society, the Japanese Society of Hypertension, Japan Society for the Study of Obesity (JASSO), the Japanese Circulation Society, the Japanese Society of Nephrology, and the Japanese Society on Thrombosis and Hemostasis. Ministry of Health, Labour and Welfare, “Lifestyle disease management based on an analysis of health checkup data and health insurance claims.” https://www.mhlw.go.jp/bunya/kenkou/seikatsu/pdf/ikk-j.pdf. Last retrieved on February 29, 2024.
4. Secondary obesity is defined as obesity with a clear cause and includes endocrine obesity, drug-induced obesity, genetic obesity, and hypothalamic obesity.

3. Six key recommendations for obesity control (Overview)

Recommendation 1 : Strengthen primary prevention of obesity and other lifestyle diseases by educating people about healthy lifestyles and creating a society with few health risks through collaboration among government agencies and the private sector.

- Along the life course, engage in health promotion tailored to each age group and provide education and awareness for the prevention of obesity and other lifestyle diseases.
- Reinforce education systems related to lifestyle habits for young and school-aged children in accordance with modern needs and the current social environment.
- Expand education and lifestyle interventions for people who have a family history of obesity and who are at high risk of developing obesity.
- Structure industries in a manner that is based on collaboration among government agencies and the private sector and that incentivizes companies to contribute to healthy behavior among citizens.

Recommendation 2 : Enact highly effective secondary prevention policies generated by promoting and enhancing health data in specific health checkups and specific health guidance.

- Enable the effective use of limited resources by providing appropriate interventions for each stage through health checkups. Such interventions should not be limited to specific health guidance but include a broad stratification of interventions that includes perspectives on medical interventions.
- Continue reinforcing healthcare provider collaboration and systems for effective feedback based on health checkup results to ensure that people with obesity who need medical intervention receive timely and appropriate care.
- While promoting collaboration among the various bodies conducting health checkups and medical examinations, establish an integrated health checkup system so people can access specific health checkups and specific health guidance tailored to their personal needs regardless of factors like insurance coverage or employment status.
- Promote health data in health checkups and use evaluations that are based on data to provide more effective specific health checkups and specific health guidance.

Recommendation 3 : Establish community healthcare provision and support systems that involve collaboration among industry, Government, academia, and civil society and that are tailored to individual challenges and needs to provide appropriate interventions to people who are overweight or obese.

- After defining multi-disciplinary clinical practice guidelines for providing people with obesity with tailored interventions that fit their conditions (such as BMI, presence of underlying diseases, etc.), broadly distribute those guidelines and raise awareness among health professionals.
- Establish systems to provide various interventions in communities and build industry, Government, academia, and civil society networks that form a foundation for healthcare collaboration to ensure people with obesity receive the support they need in a timely manner.
- As part of measures for lifestyle disease control, design incentives that will encourage family doctors to take part in obesity treatment.

Recommendation 4 : Establish healthcare provision systems and pursue nationwide equity so multidisciplinary interventions can be delivered to people with severe obesity.

- Strengthen systems for collaboration across multiple departments and professions to provide a foundation for the provision of multidisciplinary treatment.
- Establish specialized, holistic obesity treatment systems at integrated centers for obesity treatment and design incentives for achieving this.

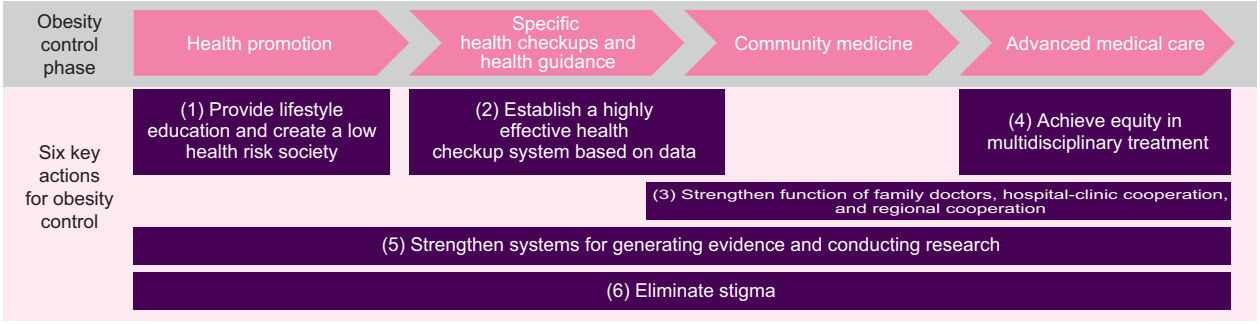
Recommendation 5 : Generate evidence on the effectiveness of measures for controlling obesity and other chronic diseases to advance obesity policy and create better and more equitable healthcare provision systems.

- Generate evidence on the effectiveness of measures for obesity and lifestyle disease control, and how treating obesity reduces societal costs.
- Gather and compile data for the entire life course to build a centralized data infrastructure to advance research on measures for obesity and chronic diseases.

Recommendation 6 : Break away from the tendency to favor certain body shapes and sizes and the concept of personal responsibility for obesity, foster understanding of obesity as a medical condition, and eliminate stigma that prevents timely and appropriate medical interventions.

- Leave attitudes that are centered on personal responsibility in the past and raise awareness that obesity is impacted by genetic factors and social determinants of health (SDH) in addition to lifestyle habits.
- Distinguish obesity as a disease that requires medical attention from other forms of obesity or metabolic syndrome and spread accurate definitions and recognition.
- Foster acceptance of different body shapes and sizes and eliminate social stigma and self-stigma for people living with obesity.

Figure 1: Six key recommendations for obesity control and each phase of action



Health and Global Policy Institute (2023)

4. The voices of people living with obesity and the patient journey

In pursuit of HGPI's mission of "achieving citizen-centered health policy," in these recommendations, we have gathered voices of people living with obesity, which are voices that have not been fully reflected in the past. These recommendations were compiled after examining the actual circumstances faced by people living with obesity and issues from their perspectives, creating a patient journey, and holding discussions with our advisory board.

Voices of the parties most affected (Overview)

Interviews were held with four people living with obesity. Items revealed included the challenges of living with obesity due to stigma; a lack of understanding toward obesity as a disease among individuals and in society; the difficulty of accessing healthcare; the effectiveness of multidisciplinary treatment at health institutions specializing in obesity; and challenges related to treatment adherence.

All four participants experienced different circumstances that resulted in obesity, tended toward obesity in childhood, and saw their condition progress to obesity due to stress and life events. While they and their family members were concerned about the fact that they were obese, they did not know that obesity is a disease. They also did not know that there are ways of treating obesity or did not feel the need for treatment. This meant poor health checkup results did not lead them to obesity treatment. In addition, even if they felt physically unwell, self-stigma and past experiences in which health professionals blamed them for being obese created high psychological hurdles toward visiting health institutions. Some participants reported they gave up on attempts to improve their condition through non-pharmacological therapies like exercise and dieting after failing to get results, which made it difficult for them to reach medical treatment.

Participants had various reasons for visiting health facilities specializing in obesity treatment. Two of the four participants had done their own research, one had required emergency care, and one was referred by a health institution. All participants lost weight and achieved better health after receiving multidisciplinary and holistic treatment. Treatments also had positive impacts on their daily lives or approach to living itself, such as by helping them experience positive feelings and optimism or successfully find employment. It was also clear that the participants experienced difficulty and stress in balancing major changes in appetite during treatment, adhering to non-pharmacological therapies, visiting multiple clinics, and balancing employment. In the face of these circumstances, all participants expressed appreciation for the support provided by and presence of obesity treatment coordinators, who work closely with patients to coordinate with parties like health professionals and provide consultations on topics like physical condition and lifestyle.

Methods used to recruit participants and conduct interviews

In-person interviews were conducted between September 2023 and November 2023 with four individuals who had been diagnosed with severe obesity and were undergoing multidisciplinary treatment in facilities specializing in obesity treatment. These interviews were conducted with participant consent and with consideration toward maintaining their privacy.

The characteristics of the four interview participants are described below.

Patient A: Male, 40s
Patient B: Female, 50s
Patient C: Female, 30s
Patient D: Male, 40s

Circumstances and voices of people living with obesity (Details)

1. Difficulties and circumstances before starting obesity treatment

All four participants tended toward obesity during childhood and their school years. We also asked them about stress, life events, and other events that further accelerated their condition. Our findings suggested that people require intervention during childhood and the periods during which people are likely to gain weight.

While some participants said they had used private training facilities or had maintained exercise regimens before starting obesity treatment, they said they suspended these efforts after failing to achieve positive effects or after developing feelings that their efforts were ineffective.
All four participants were experiencing some form of obesity-related physical, social, or emotional distress or strong feelings of difficulty toward daily life.

Voices of affected parties

“I have always been large, even as a child. My parents and I both knew that my weight was not normal, but they did not do anything about it. When I was looking for employment, the stress prevented me from losing weight. (Eating) made me feel physically full, and being full makes me feel like my heart is also full.” (Patient C)
“I have always had a heavy figure since childhood, but after I had an accident, the pain made me stay in the house more.” (Patient B)
“I feel very lonely. I want to have fun. But I can’t do anything without money. I can’t work because I am not in good shape due to my obesity. That makes it hard.” (Patient D)
“I was obsessed with my weight. I was so heavy that I could barely look at myself. Even the first day I was able to go to the hospital, my own body was screaming out.” (Patient C)
“It seems that my family was concerned toward my obesity, but they never said anything like, ‘Go to the hospital.’” (Patient A)

2. Points of contact with health checkups and health facilities

Among the four interview participants, two had received health checkups. While both of the participants who underwent health checkups received results that said they were obese, they did not attend subsequent medical consultations at health institutions. Rather, they accepted the results as nothing out of the ordinary, indicating that their level of concern about their condition was by no means high.

Among the four interview participants, three had no recent history of seeing their family doctor when starting treatment at specialized obesity treatment facilities. In particular, one participant said she had been heavyset since childhood and did not visit health facilities often. We also observed the other three participants had high thresholds for visiting health facilities.

Voices of affected parties

"When my health checkup results said I was obese, I thought, 'It always says that.'" (Patient A)
"To tell the truth, I think I would never visit a hospital because I was told I was overweight. If my results do not clearly state, 'You have a disease called obesity, please visit a hospital,' I would not go." (Patient B)
"I am robust and don't catch colds or get sick, so I had no reason to visit hospitals." (Patient A)
"I think it feels a bit awkward to go to the hospital. There is also the fact that I'd have to make an appointment." (Patient B)

3. Events that led participants to their first visit to a specialized obesity treatment facility

One participant was referred to a specialized obesity facility due to an emergency condition and one participant was referred by a local health institution. The other two participants visited specialized obesity facilities after gathering information on their own.

Prior to visiting a specialized obesity facility, these two participants felt physically unwell due to obesity. However, they did not initially recognize that obesity is a disease or that it was a factor for their poor physical condition. Also, neither party had a positive attitude toward medical examinations for various reasons. These included self-stigma toward obesity and related diseases, being made to feel guilty about their condition at hospitals, and the difficulty of attending medical examinations due to work schedules or financial situations. One participant said they had received medical examinations at over five local health institutions at the recommendation of family members, but had not been instructed on obesity. Both patients and healthcare professionals have observed that the lack of information about obesity can lead to delays in initiating appropriate treatment.

One participant had experienced an increasing amount of pain due to a past injury and visited an orthopedist for surgery. They were diagnosed as obese and encouraged to lose weight, which led them to find a facility specializing in obesity treatment. The other participant felt that obesity was making living difficult. When they learned that surgery was a treatment option, they looked up a hospital and eventually found an obesity treatment facility.

Voices of affected parties

"I didn't know that obesity was a disease or that it is covered by insurance." (Patient A)
"I didn't even know being fat was a disease. I thought it was strange that I kept getting heavier even though I wasn't eating very much." (Patient D)
"I thought having money would be better than going to a hospital, so even when my physical condition was poor, I put up with it." (Patient D)

"(When I was examined by my family doctor) I was only told to lose weight, but nothing was done to address my condition, and I was just told to do my best and to please lose weight on my own. That is why I looked for a facility specializing in treating obesity on my own to ask them for help." (Patient B)

4. Treatment

A. Internal therapy and non-pharmacological treatment methods

While regularly visiting a hospital for treatment, two of the four participants had past experience suspending treatment on their own. They said their worsening physical condition was the reason they resumed treatment.

All four participants had been engaged in continuous non-pharmacological treatment for obesity, such as dieting and exercise, as well as in treatment for complications. Regarding the challenges of maintaining treatment, they mentioned economic difficulties, the difficulty of balancing work and hospital visits or hospitalizations, and the difficulty of stress management during treatment. During these discussions, participants noted the support they received from physicians, nurses, dietitians, and obesity treatment coordinators who were very patient and kind, demonstrating the importance of psychological support during treatment.

One participant developed obesity due to a congenital disease that they are currently being treated for, but they have yet to experience significant improvement. They have high hopes for new pharmaceuticals to help them lose weight. While they felt somewhat resigned to the limitations of current treatments and their situation, they also expressed the will to try various new things if they will lead to weight loss.

Voices of affected parties

"Of the three meals I eat per day, two are protein and one is a normal meal. I am drinking liquid first thing in the morning and it feels like I'm in hell. I stopped eating meat. It is not working and I am at the end of my rope. However, if I stop treatment, I go back to square one. I want to get certified and get a job. I wish I could take medicine (for obesity)." (Patient D)
"It was because the obesity treatment coordinator stayed with me and provided support that I was able to continue. I am truly grateful." (Patient A)
"Many people with obesity have low self-esteem, so (healthcare providers) don't get angry at them if they gain weight, accept them as they are, and are thrilled when they lose weight. This makes me very happy, and I am so thankful." (Patient C)
"I heard that weight loss programs are very hard and some people end up feeling depressed, and that the diet is especially hard. At times like that, I feel like the healthcare staff was kind and encouraging." (Patient D)

B. Surgical treatments

Among the four participants, three have undergone surgery. The reason they chose surgery was their expectations toward its effects. One participant did not undergo surgery because their family opposed it. Their reasons for doing so were that it would not provide a complete cure

and that they would have difficulty accepting their body image after surgery.

The three participants who underwent surgery were asked if anything changed afterward. All three viewed the surgery and its outcome in a positive light. They talked about enjoying life and feeling cheerful and optimistic.

Some participants were able to accept the post-surgical changes in appetite or feelings of hunger in their daily lives, but one participant experienced rebound.

Voices of affected parties

"I think it was a good thing I had the surgery. My life has become much more enjoyable. Since my surgery, I have not felt any irritation over not being able to eat." (Patient A)
"After my surgery, it was very easy to change jobs. I think this may have been partially due to good timing, but I thought 'Do people always get hired this quickly?'" (Patient C)
"I've always liked eating. Even when I see something and think it looks delicious, I have gradually become used to the effects of my medicine. Now that I am used to it, I am able to come to terms with how much I should eat, thinking 'Well, it should be okay if I have about this much.'" (Patient B)
"After all that, I still want to eat. However, the feeling of being hungry has really disappeared." (Patient C)

C. Peer support

When we asked participants about the need for peer support or patient groups, some said they do not feel they are necessary. Others said that hearing from others about their experiences with the surgery helped them to be more mentally prepared.

Voices of affected parties

"Even if there were opportunities for people living with obesity to talk with each other, they are generally shy people, so I don't think conversations would go anywhere. I think we would only enjoy griping about the hard parts of being obese, such as we can't use Japanese-style toilets." (Patient A)

5. Reflections and challenges on obesity as a disease

During the interviews, we asked participants about challenges with obesity and obesity treatment, what they need from society, and the term "obesity disease." They felt that it will be necessary to broadly inform society that obesity is a disease that requires medical intervention. While we were able to infer that some were concerned that the term "obesity disease" would lead to more stigma in society, others were optimistic that clearly identifying it as a disease would make that definition easy to communicate to everyone.

Voices of affected parties

"I think it would be good if treating obesity became normal, and I would like to see more consultation services that could guide people to obesity treatment." (Patient A)

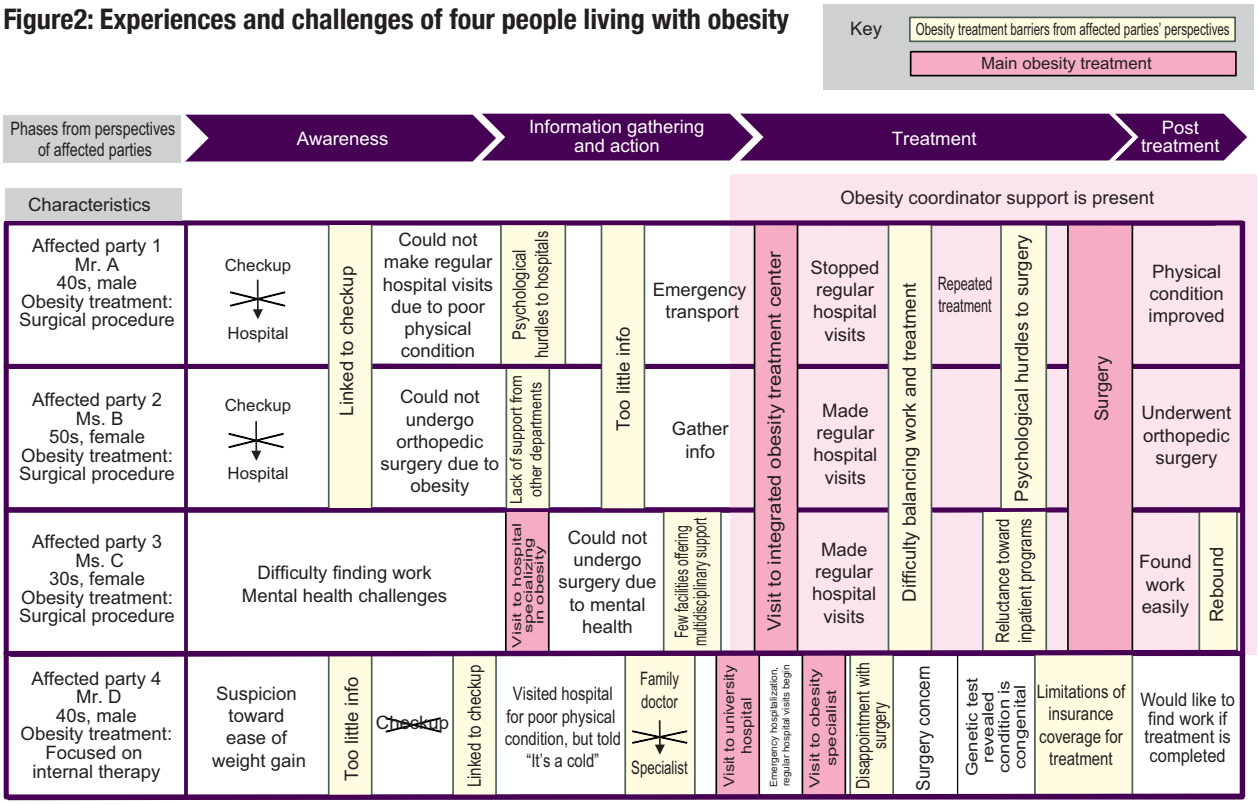
"I think it would make a big difference to have even just one person (providing consultations on obesity) like at a cancer consultation office. It would make people feel safer if there was always someone to watch over them." (Patient C)

"I feel embarrassed toward the term, 'obesity.' I feel like people look at me and think I must eat a lot because I am fat." (Patient B)

"Because it will make it easier to understand for us and for others, visualizing obesity (by using the term "obesity disease") will be a good thing. There is something about it that was embarrassing to me, too. I think there will be many benefits to referring to obesity as a disease." (Patient C)

"It is a good thing if the opinions of patients are accepted and patients are given patient-centered team treatment by teams with good horizontal cooperation." (Patient C)

Figure2: Experiences and challenges of four people living with obesity



Health and Global Policy Institute (2023)

5. Six key recommendations for obesity control (Details)

The symptoms experienced by people living with obesity vary, as does the severity of those symptoms. Additionally, policies for managing obesity that target people living with obesity and those close to them should include those parties. They should also include measures to prevent overweight and obesity as well as integrated measures that surpass healthcare and target society as a whole. Based on our recognition of these circumstances, we have generated six recommendations from two perspectives: **measures aimed at preventing obesity or its progression**; and **the ideal structure of treatment for people living with obesity and related social support and measures.** These recommendations are detailed below. Please note that recommendations 1, 2, and 6 discuss "measures aimed at preventing obesity or that aim to prevent the condition from progressing" while "the ideal structure of treatment for people living with obesity and related social support and measures" is covered by recommendations 3, 4, 5, and 6.

measures aimed at preventing obesity or its progression

Recommendation 1 : Strengthen primary prevention of obesity and other lifestyle diseases by educating people about healthy lifestyles and creating a society with few health risks through collaboration among government agencies and the private sector.

Challenges

Various measures to educate the public on and raise awareness toward healthy lifestyle habits have been implemented in Japan. These include the National Health Promotion Movement in the 21st Century (Health Japan 21), the Health Promotion Act, and the Basic Act on Food and Nutrition Education. However, the final evaluation of the second term of Health Japan 21 reported that the numbers of people with or at risk of metabolic syndrome are increasing. There are also genetic factors that are closely related to obesity. We also know that people are more likely to gain weight at certain points in the life course, so we must reinforce measures that are in line with the life course and target people with family histories of obesity and who are at high risk.

The education children receive in early childhood and at school plays a central role in shaping lifelong daily habits. A number of efforts to educate children about life habits are currently underway, such as nutrition education, but expectations are high for efforts to further promote education that take into account factors like changes in household environments in recent years. At the same time, it has been pointed out that the systemic basis for furthering nutrition education is the Basic Act on Food and Nutrition Education, an ideological law. This means it is difficult to expand such education in real-world school settings and promote educational equity. In addition to educational interventions, it will also be important to consider measures for information and environments that may promote unhealthy lifestyles, starting with how to design advertisements to avoid promoting overeating or unbalanced nutrition.

Recommendation

Along the life course, engage in health promotion tailored to each age group and provide education and awareness for the prevention of obesity and other lifestyle diseases.

Another important action will be strengthening primary prevention in a manner that takes the surrounding environment for and health issues faced by each age group along the life course into account. We now know that people tend to gain weight at certain points in life, such as after completing compulsory education or during the perinatal period. Measures that focus on these periods will be necessary. It will also be effective to consider interventions that reflect the characteristics of each age group. This might include taking advantage of the fact that young people are digital natives and utilizing apps to raise awareness toward body weight management.

Reinforce education systems related to lifestyle habits for young and school-aged children in accordance with modern needs and the current social environment.

Lifestyle education fulfills a major role in childcare and educational settings, which is where children are provided with the foundation for lifelong habits. Efforts for this age group should begin with developing a curriculum. Over the medium to long term, the objective should be to optimize the curriculum overall so it reflects the modern disease profile and can contribute to the prevention of a variety of lifestyle diseases.

In addition to developing a curriculum, we must also reinforce systems for providing education. Initiatives for better nutrition education have been introduced in recent years. In their capacity as experts on nutrition, dieticians have been placed at schools and daycare facilities to serve as nutrition teachers. While encouraging the lateral spread of best practices like this, steps should be taken to accelerate the reinforcement of nutrition education in schools.

Education must be provided early in life to help people learn about the various health harms and risks that are elevated by unhealthy daily habits and obtain a concrete understanding of healthy dietary and exercise habits that can contribute to their prevention.

Expand education and lifestyle interventions for people who have a family history of obesity and who are at high risk of developing obesity.

Genetic factors have been found to affect the development of obesity in around 70% of cases. In other words, unhealthy lifestyles are not the only factor that results in obesity. Preventive measures and intensive interventions for families with a high prevalence of obesity will be necessary.

Structure industries in a manner that is based on collaboration among government agencies and the private sector and that incentivizes companies to contribute to healthy behavior among citizens.

Starting with products and advertisements that encourage overeating and unbalanced nutrition, modern society frequently exposes people to products, environments, and information and can elevate health risks. We must establish systems of structuring industries to promote activities that contribute to better health while continuing to allow for free economic activity. In the food industry, in response to a report from the Study Group for the Promotion of a Sustainable Food

Environment that Naturally Promotes Health, in FY2023, the Ministry of Health, Labour and Welfare (MHLW) launched a joint initiative with industry and academia that aims to "facilitate the consumption of nutritionally-conscious foods, regardless of items like degree of consumer health consciousness." We must accumulate good examples of collaboration among government agencies and the private sector like this one and, in the future, structure industries in a manner that takes health impacts into full consideration.

measures aimed at preventing obesity or its progression

Recommendation 2 : Enact highly effective secondary prevention policies generated by promoting and enhancing health data in specific health checkups and specific health guidance.

Challenges

According to the Act on Assurance of Medical Care for Elderly People that came into effect in April 2008, health insurers are obligated to conduct specific health checkups and provide specific health guidance, creating a health checkup system that is unique to Japan. Over fifteen years have passed since that law came into effect and this system has generated some results. For example, awareness toward metabolic syndrome has increased, facilities providing specific health checkups and specific health guidance have been established throughout Japan, and there has been growth in uptake for these checkups and consultations. One item that is examined as a risk factor for lifestyle disease during specific health checkups is visceral fat, and expectations are high for this to help control obesity. However, as previously mentioned, an increasing number of people are living with or at risk of metabolic syndrome, and some have pointed out that the system is limited in its ability to prevent metabolic syndrome as well as optimize healthcare costs, which was the reason it was established.

Enhancing the preventive effects of specific health checkups and specific health guidance for lifestyle diseases will require increasing implementation rates for both. While this rate for specific health checkups reached a record high in FY2021 and medical consultation rates are trending upward, among eligible parties, uptake was only 56.5% for specific health checkups and 24.6% for specific health guidance.[5] By gender and age, men in their 40s had the highest checkup rate, which suggests factors like differences in insurance coverage can impact uptake.

In addition to improving uptake, it will also be important to enhance quality for both specific health checkups and specific health guidance to make them more effective at preventing lifestyle diseases. Even when people are provided with health guidance and recommendations to visit health institutions for follow-up medical examinations, there are cases in which these do not lead to behavioral change. There are also cases in which people who are of eligible age for specific health checkups are only diagnosed as obese when visiting a health institution for serious symptoms. Even when people do visit health institutions for medical examinations, they may not

5. Ministry of Health, Labour and Welfare, "Regarding the implementation status of specific health checkups and specific health guidance, FY2021." https://www.mhlw.go.jp/content/12400000/001093812.pdf. Last retrieved on February 21, 2024.

receive information about their results in a manner that properly encourages them to take action, which can prevent them from reaching appropriate treatment. It will be necessary to investigate the causes of cases where people do not receive an intervention despite having received a specific health checkup, and to implement further measures to address this.

Recommendation

Enable the effective use of limited resources by providing appropriate interventions for each stage through health checkups. Such interventions should not be limited to specific health guidance but include a broad stratification of interventions that includes perspectives on medical interventions.

Evidence has been established for a variety of interventions to treat obesity, ranging from non-pharmacological therapies to pharmacological therapies and surgery, and requiring the effective use of a diversity of healthcare resources. In particular, because specialized health institutions, health professionals, and pharmaceuticals are limited, we should further stratify intervention classifications from what is currently used to determine need and, for each level, appropriately connect those classifications to community healthcare services, health guidance, and specialized advanced therapies.

To conduct that stratification, it will be necessary to properly classify the degree of need for intervention based on items covered in health checkups. According to existing metabolic syndrome criteria, even some cases of obesity with a high level of need for medical intervention may not be considered eligible for intervention. For example, people who are diagnosed with obesity when visiting a health institution for advanced kidney disease are likely to benefit from the inclusion of comorbid conditions like abnormal urine protein levels or visceral fat accumulation within criteria for providing recommendations for additional medical examinations. Obesity must be incorporated into such recommendation criteria so people with a high need for intervention can be guided to appropriate treatments without going overlooked.

Continue reinforcing healthcare provider collaboration and systems for effective feedback based on health checkup results to ensure that people with obesity who need medical intervention receive timely and appropriate care.

When a health checkup determines that someone is obese, that person must be informed that obesity requires medical intervention and introduced to a health institution for the necessary examinations. However, providing recommendations for examinations at health institutions based on specific health checkup findings do not always lead to appropriate interventions at health institutions. For example, people do not always seek medical examinations based on such recommendations, nor are they always examined at the department or health institution that was intended when the recommendation was made. In the short term, addressing these issues may require making it easier for people to seek medical examinations by providing easy-to-understand explanations regarding which department or facility to visit, or by providing them with information on the definition and significance of obesity as a disease using familiar formats. This may take the form of specific written feedback or, in some cases, involve the use of illustrations or pictures. Examples of how to write feedback in a way that is easy to understand are already being investigated, so steps need to be taken to develop a system for providing it automatically.

Furthermore, information such as the backgrounds for medical examination recommendations or medical checkup results is not sufficiently shared with health institutions. This leads to another issue in which people are not provided with care that is based on their checkup results. Therefore, in the long term, it will be necessary to reinforce systems for health and medical collaboration. This includes establishing systems that enable information sharing in the form of personal health records (PHRs) among the parties responsible for providing specific health checkups and specific health guidance (health insurers and facilities that provide medical checkups) and the parties that provide medical care (health institutions, local medical associations, etc.).

While promoting collaboration among the various bodies conducting health checkups and medical examinations, establish an integrated health checkup system so people can access specific health checkups and specific health guidance tailored to their personal needs regardless of factors like insurance coverage or employment status.

Improving the uptake rate for specific health checkups will be an essential step in improving their effectiveness in preventing obesity. In addition to specific health checkups and specific health guidance stipulated by the Act on Assurance of Medical Care for Elderly People, regular medical checkups are provided in accordance with the Industrial Safety and Health Act, and a number of medical checkups including cancer screening are conducted under the Health Promotion Act. As we can see, medical examinations are conducted for various reasons in different forms and by various parties with different obligations, so the situation is diverse and complex. In this context, the parties conducting these checkup or examination programs are making a variety of efforts to improve uptake. For example, some municipalities (which provide National Health Insurance (NHI) and are the main source of medical checkups) have improved access and recommendation effectiveness by conducting or recommending specific health checkups together with cancer screenings and other examinations. In addition, through collaborative health initiatives, in which employers and insurers work together to provide health services, some employee insurance schemes have established systems for providing health guidance during working hours. Efforts such as these, which are tailored to the needs of users, have shown to be effective at improving uptake, and need to be appropriately evaluated and promoted.

Due to the complex structure of the existing system, some issues are difficult to solve. For example, there is a great amount of variance in the rate at which regular medical checkups are conducted for employees under the Industrial Safety Act and their dependents (who that Act has no authority over) or people covered by NHI. Also, dependents are instructed to attend health checkups at facilities designated by insurers, so there are times when they cannot receive checkups close to where they live. As this shows, disparities in insurance coverage and employment status can lead to disparities in uptake rates. Furthermore, the fact that health checkups are conducted under different systems and by different parties can lead to fragmented data and hinder efforts to properly evaluate each program. Given these challenges, we should examine the establishment of an integrated legal system for the overall optimization of health checkups in the future.

Promote health data in health checkups and use evaluations that are based on data to provide more effective specific health checkups and specific health guidance.

It is important to lead people who have metabolic syndrome or obesity to behavioral change through specific health guidance. Health guidance often does not result in behavioral change, so new and more effective methods of providing it must be devised. These might involve the use of technology or group guidance in a workshop format. Recognizing the ingenuity of those serving in real-world guidance settings will be an important step in further promoting these efforts to elevate health guidance quality. Outcome evaluations for health guidance will be introduced when the fourth Specific Health Checkup Implementation Plan comes into effect in FY2024. While these evaluations are still in their introductory stages and use simple and abstract indicators, expectations are high for further progress in the future, including for the consideration of outcome evaluation methods.

In addition to evaluations focusing on real-world health guidance settings, it will also be important to reflect on the objectives of the specific health checkup and specific health guidance system and conduct regular evaluations of the system itself. Based on data, all health insurers have formulated health project plans and health data plans starting in FY2015, and they are now conducting evaluations of those plans that also cover specific health checkups and specific health guidance. While the original objectives of these plans was to optimize the cost of care while maintaining and promoting health, efforts to verify their effectiveness toward these goals on a nationwide basis have been insufficient. In addition to evaluations at each insurer, expectations are high for an evaluation of the system itself to be conducted and that data will be utilized to reinforce the health checkup system.

Ideal treatment structure for people living with obesity and related social support / measures

Recommendation 3 : Establish community healthcare provision and support systems that involve collaboration among industry, Government, academia, and civil society and that are tailored to individual challenges and needs to provide appropriate interventions to people who are overweight or obese.

Challenges

As both a condition and as a disease, obesity can result in all varieties of complications, and early detection and intervention are vital. However, the condition of obesity tends to be ignored when no particular ailment is present, and the lack of widespread recognition toward obesity as a disease results in many cases in which people are not connected to medical examinations. While it is important to avoid excessive medicalization, each related facility must cooperate so people who require medical interventions can be guided to the right care, at the right times. Specifically, there have been reports that obesity rates are higher the lower someone's income is, and that some people living with obesity are receiving livelihood protection. Despite the need to reinforce cooperation among local governments (namely, their welfare and medical departments) and health institutions, there are almost no examples, guidelines, or consultation services for cooperation among local governments, local health institutions, and facilities specializing in obesity treatment.

Obesity is not only becoming more common among adults; it is also becoming more common among children, and it is known that a certain percentage of people develop obesity as they transition to adulthood. Therefore, early detection and intervention for obesity should also be strengthened for children. Along with educating children on diet and exercise, children in need of support and interventions should be managed through collaboration among government, school health offices, and health institutions. However, the number of municipalities engaged in initiatives for childhood obesity is extremely limited, and efforts to raise awareness toward this issue have not progressed.

In 2023, the WHO compiled a report based on the concept of primary health care (PHC) titled, "Health service delivery framework for prevention and management of obesity." [6] It calls for the creation of systems that utilize community resources to help people recognize that obesity is a condition that requires intervention from schools, workplaces, and other parties in addition to health facilities, and that allow people to access consultations and guidance on daily habits. It also advocates for frameworks in which tools like self-management, community resources, community healthcare, and advanced medical treatments are stratified and used appropriately according to demand for medical interventions. Discussions in Japan have focused on interventions at health institutions, but using appropriate medical and non-medical resources will be an effective point of entry into the daily lives of people living with obesity.

Family doctors can provide a door to healthcare for people living with obesity that require medical interventions after receiving support through community resources. Despite high expectations for family doctors to fulfill major roles in obesity control by providing interventions and, when necessary, referrals to advanced health institutions that specialize in obesity treatment, there has been a lack of progress in obesity control measures due to problems rooted in the healthcare system. First, there is no reimbursement for providing medical treatment for obesity in the medical service fee schedule to incentivize family doctors to treat obesity. Items used to reimburse services provided by family doctors are limited to specific diseases or patients and do not include obesity.[7] People living with obesity also require non-pharmacological therapies such as nutritional and exercise guidance, but it is difficult for health institutions providing family doctor services to cover all of these bases because they do not always have dietitians and other specialists on staff.

There are times when people with obesity visit multiple departments in both community clinics and core hospitals to treat various obesity-related health disorders and symptoms. It will be necessary for healthcare professionals in all departments including internal medicine, orthopedics, psychiatry, psychosomatic medicine, and obstetrics and gynecology to recognize that obesity is a disease that requires medical intervention, to recognize the need to adopt treatment methods that are specific to health impairments, and to collaborate with health facilities specializing in obesity treatment. However, some have expressed the opinion that even health providers sometimes view

6. WHO. (2023) Health service delivery framework for prevention and management of obesity. https://www.who.int/publications/i/item/9789240073234. Last retrieved on February 26, 2024.
7. Ministry of Health, Labour and Welfare, "Regarding the Partial Revision of Medical Reimbursement Calculation Methods (Ministry of Health, Labor and Welfare Notification No. 54, 2022);" "Items of Note Related to Partial Revision of Medical Reimbursement Calculation Methods (Notice) Attachment 1 - Matters Related to the Medical Service Fee Schedule" 2022.3.4. https://www.mhlw.go.jp/content/12404000/000984041.pdf. Last retrieved on February 22, 2024.

obesity as a condition rooted in personal responsibility and may lack awareness that obesity is a disease that can be treated. On top of this, family doctors lack clear criteria to determine if a patient must be referred to a specialized obesity facility for consultation.

Voices from affected parties on this issue

- "When I had my foot examined (by an orthopedic surgeon), I was told I could not undergo surgery without dropping down to 90 kilograms. I thought it would be impossible on my own."
- "They wouldn't do anything for me (at an orthopedic clinic). They just said something like, 'Come back if you can lose the weight.' I thought 'You're kidding me,' and went searching for options. That is how I arrived here (at the facility specializing in obesity treatment)."
- "I didn't want to visit a hospital because I was afraid the doctors would get mad at me."

Recommendation

After defining multi-disciplinary clinical practice guidelines for providing people with obesity with tailored interventions that fit their conditions (such as BMI, presence of underlying diseases, etc.), broadly distribute those guidelines and raise awareness among health professionals.

Efforts to disseminate obesity guidelines and criteria for referring patients to specialized obesity treatment facilities among family doctors have not progressed sufficiently. As a result, family doctors are unable to provide appropriate obesity diagnoses and interventions or refer patients to specialists. Guidelines should clearly define referral criteria using numerical values for specific symptoms that family doctors can use to refer patients to specialists if there is no improvement after several months of an obesity management program. Those guidelines should be distributed to and adopted by health institutions specializing in internal medicine and a wide range of medical departments. While some steps have been taken to advance collaboration, it will also be necessary to collaborate with academic societies for fields that have close ties to obesity (such as those for orthopedics and obstetrics and gynecology) to demonstrate how to best provide treatment while engaging in multidisciplinary collaboration.

Establish systems to provide various interventions in communities and build industry, Government, academia, and civil society networks that form a foundation for healthcare collaboration to ensure people with obesity receive the support they need in a timely manner.

Effective methods of treating obesity such as nutrition therapy, exercise therapy, behavioral therapy, and pharmacological therapy are not being adequately provided in communities. This is leading to cases in which people are unable to continue the treatment they need in their communities during or after their treatment at specialized obesity facilities, so it will be necessary to establish an environment in which effective treatments can be provided in communities. Specifically, where medical resources are limited, it would be ideal if integrated and seamless community support systems could be established with collaboration with exercise therapy

facilities, local psychologists, and nutrition care stations or other personnel or facilities that can provide nutritional guidance.

Within the current framework, the pharmaceutical for treating obesity can only be prescribed with insurance coverage if prescribed by facilities, physicians, and treatment periods that meet certain requirements described in its Optimal Clinical Use Guidelines.[8] Many family doctors who do not meet those requirements are currently unable to prescribe this medication. Along with steps to encourage the appropriate use of obesity drugs, it will be necessary to also consider how to ensure access to them in communities in the future.

The key to connecting people with obesity to these treatments as early as possible will be reaching out to them via the administrative institutions, industrial health providers, educational institutions, and dental institutions that are related to their daily lives so they can receive early consultations with their family doctors, who serve as the gateway to healthcare. It will also be important to strengthen collaborative networks across community organizations such as municipal governments, health institutions and medical associations, and schools. Using the latest technology will be useful when doing so.

Online medical consultations are one effective option for supporting patients in areas without obesity treatment facilities or specialists who can provide nutritional guidance. They allow both the nearby health facility and the remote one to confirm the patient's condition and confirm the direction of treatment. They include the Doctor to Patient with Doctor (D to P with D) format, in which patients consult a specialist online with their doctor present, as well as Doctor to Patient with Nurse (D to P with N) format, in which patients consult a specialist online with a nurse present. Outpatient nutritional guidance is also being provided online. The effective use of digital devices can improve access to healthcare for people with obesity, so regional systems to support this must be established.

In terms of the healthcare provision system, an item that should be examined is the utilization of family doctors and related facilities. An overview of the resources available for obesity treatment—such as the number of educational and training facilities in each academic society and the number of certified specialists—should be taken to determine whether there is a balance with the number of people who need treatment for obesity. Another item to confirm will be how many family doctors and other medical staff have completed a certain degree of training or education and can contribute to providing treatment.

As part of measures for lifestyle disease control, design incentives that will encourage family doctors to take part in obesity treatment.

Financial incentives for those who treat obesity or make referrals to specialized health institutions must be established and steps must be taken to encourage proactive involvement from family

8. Optimal Clinical Use Guidelines for Semaglutide (Genetic Recombination). Ministry of Health, Labour and Welfare, 2023.11. https://www.pmda.go.jp/files/000265450.pdf. Last retrieved on February 22, 2024.

doctors, specialized institutions, and other such parties. When establishing incentives for obesity treatment, steps should be taken to set outcome indicators for interventions, to establish a premium for providing guidance to people with obesity that is not part of existing medical service premiums, and to consider long-term interventions for obesity as an upstream disease. Incentivizing family doctors to treat obesity will motivate them to take part in obesity treatment and lead to effective use of the family doctor function. Ultimately, enabling family doctors to provide appropriate early detection and intervention in obesity treatment will enhance the overall efficiency of healthcare and help lower the cost of healthcare in the future.

Ideal treatment structure for people living with obesity and related social support / measures

Recommendation 4 : Establish healthcare provision systems and pursue nationwide equity so multidisciplinary interventions can be delivered to people with severe obesity.

Challenges

Currently, 82 health institutions nationwide are certified by the JASSO as hospitals specializing in the treatment of obesity (as of January 1, 2024).[9] Of Japan's 47 prefectures, 16 prefectures have zero certified hospitals. Examining the number of facilities providing bariatric surgery, an effective treatment for people with severe obesity that provides weight loss and enhances metabolism, there are only 27 integrated obesity treatment centers certified by the Japanese Society for the Treatment of Obesity (JASTO) (as of February 1, 2023).[10] As a result, there are a certain number of people who, depending on where they live, do not have access to a specialized hospital.

Furthermore, policy support to encourage people to undergo internal therapy at health institutions is insufficient. For example, despite the fact that visceral fat area (VFA) measurements and formula diets[11] are important parts of examination and treatment, they are not covered by health insurance. As people who need VFA measurements or formula diets must pay for them entirely out-of-pocket, they can become significant financial burdens. Even though a new, highly-effective therapeutic for obesity is now available and in high demand, treatment is more effective when combined with dieting, exercise, and other non-pharmacological therapies, so support measures to promote non-pharmacological therapies must be further strengthened.

Furthermore, along people living with severe obesity, some also experience associated physical and mental disorders or socioeconomic challenges. These require patients to visit multiple departments, which can cause ongoing treatment to feel like a burden and hinder adherence. This

9. Japan Society for the Study of Obesity (JASSO). "List of Certified Hospitals Specializing in the Treatment of Obesity." http://www.jasso.or.jp/data/data/pdf/hplist.pdf. Last retrieved on February 15, 2024.
10. Japanese Society for Treatment of Obesity (JSTO). "List of Certified Facilities for Bariatric Surgery (Weight Loss and Metabolic Enhancement Surgery)." surgery)"http://plaza.umin.ne.jp/~jsto/gekashisetsu/file/shisetsuichiran20230201.pdf. Last retrieved on March 8, 2024.
11. Formula diets: Adjusted, low-calorie diets that contain protein, vitamins, minerals, and trace elements. They are considered effective in facilitating low-calorie diet (LCD) therapy while helping people maintain necessary levels of intake for protein and other nutrients. JASSO. *Guidelines for the Management of Obesity Disease 2022*. http://www.jasso.or.jp/contents/magazine/journal.html. Last retrieved on February 22, 2024.

means people with severe obesity need multidisciplinary treatment and holistic support. Obesity treatment coordinators play an essential role in providing these by making arrangements with various departments and providing patient consultations to serve as hubs for seamless support. Also, preventing rebound and nutritional disorders after bariatric surgery and providing mental health care requires lifelong care from multidisciplinary teams. However, the lack of a premium for obesity treatment coordinators in the medical service fee schedule means their services are generally covered by the health facility, so the first step will be to raise awareness toward the importance of obesity treatment coordinators and team treatment.

Voices from affected parties on this issue

- "The people here (at the hospital specializing in obesity treatment) are kinder. The fact they listened to me put my mind at ease and I could see a path ahead, so I am grateful."
- "The fact they arrange this and that across departments made me feel very secure."
- "Talking to the obesity treatment coordinator before talking to the doctor helped put my mind at ease from the start."

Voices from physicians involved in treating obesity regarding this issue

- "Things go smoothly thanks to the obesity treatment coordinators being here (to serve as consultation partners when patients have problems and to facilitate communication between patients and multiple departments and health professionals)."

Recommendation

Strengthen systems for collaboration across multiple departments and professions to provide a foundation for the provision of multidisciplinary treatment.

In the *Guidelines for the Management of Obesity Disease 2022*, the primary treatment for obesity is a combination of nutritional, exercise, and behavioral therapy that is based on a firm grasp of the patient's personality and that aims to improve lifestyle habits. An essential element in providing this will be team treatment that is based on multidisciplinary cooperation. As severe obesity is often accompanied by mental disorders, treating it will also require collaboration with psychiatry and psychosomatic medicine. To implement these forms of multidisciplinary team treatment which involves multi-professional collaboration, many integrated obesity treatment centers are hosting conferences and other events to reinforce collaboration and provide comprehensive treatment. However, activities like holding conferences or providing some of the aforementioned internal medicine or non-pharmacological therapies are not being adequately evaluated by existing systems. While a new therapeutic drug for obesity was recently launched, it was used in combination with non-pharmacological therapies during clinical trials. To maintain the effectiveness seen in clinical trials, it will be necessary to promote multidisciplinary and multi-professional collaboration and reinforce the system for the provision of non-pharmacological therapies by multidisciplinary teams.

Establish specialized, holistic obesity treatment systems at integrated centers for obesity treatment and design incentives for achieving this.

An essential element in providing continuous, holistic treatment to people with severe obesity will be health professionals like obesity treatment coordinators who serve as consultation partners for patients, manage arrangements with multiple departments and health professionals, and accompany patients in their treatment. In the short term, the functions of obesity treatment coordinators should be supplemented by multiple disciplines to create environments in which treatment stays centered on patients. In the long term, premiums for the activities of obesity treatment coordinators and multidisciplinary team treatment must be introduced to the medical service fee schedule so broad, long-term support can be provided to patients both within hospitals and in communities through local collaboration.

The roles of obesity treatment coordinators

In addition to pharmacological therapy and surgery, obesity treatments include continuous nutritional and exercise therapy, as well as behavioral therapy that supports these. Even if someone plans to have surgery in the future, obesity treatment requires long-term therapies like nutritional and exercise therapy. Furthermore, because people have their appetites suppressed during the treatment process, they may begin to experience psychological stress. Other characteristics of people with obesity can include social and economic challenges, mental disorders, and intellectual disabilities. This means treatment requires consistent, long-term support involving multiple professions such as internists, nurses, national registered dietitians, physical therapists, pharmacists, psychiatrists, psychosomatic physicians, and clinical psychologists.

Against this backdrop, one hospital providing weight loss and metabolic enhancement surgery has appointed obesity treatment coordinators to support ongoing multidisciplinary treatment. They are engaged in a wide range of activities for obesity treatment, including nutritional and exercise therapy as well as emotional support. They also manage appointments and provide counseling on topics like daily life. Obesity treatment coordinators have received positive feedback from physicians in several departments as well as from people living with obesity.

However, the personnel costs for obesity treatment coordinators are borne by the hospital because their services are not currently eligible for reimbursement in the medical service fee schedule. There are many issues rooted in the fact that the position does not have an official certification or is an established profession. These include the difficulty of contacting the government with the intent to support patients' daily lives, such as through employment support, or when coordinating with outside parties to foster cooperation in the community.

Ideal treatment structure for people living with obesity and related social support / measures

Recommendation 5 : Generate evidence on the effectiveness of measures for controlling obesity and other chronic diseases to advance obesity policy and create better and more equitable healthcare provision systems.

Challenges

A sufficient amount of surveys and data reflecting the voices of the general public and patients and on real-world circumstances regarding obesity has yet to be collected and more discussions on these topics must be held. These circumstances make it difficult to obtain a comprehensive, accurate grasp on the status of obesity in Japan or to mount effective countermeasures. Genetic predisposition is a major factor for obesity and childhood obesity has become a serious issue worldwide. There are close links between childhood obesity and the development of lifestyle diseases in adulthood,[12] so providing personalized interventions will require collecting and consolidating lifetime data in the future.

In Japan, the main sources from which health data is collected are regular health checkups such as those conducted in accordance with the Industrial Safety and Health Act or specific health examinations, and medical claims data from examinations and treatments at health institutions. However, there are issues related to fragmentation among each type of data and the characteristics of obesity as a disease hinder efforts to leverage this data in obesity research and to grasp real-world circumstances for obesity.

Challenges that have been pointed out from the perspective of data fragmentation include the fact that users cannot be tracked when changing insurers due to each health service being provided by a different party, and the lack of a disease registry. Another issue is the fact that medical claims data and health checkup data cannot be matched. From the perspective of the characteristics of obesity as a disease, issues that have been identified include the inability to register “obesity disease” in medical claims due to low recognition of obesity as a disease, and the difficulty of evaluating obesity treatments and interventions because it is a chronic condition.

While PHRs are also a useful form of data for obesity research, utilization rates for PHRs are low and they face similar issues related to data fragmentation and data reliability.

Despite the need to launch new studies, this area also faces a number of obstacles including the workloads associated with data entry in real-world care settings, the need for long-term patient follow-up, the difficulty of detecting obesity disease due to its characteristics as a chronic condition, and a lack of funding. In addition, there is little financial support to further research using a disease registry for obesity.

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12. Childhood Obesity Prevention — Focusing on Population-Level Interventions and Equity N Engl J Med. 2024 Feb 22;390(8):681-683. doi: 10.1056/NEJMp2313666. Epub 2024 Feb 17.

Recommendation

Generate evidence on the effectiveness of measures for obesity and lifestyle disease control, and how treating obesity reduces societal costs.

In the short term, developing effective policies and effective provision systems for obesity treatment will require generating evidence and data through the research currently being conducted. As one example of action in this area, the Japan Obesity Research Based on electronIc healTh record (J-ORBIT) has called on many health institutions to gather information in electronic medical records and is constructing a database of people with obesity. Conducting existing studies by mobilizing many health institutions rather than one academic society or health institution will let us better understand real-world conditions of obesity, which will in turn help us investigate more effective obesity treatments. There are also societal costs associated with obesity. These include economic burdens such as medical expenses or the cost of long-term care as well as the loss of opportunities to work. Generating evidence that providing treatment for obesity can contribute to optimizing national healthcare expenditures by reducing health harms and controlling societal costs will be a necessary element in advancing obesity policy.

Gather and compile data for the entire life course to build a centralized data infrastructure to advance research on measures for obesity and chronic diseases.

Obesity and other lifestyle diseases share common risk factors and can be related to each other, so life course data from birth to adulthood should be collected and consolidated to establish a centralized data infrastructure. Over the long term, it is desirable that various forms of data (such as academic society registries, medical claims data, and health checkup data) are linked and that data collection, input, and analysis is streamlined from the prediagnostic stages using PHRs, wearable devices, and AI. In collaboration with the Government, science and technology should be utilized to establish an information platform using a new, cross-disease model. Such a framework is likely to contribute to addressing obesity as well as improving public health.

measures aimed at preventing obesity or its progression

Ideal treatment structure for people living with obesity and related social support / measures

Recommendation 6 : Break away from the tendency to favor certain body shapes and sizes and the concept of personal responsibility for obesity, foster understanding of obesity as a medical condition, and eliminate stigma that prevents timely and appropriate medical interventions.

Challenges

The terms “obesity” and “metabolic syndrome” have come into wide use in modern society. However, not everybody understands the definitions of these terms in a medical context, and broader recognition for both terms tends to only focus on body image. On top of this, understanding toward body diversity in society is inadequate, and people have a persistent tendency to view obesity in a negative light. Additionally, despite the fact that it is widely known that lifestyle factors can result in obesity, there is insufficient understanding toward the fact that

genetic factors and SDH can also influence obesity. As a result, people tend to view obesity as a matter of personal responsibility. Such an environment results in greater social and individual stigma toward obesity and hinders public health interventions.

Voices from affected parties on this issue

- "At first, I didn't even consider visiting a hospital because I did not understand that obesity is a disease."
- "When I visited a hospital for an examination, they just told me to come back after I lost weight, without any support in doing so."

Recommendation

Leave attitudes that are centered on personal responsibility in the past and raise awareness that obesity is impacted by genetic factors and social determinants of health (SDH) in addition to lifestyle habits.

Removing the stigma attached to obesity both as a condition and as a disease will require long-term education and awareness raising, including during school education. The tendency of the general public and even health professionals tend to view obesity as a matter of personal responsibility heightens stigma inside and outside of health facilities, impeding efforts to provide early and appropriate health consultations and interventions. This awareness must be built toward the fact that genetic factors and SDH can cause overweight and obesity and that such factors can make it difficult for individuals to overcome obesity by improving daily habits on their own.

Distinguish obesity as a disease that requires medical attention from other forms of obesity or metabolic syndrome and spread accurate definitions and recognition.

One factor that prevents people from receiving specialized medical treatment for overweight and obesity is the lack of understanding toward the differences between obesity as a condition and as a disease. We should distinguish between obesity as a condition, where treatment focuses on a non-pharmacological approach using exercise, nutritional, and cognitive-behavioral therapies; and obesity as a disease, which requires the active consideration of pharmacological and surgical treatments. Steps should also be taken to make it widely known that obesity as a disease requires interventions that are more based on medicine.

Foster acceptance of different body shapes and sizes and eliminate social stigma and self-stigma for people living with obesity.

Certain factors may hinder obesity treatment and encourage the off-label use of obesity drugs for weight loss. These include the tendency for obesity to be perceived in a negative light in Japanese culture or the tendency for people to favor only certain body images. Thus, steps should also be taken to strengthen awareness of body diversity.

6. Issues related to off-label use of diabetes and obesity drugs called GLP-1 agonists

Obesity treatment is closely related to issues in the area of weight loss. Drugs called Glucagon-Like Peptide-1 Receptor Agonists, or GLP-1 agonists, are approved for production and marketing for the treatment of type 2 diabetes. A new obesity drug with similar ingredients and mechanisms was launched in Japan in February 2024. It is highly effective and has attracted interest in Japan and overseas as a drug that will provide more options for the treatment of obesity.

However, advertisements and other materials that can be seen as recommending GLP-1 agonists as "medication for weight loss" for the purpose of beauty or dieting have appeared online. GLP-1 agonists are for treating diabetes, but there have been reports of off-label use for aesthetic purposes among people who obtained them through personal importation or through prescriptions at certain health institutions.

As of March 2024, the time of writing, when someone with obesity is eligible for treatment with GLP-1 agonists in Japan, they can only be prescribed by physicians and facilities that meet certain requirements. Some are concerned that the free access to care for those who cover medical examinations by out-of-pocket payments will lead to the spread of off-label use of obesity drugs, as seen in the case of diabetes drugs, and that this may increase side effects and health hazards associated with their use. Health damage caused by adverse reactions to GLP-1 agonists used for weight loss are not covered by the Adverse Drug Reaction Relief System, and notices on their appropriate use are being issued frequently by the MHLW, academic societies, and pharmaceutical companies.

Preventing off-label use requires preventing physicians from making prescriptions, but because physicians have the protected right to prescribe and there are no regulations or penalties in place, we must ultimately rely on the conscience of physicians. While encouraging drug wholesalers not to sell to health institutions that provide off-label prescriptions, it may also become necessary to consider measures like strengthening physicians' training programs or establishing certification and registration systems. Multi-stakeholder collaboration with academic societies, medical associations, the government, and the private sector will also be necessary to provide information on the appropriate use of these drugs and to strengthen communication on the risk of side effects.

In 2023, there was an increase in demand for diabetes drugs including GLP-1 agonists that resulted in temporary shortages in domestic supplies. Many respondents to the "Emergency Survey on Drug Shortages" conducted by the Japan Medical Association in August and September 2023 reported that multiple diabetes drugs were difficult to obtain or prescribe, so problems related to the stable supply of drugs are also present.

As we can see, supply shortages have also emerged, so in the future, it will be necessary to consider a framework that will prevent off-label use and ensure that a stable supply of drugs can be provided to the people living with diabetes and obesity who truly need them.

7. Acknowledgments

When compiling these recommendations, we crystallized issues from interviews with local governments, experts, and affected parties as well as from discussions with our Advisory Board participants, all of whom are listed below. We express our deepest gratitude for their cooperation. Please note that these recommendations were compiled by HGPI in its capacity as an independent health policy think tank and should not be taken to represent the opinions of any local government representative, advisory board member, or related party, or of any organization to which they are affiliated.

Local governments, experts, and people living with obesity who lent their cooperation in our interviews

(Titles omitted; in Japanese syllabary order for each group)
Health and Welfare Policy Division, Department of Health and Welfare, Saga Prefecture
Health Education Division, Department of Education, Fukushima Prefecture
Health Promotion Division, Health and Welfare Department, Miyagi Prefecture
Health Promotion Division, Department of Children's Health, Kushiro City, Hokkaido
Four people living with obesity

Advisory board members (titles omitted; in Japanese syllabary order)

Takeshi Imaoka	(Associate vice President, Medical, Diabetes Products and Clinical Pharmacology Medical, Japan Drug Development and Medical Affairs, Eli Lilly Japan K.K)
Tomonori Okamura	(Professor, Department of Preventive Medicine and Public Health, School of Medicine, Keio University)
Yuko Oguma	(Associate Professor, Sports Medicine Research Center, Graduate School of Health Management, Keio University)
Tetsuya Kakuma	(Professor, Health Sciences Course, Department of Fundamental Nursing Sciences, School of Nursing, Faculty of Medicine, Oita University)
Iwao Kurose	(Executive Director, Japan Medical Association)
Atsuhito Saik	(Professor, Division of Diabetes, Metabolism and Endocrinology, Department of Internal Medicine, Graduate School of Medicine, Toho University)
Tomotaka Shingaki	(Sr.Advisor-Medical, Diabetes products and clinical Pharmacology Medical, Japan Drug Development and Medical Affairs)
Hiroshi Sugii	(Vice chair/ Member of the board, AVP CMRQ Development Region Japan, CMRQ Development Division, Novo Nordisk Pharma Ltd.)
Sayaka Tsuji	(Obesity Treatment Coordinator, Toho University Medical Center Sakura Hospital)
Ichiro Tatsuno	(Chairman, Japanese Society for Treatment of Obesity/ President, Chiba Prefectural University of Health Sciences)
Koutaro Yokote	(President, Japan Society for the Study of Obesity/ Director General, Chiba University Hospital)

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Project Team Members

Eri Yoshimura	(Senior Manager, Health and Global Policy Institute)
Takahiro Sakauchi	(Manager, Health and Global Policy Institute)
Honoka Hiraka	(Associate, Health and Global Policy Institute)
Asako Okawa	(Program Specialist, Health and Global Policy Institute)
Kyoko Kobayashi	(Project Assistant, Health and Global Policy Institute)
Ryoji Noritake	(CEO, Board Member, Health and Global Policy Institute)

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As an independent, non-profit, non-partisan private think tank, HGPI complies with the following guidelines relating to the receipt of grants and contributions.

1. Approval of Mission

The mission of HGPI is to improve the civic mind and individuals' well-being, and to foster a sustainable healthy community by shaping ideas and values, reaching out to global needs, and catalyzing society for impact. The activities of the Institute are supported by organizations and individuals who are in agreement with this mission.

2.Political Neutrality

HGPI is a private, non-profit corporation independent of the government. Moreover, we receive no support from any political party or other organization whose primary purpose is political activity of any nature.

3.Independence of Project Planning and Implementation

HGPI makes independent decisions on the course and content of its projects after gathering the opinions of a broad diversity of interested parties. The opinions of benefactors are solicited, but the Institute exercises independent judgment in determining whether any such opinions are reflected in its activities.

4.Diverse Sources of Funding

In order to secure its independence and neutrality, HGPI will seek to procure the funding necessary for its operation from a broad diversity of foundations, corporations, individuals, and other such sources. Moreover, as a general rule, funding for specific divisions and activities of the Institute will also be sought from multiple sources.

5.Exclusion of Promotional Activity

HGPI will not partake in any activity of which the primary objective is to promote or raise the image or awareness of the products, services or other such like of its benefactors.

6.Written Agreement

Submission of this document will be taken to represent the benefactor's written agreement with HGPI's compliance with the above guidelines.

Sponsors (in Japanese syllabary order)

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Eli Lilly Japan K.K
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Health and Global Policy Institute (HGPI)

Grand Cube 3F, Otemachi Financial City, Global Business Hub Tokyo
1-9-2, Otemachi, Chiyoda-ku, Tokyo 100-0004 JAPAN
TEL: +81-3-4243-7156 FAX: +81-3-4243-7378 E-mail: info@hgpi.org