

Health and Global Policy Institute (HGPI) Kidney Disease Control Promotion Project, Obesity Control Promotion Project, and Cardiovascular Disease Control Promotion Project Cross-project Meeting Discussion Points

Lessons and challenges drawn from NCDs responses in local governments and future visions



### Background to this compilation of discussion points

The Ministry of Health, Labour and Welfare (MHLW) defines "lifestyle diseases" as diseases that are closely linked to causative factors rooted in everyday habits related to diet, exercise, rest, smoking, and alcohol consumption. Lifestyle diseases are leading causes of death in Japan and include various conditions like cancer, heart disease, and stroke.

In addition to being leading causes of death, cardiovascular diseases (CVDs) like stroke and heart disease are among the most common conditions that cause people in Japan to begin to need long-term care. Another condition that is often comorbid with heart disease and other CVDs is chronic kidney disease (CKD). People with CKD experience decline in kidney function without subjective symptoms and the condition can eventually lead to the need for dialysis. In addition to lower patient QOL due to the burdens of dialysis management, as of 2018, the annual national cost of providing dialysis treatments is approximately 1.62 trillion yen. This makes dialysis a major strain on national finances and an important policy issue. Furthermore, as the population ages, more people are developing CVDs or CKD. As a country experiencing ongoing population aging, Japan has been proactive about advancing policies that focus on these diseases in recent years.

In the area of CVD control, Japan enacted the "Basic Act on Countermeasures for Stroke, Heart Disease and Other CVDs to Extend Healthy Life Expectancies" (or the "Basic Act on CVD Measures") in December 2018. Later, the Japanese National Plan for Promotion of Measures Against Cerebrovascular and Cardiovascular Disease was formulated in accordance with that Act and was approved by Cabinet Decision in October 2020. Each prefectural government has also formulated a Prefectural Plan for the Promotion of CVD Countermeasures, and those prefectural plans are now undergoing revision after the National Plan entered its second phase following Cabinet approval in March 2023.

In the area of kidney disease control, in 2007, the MHLW convened a group called the Kidney Disease Control Review Meeting, which formulated a document compiling the content of its discussions titled, "The Future of Measures for Kidney Disease Control." Later, to track progress and identify issues related to domestic CKD control over the previous ten years based on "The Future of Measures for Kidney Disease Control," the Kidney Disease Control Review Meeting was convened once again in 2017 and 2018. Those meetings deepened discussions on how to expand the healthcare delivery system and develop human resources. Meetings of a group called the "Study Group for the Promotion of Kidney Disease and Diabetes Control" were held in 2023. It produced the "Interim Evaluation on Initiatives Related to the July 2017 Kidney Disease Control Review Meeting and Future Activities," which compiled the results of their assessment on the previous ten years and described necessary measures for the future. With these developments, domestic efforts for kidney disease control are currently advancing.

In addition, the third phase of the "National Health Promotion Movement in the 21st Century (Health Japan 21)" began in FY2024. As the Government's basic policy for comprehensively promoting public health in Japan, it added targets for Chronic Obstructive Pulmonary Disease (COPD) in addition to existing targets for cancer, CVDs, and diabetes. These include the ambitious target of 10.0 deaths per 100,000 population for COPD. These four diseases are viewed as key lifestyle diseases, and the plan emphasizes comprehensive measures for their prevention and management.

Given the growing global prevalence of obesity, which has been strongly linked to cardio-renal-metabolic conditions, the situation surrounding obesity could be called a pandemic. In one example of progress in measures to prevent the exacerbation of chronic diseases, in Japan, all insurers have been obligated to conduct specific medical checkups and provide specific health guidance for obesity since 2008. These measures focus on metabolic syndrome for the prevention of lifestyle diseases. However, unlike the forms of obesity and metabolic syndrome that are widely known, there is still insufficient recognition of forms of obesity that require medical intervention. Expectations are high for the establishment of medical interventions that are tailored to the needs of people living with obesity as well as for diverse forms of support that involve society.

A number of lifestyle-related comorbidities such as hypertension, dyslipidemia, diabetes, and obesity are often present alongside both CVDs and CKD. To prevent the onset and exacerbation of such diseases, in addition to efforts from the people living with these conditions, cross-cutting intervention and management should also be provided through united efforts in communities and at workplaces.



Aiming to promote lifestyle disease control measures that leverage regional characteristics, HGPI hosted meetings titled the "1st NCDs<sup>1</sup> Meeting in Kyushu" in December 2023 and the "The 2nd Meeting on Non-Communicable Disease in Hokkaido and Tohoku" in March 2024. These meetings focused on cardio-renal-metabolic conditions, which impact a particularly large number of people among lifestyle diseases, and obesity, which is an emerging issue that has been the subject of growing attention in recent years. At those meetings, we gathered experts from various fields and government officials to share phases for control measures for each disease and necessary perspectives for each of those phases (Figure 1). There, participants deepened their understanding of the latest developments in each disease and examined how to best tailor lifestyle disease control measures to the actual conditions in and characteristics of each region. The meetings also established a network among local governments to assist in expanding policies to adjacent areas. Figure 1 (below) summarizes issues discussed at these meetings and describes future prospects. The discussion points synthesized at those meetings are described in this document. In the future, we will utilize those insights when hosting meetings that include representatives of other regions and disseminate them to encourage progress in lifestyle disease control measures throughout Japan.

Figure 1: Phases of control measures for diseases closely related to lifestyle diseases and necessary perspectives for disease control



(Source: Created by HGPI)

# Discussion point 1: Cardio-renal-metabolic conditions, obesity, and related risk factors can be viewed as interrelated conditions. Rather than advancing regional control measures that target individual conditions, it will be necessary to establish systems using a more integrated approach that spans prevention and treatment to rehabilitation.

People with conditions like obesity, diabetes, hypertension, abnormal lipid metabolism, CKD, COPD, or liver diseases like nonalcoholic steatohepatitis/metabolic dysfunction-associated steatohepatitis (NASH/MASH) are known to be at high risk for CVDs, and the number of people living with two or more of these conditions is not small. However, there is a great degree of overlap in the approaches to early detection and prevention of these diseases, which include correcting lifestyle habits; providing early detection through routine health examinations; and providing specific health checkups and specific health guidance. Rather than taking individual approaches for each disease, it will be important to build the capacity to provide more integrated and comprehensive treatment and management, including from the perspectives of reducing burdens on patients and their families and improving health system efficiency.

While efforts to respond to these diseases have been implemented in many regions, such plans and measures have often been formulated on an individual basis and target a specific condition. As a result, it is difficult to say that there is sufficient awareness toward the interrelationships among these conditions or the need for coordination among their respective fields. Prefectural and municipal governments must advance cross-cutting measures that surpass individual disease fields by gathering and building consensus among various sectors. In addition to the government, these include healthcare professionals, academic institutions, patient groups, and insurers. It will also be important to establish systems that reinforce collaboration among a wide variety of professionals in their respective communities, including local specialist physicians for each condition, non-specialist physicians, healthcare professionals other than physicians, and professionals in fields other than healthcare.

Discussion point 2: To improve uptake for routine and specific medical checkups, adopt methods of recommending checkups and providing explanations that reflect the circumstances of the people receiving them.

Factors that can influence health checkup-seeking behavior include raising awareness (understanding toward diseases or the importance of checkups), removing obstacles (in terms of cost, time, location, or transportation), and creating opportunities

<sup>&</sup>lt;sup>1</sup> NCDs: Non-Communicable Diseases.



for people to consider seeking a checkup (by providing individual recommendations). Japan has multiple systems for conducting health checkups that are operated under separate laws such as the Health Promotion Act, the Health Insurance Act, the Act on Assurance of Medical Care for Elderly People, the Industrial Safety and Health Act, and the School Health and Safety Act. Furthermore, the bodies conducting checkups as well as the people they target are different for each of those systems. This means it will be vital to take the characteristics of each system and their target populations into account when considering methods of improving medical checkup uptake.

A number of approaches are effective for reaching people who attend medical examinations on an irregular basis. For example, job category-specific interventions can be provided by occupational health professionals. It can also be effective to provide individualized messages that are tailored to that person's characteristics, or to conduct "checkups provided by assumption" covering items that are not examined by family doctors. Another issue is how to recommend checkups to people who have yet to receive them, which requires analyzing the reasons they have not undergone a checkup in detail, and implementing more personalized approaches that reflect those reasons. Barriers to health checkups are even higher for certain households, such as low-income households, elderly single-person households, and households that include people living with dementia or a mental disorder. As households like these are also at high risk of lifestyle diseases or developing serious illnesses, in light of these social factors, it will be important to provide them with recommendations to attend checkups.

In recent years, social determinants of health (SDH) have been the subject of attention and there is a growing need to implement approaches that focus on patients' social backgrounds. At prefectural governments, it will be necessary to elucidate the relationships among SDH and lifestyle diseases through surveys and similar initiatives, to form comprehensive collaborative agreements with universities and similar parties to advance SDH- and lifestyle-related research, and to update prefectural plans to include clear mention of the need for considerations for SDH based on the knowledge obtained from those initiatives. Municipal governments may be able to approach community members in a more personalized manner, so it will be necessary for them to take steps to identify community members who are eligible for support and approach them on an individual basis. In the context of integrated community care, support that takes social background into account is already being provided to eligible elderly people, so it will be important to advance discussions from the perspective of NCD control within that support.

# Discussion point 3: To encourage people whose checkup results require follow-up or more detailed testing to visit health institutions for secondary examinations, it will be important to have conversations that are in line with their lifestyles as well as to eliminate obstacles to medical examinations.

One noteworthy aspect of lifestyle diseases is that they have few subjective symptoms, so many people with lifestyle diseases do not visit healthcare institutions even if their health checkup results come back with requests for further testing or treatment (i.e. secondary examinations). This creates the issue of how to properly guide such people to the health institutions they should visit. There are systems like Insurer Initiatives Support System Systems that provide local governments with incentives from the national Government through the National Health Insurance system. Outside of these existing systems, other initiatives have been shown to be effective in encouraging people to comply with requests to receive medical checkups. For example, requests can be issued to eligible parties through workplaces if companies are provided with incentives from prefectural governments, or eligible parties can be easier to reach if local public health nurses contact them over the phone or in-person at times that are determined to be convenient.

While consultation records held by healthcare institutions (in the form of medical claims record invoices, written responses from physicians, etc.) can be used to determine if members of the target group have received medical examinations, the challenge lies in identifying how to effectively approach many people in that group with limited financial, time, and human resources. In one good example obtained during an interview with a municipal government, public health nurses visited people who required a follow-up or more detailed examinations based on previous examination results to share details about the risks associated with their conditions and to encourage behavioral change. For example, when describing diabetic neuropathy and retinopathy to someone with type 2 diabetes, they might say things like, "Your legs may get worse in five years and your retinas may be damaged in ten years." They have formed teams of public health nurses who are responsible for multiple sections of the city and who work to convey the results of medical examinations directly to the people who received them.



Discussion point 4: To ensure follow-up examinations provided after medical checkups are of high quality, and to enable family doctors to be able to provide referrals to and collaborate with specialists at the right times, it will be necessary to standardize care, to disseminate diagnostic and referral criteria, and to establish networks that facilitate healthcare collaboration.

Some have expressed concern that when a medical examination finds that someone requires further examination, there may be disparities in the content of medical examinations and treatments provided among the health institutions and physicians that perform secondary examinations. Furthermore, specialties and attitudes toward treatment vary among family doctors, and disease histories vary among patients, so referrals to specialists are not always provided at the right times. In some cases, patients' conditions have already worsened by the time they are referred to a specialist. It will be important to educate and train primary care providers so patients can be seen by specialists at the right times. Some prefectures are working with local medical associations to create lists of health institutions that can handle the items and diseases assessed during secondary examinations as well as to encourage collaboration by sharing medical resources. There are also high expectations for cloud services to allow for quick and easy information sharing. One local government is conducting surveys to determine the extent to which health institutions are providing appropriate follow-up according to checkup results. Those surveys revealed that there are differences in follow-up rates, even within the same prefecture. They also showed the extent to which lifestyle disease risk factors are being managed and found that there are differences in conditions surrounding collaboration with specialists. Visualizing data on patient care in this manner can give health institutions and physicians reasons to alter their behavior.

Cross-referencing health institutions' policies regarding treatment and visualizing the conditions of patients in the community can also create useful references for physicians responsible for providing treatment. Involvement from the Government and public health nurses will be essential in collecting, managing, and providing such information. The term "lifestyle diseases" spans a broad range of conditions and specialties. It will also be important to visualize and share information on collaborative community pathways that includes how many local physicians have specialties in fields like cardiology, nephrology, metabolism and endocrinology, and general practice; where those specialists are located; and how people at risk for some form of lifestyle disease can be examined in the community while collaborating with specialists.

### Discussion point 5: The uneven geographical distribution of specialists results in cases where the windows for early detection are missed, so access to specialists should be improved through healthcare digital transformation (DX).

There are shortages in specialists in regions outside of major metropolitan areas, particularly in eastern Japan, and most of the few specialists that do practice in those regions tend to be concentrated in urban areas like prefectural capitals. As a result, some patients are not referred to specialists when their condition is detected early. The uneven geographical distribution of specialists should be eliminated by leveraging IT and advancing healthcare DX. In regions where this uneven distribution is particularly severe, there is room to consider measures such as distributing subsidies needed for medical equipment and introducing a reimbursement to the medical service fee schedule to cover online medical examinations provided as follow-up examinations when checkup results require further examination. It is also necessary to provide healthcare recipients with educational opportunities. Healthcare recipients do not always visit specialists, even when they have opportunities to do so. Sometimes, they do not fully understand the importance of being seen by a specialist, or there are factors that prevent them from seeing a specialist, such as barriers to healthcare DX. Efforts must be taken to resolve these and other issues that lie on the side of healthcare recipients.

### Discussion point 6: Measures for lifestyle disease control should include measures to reinforce the capacities of prefectural and municipal officials and to promote collaboration among them.

The implementation of policies proceeds smoothly when there is a unified direction from the national Government to prefectural governments and then from prefectural governments to municipal governments, and a clear division of roles among these parties. However, conditions vary greatly from region to region, so it is important for the national Government to exchange information and share issues with municipal and prefectural governments, as they are the closest to each community. The capacities of officials at both prefectural and municipal governments should be reinforced to deepen their knowledge regarding the targeted diseases, to help them build face-to-face relationships, and to enable them to draw out each other's perspectives. Expectations are also high for the construction of a platform that allows these parties to cross-reference best practices from each municipality and to close the gaps among municipalities while eliminating siloed measures in the government. It is difficult for each municipal government to approach health issues on an individual basis, so support will be essential. This might include support from the prefectural government, or having specialist advisors or officials responsible for evaluations establish performance indicators or conduct analyses.



## Discussion point 7: In each municipality, public health centers play key roles in cross-cutting collaboration that spans multiple diseases, and their functions should be reinforced.

It goes without saying that public health centers play key roles in community health, but they also have an enormous role to play in lifestyle disease control. To enable public health centers to be able to take measures for lifestyle diseases that keep up with modern needs and current trends, shifts in population demographics in their jurisdiction, or changes in socioeconomic factors, their functions must be reinforced on an ongoing basis. At public health centers, both budgets and staffing levels have been trending downwards in recent years, and the COVID-19 pandemic highlighted how they have become overwhelmed by ever-increasing workloads and tighter schedules. As public health centers serve as the core of community health, they should be provided with suitable budgets and human resources to be able to handle a wide variety of duties, from infectious disease control to lifestyle disease control.

Expectations are also high for public health centers to serve in core roles in cooperative efforts among various local organizations that are involved in lifestyle diseases. Public health centers are establishing systems for cooperation in each region. For example, at a liaison council for diabetes prevention, diabetes specialists and public health nurses are working together to create a shared diabetes registry to bolster cooperation among municipal governments and health institutions. In another region where there are shortages of specialist physicians, case review meetings using anonymized data are being held at core hospitals, and public health centers and medical associations are working together to adjust referral criteria and establish lifestyle disease measures that suit local conditions. Expectations are high for public health centers to continue such activities to help grasp local medical resources and advance systems for cooperation within their regions.

## Discussion point 8: Ensuring smooth collaboration among public health centers, prefectural governments, and municipal governments will be important. Doing so will require establishing systems for collaboration that are centered on public health centers and that involve stakeholders in the region.

Generally, the overall direction for policies is set by prefectural governments, and those policies are then conveyed to municipal governments through public health centers so they can be implemented. Collaboration among prefectures, public health centers, and municipalities is an important aspect of this process, but there are times when it does not proceed smoothly. The key to smooth collaboration is for prefectures, public health centers, and municipalities to have a consistent recognition of issues, roles, and objectives. In addition to strengthening the functions of public health centers, other important factors for smooth collaboration will be building face-to-face relationships and enhancing communication between public health centers and related organizations in both formal and informal settings. Another important aspect is outreach from prefectural governments to public health centers or municipal governments. In addition to having related parties gather at prefectural government offices, it will be important for officials from prefectural governments to actively visit municipal governments, as well.

## Discussion point 9: In addition to measures limited to the public sector, there are examples in which cooperating with the private sector enhanced measures for lifestyle diseases. Cooperation among industry, Government, and academia is important.

There are limits as to the degree to which lifestyle disease control measures can advance through the efforts of the public sector alone. Multi-sector collaboration that spans industry, Government, academia, and civil society is essential. In particular, there are various examples of collaboration with the private sector in each region. Their experiences and good examples should be expanded to adjacent areas in the future. Examples of such cooperation include partnerships with food companies, restaurants, gyms, and sports facilities.

- Regarding the topic of collaboration with industry, many companies have formed close relationships with universities or comprehensive agreements with prefectural governments. On the municipal level, to ensure fairness, some municipalities have established open systems for companies to submit proposals. In certain cases where collaboration with specific companies was difficult, some municipal governments prepared platforms or other open opportunities for free participation from the private sector.
- In an effort to reduce sodium intake, a municipal government collaborated with supermarkets and similar parties in the community to reduce the amount of salt contained in ready-to-eat food products. This initiative used two methods: explicitly labeling some products as low-sodium products, and reducing the salt content of products in a manner that consumers would not notice. In some areas, local governments are considering introducing subsidies to cover the associated losses when these measures impact sales. In the future, it will be necessary to collaborate with academia to accurately evaluate the health benefits of these initiatives. (Such evaluations must measure the health benefits of the sodium reduction measures themselves, as well as the difference in impact between products that are explicitly labeled



as low sodium and those that are not.)

- One municipality is working to prevent diabetes and other lifestyle diseases by establishing an environment that encourages vegetable consumption. It has registered shops that sell vegetables or serve vegetable-rich dishes as "Veggie Life Cooperating Shops." It is also making specific recommendations regarding behavior with slogans like, "Eat your vegetables first," "Have vegetables at all three meals," and "Chew your vegetables well." It has established criteria for restaurants to serve vegetable-based appetizers, thus helping people build a "vegetables first" habit. To encourage long-term behavioral changes in this manner, it is important to use psychological nudge strategies that are effective even among uninterested consumers. Expectations are high for the active adoption of nudge strategies and measures based on behavioral economic theory.
- In an effort to energize the community, improve health for community members, and to help community members build exercise habits, one municipality is collaborating with gyms to utilize surplus floor space in the region to establish "convenience store" style gyms. They also introduced a program called the "Performance-based Health Promotion Rewards Program," which ties rewards to the degree to which goals are met. Participants' efforts to improve their physical condition are being provided with support from three angles: diet, exercise, and mental health support. To encourage sustainable lifestyle improvement to help people maintain healthier habits over the long term, as part of specific health guidance aimed at lifestyle disease prevention, the government is also providing an online program which encourages users to lose two kilograms and trim their waistlines by two centimeters.

### Discussion point 10: Expectations are high for a population approach taken through stronger collaboration between community health and occupational health.

A population approach that targets a wide range of people in the region, regardless of whether they reside there or only work there, should be implemented through regional and occupational collaboration. Although small and medium-sized companies recognize the need to collaborate with the Japan Health Insurance Association, collaboration is still inadequate. Specifically, it will be important for them to establish effective and efficient health services that are well-suited to local circumstances by sharing the results of health checkups or health information on topics like health education or counseling. Collaboration can also make it possible to provide health services that match changes in working styles or the growing diversification of lifestyles among employees in recent years. Additionally, sharing resources such as budgets and specialized personnel can make it possible to expand opportunities for health services, to adjust initiatives where they overlap, and to make effective use of resources.

# Discussion point 11: Obesity control is becoming more important for preventing the exacerbation of other diseases, but obesity measures at the municipal level are generally limited to metabolic syndrome. Obesity awareness must be expanded.

Despite being a risk factor in CVDs, kidney disease, and diabetes, the word "obesity" does not appear in the Basic Act on CVD Measures or the National Plan. As such, when compared to other risk factors for lifestyle diseases like hypertension and lipid metabolism disorders, efforts for obesity control are insufficient. Without explicit mention of obesity in the national Government's Basic Act on CVD Measures and National Plan, it is difficult for individual municipal governments to advance measures for obesity. However, there are still measures that can be taken even before such terms are clearly mentioned in government documents, such as raising obesity awareness among the general public. Effective activities for expanding efforts for obesity beyond metabolic syndrome may include involving businesses in local shopping malls in raising awareness that obesity is a risk factor for lifestyle diseases, or making effective use of health management apps.

# Discussion point 12: A system must be established that allows people to access the right treatment and support that is suited to the policy stage for each disease. Systems for intra-regional collaboration that are designed in a manner that they cut across diseases should also be established.

While this compilation of discussion points focuses on cardio-renal-metabolic conditions and obesity among lifestyle diseases, in reality, there is great variance in the degree to which measures have progressed for each disease. For example, it is estimated that in Japan, 14.8 million people or about 1 in 7 adults live with CKD.<sup>2</sup> Given the number of patients and the impact on healthcare expenditures that can occur when they begin to require dialysis, which is estimated to cost approximately 5 million yen per person, CKD has a significant impact. The absence of strong legislation from the central

<sup>&</sup>lt;sup>2</sup> Japanese Society of Nephrology, 2023. *Evidence-based Clinical Practice Guideline for CKD 2023*, p150.



Government or its inclusion as a targeted disease in Medical Care Plans means real-world circumstances surrounding CKD vary greatly among prefectures and municipalities.

A number of actions should be taken for this issue. In addition to advancing efforts to grasp circumstances surrounding community members living with CKD, expectations are high for each municipality that currently does not have a specific plan or other strategy related to CKD to start formulating plans and guidelines for CKD control. When doing so, they should work together with each relevant party or facility in the region, starting with local medical associations, as well as pursue cross-cutting efforts with other lifestyle disease control measures, starting with diabetes. Even in municipalities that already have plans or guidelines, many face lingering issues in efforts to develop local provision systems for CKD care. These issues are related to collaboration among municipal and prefectural governments or among public health centers and local medical associations; the dissemination of clinical guidelines for CKD to family doctors; or achieving stronger collaboration among hospitals and diagnostic laboratories. Addressing these issues will require advancing measures similar to initiatives for the "big five" disease described in the Medical Care Plan.

The Japan Society for the Study of Obesity (JASSO) has issued clinical practice guidelines for obesity, but awareness is low among both health professionals and people with obesity. For people with obesity, it is unclear which health institution or department to visit, and at which stage. For many, the road to the right treatment and support is long. Opportunities to foster understanding that obesity is a disease that requires medical treatment among both healthcare professionals and people with obesity should be created. In addition, a systematic approach to treatment should be implemented and include formulating guidelines for treatment; establishing a system that enables physicians to provide referrals to specialists at the right times; and constructing a database with open access to information on which health institutions are actively providing preventive care.

It will also be important to provide healthcare professionals opportunities for training and education so they can build the capacity to respond to obesity in their communities. When doing so, it will be important to keep in mind that in addition to physicians, nurses, and public health nurses, dieticians also play key roles. One good example comes from a prefecture where in-house dieticians are being dispatched to local clinics where they are providing nutritional guidance to people at high risk of lifestyle diseases or severe complications. While this example is not specific to obesity, it does show the importance of nutritional guidance in measures against lifestyle diseases overall. In addition to personalized support like in this example, other activities from dieticians should also be promoted, such as by promoting the expansion of or collaboration with nutrition care stations.

### Discussion point 13: Lifestyle disease control requires collaboration that involves various stakeholders, that encompasses a life course perspective, and that takes aspects related to socioeconomics and welfare into account.

The overall goals of the FY2018 report presented by the MHLW Kidney Disease Control Review Meeting include "Aim to maintain or improve QOL for people living with CKD, including those undergoing dialysis or who have received kidney transplants." Just as this implies, dialysis has significant impacts on the lives of people in many ways, with effects on employment, travel, and leisure time, and negative attitudes toward dialysis are visible in some areas. To ensure physical, social, and economic wellbeing and to maintain and improve QOL for everyone from people who are suspected of having CKD to people on dialysis, society's perception of CKD and people on dialysis must be changed and forms of support that take the social aspects of dialysis into account must be examined.

Obesity control is not something that should be left entirely up to health institutions. Rather, it requires initiatives in the community that are arranged in phases along the life course. Collaboration among communities, pediatricians, schools, and boards of education is vital for addressing obesity in children of preschool or elementary school age. In adolescence and adulthood, it requires collaboration among communities, occupational health, and the private sector. In childhood obesity prevention and treatment, in one prefecture, the pediatricians' association and the prefectural government is producing a manual on childhood obesity prevention for use in childcare, school health, and community health. Another prefecture is advancing efforts for obesity control centered on the Education Bureau and is providing children with nutrition education in schools by appointing nutrition education promotion coordinators, providing training, and collaborating with school physicians.

Obesity control also requires efforts that consider factors related to socioeconomic status and welfare. Certain groups are at greater risk for overweight and obesity, such as people affected by socioeconomic factors or who live with mental disorders,



and because uptake for routine health checkups and other examinations can be low among such groups, they may be unaware of this risk. When considering obesity control measures in prefectures and municipalities, the relationships between socioeconomic factors and overweight and obesity must be kept in mind. In addition, local governments should collaborate with academia when assessing local conditions and work together to conduct quantitative evaluations on the links between socioeconomic factors and obesity in their communities.



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