# Nutrition Policy in Japan to Leave No One Behind

- For Achieving Sustainable Societies -

Nutrition Improvement Activities in Remote Islands and Mountainous Areas to Leave No Region Behind



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### About this report

In December of 2021, the Japanese government organized the Tokyo Nutrition for Growth Summit 2021.

In 2021—given that the deadline for achieving global nutrition targets 2025 was around five years away and that the deadline for achieving the SDGs was around ten years away—the substantial expansion and enhancement of nutrition improvement activities were identified as a key challenge for achieving these international goals.

Therefore, at the summit, the diverse range of stakeholders were requested to organize the details of their nutrition improvement activities as commitments, and 181 stakeholders from 78 countries announced 396 commitments in response.

As one of its own commitments, the Japanese government expressed its intention to further expand the Nutrition Policy in Japan to Leave No One Behind and to communicate information on both the progress and results of this policy every year starting in fiscal 2023.

This report is a follow-up to the first round of efforts to communicate information both within and outside of Japan in fiscal 2023. As the second attempt to communicate such information, this report focuses on nutrition improvement activities to leave no one and no region behind implemented for local residents of the remote islands and mountainous areas of Japan, and it contains information on the progress and results of such activities.

Ultimately, this report also introduces the status of activities aimed at creating a healthy and sustainable food environment, a commitment of the Japanese government expressed at the Tokyo Nutrition for Growth Summit 2021.

**Executive Summary** 

### **Executive Summary**

#### ■ Japan is an island country that has many remote islands and mountainous areas.

- Japan has over 14,000 islands, and approximately 70% of the country is mountainous.
- Many residents inhabit these remote islands and mountainous areas, so Japan has targeted these regions as well while expanding its nutrition policy to leave no one behind.

### For over one hundred years, Japan has trained nutrition professionals and deployed them throughout the country, including remote islands and mountainous areas.

- Japan has been training nutrition professionals for over one hundred years, and the country currently has
  qualifications for two kinds of nutrition professionals under the Dietitians Act: Registered Dietitians and
  Dietitians. Of these, Registered Dietitians are nationally qualified specialists who possess more advanced
  expert-level knowledge and skills.
- Registered Dietitians and Dietitians are deployed to municipalities, facilities, and other locations throughout Japan based on legally stipulated deployment standards, and their deployment destinations include remote islands and mountainous areas.

### Remote islands and mountainous areas face unique health and nutrition-related challenges.

Remote islands and mountainous areas face unique health and nutrition-related challenges at all life stages
for reasons that include decreases in various local resources due to population decline and aging population
as well as the susceptibility of such regions to weather and natural disasters in many cases.

#### Health and nutrition-related challenges faced by remote islands and mountainous areas

The shrinking economy due to population Susceptibility to weather and natural disasters, including heavy snowfall and typhoons

Decreases in various local resources, including medical institutions, grocery stores, and public transportation

Susceptibility to weather and natural disasters, including the population including heavy snowfall and typhoons

Frequent difficulties in terms of local residents going out as well as unstable distribution

There are unique health and nutrition-related challenges at all life stages.



#### Japan promotes nutrition improvement activities to leave no one and no region behind.

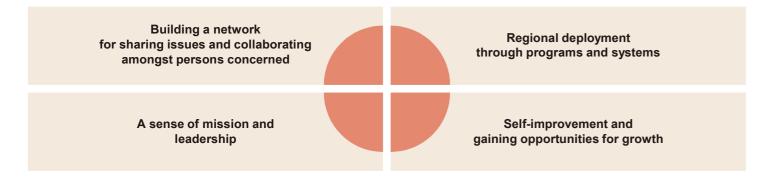
- Japan implements nutrition improvement activities for all life stages, and even sick/wounded people, people requiring long-term care, and disaster victims in remote islands and mountainous areas as well.
- For these activities, Registered Dietitians and Dietitians strive to gain a deep understanding of local
  residents to help ensure that no one is left behind in terms of health and nutrition. In addition, they collect
  data to support what they notice during their daily work and implement effective measures based on
  evidence.
- Such activities are implemented throughout Japan, including the country's remote islands and mountainous areas, and lead to the promotion of nutrition improvement activities to leave no one and no region behind.

### Major examples of nutrition improvement activities targeting each life stage as well as sick/wounded people, people requiring long-term care, and disaster victims



### Four common promoting factors can be seen in nutrition improvement activities for remote islands and mountainous areas.

- In remote islands and mountainous areas in Japan, four promotional factors related to the expansion and full utilization of resources within and outside of organizations, as well as the thoughts and expertise of Registered Dietitians and Dietitians, play crucial roles.
- The importance of these four promotional factors differs depending on the region, but they are common to all nutrition improvement activities in remote islands and mountainous areas.



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### Seven examples of implementing nutrition improvement activities to leave no one and no region behind in remote islands and mountainous areas are introduced below.

- This report introduces the seven examples below of activities implemented in remote islands and mountainous areas.
- Every example show how Registered Dietitians are promoting nutrition improvement activities to leave no one and no region behind by using methods suitable for each region.

(1) Nakagawa, Hokkaido Prefecture

(4) Nishinoshima, Shimane Prefecture \*

(2) Shimonita, Gunma Prefecture

(5) Goto, Nagasaki Prefecture \*

\*(3) Niijima, Tokyo Prefecture

(7) Amami region, Kagoshima Prefecture

(6) Matsuyama (Nakajima district), Ehime Prefecture

No.	Field	Location (municipality) / organization	Key points related to examples
(1)	Government	Nakagawa, Hokkaido Prefecture / Nakagawa Town Hall: Shiawase Promotion Office	The only Registered Dietitian in the town with no school lunches implements comprehensive activities, serving as a nutrition improvement control tower to achieve lifelong health.
(2)	Government	Shimonita, Gunma Prefecture / Shimonita Town Hall: Health Division	The Registered Dietitian at the town hall serves as coordinators to promote resident-led nutrition improvement activities throughout the region.
(3)	Government	Niijima, Tokyo Prefecture / Niijima Village Hall: Sawayaka Health Section	The Registered Dietitian serves as a local collaboration hub to implement integrated/continuous nutrition improvement activities in collaboration with nutrition professionals in the village.
(4)	Medical care	Nishinoshima, Shimane Prefecture / Okidozen Hospital	Registered Dietitians at the region's only hospital with beds contribute to regional medical care through dietary management tailored to each patient.
(5)	Medical care	Goto, Nagasaki Prefecture / Nagasaki Goto Chuoh Hospital	The hospital utilizes municipality project to provide guidance on nutrition and diets to elderly patients at remote locations who have trouble going to the hospital.
(6)	Long-term care	Matsuyama (Nakajima district) *1 , Ehime Prefecture / Tojukai Social Welfare Corporation Himegahamaso (a special nursing home for the elderly)	The only Registered Dietitian at the island's Long-Term Care Insurance facility implement nutrition improvement activities focused on community welfare as an approachable professional.
(7)	Disaster prevention	Amami region, Kagoshima Prefecture*2 / Kagoshima Dietetic Association Disaster Assistance Team	The association has trained Japan's first Disaster Assistance Team in the remote island region, and this team strives to improve the self-help and mutual assistance abilities of residents while respecting the local culture.

<sup>\*1.</sup> In this report, the administrative area of the former Nakajima Town, which merged with Matsuyama City, is called Nakajima district.

### Japan hopes to internationally contribute in terms of nutrition improvement by communicating its knowledge to the world.

Japan has over one hundred years of experience and knowledge related to nutrition improvement activities
and hopes to communicate this to the world to help resolve global nutrition issues, thereby contributing to
the achievement of the expected sustainable societies of the future.

<sup>\*2.</sup> In this report, the region consisting of eight inhabited islands (the Amami Islands) —Amami Oshima, Kakeroma-jima, Uke-jima, Yoro-shima, Kikai-jima, Tokuno-shima, Okinoerabu-jima, and Yoron-jima—is called the Amami region.

**Nutrition Policy in Japan to Leave No One Behind** 

Japan's Long-Standing Nutrition Improvement Activities: Leaving No One and No Region Behind

#### Japan is an island country that has many remote islands and mountainous areas.

Japan consists of a total of over 14,000 islands, including four large islands (Hokkaido, Honshu, Shikoku, and Kyushu) and many small ones. In addition, Japan has a total area of approximately 378,000 square kilometers, approximately 70% of which is mountainous.

Because many of Japan's residents reside in remote islands and mountainous areas, the country's nutrition policy to leave no one behind targets these regions as well.







#### ■ Japan has a history of training nutrition professionals for over 100 years

Japan has been implementing nutrition-related activities since the Meiji Restoration (in the late 1800s). In 1924—in an effort to train dietary guidance and food service management specialists to resolve the problem of nutritional deficiencies—Dr. SAIKI Tadasu established the *Nutrition School* and started training nutrition professionals. The training of Dietitians was later codified into law by the *Dietitians Act*, which was established in 1947

Japan currently has qualifications for two kinds of nutrition professionals under the Dietitians Act: Registered Dietitians and Dietitians. Of these, Registered Dietitians are licensed specialists who possess more advanced expert-level knowledge and skills, and they must pass a national examination.

#### Overview of nutrition-professional qualifications in Japan

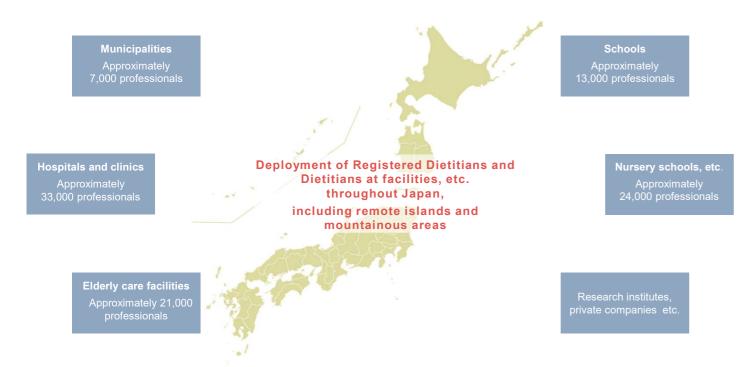
	Registered Dietitian	Dietitian	
Туре	Licenses provided by the Minister of Health,  Labour and Welfare	Licenses provided by Prefectural Governors	
Main facilities with deployment regulations	Facilities for which special nutritional guidance or food service management is necessary  · Hospitals that provide advanced medical care  · Food service facilities for which medical dietary management is necessary etc.	General facilities for which nutritional guidance or food service management is necessary  · Hospitals, child welfare facilities, and workplaces  · Schools, elderly welfare facilities, and correctional facilities etc.	
	Acquisition of required credits at Training School		
License requirements	Must pass the National Examination for Registered Dietitians (Examination subjects: clinical nutrition, public nutrition, etc.)	-	

### ■ Deployment of Registered Dietitians and Dietitians throughout Japan, including remote islands and mountainous areas

In Japan, the deployment of Registered Dietitians and Dietitians is stipulated by law, and this covers an extremely wide range of facilities, including medical institutions, elderly care facilities, and schools. These deployment regulations started with the stipulation that Dietitians be deployed to health centers under the Health Center Law (currently the Community Health Act), which was established in 1947.

Later on, deployment to various other facilities was stipulated by various laws, and Japan has been steadily promoting the deployment of nutrition professionals throughout the country based on these. Registered Dietitians and Dietitians also work at private companies, research institutes, etc., where they strive to improve nutrition.

#### Main deployment destinations and the number of Registered Dietitians and Dietitians



# Registered Dietitians and Dietitians throughout Japan implement nutrition improvement activities to leave no one and no region behind even in remote islands and mountainous areas.

Given the deployment regulations and importance of nutrition improvement, Japan has been deploying Registered Dietitians and Dietitians to remote islands and mountainous areas to promote nutrition improvement activities for all life stages including sick/wounded people and disaster victims.









#### Unique Health, Nutrition-Related Challenges in Remote Islands, Mountainous Areas

### Remote islands and mountainous areas are facing population decline and aging population and are also susceptible to weather and natural disasters.

As remote islands and mountainous areas suffer from reductions in economic scale due to population decline and aging population, it often causes decreases in various local resources, including medical institutions, grocery stores, and public transportation. In addition, such regions are often susceptible to weather and natural disasters, and it is not uncommon for heavy snowfall, typhoons, and other such events to make it difficult for local residents to go out or even disrupt distribution.

### Remote islands and mountainous areas have unique health and nutrition-related challenges at all life stages.

Pregnant women as well as mothers of infants sometimes have to spend several hours traveling to medical institutions in neighboring municipalities, which makes it difficult for them to receive medical support. In addition, in many cases, early independence in terms of dietary habits is necessary for children of school age to proceed to the next level of education outside their regions.

In such environments, distribution is often disrupted by typhoons, heavy snowfall, and similar events, which can make it difficult for even adults to obtain food, leading to a decrease in the intake of vegetables and other fresh food in particular. In cases where elderly people do not have grocery stores, etc. near their homes, it can be difficult for them to obtain food on a daily basis.

In addition, due to the high population aging rate and other factors, there are many regions where the non-communicable disease morbidity is higher than the prefectural average. Elderly people often have to return their driver's licenses, and this—combined with issues that include the decreasing availability of transportation—can make it difficult for them to continuously receive treatment, ultimately making their conditions. Also, in cases where it is necessary for elderly people to have diets suitable for their pathological conditions after being discharged from the hospital, there are situations where business operators that provide such meals are not available in their regions, which means they have to either prepare such meals themselves or rely on their families.

Furthermore, in the event of typhoons, earthquakes, or other disasters, land and sea routes can be disrupted—which can isolate remote regions—so there is a need to provide more comprehensive disaster support in such regions, including a focus on self-help.

As described above, remote islands and mountainous areas are likely to face unique nutrition challenges due to their regional characteristics.

#### Health and nutrition-related challenges faced by remote islands and mountainous areas

The shrinking economy due to population decline and aging population

Decreases in various local resources, including medical institutions, grocery stores, and public transportation

Susceptibility to weather and natural disasters, including heavy snowfall and typhoons

Frequent difficulties in terms of local residents going out as well as unstable distribution

#### There are unique health and nutrition-related challenges at all life stages.

### Pregnant women /infants

✓ It is necessary to go to a medical institution in a neighboring municipality to give birth. etc.

#### School-aged children

Early independence in terms of dietary habits is necessary to prepare to proceed to the next level of education outside the local region. etc.

### Adults (young/middle age)

It is difficult to obtain food, including fresh food in particular, when distribution is disrupted. etc.

#### Elderly

home, which makes it difficult to obtain food on a daily basis. etc.

#### Sick/wounded people, people requiring long-term care

✓ There are limited options in terms of ensuring suitable dietary habits during in-home care. etc.

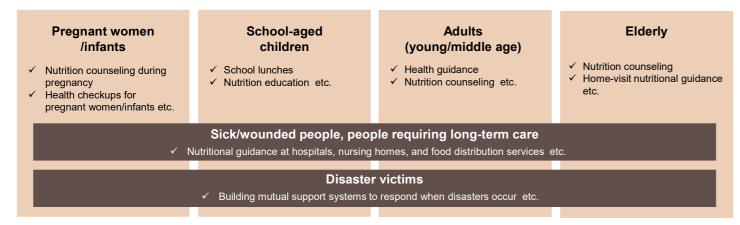
#### Disaster victims

 $\checkmark$  When a disaster occurs, responses centered on self-help are required. etc.

### Implementing nutrition improvement activities targeting all life stages in remote islands and mountainous areas as well

Japan implements nutrition improvement activities targeting all life stages even in remote islands and mountainous areas, mainly through Registered Dietitians and Dietitians deployed to each region.

### Major examples of nutrition improvement activities targeting each life stage as well as sick/wounded people, people requiring long-term care, and disaster victims



#### Gaining a deep understanding of residents living in each region and providing the necessary support to help ensure that no one is left behind

As described above, to implement effective nutrition improvement activities targeting all life stages, it is important to gain an understanding of whether anyone has been left behind in terms of health and nutrition in each region and then provide necessary support that goes beyond organization.

As residents of remote islands and mountainous areas, the Registered Dietitians and Dietitians build relationships with the local residents and gain an understanding of them to clearly identify nutrition challenges that affect the region and who has a high risk of being left behind. In addition, it is important to collect data to support what they notice during their daily work and implement effective activities based on evidence.

## Examples of nutrition improvement activities implemented for remote islands and mountainous areas

#### ✓ Supporting both affiliated organizations and the surrounding region

In remote islands and mountainous areas, given that there are few cases where Registered Dietitians and Dietitians are deployed to all the organizations that require nutrition improvement activities, they support not only affiliated departments but also the surrounding region. For example, government-employed Registered Dietitians are sometimes in charge of nutritional guidance for clinics, and Registered Dietitians employed by Long-Term Care Insurance facilities might invite elderly people in the region to their facilities to hold classes on nutrition and dietary habits.

#### √ Utilizing ICT, etc. to support residents at remote locations

In remote islands and mountainous areas, it is difficult for many elderly people to go to hospitals and clinics. To help such people, special mobile clinic vehicles with medical equipment and communication equipment are used. Since these vehicles can travel close to patients' homes, patients can benefit from the support of nurses in the vehicles as well as online guidance on nutrition and diets provided by Registered Dietitians at hospitals.

#### √ Providing guidance on nutrition and dietary habits tailored to the lifestyles of local residents

In remote islands and mountainous areas, there are sometimes limited opportunities to provide healthy diets to local residents for reasons that include few grocery stores, restaurants, food distribution business operators, etc. as well as a failure to provide school lunches. Therefore, support is necessary to enable local residents to practice healthy dietary habits on their own. Japan therefore provides nutrition and dietary habit guidance that considers the food access restrictions faced by remote islands and mountainous areas.

### Because resources in remote islands and mountainous areas are limited, to implement activities, it is essential to expand and fully utilize resources.

In urban areas, there are large populations, and many facilities and organizations have multiple Registered Dietitians and Dietitians, so duties can be effectively assigned to pursue nutrition improvement that leaves no one behind. In contrast, in the case of remote islands and mountainous areas, only limited Registered Dietitians and Dietitians are deployed, and it is not uncommon for the region to have only one such professional.

To achieve nutrition improvement that leaves no one behind in regions that have few Registered Dietitians and Dietitians, it is essential to strive to expand and fully utilize people, things, information, and other resources both within and outside of organizations.



### To expand resources within the organization, the number of Registered Dietitians and Dietitians is increased and collaboration between various professionals is encouraged.

As a result of increasingly diverse lifestyle habits, an aging population, and other factors, nutrition challenges are becoming more sophisticated and complicated, and many regions face an increasing need for nutrition improvement. Given this situation—based on the fact that both disease morbidity and the number of cases of nutritional guidance are increasing—one important approach for expanding resources within the organization is to encourage organizations to increase the number of Registered Dietitians and Dietitians.

Another important approach is to collaborate with doctors, dentists, public health nurses, other nurses, dental hygienists, physical therapists, office workers, and others. In addition to daily information sharing, it is also effective to hold study groups to enable the sharing of expert-level while also reorganizing business and roles to enable more efficient collaboration.

Aside from the above, resources within the organization can be expanded by striving to increase business efficiency, such as by accumulating know-how and automating business through ICT.

### Leveraging resources outside the organization through collaboration with a diverse range of stakeholders in each region

To leverage resources outside the organization, it is important to pursue two kinds of collaboration: collaboration within regions, which includes collaboration with the governments, medical institutions, elderly care facilities, residents' groups, and other related organizations in each region, and collaboration that goes beyond regions, which includes collaboration with the health centers, universities, professional associations, and other organizations that have jurisdiction over each region.

The main aim of *collaboration within regions* is to expand activities in those regions by sharing resources. For example, when other organizations have meetings, Registered Dietitians provide information on nutrition and dietary habits that is related to the meetings. Conversely, when Registered Dietitians hold events to raise public awareness, they request the participation of stakeholders as event staff, thereby taking advantage of cooperation to expand nutrition improvement activities.

Meanwhile, the main aim of collaboration that goes beyond regions is to achieve mutual support by sharing know-how related to nutrition improvement activities as well as advanced expert-level knowledge, skills. For example, health centers run communication councils involving the Registered Dietitians and Dietitians of nearby municipalities to share know-how and facilitate collaboration. There are also examples of obtaining technical guidance from universities related to data utilization.

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### Four Factors for Promoting Nutrition Improvement Activities in Remote Islands, Mountainous Areas

### The qualities and creativity of Registered Dietitians and Dietitians as well as systems that support them and related growth opportunities help to promote activities.

Japan's remote islands and mountainous areas share four important promotional factors for expanding and leveraging resources to achieve *nutrition improvement activities to leave no one and no region behind*.

These factors include building a network for sharing issues and collaborating amongst persons concerned both within and outside of organizations to expand and leverage regional resources, utilizing programs and systems to continuously and steadily implement nutrition improvement activities, imbuing Registered Dietitians and Dietitians with a sense of mission and leadership to serve as a foundation for such efforts, and working on self-improvement and gaining opportunities for growth to continue to independently take on new challenges.

The importance of these four promotional factors differs depending on the situation of each region, but they are crucial in terms of all remote islands and mountainous areas.

### Four promotional factors related to implementing nutrition improvement activities to leave no one behind in remote islands and mountainous areas

### Building a network for sharing issues and collaborating amongst persons concerned

Building a foundation for collaboration and cooperation that goes beyond regions and encompasses all region.

In order to achieve the above, share information on issues related to nutrition and dietary habits as well as the importance of nutrition improvement with various stakeholders both within and outside of organizations, and develop relationships with each region while respecting each other's sense of crisis and thoughts.

### Utilizing programs and systems to implement regional activities

Reliably carrying out business while getting stakeholders involved.

In order to achieve the above, plan activities that are both feasible and effective even under limited conditions, and utilize the various programs and systems of organizations.

### A sense of mission and leadership

To promoting nutrition improvement, remembering that it is our mission to contribute to the resolution of nutrition challenges in each region, and demonstrating leadership based on a perspective that goes beyond the organization, under high expectations from both affiliated organizations and regions.

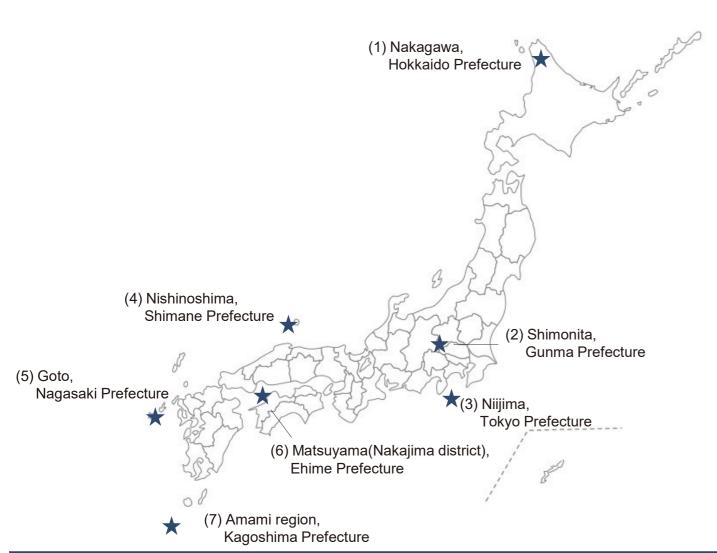
### Self-improvement and gaining opportunities for growth

To tackle nutrition challenges—which are changing against a background of population decreases and aging—engaging in self-improvement and updating knowledge and skills on a daily basis

Actively seeking out opportunities for growth, given that it is sometimes not possible for each organization alone to secure the resources necessary to train specialists.

**Examples of Nutrition Improvement Activities** for Remote Islands and Mountainous Areas

### **Activity Examples**



No.	Field	Location (municipality)	Example organization	Page
(1)	Government	Nakagawa, Hokkaido Prefecture	Nakagawa Town Hall: Shiawase Promotion Office	16 - 19
(2)	Government	Shimonita, Gunma Prefecture	Shimonita Town Hall: Health Division	20 - 23
(3)	Government	Niijima, Tokyo Prefecture	Niijima Village Hall: Sawayaka Health Section	24 - 27
(4)	Medical care	Nishinoshima, Shimane Prefecture	Okidozen Hospital	28 - 31
(5)	Medical care	Goto, Nagasaki Prefecture	Nagasaki Goto Chuoh Hospital	32 - 35
(6)	Long-term care	Matsuyama(Nakajima district)*1, Ehime Prefecture	Tojukai Social Welfare Corporation Himegahamaso (a special nursing home for the elderly)	36 - 39
(7)	Disaster prevention	Amami region, Kagoshima Prefecture <sup>*2</sup>	Kagoshima Dietetic Association Disaster Assistance Team	40 - 43

<sup>\*1.</sup> In this report, the administrative area of the former Nakajima Town, which merged with Matsuyama City, is called Nakajima district.

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#### Overview of examples

No.

(1)	<ul> <li>Nakagawa, Hokkaldo Prelecture does not provide scribol functies and no diet and nutrition teachers have been deployed to the town, so the town's only nutrition professional is the Registered Dietitian at the town hall, and he implements nutrition improvement activities covering all life stages.</li> <li>The Registered Dietitian at the town hall functions as a control tower for the region's nutrition improvement activities under the town's Plan for the Promotion of Food and Nutrition Education, which mainly focuses on health promotion. More specifically—in line with the goal of achieving rich lives with lifelong health—Nakagawa establishes clear plans for activities aimed at resolving issues affecting each life stage, and he promotes comprehensive activities to help residents achieve healthy, happy lives.</li> </ul>
(2)	<ul> <li>In Shimonita, Gunma Prefecture, the Registered Dietitian at the town hall implements nutrition improvement activities covering all life stages. In addition, local organizations and residents proactively participate in such activities under a collaboration system that encompasses a wide range of related organizations and has been gradually built up until now. The Registered Dietitian at the town hall acts as a coordinator by providing support that enables stakeholders to achieve what they want to in terms of nutrition improvement and health promotion, thereby facilitating the collective promotion of activities by the region as a whole.</li> <li>In addition to building relationships with the region, the town is also building a collaboration system that enables the receipt of various kinds of support, including the provision of expert knowledge and know-how by Gunma Prefecture and a local university.</li> </ul>
(3)	<ul> <li>Niijima, Tokyo Prefecture, has one government Registered Dietitian who has been deployed to Niijima Village Hall, an organization in charge of nutrition improvement for the region. No Registered Dietitians have been deployed to medical institutions in the village.</li> <li>Given the need to promote nutrition improvement by using extremely limited resources, the government Registered Dietitian at the village hall spearheads efforts to share information on nutrition challenges with Registered Dietitians and Dietitians at daycares, schools, etc. In addition, each of these professionals collaborates with local stakeholders in their region to establish a system that enables the promotion of nutrition improvement activities, thereby achieving such activities covering all life stages.</li> </ul>
(4)	<ul> <li>In Nishinoshima, Shimane Prefecture, Okidozen Hospital—the only hospital in the Dozen region that has beds enabling hospitalization—protects the health of local residents by taking care of patients who have various conditions, including the acute, recovery, and chronic stage.</li> <li>Under this environment, the Registered Dietitians of this hospital are in charge of hospital-internal food service work and dietary management as well as outpatient nutritional guidance. The Registered Dietitian directly interacts with patients to gain a deep understanding of them and supports regional medical care from nutritional standpoint, including providing detailed dietary treatment based on the pathological conditions of each patient.</li> </ul>
(5)	<ul> <li>In Goto, Nagasaki Prefecture, Goto Chuoh Hospital plays a central role in terms of regional medical care as the region's core hospital, and the hospital handles a diverse range of patients, including everyone from children to the elderly. The Registered Dietitians of the hospital provide nutritional guidance to inpatients and outpatients, handle dietary management for inpatients, and handle nutrition-related consultation with other professionals.</li> <li>To assist elderly people and others who live in remote island locations and therefore have difficulty going to the hospital, Goto has launched a mobile clinic business that utilizes mobile clinic vehicles equipped with online medical examination equipment. In addition to cooperating with this business, Goto Chuoh Hospital has its Registered Dietitians provide online guidance on nutrition and diets as its own activity.</li> </ul>
(6)	<ul> <li>At Himegahamaso—a special nursing home for the elderly located in Matsuyama (Nakajima district), Ehime Prefecture—one Registered Dietitian is in charge of the nutrition care and management for facility residents.</li> <li>As the only Registered Dietitian working at the island's Long-Term Care Insurance facility, this professional not only handles facility work but also works on improving the nutrition of elderly people in the region, invites local elderly people to the facility to hold diet-related events, and responds to requests for consultations related to the nutrition and dietary habits of elderly people from other professionals and commissioned welfare volunteers. Through such activities, the Registered Dietitian strives to increase interest in suitable nutrition and dietary habits while also building a system for collaborating with government associations.</li> </ul>
	Karalia Birti Amirina India In

• Kagoshima Dietetic Association has trained Japan's first Disaster Assistance Team in the country's remote island region. The 11 Registered Dietitians who have completed this training independently conduct activities to

• In the Amami region, which can easily end up cut off from off-island distribution and isolated in the event of disasters, it is extremely important to enable complete disaster responses within the region. Therefore, efforts in the region are focused on improving the self-help and mutual assistance capabilities of local residents, while

specially trained disaster-nutrition support experts lead the way in striving to build a system for collaborating

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raise public awareness among local residents as they engage in their own daily work.

with related organizations in the region.

Overview

Nakagawa, Hokkaido Prefecture does not provide school lunches and no diet and nutrition teachers have been

<sup>\*2.</sup> In this report, the region consisting of eight inhabited islands (the Amami Islands) —Amami Oshima, Kakeroma-jima, Uke-jima, Yoro-shima, Kikai-jima, Tokuno-shima, Okinoerabu-jima, and Yoron-jima—is called the Amami region.

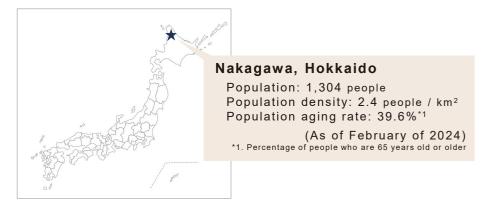
### Nakagawa, Hokkaido Prefecture | Nakagawa Town Hall: **Shiawase Promotion Office**

The only Registered Dietitian in the town with no school lunches implements comprehensive activities, serving as a nutrition improvement control tower to achieve lifelong health.

- Nakagawa does not provide school lunches and no diet and nutrition teachers have been deployed to the town, so the town's only nutrition professional is the Registered Dietitian at the town hall, and he implements nutrition improvement activities covering
- The Registered Dietitian at the town hall functions as a control tower for the region's nutrition improvement activities under the town's Plan for the Promotion of Food and Nutrition Education, which mainly focuses on health promotion. More specifically—in line with the goal of achieving rich lives with lifelong health—Nakagawa establishes clear plans for activities aimed at resolving issues affecting each life stage, and he promotes comprehensive activities to help residents achieve healthy, happy lives.
- To promote effective nutrition improvement activities, the Registered Dietitian at the town hall also works hard every day to update his knowledge and increase business efficiency while increasing the interest of each resident in nutrition and dietary habits so as to enable knowledge acquisition and good habit formation.

#### Introduction

#### Introduction to the region





Located between the Kitami Mountains and Teshio Mountains in northern Hokkaido, Nakagawa is long and thin from north to south and is the home of Japan's fourth longest river, the 256-km Teshio River, which runs through the center of the town. Winters in the area are harsh, the region sees an extremely large amount of snowfall (with an average annual temperature of 5.9 degrees) and is regarded as Japan's northernmost limit for farming. There is also a lot of dairy farming in the region.

#### Introduction to the organization

Nakagawa has established a Shiawase (Happiness) Promotion Office as a department in charge of the town's social welfare, elderly welfare, Long-Term Care Insurance, and health and hygiene. The Shiawase Promotion Office includes a Registered Dietitian, public health nurses, certified social workers, and other staff, all of whom share information as they implement health promotion measures, diagnose the health of residents, provide services for elderly people, etc.

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#### **Nutrition Issues in the Community**

#### Disease and medical care issues

- · Nakagawa has clinics but no hospital. To go to a general hospital, one has to travel around an hour and a half by car to Nayoro or Wakkanai.
- · The number of residents who either have metabolic syndrome or are at risk of getting it is increasing, especially among women.\*2
  - √ Based on official findings, the number of obese people (people with a BMI of 25 or more) is higher than the Hokkaido averages (men: 38%, women: 25%, 2019) by 6 points in the case of men and 12 points in the case of women (men: 44%, women: 47%, 2019).\*3
  - ✓ Based on official findings, the number of people with a high HbA1c value (5.6 or more) is higher than the Hokkaido averages (men: 51%, women: 46%, 2019) by 28 points in the case of men and 20 points in the case of women (men: 79%, women: 66%, 2019).\*3
  - ✓ Based on official findings, the number of obese people, people with hypertension, and people with a high HbA1c value in the town increased in the case of both men and women compared to a survey conducted in 2013.
- \*2. 2<sup>nd</sup> Data Health Program Interim Evaluation Report (Nakagawa, Hokkaido)
- \*3. Nakagawa's Plan for the Promotion of Food and Nutrition Education (Fourth) (Nakagawa, Hokkaido) (official findings based on specified health checkup examinees in fiscal 2019)

#### Nutrition and dietary habit issues

- · Lifestyle habits: In the winter, there is a trend for elderly people in particular to stay indoors more, which increases their opportunities for snacking.
- · Food distribution: There are two grocery stores in the town, but types of fresh food, etc. are limited. To implement nutrition improvement activities, it is necessary to consider the types of food that can be procured in the town.
- · Vegetable intake: Based on a 2020 survey, the average vegetable intake increased compared to 2015 (from 144 g to 155 g), but this is still only about half of Japan's and Hokkaido's tentative dietary goal for preventing life-style related diseases (350 g or more).\*4
- \*4. Nakagawa's Plan for the Promotion of Food and Nutrition Education (Fourth) (Nakagawa, Hokkaido)

#### Overview of the Activity

#### Promoting nutrition improvement activities to leave no one behind despite limited resources

Nakagawa does not provide school lunches, and no diet and nutrition teachers have been deployed to the town. The town's only nutrition professional is the Registered Dietitian at the town hall, and he implements nutrition improvement activities covering all life stages.

When implementing activities, this Registered Dietitian serves as the control tower. The town's specific activity policy is shown by its Plan for the Promotion of Food and Nutrition Education, and the town's activities are promoted in cooperation with related organizations and groups in the area.

These activities include nutrition counseling for pregnant women as well as the guardians of infants, guidance on infant health checkups, menu preparation for the town toddler center (a child center based on coordination between a kindergarten and nursery center), food and nutrition education (Shokuiku) seminars at elementary and junior high schools, and cooking experience classes. In addition, the Registered Dietitian is actively involved in efforts that include the provision of nutritional guidance during health checkups for adults as well as classes to prevent the need for nursing care aimed at elderly people, all of which support the maintenance and promotion of the health of the residents.

#### Pregnant women /infants

- ✓ Nutrition counseling during
- New mother classes etc

#### School-aged children

- √ Food and nutrition education
- √ Cooking experience classes

- seminars for elementary and junior high schools

#### **Adults** (young/middle age)

- ✓ Nutrition counseling health checkups ✓ Communication of nutrition.
- related information etc

### **Elderly**

- ✓ Healthy and active classes
- ✓ Nutrition counseling and visits

Sick/wounded people, people requiring long-term care

Disaster victims (preparing for disasters)

#### Focusing on continuous nutrition classes for children in the absence of school lunches

Nakagawa has formulated a Plan for the Promotion of Food and Nutrition Education that calls for the achievement of rich lives with lifelong health, and this plan spells out the challenges and goals related to each life stage as well as the specific measures to address them and activities to be pursued in relation to every aspect of daily life (home, school, and community). Of these, the town is focusing on nutrition classes for children in particular, with the aim of implementing and establishing suitable dietary habits starting at school age. Given that the town does not have a high school and a lot of children therefore need to leave town to proceed to the next level of education, the town is striving to continuously provide nutrition-related knowledge to children through nutrition education at the elementary and junior high school level.

#### Promoting the lifelong health of children by establishing systems since the time of appointment

When the Registered Dietitian at the town hall started working there, there were few activities related to the nutrition of children, but he believed that-in terms of the health promotion of residents-it is crucial for them to understand the importance of having a suitable nutritional intake starting at an early life stage and to take daily steps to achieve this. Therefore, immediately after being appointed, he organized a system for cooperating with elementary and junior high schools and started up regular nutrition classes.

"Our town has no school lunches, so I want to promote activities implemented at a distance from where we can see the faces of children and their families instead of limiting ourselves to details that assume the existence of school lunches. In the future, I hope children and their families would spread the awareness of suitable nutrition and dietary habits throughout the town." The Registered Dietitian is continuing to pursue activities based on the above thinking.



A nutrition class at an elementary school

#### Updating information through daily self-improvement and striving to increase efficiency based on accumulated knowledge and experience

For the Registered Dietitian at the Town Hall to promote effective nutrition improvement activities covering all life stages in an environment with limited resources, it is essential both to update knowledge and increase the efficiency of

Therefore, he participates in workshops, information exchange meetings, and other events organized by the Hokkaido Dietetic Association and health centers to obtain the latest knowledge and evidence as well as information on the activities of neighboring municipalities, etc.

In addition, to implement the town's diverse activities more efficiently, he strives on a daily basis to make activities more effective while updating activity details based on materials and data created during past activities.



A health course for elderly

#### Although nutrition classes for children have helped to increase the vegetable intake. future challenges have also become apparent.

Given that it is not uncommon for children to leave home and start living on their own early on in order to proceed to the next level of education outside of the town or for other purposes, the Registered Dietitian at the town hall has continuously raised awareness and provided quidance to help enable the young generation to independently practice suitable dietary habits, including providing nutrition-related advice that contributes to health maintenance and physical fitness through nutrition classes at schools.

As a result of such activities, during the period from 2015 to 2020, the average vegetable intake increased from 92 g to 100 g for early elementary school grades and from 128 g to 137 g for late elementary school grades, and the town saw other promising changes as well.

However, the town still has not achieved its goals (early elementary grades: 120 g, late elementary grades: 150 g), so it is necessary to continue implementing activities to increase the vegetable intake at elementary and junior high schools and in homes



A ready-made lunch making class for children



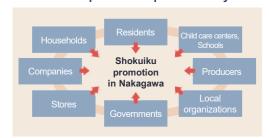
Materials on display at a workplace health checkup

At the same time, it has also clearly become necessary to implement activities targeting men in the working generation.

For example, during the period from 2015 to 2020, the percentage of people throughout the town with a sodium-conscious diet increased from 61.5% to 63.0%. However, in terms of the results by age bracket, there is a major difference in awareness between men and women in their thirties to fifties (example: men in their forties: 35.0%, women in their forties: 67.4%) and less of a difference between men and women in their sixties and older, when the effects on the body become apparent (example: men in their sixties: 65.8%, women in their sixties: 80.0%).\*5 Based on the above data, it is clearly necessary to come up with an approach aimed at improving the dietary-habit awareness of men in the working generation. and the town recognizes this as a key future challenge.

\*5. Nakagawa's Plan for the Promotion of Food and Nutrition Education (Fourth) (Nakagawa, Hokkaido)

#### **Nutrition improvement promotion system**



Source: Nakagawa's Plan for the Promotion of Food and Nutrition Education (Fourth)

#### Sharing information on challenges to help stakeholders understand how they should get involved

Nakagawa's Plan for the Promotion of Food and Nutrition Education plays a major role in terms of promoting the town's nutrition improvement activities. The Registered Dietitian at the town hall played a central role in formulating this plan while also clearly spelling out the town's specific challenges related to achieving rich lives with lifelong health as well as what kinds of activities need to be promoted to address these issues in terms of each life stage.

Such efforts have enabled the town to share its vision for the town and how to achieve it with stakeholders while also deepening the stakeholders' understanding of how they should get involved in these

#### Striving to get people involved in the plan while building cooperative relationships with various local organizations

Nakagawa has also strived to build cooperative relationships to enable the pursuit of activities in collaboration with various local organizations and residents to effectively implement the Plan for the Promotion of Food and Nutrition Education. For example, the Registered Dietitian at the town hall has organized a suitable food environment by creating a system for cooperating with chambers of commerce and stores while also having local stores set up low-sodium food areas.

In addition, by taking advantage of the characteristics of a small municipality where residents are close to each other - such as by holding health lectures and displaying materials at workplaces and post offices in the town -, he has made efforts to raise awareness of improving nutrition and health promotion. And he has worked hard to get residents and related organizations actively involved in activities.



A low-sodium food area set up at a local store

### **Introduction of Registered Dietitians**

#### Enabling every resident to enjoy lifelong health

#### Affiliation and name

UEMOTO Mitsuru, Chief Examiner, Shiawase Promotion Office, Nakagawa Town Hall, Hokkaido Prefecture

#### Personal history and work since starting the job

Mr. Uemoto started working for Nakagawa Town Hall in 2012. Later, as a Registered Dietitian working at the Shiawase Promotion Office, he has put in charge of formulating and executing the town's Plan for the Promotion of Food and Nutrition Education and handling general nutrition improvement work based on the plan.



### Future goals and ambitions

Given that many children have to leave home to proceed to high school, it feels really rewarding to get close to children through nutrition classes.

I hope to continue to communicate nutrition-related information and maintain relationships with residents through nutrition improvement activities targeting all residents-including everyone from children to elderly people—at all life stages to increase the number of people who understand suitable nutrition and dietary habits and can therefore lead healthy lives.

I will also continue working to transform food and nutrition education as well as nutrition improvement activities into residents' campaigns that benefit the next generation at both the home and community levels.

#### Shimonita, Gunma Prefecture | Shimonita Town Hall: Health Division

The Registered Dietitian at the town hall serves as coordinators to promote resident-led nutrition improvement activities throughout the region.

#### **Key messages**

- In Shimonita, the Registered Dietitian at the town hall has deepened the residents' understanding of the importance of nutrition professionals while spending many years building face-to-face relationships with local organizations and residents. They also implement nutrition improvement activities covering all life stages.
- Under the town's collaboration system, which was built during the formulation of the town's Plan for the Promotion of Food and Nutrition Education, local organizations and residents independently participate in nutrition improvement activities. The Registered Dietitian at the town hall acts as a coordinator by providing support that enables stakeholders to achieve what they want to in terms of nutrition improvement and health promotion, thereby facilitating the collective promotion of activities by the region as a whole.
- In addition to building relationships with the region, the town is also building a collaboration system that enables the receipt of various kinds of support, including the provision of expert knowledge and know-how by Gunma Prefecture and a local university.

#### Introduction

#### Introduction to the region



#### Shimonita, Gunma Prefecture

Population: 6,300 people Population density: 33.4 people / km<sup>2</sup> Population aging rate: 53.2%\*1

(As of February of 2024) \*1. Percentage of people who are 65 years old or older



Shimonita is located on the border of Nagano Prefecture in the southwestern part of Gunma Prefecture. Approximately 85% of Shimonita is mountains, forests, and other wilderness, and—although there is a small region of plains in the eastern part of the town—most of the town is situated on a complicated sloped mountainside, and there is little flat land. The town is also surrounded by steep mountains that have an elevation of over 1,000 meters. The region's climate is relatively temperate, with an annual average temperature of 12.1 degrees and snowfall around two or three times per year.

#### Introduction to the organization

In Shimonita, the Health Division is in charge of the town's health and hygiene business (resident health checkups, health consultation/guidance, vaccinations, supporting health promotion organizations, etc.). There are two Registered Dietitians working for the Health Division. One of them is the head of the Health Division and is in charge of managing and supervising health and hygiene business in general, while the other is a younger subordinate Registered Dietitian who is in charge of providing nutritional guidance, promoting food and nutrition education, and supporting the activities of the dietary habit improvement promotion council. One Registered Dietitian has also been deployed to the board of education.

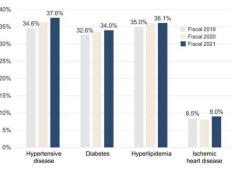




#### **Nutrition Issues in the Community**

#### Disease and medical care issues

- Shimonita is facing an increasing number of patients who are sick with hypertensive diseases, diabetes, dyslipidemia, and other non-communicable diseases.\*2
- Therefore, the town is focusing on activities aimed at decreasing the number of people who have or are at risk of developing metabolic syndrome by improving the specified health checkup rate and specified health guidance implementation rate.\*3
  - ✓ Specified health checkup rates: 2019: 46.1% (result)
    2023: 50.0% (town goal)
  - ✓ Specified health guidance implementation rates: 2019: 18.8% (result)
    2023: 20.0% (town goal)
  - \*2. Medical Expense Analysis and Other Regional Support Projects:
    Medical Expense Analysis (Gunma Prefecture, 2022)
  - \*3. Data Health Program Interim Evaluation and Review (Shimonita, Gunma Prefecture, 2021)



Percentages of patients who have National Health Insurance and are sick with different noncommunicable diseases

Source: Medical Expense Analysis and Other Regional Support Projects: Medical Expense Analysis (Gunma Prefecture, 2022)

#### Nutrition and dietary habit issues

- Food distribution: There are supermarkets, fruit and vegetable stores, and other retail stores in town, but it is nevertheless difficult for elderly people who live in the mountainous region and cannot drive to go shopping. Even if such people use public transportation (city-run buses), shopping ends up taking them half or even a whole day, so it is difficult to access food in the mountainous region in particular. Based on the results of a town survey, it was clear that elderly people (people in their sixties and seventies, men: 6.0%, women: 4.0%) in the area experience difficulties related to dietary habits.\*4
- · Vegetable intake: Increasing the vegetable intake of the residents is an important issue.
  - ✓ Only 5.7% of the people in the town eat at least five servings of vegetables a day (men: 3.6%, women: 7.6%).\*4
  - \*4. Residents questionnaire (Shimonita, Gunma Prefecture, 2012)

#### **Overview of the Activity**

#### Activities to promote the health of residents during all life stages

In Shimonita, the Registered Dietitian at the town hall has three main duties. The first is nutritional guidance and education for the residents, and the Registered Dietitians collaborate with public health nurses to implement infant health checkups, diabetes prevention classes, nutrition counseling for local residents who need to be careful in terms of nutrition, and home-visit nutritional guidance. The second is to collaborate with and support the activities of regional organizations, such as by acting as the secretariat of the dietary habit improvement promotion council to train health mates while also communicating and coordinating with members. The third duty of the Registered Dietitian is to promote food and nutrition education by collaborating with local organizations and residents, implementing cooking classes at elementary schools in cooperation with health mates, implementing nutrition seminars for daycare and elementary school students, and giving lectures at senior residents' salons.

### Pregnant women /infants

Infant health checkups
 Regular nutrition counseling etc.

#### School-aged children

- ✓ Nutrition seminars at elementary schools
- ✓ Nutrition classes for guardians etc.

### Adults (young/middle age)

✓ Specified health guidance
 ✓ Nutrition seminars at companies, etc. in the town etc.

#### Elderly

- ✓ Frailty prevention classes
   ✓ Nutrition seminars at senior residents' salons etc.
- Sick/wounded people, people requiring long-term care
- Nutrition counseling specific to pathological conditions, home-visit nutritional guidance etc

#### **Disaster victims (preparing for disasters)**

Raising public awareness of in-home food stockpiling and rolling stock and distributing food for people requiring consideration (peace-time) etc.

### The formulation of the town's Plan for the Promotion of Food and Nutrition Education served as an opportunity to establish a collaboration system.

In Shimonita, during the promotion of activities targeting all life stages, local organizations and residents independently participate in nutrition improvement activities, while the Registered Dietitian at the town hall functions as a coordinator with the support of Gunma Prefecture and prefectural universities.

This system was established as a result of setting up promotion meetings when the town formulated its Plan for the Promotion of Food and Nutrition Education in 2013. This plan calls for the implementation of activities focused on vegetable intake in response to the following and other issues identified as a result of a residents questionnaire conducted from 2011 to 2012: not eating enough vegetables and eating too much sodium. Based on such town-wide policies, the region as a whole has independently conducted activities.

# Enhancing systems and further promoting nutrition improvement with the understanding and trust of those in the region, driven by a desire to resolve the town's nutrition challenges

Based on a desire to resolve the nutrition challenges faced by the town, the senior Registered Dietitian at the town hall considered hiring a younger Registered Dietitian to work on enhancing the local systems. Such hiring would require a staff increase, which is extremely difficult in general.

At the same time, because the senior Registered Dietitian had been closely involved in the daily lives of the town's residents for many years, a lot of residents understood the importance of nutrition improvement.

As a result—thanks to support provided by the feedback of residents to the town's mayor, government, etc.—a young Registered Dietitian was successfully hired, which led to system enhancements.

The young Registered Dietitian grew up in Shimonita and was therefore acutely aware of the fact that access to food is limited in the mountainous region in particular, which is resulting in the health conditions of local elderly people worsening.

The young Registered Dietitian is a graduate of a university-level Registered Dietitian training course and even went on to graduate school to research how to improve access to food in underpopulated regions. The young Registered Dietitian is taking full advantage of both this knowledge and the relationships of trust that the senior Registered Dietitian has built up with the residents over the years to work on resolving the town's nutrition challenges.



Supporting the activities of health mates



The executive committee in charge of the town's Plan for the Promotion of Food and Nutrition Education

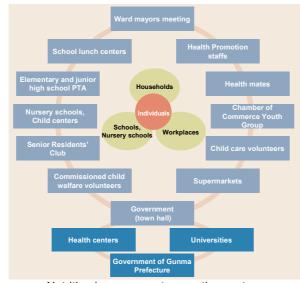
### Acting as a coordinator by providing support that enables stakeholders to achieve what they want to

In Shimonita, the Registered Dietitian at the town hall has spent many years building face-to-face relationships with local organizations and residents while building an environment that enables stakeholders to independently implement activities.

In Shimonita, the independence of the residents is respected, and various organizations and townspeople collaborate on projects aimed at promoting the health of the region, thereby enhancing local connections and helping to collectively achieve health promotion and nutrition improvement throughout the region.

During this process, instead of taking the lead, the Registered Dietitian at the town hall has acted as a coordinator by providing support that enables residents to easily promote nutrition improvement activities so that stakeholders can achieve what they want to.

This has proven extremely effective in terms of fully utilizing the region's resources.



Nutrition improvement promotion system

### Promoting regional activities by utilizing prefectural and university resources as well as horizontal collaboration between municipalities

When formulating its Plan for the Promotion of Food and Nutrition Education, Shimonita was able to take advantage of the support of the Gunma Prefectural Office as well as Gunma University. Municipalities sometimes do not have enough expert know-how related to surveys, so it was extremely effective to collaborate with the prefecture—which has various networks—and academic research institutes—which possess expert-level knowledge.

In addition, Gunma Prefecture holds prefecture-wide Nutrition and Dietary Habit Improvement Promotion Meetings aimed at sharing information and exchanging opinions with Registered Dietitians. (The prefecture holds five such meetings per year.) Given that municipality resources are generally limited, which causes difficulties related to implementing nutrition improvement activities, the prefecture is providing leadership and support to build a system aimed at collectively resolving issues through the efforts of the region under the jurisdiction of the prefectural health center. Under this system, Shimonita shares information and exchanges opinions with the prefectural Tomioka Health and Welfare Office as well as other municipalities in its jurisdiction and applies the results to daily business.

### The town has created an environment that respects the wishes of the residents and enables them to actively participate in nutrition improvement activities.

Under the collaboration system described above, Shimonita has implemented various nutrition improvement and health promotion activities based on ideas proposed by its residents.

For example, as measures to increase the vegetable intake of the residents, in 2013, the town created the so-called *Shimonita Kobachi* (the Shimonita Dish) to enable the serving of a 70 g portion of vegetable cooking. The town accepted ideas for this from the residents, distributed the dish to elementary schools, etc., and even held on-site courses to raise awareness of the importance of increasing vegetable intake. This activity was popular with the residents, so the town made a new version of the Shimonita Dish in 2022.

In addition, the town launched its Shimonita Shokuiku (food and nutrition education) Communication Project (Nanohana) in 2015 by holding an event at which locally farmed and harvested nanohana was used to provide cooking. This event was held with the cooperation of residents on the executive committee as well as many others. (Note that the event has not been held since the COVID-19 pandemic.)



Creating the Shimonita Kobachi



Holding the Shimonita Shokuiku Communication Project

# The reaware Through of suitabl people w from 2012

Resident-led activities

#### ■ The residents are gradually becoming more aware of suitable nutrition and dietary habits.

Through such activities, residents are gradually becoming more aware of suitable nutrition and dietary habits. For example, the percentage of people who eat at least five servings of vegetables per day increased from 2012 to 2022 (from 5.7% to 6.0% for the town as a whole), with an especially large improvement among residents in their twenties or sixties to seventies, and there are other signs of nutrition awareness gradually improving throughout the region as well. The town is also considering the next Plan for the Promotion of Food and Nutrition Education with the aim of achieving even greater activity progress and awareness among residents.

#### **Introduction of Registered Dietitians**

#### Actively venturing out into the community to understand the residents who live there

#### Affiliation and name

AKAIWA Yuki, Registered Dietitian, Health Division, Shimonita Town Hall, Gunma Prefecture

### Personal history and work since starting the job

Ms. Akaiwa started working for Shimonita Town Hall in 2021. As a Health Division Registered Dietitian, she is in charge of promoting the town's nutrition programs, including providing nutritional guidance and education to the residents, supporting the activities of the dietary habit improvement promotion council, and promoting food and nutrition education.



### Future goals and ambitions

Shimonita has a network based on relationships of trust built up by the senior Registered Dietitian at the town hall with the residents over the course of many years. I hope to actively work as a coordinator in the region to keep these connections alive for future generations.

To promote activities that are suitable for the lifestyles of local residents and deeply rooted in the community, I also hope to be the kind of Registered Dietitian who actively ventures out into the community and gets directly involved with the residents to gain a deep understanding of the region itself and the residents who live there.

### Niijima, Tokyo Prefecture | Niijima Village Hall: Sawayaka Health Section

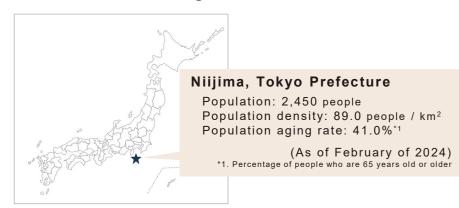
The Registered Dietitian serves as a local collaboration hub to implement integrated / continuous nutrition improvement activities in collaboration with nutrition professionals in the village.

#### **Key messages**

- Only one government Registered Dietitian has been deployed to Niijima Village Hall—the organization in charge of nutrition improvement throughout the region—and no Registered Dietitians have been deployed to medical institutions in the village.
- Given the need to promote nutrition improvement by using extremely limited resources, the government Registered Dietitian at the village hall spearheads efforts to share information on nutrition challenges with Registered Dietitians and Dietitians at daycares, schools, etc. In addition, each of these professionals collaborates with local stakeholders in their region to establish a system that enables the promotion of nutrition improvement activities, thereby achieving such activities covering all life stages.
- The Registered Dietitian at the village hall is driven by a desire to utilize her expertise to give back to the community by contributing to nutrition improvement and health promotion, and—to help resolve local challenges—she tenaciously strives to implement activities, even if they happen to be unprecedented.

#### Introduction

#### Introduction to the region





Niijima is made up of Nii-jima and Shikine-jima—two Izu Islands located approximately 160 kilometers away from Tokyo—and is home to around 2,500 residents. The region's climate is warm throughout the year (with an average annual temperature of 17.6 degrees), and the main industries include tourism and fishing. Small airplanes and ferries regularly travel between Niijima and central Tokyo, and ferries also travel between the two islands.

#### Introduction to the organization

In Niijima, the Sawayaka Health Section has been established as a hub for providing village health services. In addition to handling administrative work, the Registered Dietitian, public health nurses, and physical therapist working at the section collaborate to promote various health promotion measures for residents, including maternal and child healthrelated business, various health examinations, the prevention of non-communicable diseases and long-term care, and other health promotion business.







#### **Nutrition Issues in the Community**

#### Disease and medical care issues

- · Medical institutions: Niijima has no hospital, and the village-run National Health Insurance clinic supports medical care in the region.
- · Disease and medical expenses: As a result of Niijima's increasingly aged population, the region's medical expenses per person are higher than both the national and Tokyo averages.
- √ Medical expenses related to hypertension and dyslipidemia are approximately two times as high as the Tokyo
- √ Medical expenses related to diabetes are so much higher than the Tokyo average that they have become a serious problem.\*2
- √ Medical expenses related to gout among men are approximately three times higher than the Tokyo average.\*2
- ✓ The obesity rate among elementary and junior high school students is approximately 1.5 times higher than the Tokyo average.\*3
- \*2. National Health Insurance Medical Expense Analysis (Niijima, Tokyo, 2016) \*3. Niijima, Tokyo (2017)

#### Nutrition and dietary habit issues

- Grocery stores and restaurants: Because there are very few grocery stores and restaurants that are open throughout the year, there is a tendency for residents who are single or cannot cook to focus their diets on instant foods and stuffed bread.
- · Food distribution: The islands also face unique challenges, including difficulty obtaining fresh food when ships are canceled as well as the inability to deliver frozen food to individuals in Shikine-jima.
- Eating habits: Many people in the region use a lot of sugar and soy sauce and tend to enjoy extremely sweet and salty flavoring.
- √ Sodium intake is high in the region (men: 12.7 g/day, women: 10.6 g/day).\*4
- ✓ Vegetable intake is insufficient in the region (309.4 g/day).\*4
- √ Many residents eat snacks and drink sweet beverages every day (27.1%).\*5
- \*4. Survey on Nutrition and Dietary Habits in the Tokyo Island Region (Tokyo Island Health Center, 2014)
- \*5. Questionnaire Survey Status (Kokuho (National Health Insurance) Database (KDB) System, 2022)

#### Overview of the Activity

#### Promoting nutrition improvement activities to leave no one behind despite limited resources

In Niijima, one Registered Dietitian who works for the Sawayaka Health Section is in charge of nutrition programs covering all life stages. For example, the Registered Dietitian supports the health of the residents in terms of nutrition through activities that include childbirth classes for pregnant women, nutrition courses for school-aged children, nutrition counseling during health checkup result information sessions, and Hatsuratsu classes aimed at preventing frailty.

In addition, given that there are a limited number of medical institutions in the village, patients who have chronic diseases that become worse sometimes have to be hospitalized at off-island hospitals long term or transferred to offisland. To help prevent this from happening, the government Registered Dietitian is also in charge of nutritional guidance for clinics and provides services personalized for each resident, including nutrition counseling and follow-up interviews, to help prevent the onset of chronic diseases as well as conditions becoming more serious.

#### Pregnant women /infants

- Childbirth classes
- Expectant mother health checkups, infant health checkups etc.

#### School-aged children

- ✓ Food and nutrition education classes for davcare students
- ✓ Nutrition seminars held via

### Adults

- departmental collaboration etc.

#### (young/middle age) ✓ Health checkup result

- information sessions
- ✓ Specified health checkups and resident health checkups

### **Elderly**

- ✓ Health courses for senior residents
- √ Hatsurastu classes (classes) aimed at preventing frailty) etc.

Sick/wounded people, people requiring long-term care

Nutritional guidance at clinics and nutrition counseling for residents etc

#### Disaster victims (preparing for disasters)

### Focusing on infants and school-aged children in particular

Niijima has been conducting a fact-finding survey on village nutrition and dietary habits every five years since 2010 to gain an understanding of the local nutrition situation. This survey has identified specific issues that include too much sodium and sugar intake as well as a lack of activities targeting adolescents and people of late middle age.

Given this situation, the village has started focusing on activities targeting infants and school-aged children, which is the period when lifelong eating habits are established. For example, in Nii-jima and Shikine-jima, the village is laying a foundation for practicing healthy dietary habits according to the growth stage, such as by providing basic knowledge of nutrition and fostering an awareness of the importance of proper sodium and sugar intake through food and nutrition education classes at daycares as well as nutrition classes at elementary and junior high schools on the islands.

### A strong driving force from attachment to the community and a desire to give back personal knowledge to the residents

Niijima faces numerous restrictions—including limited food access, medical care resources, and human resources, but the Registered Dietitian has built relationships of trust with the residents by frequently interacting with them face-to-face as they go about their daily lives, and she therefore possesses a deep understanding of the lifestyles and dietary habits of them.

As a result, the Registered Dietitian is able to provide personalized nutrition counseling as well as follow-up support in line with the lifestyle of each resident, thereby assisting residents based on a detailed understanding of the support they actually want.

The foundation for this is how much the Registered Dietitian enjoys living in the region as one of its residents as well as her love for the land. These feelings imbue a desire in the Registered Dietitian to use her expert knowledge to give back to the community, thereby contributing to nutrition improvement and health promotion. In addition, her desires as a professional act as a powerful driving force for proactively promoting activities.

### Having a passion for solving unprecedented challenges and continuing negotiation and coordination with stakeholders within the organization

Given the unique circumstances of the islands, it has sometimes been necessary to face unprecedented issues while promoting activities in the region.

Because the understanding of the people in the area is necessary to promote activities, unprecedented activities are especially difficult to implement, but the government Registered Dietitian at the village hall has steadily collected information on prior examples to protect the health of the residents. In addition, she has tenaciously negotiated with in-house stakeholders as well as related bureaus, gained their understanding while coordinating and building relationships with them to devise and execute plans, and thus built the necessary systems.

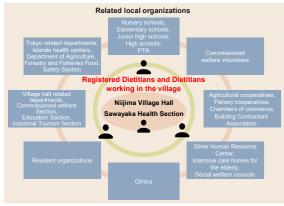
In this way, the Registered Dietitian's strong desire to resolve issues as well as her ability to take specific action to get nearby stakeholders involved has proven to be a key point in terms of promoting activities.



A nutrition class for children

### Enhancing relationships with nutrition professionals in the village and promoting activities as a local collaboration hub.

#### **Nutrition improvement promotion system**



\* Created based on Plan for the Promotion of Food and Nutrition Education Planning Committee materials In Niijima, the Nii-jima Branch of the Tokyo Island Health Center organizes four annual meetings of six Registered Dietitians and Dietitians from within the village to exchange information on issues and business-related problems. In addition, Registered Dietitians and Dieticians from five neighboring municipalities in the Tokyo Islands area hold a communication conference twice a year. Moreover, they accept requests for work inspections by inexperienced Registered Dietitians and Dietitians and provide nutritional guidance support.

Such collaboration with local Registered Dietitians and Dietitians forms the basis of regular meetings to exchange opinions on village activities, which are attended by village hall staff, representatives of related Tokyo bureaus, school stakeholders, commissioned welfare volunteers, economic organizations, residents' groups, and others.

The utilization of such opportunities and networks to deepen the shared understanding of the region's health and nutrition challenges while increasing the number of collaborators as well as support provided by the Tokyo Island Health Center in terms of engaging in network building and holding meetings have also contributed to building effective systems.

### Having built relationships with stakeholders through sharing information on issues and utilized local resources fully

Niijima has conducted a survey on the village's nutrition and dietary habits to identify related challenges and has shared this information with other professionals working at the village hall as well as Registered Dietitians and Dietitians working in the village. As a result, the village has formed connections between stakeholders working on resolving challenges in the region, shared information on activities being implemented by individual organizations, and gained the ability to associate such activities with each other so as to promote them in an integrated fashion.

This also led to an increase in collaborators capable of working with not only the government Registered Dietitian at the village hall but also various other players in the community to think about and take action in response to challenges faced by the region.

### The village has improved the residents' awareness of dietary habits by directly approaching residents and conducting activities to raise public awareness.

In response to issues that include too much sodium and sugar intake as well as a lack of activities targeting adolescents and people of late middle age, in addition to taking the direct approach described above, the village has implemented various public awareness raising activities and created the public relations media described below.

- ✓ Displaying public awareness raising media related to sodium and sugar
- ✓ Distributing clear file folders intended to raise awareness of sodium intake to all houses
- ✓ Utilizing social media (by posting recipes that use locally produced ingredients and are low in sodium and sugar)
- ✓ Collaboratively creating posters intended to raise awareness of food and nutrition education with municipalities in the Tokyo Island region to which Government Dietitians have been deployed

As a result of such activities, residents now have an improved awareness of the importance of nutritionally balanced diets.

For example, under the village's Plan for the Promotion of Food and Nutrition Education, the village is focusing on achieving continuous food and nutrition education starting at the time of infancy. As a result, the percentage of children who understand the concept of simple nutritional balance increased from 71% (based on a 2015 survey) to 89% (based on a 2020 survey).

In addition, the percentage of adults and elderly people in the region who look at food nutrition labels increased from 39% (based on a 2015 survey) to 46% (based on a 2020 survey).\*6

Niijima's goal is to continue to implement uninterrupted food and nutrition education at every stage of childhood and adulthood to work on nutrition improvement and health promotion.

\*6. Niijima's Third Plan for the Promotion of Food and Nutrition Education (Niijima, Tokyo)



A clear file folder for raising awareness of sodium intake

#### **Introduction of Registered Dietitians**

#### Enjoying life on a remote island and understanding nutrition challenges based on daily life

#### Affiliation and name

ENDO Ritsuko, Head Registered Dietitian, Sawayaka Health Section, Niijima Village Hall, Tokyo Prefecture

### Personal history and work since starting the job

Ms. Endo started working for Niijima Village Hall in 2009. As the government Registered Dietitian at the Sawayaka Health Section, she is in charge of the village's nutrition improvement work in general.





#### Future goals and ambitions

My goal is to enjoy my life on this remote island as one of its residents as I try to come up with ways to utilize my personal knowledge to give back to the community so as to improve the lives of local residents. To accomplish this, I hope to regularly share information with shareholders and further strengthen my cooperative relationships with them as we strive to resolve our region's nutrition challenges.

In addition, I want to continue to focus on training the Registered Dietitians and Dietitians of the future, cooperate with the acceptance of business tours as well as student research both on and off the island, respond to counseling requests from young people facing difficulties, and otherwise work hard.

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Registered Dietitians at the region's only hospital with beds contribute to regional medical care through dietary management tailored to each patient.

#### **Key messages**

- Okidozen Hospital—the only hospital in the Dozen region that has beds enabling hospitalization—protects the health of local residents by taking care of patients who have various conditions, including the acute, recovery, and chronic stage.
- The local Registered Dietitians are in charge of hospital-internal food service work and dietary management as well as outpatient guidance on nutrition and diets. Through daily holistic care, Registered Dietitians deepen their understanding of each patient and strive to provide meals that match the patient's preferences as much as possible, supporting local medical care from a nutritional standpoint.
- Driven by a desire to achieve personal growth and to provide health and nutritional support to the local people they live with, the Registered Dietitians share information and knowledge with the other professionals working at the hospital and constantly strive to acquire new knowledge—such as by utilizing both on and off-island growth opportunities, including online training held by dietetic associations and other organizations—as they go about their daily work.

#### Introduction

#### Introduction to the region



Nishinoshima is one of the Oki Islands in the Sea of Japan and is located approximately 65 kilometers northeast of the Shimane Peninsula. There are four inhabited Oki Islands, and three of them (Nishino-shima, Nakano-shima, and Chiburijima) are called Dozen. The town of Nishinoshima is located on the island of Nishino-shima and occupies the entire island.

Due to the effects of the Tsushima Current, Nishino-shima has a relatively warm average annual temperature of 14.9 degrees. In addition, the island's major industries are fishing and livestock.

Ferries and high-speed ships travel between the island and the mainland, and regular coastal ships also travel between Nishinoshima and the other Dozen islands.

#### Introduction to the organization

Nishinoshima's Okidozen Hospital is the only hospital in the Dozen region with beds (44) and therefore the only institution where hospitalization is possible. The hospital provides medical care at the acute, recovery, and chronic stage and accepts patients from every island in the Dozen region.

The hospital employs around 90 staff members, and the Nutrition Department includes two Registered Dietitians, three chefs, and three cooks.



#### **Nutrition Issues in the Community**

#### Disease and medical care issues

- Aside from Okidozen Hospital, Nishino-shima has one clinic, and doctors from the hospital go there. Each of the two
  nearby islands (Nakano-shima (Ama), Chiburi-jima (Chibu)) also has one clinic, but—in cases where full-scale
  treatment is necessary—it is necessary to hospitalize patients at either Okidozen Hospital or a mainland hospital in
  Shimane Prefecture.
- In Nishinoshima, over 30% of the medical expenses covered by National Health Insurance are due to non-communicable diseases. Therefore, Nishinoshima has set a medium to long-term goal of making both the number of patients and medical expenses more reasonable by decreasing the incidence of non-communicable diseases, and the town has set the following and other short-term goals to achieve this: increasing the specified health checkup rate, increasing the specified health guidance implementation rate, and decreasing the number of people who have or are at risk of developing metabolic syndrome.\*2
  - \*2. Nishinoshima's Data Health Program (Nishinoshima, Shimane Prefecture, formulated in March of 2018)

#### Nutrition and dietary habit issues

- Nishinoshima has one supermarket and around one privately run store in each district. However, the sea sometimes
  gets rough due to typhoons in the summer as well as stormy weather in the winter, the effects of which can disrupt
  distribution. Therefore, it is necessary for the hospital to constantly confirm the weather forecast when devising food
  service plans and take steps that include buying a lot of food products in advance when there is a risk of distribution
  being disrupted.
- There are few restaurants in Nishinoshima, so places where residents can eat out are limited. In addition, only limited
  types of fresh food can be easily obtained, and there are elderly people who use the food distribution service run by
  the social welfare council.

#### **Overview of the Activity**

### Registered Dietitians at the region's only hospital with beds enabling hospitalization handle patients with diverse conditions.

The two Registered Dietitians who belong to the Nutrition Department handle in-hospital food service work and hospital ward dietary management while also providing guidance on nutrition and diets to inpatients and outpatients. They strive to provide diets in line with the preferences of patients based on both an understanding of the condition of each patient—including everything from the acute to the chronic stage—and consideration of the pathological and physical condition of each patient.

Given that there are a lot of elderly people in the region, many patients are hospitalized due to either decreased eating or swallowing function or a loss of appetite. Therefore, to achieve personalized dietary management, the Registered Dietitians go to the hospital ward at mealtime to observe patients eating, and they make prompt dietary and other adjustments based on discussions with the nurses in charge of each hospital room as well as each patient's attending physician. In addition, they frequently share information with the families of patients, gain an understanding of the dietary situations, preferred foods, and other characteristics of patients before they are hospitalized, and strive to ensure that patients can enjoy what they eat as much as possible.

#### Managing diets in line with patient needs based on an understanding of each patient

Okidozen Hospital's slogan is to provide loving medical services, and the hospital considers it important to look not only at the disease but also at the nerson

As professionals in charge of holistic care, the Registered Dietitians at the hospital try to understand not only the current health and nutrition status of each patient but also their lifestyle up until now and also consider the kinds of meals and dietary preferences each patient would normally prefer as they respond to each patient.

In the case of terminal-stage patients, the Registered Dietitians collaborate with various professionals during their daily work in an effort to enable such patients to eat what they want to eat as long as possible so they can enjoy their lives up until the very end.

These professionals also provide *Wagatoko (My) Menu* as a local-cuisine food service, which includes following local seasoning practices as much as possible, and engage in other daily efforts to keep patients comfortable.



Wagatoko (My) Menu (ago dumplings and mozuku soup)



The kind of ramen terminal-stage patients hope for

#### Having a sense of purpose and tackling their daily work

Of the two Registered Dietitians working at Okidozen Hospital, one started the job from off-island based on a desire to enhance their skills as a Registered Dietitian through involvement in regional medical care. The other Registered Dietitian was born on the island and is motivated by a desire to promote resident health maintenance by contributing based on their personal knowledge of nutrition.

The above motivations coupled with attachment to the region serve as a major driving force when handling daily work.

### Reinforcing in-hospital systems in response to the need for more advanced expertise

Nishinoshima has a population aging rate of over 40%, and patients in the region face increasingly complicated and diverse challenges. Therefore, the need for more advanced expertise during daily dietary management work is increasing every year.

To respond to this situation, Okidozen Hospital has increased its number of Registered Dietitians from one to two.



Meal rounds

#### Acquiring new knowledge by actively utilizing on and off-island growth opportunities

Daily self-improvement is essential for achieving tailored dietary management in line with patient needs. The Registered Dietitians of Okidozen Hospital participate in nutrition-related conferences and follow-up visits to gain an accurate understanding of the conditions of patients, and they strive to share information and collaborate with other professionals at the hospital. In addition, they participate in regular study groups held at the hospital with various professionals and otherwise endeavor to effectively utilize hospital knowledge as they enhance their skills.

They also fully utilize growth opportunities outside of the hospital. Given that it is not easy for Registered Dietitians in remote islands to attend workshops held on the mainland, they instead actively participate in online workshops held by prefectural dietetic associations and other organizations, taking advantage of the opportunity presented by the increase in such workshops due to the COVID-19 pandemic. In addition, there are also regular opportunities to exchange information with local Registered Dietitians and Dietitians. In this way, the Registered Dietitians constantly strive to acquire new knowledge and collect information.

By sharing information with other professionals at the hospital as they always have and utilizing external growth opportunities, the Registered Dietitians provide suitable guidance on nutrition and diets and successfully manage diets for patients who have a diverse range of conditions despite limited resources. In addition, the strong desire of such Registered Dietitians for personal growth coupled with daily self-improvement efforts to achieve it acts as a pillar to support nutrition improvement activities in the region.



Doing rounds



A conference

### Promoting enhanced collaboration with Long-Term Care Insurance facilities in the region given the region's high population aging rate

As described above, the island faces an increasingly aging population, so the problem of long-term care cannot be avoided. Therefore, Okidozen Hospital collaborates with long-term care facilities and other organizations in an effort to provide comprehensive services from the perspective of health and medical welfare.

Many inpatients are either transferred from long-term care facilities or transferred to such facilities after being discharged from the hospital, so Okidozen Hospital regularly provides information on eating/swallowing function, appetite, preferences, etc. not only to organizations on the island but also to Long-Term Care Insurance facilities on the two nearby islands, thereby building a system that enables the provision of suitable diets after patients are either admitted to or discharged from the hospital.

# The Registered Dietitians have used advanced expertise as a foundation to provide guidance, thereby helping patients to understand the importance of suitable nutrition and dietary habits.

The Registered Dietitians use the advanced expertise they have acquired through self-improvement as a foundation that enables them to provide guidance on nutrition and diets that more effectively respects the intentions and living conditions of each person. For example—based on an understanding of the preferences, lifestyles, and other characteristics of patients—the Registered Dietitians repeatedly explain dietary details applicable to inpatients after they are discharged from the hospital, and, in terms of guidance on nutrition and diets for outpatients, they are always careful to propose options that use seafood, vegetables, and other food products that are easily obtained on the island.

As a result, patients and their families have gained a deeper understanding of nutrition and dietary habits and are more aware of suitable nutritional intake. More and more patients and their family members are also providing positive feedback, such as mentioning that their physical condition has improved since they changed their diet or that the ability to prepare meals suitable for their physical condition puts their mind at ease. In addition, in response to the provision of *Wakatoko* (My) Menu, patients have mentioned that they are happy to have access to such familiar flavors, and they seem to be enjoying their diets.

#### Through local activities, new challenges have become clearer.

While promoting enhanced collaboration in the long-term care field, the Registered Dietitians have held nutrition seminars at local classes to prevent the need for nursing care in response to requests from residents and gained opportunities to directly interact with them. Although they mainly interact with inpatients and outpatients, local residents who participate in health events seem to have a strong awareness of nutrition and dietary habits, and none of the residents seemed to have any nutritional status problems.

At the same time, some of the patients they interact with on a daily basis are not doing well in terms of their nutritional status, and it is a challenge to find ways to approach people who do not participate in classes. Therefore, they hope to collaborate with the government and pursue activities targeting such residents.





Local cuisine of nearby Oki islands Left: squid and daikon radish Right: sazae miso

#### **Introduction of Registered Dietitians**

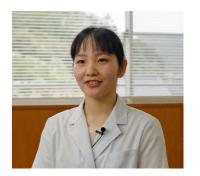
#### Striving for self-improvement with the support of a senior Registered Dietitian

#### Affiliation and name

ASANABE Keito, Registered Dietitian, Nutrition Department, Okidozen Hospital

### Personal history and work since starting the job

Ms. Asanabe started working for Okidozen Hospital as a Registered Dietitian in 2022. She is in charge of dietary management, food service work, and nutritional guidance for inpatients.





#### Future goals and ambitions

I originally worked off-island, but I decided to work at this hospital because I wanted to improve my skills as a Registered Dietitian through involvement in regional medical care.

Because my job as a Registered Dietitian requires me to handle a wide range of work and help patients who have complicated nutritional statuses, information based on the latest evidence is always necessary, so I strive for self-improvement on a daily basis.

There is still a lot I want to learn, so I hope to keep working hard every day, taking advantage of the support of the senior Registered Dietitian and the other professionals around me as I do.

#### Goto, Nagasaki Prefecture | Nagasaki Goto Chuoh Hospital

The hospital utilizes municipality project to provide guidance on nutrition and diets to elderly patients at remote locations who have trouble going to the hospital.

#### **Key messages**

- Goto Chuoh Hospital functions as the region's core hospital, providing medical care that covers the acute stage, recovery stage, and chronic stage for patients of all ages. The Registered Dietitians working at Goto Chuoh Hospital provide guidance on nutrition and diets to inpatients and outpatients, handle dietary management for inpatients, and handle nutrition-related consultation with other professionals.
- To assist patients who live in remote island locations and therefore have difficulty going to the hospital, Goto has launched a mobile clinic business that utilizes mobile clinic vehicles equipped with online medical examination equipment. In addition to cooperating with this business, Goto Chuoh Hospital has its Registered Dietitians provide online guidance on nutrition and diets as its own activity.
- The Registered Dietitians acquire new information and evidence on a daily basis and update their personal knowledge and skills as they strive to improve nutrition in the region.

#### Introduction

#### Introduction to the region

#### Goto, Nagasaki Prefecture

Population: 34,408 people

Population density: 81.9 people / km<sup>2</sup>

Population aging rate: 42.5%\*1

(As of February of 2024)
\*1. Percentage of people who are 65 years old or older according to Nagasaki's estimated prefectural and city population by age (as of October 1, 2023).



Goto is located at the westernmost point of Kyushu, approximately 100 kilometers to the west of Nagasaki Prefecture in the sea. Goto is located in the southwestern region of the Goto Islands, which consist of 152 large and small islands, and the city itself consists of ten inhabited islands and 53 uninhabited ones. Fukue-jima is the largest of the Goto Islands, and various government associations, airports, ports, shopping centers, and other facilities are located in the island's eastern region. Due to the effects of the Tsushima Current, the region has a relatively warm average annual temperature of 17.4 degrees.

Goto is connected to the mainland by air and sea routes, and it takes approximately 30 minutes to get there from Nagasaki Airport by airplane and approximately 85 minutes to get there from the Port of Nagasaki by jetfoil. Although there is almost no snowfall in the region, typhoons sometimes pass by or make landfall in the summertime, which can disrupt distribution.

#### Introduction to the organization

As Goto's only core hospital, Nagasaki Goto Chuoh Hospital (called Goto Chuoh Hospital below) provides advanced specialized medical care that other medical institutions in remote islands cannot as well as other kinds of medical care that tend to be hard to come by in remote islands, including emergency medical care, perinatal/pediatric medical care, psychiatric medical care, and recovery-stage medical care. Goto Chuoh Hospital also has a range of departments—including an Internal Department and Surgical Department—and is designated as a core hospital for medical services in remote areas and as a local hub hospital for disaster response.

The hospital's Registered Dietitians belong to its Nutrition Department, and there are currently three of them, including two full-time Registered Dietitians and one part-time one.



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#### **Nutrition Issues in the Community**

mainland Japan.

Disease and medical care issues

### • There are plenty of medical institutions in the central part of the city, but medical institutions are limited in remote locations such as the western region of Fukue-jima as well as remote islands with no direct sea or air routes from

- The percentage of people who have metabolic syndrome or are at risk of developing it is higher than both Japan's and Nagasaki Prefecture's average, especially in the case of men.\*2
- Because of its aging population and outflow of young people, the region faces a shortage of people to keep the
  region going. There is also less and less public transportation due to fewer regular-route buses running as well as the
  withdrawal of taxi companies. In addition, due to the region's aging population, many people are returning their
  driver's licenses, and it is therefore extremely difficult for elderly people to go to the hospital or otherwise move
  around in terms of both time and money.

\*2. Fiscal 2019 specified health checkup results, Goto's Third Plan for the Promotion of Food and Nutrition Education (Goto, Nagasaki Prefecture)

#### Nutrition and dietary habit issues

- Food procurement: Remote locations on Fukue-jima as well as remote islands with no direct sea or air routes from mainland Japan have a limited number of stores, which makes it difficult to obtain fresh food, so many residents have to go to the central part of the city to buy such things.
- Dietary habits: The prevalence of non-communicable diseases is increasing due to excess sodium intake and insufficient vegetable intake in the region. The undernutrition of elderly people is also an issue. The city has formulated a Health Promotion Plan (Second) and a Plan for the Promotion of Food and Nutrition Education (Third) and is working on improving local nutrition and dietary habits.
  - ✓ Compared to women, men in the region are less likely to eat nutritionally balanced meals (eating a staple dish, main dish, and side dish at least twice a day) or vegetables.\*3
  - \*3. Results of a 2017 survey on Goto dietary habits, Goto's Third Plan for the Promotion of Food and Nutrition Education (Goto, Nagasaki Prefecture)

#### Overview of the Activity

#### ■ Fulfilling roles as Registered Dietitians at the region's core hospital

Goto Chuoh Hospital serves as the region's core hospital, and its Registered Dietitians help patients with various conditions, including everyone from children to elderly people at the acute, recovery, or chronic stage.

The main work done by these Registered Dietitians includes guidance on nutrition and diets for inpatients and outpatients as well as dietary management for inpatients. In particular, they focus on guidance on nutrition and diets, and the number of times they do so is increasing every year (fiscal 2022 result: 1,039 guidance sessions).

They also engage in dietary management in collaboration with various professionals as members of the Nutrition Support Team and meal round participants. In addition, in accordance with requests from the government, Registered Dietitians hold seminars on the nutrition and dietary habits of elderly people for general residents.



Online guidance on nutrition and diets

# Cooperating with mobile clinic business implemented by Goto in order to provide online guidance on nutrition and diets for elderly patients who are at remote locations and therefore have trouble going to the hospital

Goto Chuoh Hospital provides online guidance on nutrition and diets under the Smart Mobile Clinic Promotion Plan (mobile clinic project) run by Goto.

In remote locations with relatively scarce medical care resources, it can be difficult for patients who have chronic diseases to go to the hospital for the regular medical examinations they require, and, although there has been an increase in online medical examinations in recent years, the difficulty that elderly people often have using digital equipment is becoming a barrier.

In response, in January of 2023, Goto launched its mobile clinic project. Under this plan, special mobile clinic vehicles (called mobile cars below), which are equipped with medical and communication equipment, go to locations near the homes of patients, enabling them to receive support from nurses riding in the vehicles as they undergo online medical examinations.

In addition—in spite of the fact that the region is home to many patients with diabetes or hypertension (high blood pressure) and has therefore had a strong need for nutritional guidance for a long time—this has not been possible because there are no Registered Dietitians at the remote island clinics in the area. When the mobile clinics were introduced, medical institutions asked if it would be possible to introduce online guidance on nutrition and diets, and—after discussions with various related organizations—the decision was made to put the Registered Dietitians at Goto Chuoh Hospital in charge of this.

Currently, in the district of Tamanoura in the western part of the island, face-to-face guidance is first provided to each patient to gain a clear understanding of their condition, and then online guidance on nutrition and diets is provided to any patient for whom such ongoing guidance is necessary.

# Maintaining a strong sense of responsibility as Registered Dietitians of a hospital that plays a central role in the region while striving for self-improvement

Because Goto Chuoh Hospital plays diverse roles as the region's core hospital, local stakeholders also expect a great deal of the Registered Dietitians who work there. Therefore, whenever a new activity is launched in the region, the Registered Dietitians serve as the first point of contact for consultation.

The Registered Dietitians also receive a lot of requests for consultation concerning activities aimed at resolving local issues from both the government and related organizations.

To reliably handle such tasks, the Registered Dietitians strive to acquire new information and evidence and to update their personal knowledge and skills on a daily basis.

For example, they undergo training by the Nagasaki Dietetic Association and Hospital Agency Nutrition Committee, exchange information on their work, undergo training by certified diabetes educators in the Nagasaki region, and take various courses in an effort to acquire specialized knowledge that can be utilized for mobile clinic project and other new activities. They also proactively participate in workshops and academic societies. Their sense of responsibility coupled with their interest in always continuing to learn is the foundation of activities in the region.

### Increasing the number of Registered Dietitians by visualizing the results of dietary management

Before, there was only one Registered Dietitian at Goto Chuoh Hospital to provide guidance on nutrition and diets and handle dietary management. However, due to an increasing need for expert-level knowledge and skills related to nutrition, there was an increase in both the number of nutritional guidance sessions and requests for nutrition-related consultation from various professionals. In response, the Registered Dietitian created materials that covered business details and results and then insisted to the hospital administrator that Registered Dietitians were important and that the hospital needed more of them.

As a result, this staff increase was approved, and, in 2021, the hospital switched to a system with three Registered Dietitians. This system enhancement has proven to be a crucial foundation for taking on the challenge of new activities.



Nutrition Support Team workshop (tasting of swallowing food)



Nutrition rounds



Meal rounds



Mobile clinic vehicle (mobile car)

# Expanding their network with people outside the hospital and the scope of their own activities through cooperating with city projects

The objective of the city's mobile clinic project is to offer improved convenience to elderly people with chronic diseases—who often have difficulty accessing medical institutions for reasons that include poor lower body strength, impaired cognitive function, or not having a decent means of transportation—and to resolve local issues.

As a participating member of this project, Goto Chuoh Hospital is in charge of online guidance on nutrition and diets provided by using mobile cars. The intended purpose of this activity is to help prevent cases of diabetes in the city from becoming more severe, and it contributes to improving the health and nutritional status of residents.

In terms of resolving the issue of improving the nutrition of elderly people in the region who cannot go to the hospital—an issue that is difficult for hospitals or Registered Dietitians to tackle on their own—cooperating with the city and effectively utilizing this city project has been extremely effective for expanding their network of hospital-external stakeholders as well as the scope of their own activities.

#### ■ The region has built a system for providing guidance on nutrition and diets that does not leave even remote locations behind.

The mobile clinic business has reduced the costs of moving and lightened the physical burden faced by patients who used to have trouble going to the hospital because they had to endure a 30-minute to one-hour trip each way. In addition, this business has led to increased business efficiency for examining doctors—who have to spend time traveling to provide conventional home-visit medical care, which makes it difficult to examine a lot of patients—because the time spent moving around in the mobile car can be used to examine outpatients.

Furthermore, in the case of clinics at remote locations with no Registered Dietitians, support used to be limited to guidance on lifestyle habits provided by doctors and nurses, but the mobile clinic approach enables the Registered Dietitians at the hospital to provide ongoing guidance on nutrition and diets once per month. (The first session of guidance on nutrition and diets is handled face-to-face.)

Although this is currently only implemented in some regions, efforts are underway to accumulate knowledge and experience so as to implement more effective nutrition improvement activities once the target regions are expanded.



Providing face-to-face guidance at a Tamanoura clinic



A presentation at a regional meeting of the Japan Diabetes Society

### Participating in the new project has enabled Registered Dietitians to further enhance their skills.

Although there have been few opportunities for online guidance on nutrition and diets up until now, providing guidance on nutrition and diets through the mobile clinic project has turned out to be an opportunity to enhance personal skills, including finding more effective ways to use guidance materials and talk when providing guidance, which has helped to resolve issues that include difficulty conversing through a screen and difficulty conveying reactions to guidance.

Another thing that has led to the growth of Registered Dietitians is the fact that the project has resulted in opportunities for communication with outside parties, including the announcement of related activities to academic societies and other organizations, enabling the Registered Dietitians to take on the challenge of new activities.

#### **Introduction of Registered Dietitians**

#### Constantly pursuing self-improvement while taking on new challenges

#### Affiliation and name

EGASHIRA Kiyomi, Registered Dietitian, Nutrition Department, Nagasaki Goto Chuoh Hospital

### Personal history and work since starting the job

Ms. Egashira started working for Nagasaki Goto Chuoh Hospital in 2004. For many years, she has been in charge of providing guidance on nutrition and diets for inpatients and outpatients as well as handling dietary management for inpatients.





#### Future goals and ambitions

Over the course of many years, I have responded to a wide range of requests for consultation from local stakeholders as a Registered Dietitian at my region's core hospital. This has included a lot of new activities and struggles as well, but I have always done my best to fulfill my role.

I hope to continue striving to enhance my skills as I support the growth of the young Registered Dietitians who have become my new colleagues and work with everyone to improve the nutrition of patients and other members of our community.

"

Matsuyama (Nakajima district), Ehime Prefecture | Himegahamaso (a special nursing home for the elderly)

The only Registered Dietitian at the island's Long-Term Care Insurance facility implement nutrition improvement activities focused on community welfare as an approachable professional.

#### **Key messages**

- At Himegahamaso—a special nursing home for the elderly—one Registered Dietitian is in charge of the nutrition care and management for facility residents.
- As the only Registered Dietitian working at the island's Long-Term Care Insurance facility, this professional not only handles facility
  work but also works on improving the nutrition of elderly people in the region, invites local elderly people to the facility to hold dietrelated events, and responds to requests for consultations related to the nutrition and dietary habits of elderly people from other
  professionals and commissioned welfare volunteers. Through such activities, the Registered Dietitian also collaborates closely with
  government associations.
- The Registered Dietitian attends various meetings and visits various stakeholders on the island so that they will remember him as Himegahamaso's Registered Dietitian, and he builds relationships of trust with local residents as an approachable professional while promoting activities.

#### Introduction

#### Introduction to the region

#### Matsuyama (Nakajima district), Ehime Prefecture

Population: 2,781 people

Population density: 74.6 people / km<sup>2</sup> Population aging rate: 68.4%\*<sup>1</sup>

(As of February of 2024)

\*1. Percentage of people who are 65 years old or older (calculated based on the number of people registered in the basic resident register)





The Nakajima district of Matsuyama is part of the Kutsuna Islands, which are located in the western Seto Inland Sea on the border between Hiroshima Prefecture and Yamaguchi Prefecture approximately 15 kilometers northwest of mainland Matsuyama and consist of six inhabited islands and 22 uninhabited ones. Naka-jima—home of the Himegahamaso special nursing home for the elderly (called Himegahamaso below)—is the largest inhabited Kutsuna Island in terms of area. The island's terrain is generally steep, and there are houses here and there in the small plains region.

High-speed ships and ferries travel between Naka-jima and mainland Matsuyama every day, and the island produces a lot of citrus fruit. Nakajima district as a whole faces a rapidly declining and aging population, and its population aging rate is 68.4% (calculated based on the basic resident register population by district and age disclosed by Matsuyama).

#### Introduction to the organization

Himegahamaso is a Long-Term Care Insurance facility run by the Tojukai Social Welfare Corporation in Naka-jima.

In addition to conventional and unit-style admission (maximum capacity: 114 people), Himegahamaso offers short stays (maximum capacity: 26 people) and a day service center (maximum capacity: 30 people), and the facility accepts elderly people who are certified as requiring long-term care.

 $\label{thm:eq:himegahamaso} \ \ \text{employs 80 staff members, including nurses, long-term care social workers, and one full-time Registered Dietitian.}$ 



#### **Nutrition Issues in the Community**

#### Disease and medical care issues

- Naka-jima has one medical institution, from which medical care staff members are dispatched to clinics on five nearby islands.
- The region's specified health checkup result is worse than the Matsuyama average, with an especially high percentage of people with findings related to diabetes.
  - ✓ Percentage of people with findings related to HbA1c

Eastern Nakajima district: 71.9%, Western Nakajima district: 66.7% (Matsuyama: 58.5%)\*2

\*2. Aggregate data compiled by Nakajima Community General Support Center

#### Nutrition and dietary habit issues

- Food procurement: There are no stores on the Kutsuna Islands other than Nakajima, so it is necessary to rely on ships to procure food products (and a one-way trip to Matsuyama takes around an hour). In addition, although there used to be one store in each region of Nakajima, the number of stores has decreased in recent years, and it has become difficult to procure food on the island on regular holidays, etc.
- Dietary habits: Fresh food and similar products are difficult to obtain, so residents tend to make a habit of incorporating instant foods and other unhealthy options into their diets.
- Increasingly poor nutritional status: As the island population decreases, connections with relatives and the community are weakening. As a result, there is a local trend for the nutritional status to worsen, especially in the case of elderly people who have isolated themselves as well as elderly people living alone.
- ✓ Percentage of people living alone: 21.9%
- √ The population rate is over 80% on some islands.\*3
- \*3. Basic resident register population by district and age (Matsuyama, Ehime Prefecture, February of 2024)

#### Overview of the Activity

#### Contributing both to nutrition care and management at facilities and the community

The Registered Dietitian at Himegahamaso—the Long-Term Care Insurance facility on the island—has been in charge of nutrition care and management for the facility's residents since 2020, and he therefore handles dietary management and nutritional guidance for them.

The facility outsources its food service work by buying frozen meals from the Matsuyama mainland and then reheating them at the facility (Cook-Chill). Therefore, the menu can be adjusted according to the condition of each facility resident, and fresh local ingredients can be used to provide snacks, etc., thereby helping to ensure that residents can enjoy living at the facility while also receiving support in terms of dietary habits.

When the facility manager offered some advice to the Registered Dietitian by mentioning that it would be good for the Registered Dietitian to focus on community welfare as well, the Registered Dietitian developed an interest in nutrition improvement activities for local elderly people. Ever since then, the Registered Dietitian has been considering what he might be able to do for the community as he provides support for elderly people, holds diet-related events targeting them, and pursues related activities.

For example, as a volunteer, he provides nutritional guidance to elderly people undergoing home medical care, invites elderly people living alone in the region to the facility, and holds nutrition seminars that give participants the opportunity to enjoy meals made using local vegetables and fish. In addition, he strives to help improve the nutrition and maintain the health of not only facility residents but also other elderly people in the region, such as by responding to requests for consultation concerning the nutrition and dietary habits of elderly people from care managers and commissioned welfare volunteers.



A care plan meeting



A snack event at the facility

### Actively heading out into the community from the facility to build relationships and effectively promote local nutrition improvement

While promoting activities related to community welfare, the Registered Dietitian has maintained an awareness of three key points.

The first is to understand the island's social resources. The Registered Dietitian has therefore directly met with island stakeholders in an effort to build the interpersonal relationships that serve as the foundation for activities in the region. The second key point is the importance of being recognized by local residents as Himegahamaso's Registered Dietitian, so the Registered Dietitian has strived to participate in local meetings and to communicate with elderly people and other professionals on the island. Finally, the third thing the Registered Dietitian has tried to do is reinvigorate the region while building sustainable cooperative relationships with its residents, such as by purchasing food products used at the facility from stores on the island.

<sup>\*</sup> In this report, the administrative area resulting from the merger of Matsuyama and the former Nakajima area is called Nakajima district.

### The desire to do something for nearby people as a nutrition expert as a driving force for activities

Himegahamaso's Registered Dietitian worked at a hospital on mainland Matsuyama before, but he chose to work at the Long-Term Care Insurance facility on the remote island of Naka-jima to build up his experience through diverse occupations. Motivated by this thinking, he reliably fulfills the role expected of him as a Registered Dietitian by striving to provide comprehensive nutrition care and management as well as diets to residents in an environment that suffers from limited access to foods and local resources.

In addition, as a result of the current focus on nutrition challenges faced by elderly people in the region, he has developed a strong desire to do what he can to contribute to local nutrition improvement as a Registered Dietitian. To accomplish this, he wants local residents to feel like both the facility and the Registered Dietitian himself are familiar and dependable and to utilize the facility as a place of relaxation, and he therefore searches for opportunities to collaborate with professionals outside the facility while also planning and executing related events.

In short, this Registered Dietitian's sense of responsibility and mission—specifically his desire as an expert to do something for facility residents and local elderly people—is a crucial driving force behind the promotion of local activities.

#### Assimilating into the community to form connections with local stakeholders

Motivated by the above desires, the Registered Dietitian started off with what he could do by heading out into the community to actively form connections with residents and government representatives who seemed likely to have an interest in nutrition improvement as well as store stakeholders and other relevant parties.

Given that Himegahamaso's Registered Dietitian originally worked off-island, he has strived to ensure that locals know his name, his face, and that he works as a Registered Dietitian at the facility. As a result, people in the region have started to increasingly recognize him as Himegahamaso's Registered Dietitian, which is serving as a major foundation for promoting activities outside the facility, such as by giving him the ability to procure food products for the facility during communication with local stores and otherwise enabling him to establish connections with various stakeholders in the region.

### Increasing work efficiency to make time to promote activities outside the facility

To pursue nutrition improvement activities in the region in spite of how busy he is with facility work, the Registered Dietitian is spearheading efforts to digitize this work with the understanding and cooperation of facility stakeholders.

The facility is also giving him the discretion to increase business efficiency so that he can secure more time to work on activities in the community.

In addition, the Registered Dietitian is developing systems that enable time to be used for facility-external activities aimed at improving the nutritional status of local elderly people, including the establishment of a system for collaborating with care managers and commissioned welfare volunteers working at facility-attached establishments providing assistance in receiving home-based long-term care so as to be able to promptly provide advice when there is a request for consultation.

### Starting with simple connections to build a collaboration system

The Registered Dietitian is also building a system that enables the sharing of information on nutrition and health issues faced by the region with other local professionals to collaborate on resolving such issues.

For example, while exchanging information with local care managers and public health nurses, he received a request from the Community General Support Center to hold a seminar for care managers, so he did so. He is currently utilizing the connections formed as a result to enhance local collaboration even more.

He is also considering the possibility of collaboration with the members of Matsuyama's local vitalization cooperation team. Right now, he is working on executing a plan to regularly invite elderly people living alone in the region—who now have a tendency to shut themselves in at home due to the COVID-19 pandemic—to meeting places on the island to gain an understanding of their nutritional status and regularly offer guidance on cooking that is easy for anyone to do.

The relationships of trust cultivated by the Registered Dietitian with stakeholders outside the facility since he started his job have developed considerably, ultimately resulting in the establishment of a collaboration system aimed at achieving nutrition improvement throughout the region. This system is expected to serve as a driving force behind the future promotion of activities.



Confirming the nutritional status of a resident



A nutrition seminar for care managers



Communicating with the community



A diet-related event to which local residents were invited

# Diet-related events have successfully increased the interest of local residents in suitable nutrition and dietary habits.

When activities in the region were first started, it was difficult to get local residents interested even if the importance of suitable nutrition and dietary habits was emphasized, and, even when local residents heard about dietrelated events held by a newly arrived nutrition expert, they seemed discouraged because it would be too hard for them to participate.

In response, while participating in regional meetings and directly interacting with local residents, the Registered Dietitian invited them to think about nutrition with him while enjoying a meal, granting them peace of mind.

As a result, many residents started participating in diet-related events, which increased their interest in suitable nutrition and dietary habits. In addition, there was a change in the residents in that they expressed an interest in ongoing participation after participating in even one such event.

# ■ Based on his personal experience, the Registered Dietitian was able to establish a place where information can be freely exchanged with the Registered Dietitians of neighboring regions.

During his activities at Himegahamaso, the Registered Dietitian experienced how important it is for Registered Dietitians deployed to various workplaces to have people they can exchange information or consult with. He also felt like young Registered Dietitians in particular—who still need to build relationships with those around them and therefore often lack nearby people to consult with—have an especially strong need for a place where they can interact.

To address this need, as part of his work for the Ehime Dietetic Association's Welfare Department, he built an open chat system to enable the free exchange of information by members so that Registered Dietitians can help each other with their work-related struggles and difficulties, enabling them tackle their daily work more effectively.

#### **Introduction of Registered Dietitians**

#### Contributing to community welfare as an approachable Registered Dietitian

#### Affiliation and name

IMAI Ryota, Registered Dietitian, Himegahamaso, Tojukai Social Welfare Corporation

### Personal history and work since starting the job

Mr. Imai started working for Himegahamaso (a special nursing home for the elderly) in 2020. He is in charge of handling nutrition care and management for facility residents while also working on nutrition improvement for elderly people in the region.





#### ■ Future goals and ambitions

This is my third year since I was appointed as the Registered Dietitian of my facility. My first goal is to flesh out the diets of facility residents and help ensure that they enjoy their lives here as I strive to improve their nutritional status.

In addition, as a Registered Dietitian, I hope to plan and establish events that lead to nutrition improvement so as to contribute to the welfare of my community and regional revitalization. I also want to conduct activities as a Registered Dietitian who is easy for anyone in the region to approach so that professionals from outside our facility will come to me for consultation on nutrition and dietary habits.

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## Amami region, Kagoshima Prefecture | Kagoshima Dietetic Association Disaster Assistance Team

The association has trained Japan's first Disaster Assistance Team of Registered Dietitians and Dietitians in the remote island region, and this team strives to improve the self-help and mutual assistance abilities of residents while respecting the local culture.

#### **Key messages**

- Kagoshima Dietetic Association has trained Japan's first Disaster Assistance Team in remote island region. The 11 Registered
  Dietitians who have completed this training conduct activities to raise public awareness among local residents as they engage in
  their own daily work.
- In the Amami region\*, which can easily isolated and cut off from off-island distribution in the event of natural disasters, it is
  extremely important to enable complete disaster responses within the region. Therefore, efforts in the region are focused on
  improving the self-help and mutual assistance capabilities of local residents, while the trained Registered Dietitians striving to build
  a system for collaborating with related local organizations.
- The trained Registered Dietitians participate in prefectural disaster prevention drills, strive to deepen their close mutual
  collaboration with the government, medical institutions, and other organizations, endeavor to increase the disaster prevention
  awareness of prefectural residents, and otherwise act as experts on nutrition and dietary habit support during disasters.

#### Introduction

#### Introduction to the region

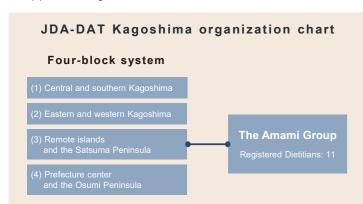




The Amami region consists of a group of islands located approximately 380 kilometers southwest of the Kagoshima Prefecture mainland, starting with Amami Oshima. Due to its subtropical oceanic climate, the region is warm throughout the year (with an average annual temperature of 21.8 degrees) and has relatively high precipitation. There are a lot of disasters due to typhoons in the summer. During the Amami heavy rainfall disaster of 2010, the region was hammered by record-high torrential rain, resulting in river flooding and landslides that simultaneously disrupted not only road transportation networks but also information communication networks, ultimately resulting in a catastrophic disaster of unprecedented scale.

#### Introduction to the organization

In 2020, the Kagoshima Dietetic Association Disaster Assistance Team (called JDA-DAT Kagoshima below) organized Japan's first team of Registered Dietitians and Dietitians (the Amami Group) trained for providing nutrition and dietary habit support during disasters in remote islands.





#### **Nutrition Issues in the Community**

#### Damage due to the Amami heavy rainfall disaster

- From October 18 to 20 of 2010, due to the combined effects of the autumnal rain front, a typhoon, and other factors in the Amami region, the region saw record-high rainfall of over 800 millimeters.
- This turned out to be an unprecedented disaster, resulting in the simultaneous disruption of not only road transportation networks but also information communication networks due to the occurrence of river flooding and landslides all over the region.
- The buildings of medical institutions throughout the region were submerged, resulting in water damage to medical equipment and instruments, materials, and other assets.
- This unprecedented disaster really hammered home the need to conduct drills, stockpile food, and otherwise prepare during normal times, which ultimately led to the establishment of a Disaster Assistance Team for Japan's remote island region.

### Issues related to providing nutrition and dietary habit support during disasters in this remote island region

- In this remote island region—which is easily isolated during disasters and for which it takes a while for support to arrive from nearby regions—both self-help, which refers to disaster preparation by the local residents themselves, and mutual assistance, which refers to local residents helping each other when responding to a disaster, are important. Therefore, the Amami Group of JDA-DAT Kagoshima conducts the awareness-raising activities below.
  - ✓ Raising awareness to improve self-help efforts, including foods to stockpile at home and how to use coolers
  - ✓ Raising awareness among communities to encourage them to use the Amami region's established culture of mutual assistance (a concept referred to by the locals as Yui) for disaster prevention
- After disasters, it is especially important to provide nutrition and dietary habit support to people, who face restrictions
  on what kinds of food they can eat. For example, to provide food that considers food allergies as well as halal food for
  certain foreigners, the region is implementing disaster prevention drills that include dietary support and nutrition
  counseling for such people requiring consideration.

#### **Overview of the Activity**

### Training experts capable of providing nutrition and dietary habit support during disasters in remote islands

JDA-DAT Kagoshima holds training sessions to train experts capable of providing nutrition and dietary habit support during disasters.

The training in the Amami region is intended for Registered Dietitians and Dietitians engaged in various occupations, and it is based on a three-day curriculum that includes not only classroom lectures but also exercises related to emergency food cooking and taste testing.

In addition, this training is not limited only to suitable diets during disasters but also includes a wide range of content necessary to effectively respond to disasters, including running evacuation sites and developing skills for communicating with disaster victims.



A training session (emergency food cooking)

#### Program graduates conduct activities aimed at raising the awareness of local residents to improve their self-help and mutual assistance capabilities.

Program graduates conduct public awareness raising activities to enable not only experts but also ordinary local residents to effectively respond to disasters, such as by learning how to cook food in heat-resistant plastic bags.

In response to a request from Amami's Community General Support Center, these graduates hold nutrition seminars at classes to prevent the need for nursing care—which are intended for elderly people—to raise public awareness of how to respond to disasters, etc.

In addition, these graduates conduct various other awareness raising activities, including speaking on local radio, participating in the Civil Engineering Festival (organized by the Kagoshima Construction Industry Association), and holding cooking demonstrations, workshops and exhibitions.



Participating in a community event

<sup>\*</sup> In this report, the region consisting of eight inhabited islands—Amami Oshima, Kakeroma-jima, Uke-jima, Yoro-shima, Kikai-jima, Tokuno-shima, Okinoerabu-jima, and Yoron-jima (the Amami Islands)—is called the Amami region.

### Preparing for future disasters under the sincere slogans based on lessons learned from the Amami heavy rainfall disaster of 2010

The Amami Group of JDA-DAT Kagoshima includes some Registered Dietitians who experienced the Amami heavy rainfall disaster of 2010. Their hectic experience dealing with that unprecedented disaster increased their expertise in terms of providing nutrition and dietary habit support during such disasters, and it also acts as a driving force behind preparations for future disasters.

This sense of mission is also expressed by the organization's slogans: "We will participate in at least one activity per year!" and "No response will succeed without regular drills." Under these slogans, the members of the Amami Group strive to maintain or even increase their sense of responsibility as they conduct ongoing activities.



The Amami heavy rainfall disaster (2010)

### Continuously improving skills even after completing training provided by JDA-DAT Kagoshima

Even after completing their training, the team members continuously pursue self-improvement by actively seeking out opportunities for growth, such as participating in off-island disaster prevention drills.

The Amami Group belongs to the remote island and Satsuma Peninsula block, and its members participate in JDA-DAT Kagoshima skill-boosting workshops organized by the prefectural dietetic association, municipality-organized drills (examples: the Kagoshima Prefecture General Disaster Prevention Drill and the Sakurajima Volcano General Disaster Prevention Drill), and other events, where they collaborate with members of other blocks in the prefecture.

Through such peacetime trainings and collaboration, the team members continuously strive to improve their expertise related to providing nutrition and dietary habit support during disasters, thereby enabling a prompt response when disasters occur.

### Developing a collaboration system during normal times to enable the full demonstration of organizational capabilities when disasters occur

During normal times, JDA-DAT Kagoshima establishes systems that enable activities conducted through the mutual collaboration of members in remote-island and other regions so that organizational capabilities can be fully demonstrated when disasters occur.

For example, in addition to sharing information on a day-to-day basis through permanent social media groups, JDA-DAT Kagoshima issues Food Rescue Kagomaru in an effort to communicate.

Continuously sharing information in this way makes it possible to respond to disasters by promptly obtaining support from other regions, or—in cases where this proves difficult—to provide nutrition and dietary habit support that can be implemented locally.

### Collaborating not only with health and medical institutions but also with local companies and media outlets to improve the disaster prevention capabilities of the whole region

In the Amami region, it is essential to be able to achieve nutrition and dietary habit support during disasters that can be completed on the island. To accomplish this, it is extremely important to build relationships with organizations on the island.

Therefore, they are striving to build local relationships, such as by requesting that major disaster prevention stakeholders in the region—including hub hospitals for disaster response and doctors, which are assumed to be important in the event of actual disasters—provide instructors at the training planning stage.

In addition, we confirm the details of cooperative relationships in writing to clearly spell out the roles of local stakeholders and organizations while also increasing the effects of related activities. In such cases, the office procedures are handled by the prefectural dietetic association, which facilitates activities in the region through logistical support.



Exercises related to running evacuation sites

#### ■ 11 disaster support experts have been trained during 3 years from launch.

JDA-DAT Kagoshima has held a total of four training sessions since 2007. In 2020, the first training session was held in the Amami region with the support of related organizations and stakeholders.

Currently, due in part to workplace transfers and other changes, the Amami Group includes a total of 11 members. All of them are Registered Dietitians in their thirties to sixties, and they participate in voluntary activities even while occupying various positions in hospitals, elderly care facilities, municipalities, etc.

The existence of these experts on providing nutrition and dietary habit support during disasters enables the region to promptly respond when disasters occur. In the future, they hope to further strengthen relationships with related organizations and groups so as to enable smoother collaboration.



Members who have completed the training

### The number of residents who are preparing for disasters through their daily dietary habits has increased.

Because the act of cooking food in heat-resistant plastic bags—which is utilized for nutrition and dietary habit support during disasters—is an easy cooking method to use during normal times, many participants are extremely happy when this approach is introduced during classes to prevent the need for nursing care, etc.

At events held to try tasting food cooked in heat-resistant plastic bags, participants often mention "how tasty the food is," and some elderly people living alone even say "they want to boil food like this on a daily basis so they do not have to get pots dirty."

The incorporation of the perspective of disaster preparation into the daily dietary habits of local residents in this way is improving the region's capability to respond to disasters.



An activity to raise the awareness of residents

#### **Introduction of Registered Dietitians**

#### Increasing local colleagues and expanding the scope of activities

#### Affiliation and name

JDA-DAT Kagoshima General leader: YAMASHITA Masayo (on the right) Amami Group: MIYAZAKI Mutsuko (on the left)

#### Personal history and work since starting the job

Ms. Yamashita) Ms. Yamashita is in charge of work at prefectural offices, health centers, and elsewhere as a Kagoshima Prefecture staff member. In 2007, she held the Kagoshima Dietetic Association's first staff training session, and she helped to establish JDA-DAT Kagoshima in 2008, which she remains involved with. In 2012, as a member of the first Japan Dietetic Association JDA-DAT steering committee, she worked on expanding the system throughout Japan.



Ms. Miyazaki) Ms. Miyazaki is engaged in work that includes hospital and clinic-based food service management, dietary management, and at-home nutritional guidance. She started participating in JDA-DAT Kagoshima in 2021.

#### Future goals and ambitions

- Ms. Yamashita) In line with the philosophy of JDA-DAT Kagoshima, which is "to value the wishes of each individual, one for all-all for one," I will continue to work with my colleagues to conduct nutrition support activities that protect the lives of prefectural residents.
- Ms. Miyazaki) Although there is no end of things to worry about when it comes to training the next generation of Registered Dietitians, Dietitians and other staff members, I hope to increase the number of like-minded colleagues and expand the scope of narrowly focused activities to cover broader areas.

**Event Report: Online Seminar on Nutrition Improvement Activities in Remote Islands, Mountainous Areas** 

### Providing examples of nutrition improvement activities in remote islands and mountainous areas to communicate information throughout Japan

### By holding an online seminar, we communicated information on nutrition improvement activities in regions with limited resources to a wide audience.

As part of the Budget Project for FY2023 entitled Survey on the Progress of Nutrition Improvement Activities in Japan Based on the Japan's Commitment at the Tokyo Nutrition for Growth Summit 2021, with the aim of disseminating information domestically and internationally in FY2024, the Ministry of Health, Labour and Welfare held an online seminar on nutrition improvement activities in remote islands and mountainous areas.

During the first half of the seminar, four Registered Dietitians introduced in this report presented examples of nutrition improvement activities implemented in each region. During the second half of the seminar, the Registered Dietitians who presented the examples as well as other experts engaged in a panel discussion, during which they exchanged opinions on the career development of Registered Dietitians in remote islands and mountainous areas as well as the skills and mindset necessary to conduct activities in such regions. (For details on each activity, see the examples introduced in this report.)

Around 950 people applied in advance to participate in the online seminar. On the date of the event, a maximum of around 560 participants connected simultaneously, and around 310 participants responded to the related questionnaire.



An example being introduced by a Registered Dietitian



A panel discussion by Registered Dietitians and experts

#### Overview of the online seminar

Title	Nutrition Policy in Japan to Leave No One and No Region Behind - Nutrition Improvement Activities and Registered Dietitian Career Development in Remote Islands and Mountainous Areas -
Date and time	December 3, 2023 (Sun.), from 1:00 pm to 3:30 pm
Event type	Online
Objective	The objective of this seminar is to provide examples of nutrition improvement activities in remote islands and mountainous areas as well as information on the career development of Registered Dietitians, introduce the students, teachers, and other stakeholders of related training facilities, increase interest in activities conducted in such regions, and further promote the Japan Nutrition Policy to Leave No One and No Region Behind.
Speakers (titles omitted, in Japanese syllabary order)	Registered Dietitians currently working in remote islands and mountainous areas AKAIWA Yuki (Registered Dietitian, Health Division, Town Hall, Shimonita, Gunma Prefecture) IMAI Ryota (Registered Dietitian, Himegahamaso (a special nursing home for the elderly), Matsuyama, Ehime Prefecture) UEMOTO Mitsuru (Chief Examiner, Shiawase Promotion Office, Town Hall, Nakagawa, Hokkaido Prefecture) ENDO Ritsuko (Head Registered Dietitian, Sawayaka Health Section, Village Hall, Niijima, Tokyo Prefecture) Other experts ABE Kinuko (Managing Director, The Japan Dietetic Association) ISOBE Sumie (Chair, Japanese Association of Public Health Center Registered Dietitians) YOSHIIKE Nobuo (President, Aomori University of Health and Welfare)
Details	<ol> <li>Opening remarks</li> <li>Introduction of examples of nutrition improvement activities for remote islands and mountainous areas         <ul> <li>Introduction of workplaces and regions, local health and nutrition issues</li> <li>Overview of activities and specific efforts</li> <li>Results of activities, appeal of the work and why it is worthwhile, future goals and ambitions, etc.</li> </ul> </li> <li>A panel discussion by Registered Dietitians and experts         <ul> <li>Speakers' careers up until now</li> <li>Career development in remote islands and mountainous areas, necessary skills and mindset, etc.</li> </ul> </li> <li>Closing remarks</li> </ol>
Assumed audience	Currently active Registered Dietitians and Dietitians, teachers and students of Registered Dietitian training facilities, high school students considering the possibility of becoming a Registered Dietitian or Dietitian, and anyone else who is interested in Japan's nutrition policy

# It has become clear that it is important to have a sense of attachment to the region and to conduct activities based on an understanding of who is at risk of being left behind in terms of nutrition.

During the panel discussion at the seminar, Registered Dietitians and experts exchanged opinions on speakers' personal histories, their career development in remote islands and mountainous areas, and the necessary skills and mindset. Some of the speakers' remarks are provided below.

- By enjoying daily life, it is possible to gain an understanding of the characteristics of the region and the issues facing it. Thinking about the necessary activities leads to enhanced personal skills.
- I hope to effectively utilize online training to actively improve myself.
- There are many opportunities to request cooperation from other professionals, residents, and related organizations, so both communication and coordination abilities are necessary.
- Even if facing unprecedented challenges, it is important to have the perseverance never to give up and to maintain a stance in line with the customs and culture of local residents.

Given the above opinions, the experts remarked that the following things are important for promoting *nutrition improvement activities to leave no one and no region behind*: 1) Registered Dietitians who are attached to their region and desire to make it better collaborating with those around them and 2) Registered Dietitians gaining an understanding of who is at risk of being left behind in terms of nutrition, carefully identifying the issues such people face, and formulating and executing plans to resolve them.

### The participants were extremely satisfied, and the key points for achieving the further expansion of activities became clear.

The questionnaire results indicated a high level of satisfaction with the seminar. In addition, the examples of activities conducted in remote islands and mountainous areas helped to increase the ambition of Registered Dietitians working in other regions while also encouraging the promotion of activities.

At the same time, it also became clear that—to achieve sustainable nutrition improvement activities in remote islands and mountainous areas—it is important to eliminate unease regarding finding or changing jobs and essential to establish wide-area networks enabling the establishment of connections with Registered Dietitians and Dietitians working on other remote islands or in other mountainous areas.

#### Questionnaire results (overview)

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Overview, Fiscal 2023 Activity: Strategic Initiative for Healthy and Sustainable Food Environment

#### Introduction to the Strategic Initiative for a Healthy and Sustainable Food Environment

- > Based on the Expert Committee\*1 Report (released in June 2021) and the Tokyo Nutrition for Growth Summit 2021 (held in December 2021), the Ministry of Health, Labour and Welfare(MHLW) launched the "Strategic Initiative for a Healthy and Sustainable Food Environment" in March 2022 as a system to promote the creation of a food environment through collaboration between industry\*2, academia, government, professional associations, and civil society.
- > The Initiative recognizes nutritional issues such as "excess sodium intake," "underweight among young women," and "nutritional disparities caused by economic conditions" as well as "environmental issues" as critical social issues.
- > Participating businesses set SMART\*3 style action goals\*4 and develop a food environment that is naturally healthy for everyone through multisectoral collaboration and cooperation. The goal is to extend the healthy life expectancy and realize a vibrant and sustainable society for people in Japan and around the world.
  - \*1 Committee for the promotion of a sustainable food environment in which everyone can be naturally healthy
  - \*2 The term "industry" encompasses a wide variety of industries, including food manufacturers, food distributors, media, etc.
  - \*3 Specific, Measurable, Achievable, Relevant, and Time-bound
  - \*4 Each participating business is at least required to set an action goal that contributes to the improvement of "excess sodium intake."

#### Strategic Initiative for a Healthy and Sustainable

#### Food Environment A vibrant and sustainable society Extension of healthy life expectancy Health promotion and prevention of NCDs Improvement of access to food and information (Approach according to the levels of hea Building a social implementation ecosystem for a healthy and sustainable food environment MHLW Research to improve · Development of overall program and coordinat from a neutral position among stakeholders Appropriate support Set SMART action goals, implement initiatives and report on progress and consumers Close collaboration between stakeholders

#### Basic Philosophy

#### Paving the way for a new dimension in the food environment, from Japan.

The food environment will get better. Yet there are limits to what can be achieved through the efforts of individual industries, companies, and organizations.

The time is right to pool the capabilities of industry, academia, government, and others to kick off a major movement.

We will disseminate and propose to the world a Japanese model for creating a food environment in which no one is left behind.

The goal is to make Japan, and the world.

a vibrant and sustainable society by increasing the healthy life expectancy

#### Activities

#### > Formulation of goals as the initiative

 Identify effective initiatives to collaborate with industry, academia, government, etc. and formulate a roadmap for action, etc. based on the Japanese government's commitment to create a food environment at the Tokyo Nutrition for Growth Summit 2021

#### > Promote research and data development that contributes to the creation of a food environment

- · Examine nutritional profiling systems adapted to dietary and nutritional challenges in Japan and Asia
- Demonstrate effective consumer appeal and sales methods, etc.

#### > Support PDCA processes for SMART-style action goals for each participating business

- · Establish opportunities for exchanging information between industry, academia, government, etc.
- · Exchange information and opinions between the same and different industries (create opportunities for collaboration)
- Exchange information and opinions with the government (Ministry of Health, Labour and Welfare, etc.), research institutes, etc. (including sharing of international trends in nutrition and the environment that can be used as a reference for preventing business risks). etc.
- Establish opportunities to exchange information with financial institutions
- Exchange information and opinions with institutional investors and other advisors, etc.

#### > Dissemination of information domestically and internationally

#### Details of Initiative and Expansion of Participating Businesses

Various new activities were carried out, including activities toward the start of participation by prefectures and other local governments from FY2024 (development and provision of support tools for local governments, studies for the Food Environment Alliance (tentative name), etc.), and preparation of educational materials and workshops promoting low-sodium intake for children. A summary of the initiative was also introduced in a WHO report published in September 2023. The number of participating businesses increased to 38, coupled with facilitation for diversifying the industries of participating businesses, including food service-related businesses that provide take-out food and manufacturers of additives, as well as food manufacturers, food distributors, and the media.

#### Details of FY2023 Activities

Exchange meetings among participating businesses, study sessions, and subcommittee meetings by volunteers were held, with the view to gradually developing the initiative.

The main activities are as follows:

#### Steering Committee

Held three times a year (June, October, February)

The Steering Committee comprises representatives of participating businesses, academics, SDG/ESG professionals, dietitians, civil society organizations, and others, as a body that examines and decides on policies for the initiative as a whole.

This year, the committee examined the annual report, labeling and advocacy related to the initiative's overall evaluation and action goals.

#### Subcommittee for Promoting Action Goals

Held two times a year (September, February)

The Subcommittee for Promoting Action Goals comprises academics, SDG/ESG professionals, dietitians, civil society organizations, and others, and is responsible for supporting the PDCA process in regard to SMART-style action goals for each participating business (making recommendations on the setting and progress status of action goals). Following on from last fiscal year, the subcommittee exchanged opinions with participating businesses and made constructive proposals regarding the setting of action goals.

#### **Annual Plenary Meeting**

Held once a year (December)

Annual Plenary Meeting is open to participation by the public in addition to those involved in the initiative (participating businesses and expert committee members). The results of the initiative (including positive cases related to the action goals of participating businesses) are to be shared and disseminated.

This year, lectures by academics and case studies by participating businesses were presented, drawing a total of approximately 300 participants, including businesses interested in participating in the initiative and the promotion of healthy food environments, local government officials, financial officials, and the media.

### Study Sessions and Exchange Programs

In the Initiative, exchange meetings have been held among participating businesses to showcase examples of their efforts and to strengthen cooperation among participating businesses. In addition, to support participating businesses setting ambitious and effective action goals, individual consultations as well as meetings to exchange opinions with academics and SDGs/ESG professionals, dietitians, and civil society have also been held. Furthermore, from this year, a subcommittee of experts and participating businesses will be held as a forum for analyzing bottlenecks for the spread of low-sodium intake behavior and examining pathways for promoting such actions.

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The events held this fiscal year are as follows:

- · Exchange meeting for participating businesses (June)
- · Subcommittee Meetings (July, December, February)
- · Special Seminars (exchange of opinions with ESG professionals) (February)
- · Opinion Exchange Meeting and Exchange Meeting among Participating Businesses Academics, and Other Related Parties (February)



Scene from Subcommittee Meeting

# **Towards Future Developments, International Contributions**

### **Towards Future Developments, International Contributions**

build sustainable food systems.

### The nutrition improvement activities in remote islands and mountainous areas are important for realizing sustainable societies.

The remote islands and mountainous areas introduced in this report have limited local resources such as people and good compared to urban areas, and it is difficult to implement nutrition improvement activities in these regions. However, there are residents living in such regions, and they face unique nutrition challenges. Improving nutrition and solving nutrition challenges in remote islands and mountainous areas will strengthen the health care system and lead to the achievement of Universal Health Coverage (UHC). Moreover, activities in these regions are essential to promoting healthy diets and making sure that no one is left behind in efforts to

Nutrition improvement activities in remote islands and mountainous areas are also important and essential for realizing sustainable societies to leave no one behind.

### The experience in remote islands and mountainous areas will further promote activities across Japan.

We believe that this report will serve as a reference to not only remote islands and mountainous areas that are similar to the seven examples introduced in this report but also to health centers and municipalities collaborating with these areas, persons who aspire to become Registered Dietitians and Dietitians going forward, and the faculty members at training schools. Furthermore, in urban areas as well, the awareness of activities in remote islands and mountainous areas will help to gain a perspective to reflect on the activities in those areas.

We hope that this report will be shared to further promote nutrition improve activities in Japan and make them sustainable.

#### ■ We hope to contribute internationally with Japan's knowledge of over 100 years.

As mentioned above, Japan started training diet professionals more than 100 years ago and has been deploying Registered Dietitians and Dietitians throughout the country including remote islands and mountainous areas. Moreover, these specialists have implemented "Nutrition Improvement Activities To Leave No One and No Region Behind" nationwide with the four promotional factors related to expanding/leveraging resources inside/outside of organizations as well as the thoughts and expertise of the professionals becoming important points.

We believe that such knowledge from nutrition improvement activities in remote islands and mountainous areas over many years contain many hints that can be applied to the activities of other countries.

Japan would like to use the hosting of the Tokyo Nutrition for Growth Summit 2021 as an opportunity to further increase the momentum of nutrition improvement, and disseminate its experience and knowledge obtained from over 100 years of nutrition improvement activities to solve nutrition challenges and realize sustainable societies.

#### List of cooperating organizations and expert group members

Cooperating organizations with examples of Nutrition Improvement Activities in Remote Islands and Mountainous Areas to Leave No Region Behind (Order of introduction)

Nakagawa Town Hall, Hokkaido Prefecture
Shimonita Town Hall, Gunma Prefecture
Niijima Village Hall, Tokyo Prefecture
Okidozen Hospital, Nishinoshima, Shimane Prefecture
Nagasaki Goto Chuoh Hospital, Goto, Nagasaki Prefecture
Himegahamaso special nursing home for the elderly, Matsuyama (Nakajima District), Ehime Prefecture
Kagoshima Dietetic Association, Amami region, Kagoshima Prefecture

The Ministry of Health, Labour and Welfare, Government of Japan Budget Project for FY2023 entitled "Survey on the Progress of Nutrition Improvement Activities in Japan Based on the Japan's Commitment at the Tokyo Nutrition for Growth Summit 2021, with the aim of disseminating information domestically and internationally in FY2024" Expert Group (in Japanese syllabary order)

ABE Kinuko, The Japan Dietetic Association
ISOBE Sumie, Japanese Association of Public Health Center Registered Dietitian
MIZUMOTO Kaori, Nakamura Gakuen University
MURAYAMA Nobuko, University of Niigata Prefecture
YAMAGUCHI Miwa, National Institutes of Biomedical Innovation, Health, and Nutrition
YOSHIIKE Nobuo, Aomori University of Health and Welfare (Chair)



