



Japanese Association of
Occupational Therapists



Road to Reconstruction

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*Japanese Association of Occupational Therapists: JAOT

*Japan Disaster Rehabilitation Assistance Team: JRAT

Phases of Disaster Rehabilitation

This report classifies the phases of disaster rehabilitation as follows, in reference to “Standard textbook in disaster rehabilitation” (planned and edited by Japan Disaster Rehabilitation Assistance Team and published by Ishiyaku Publishers, Inc).

Chaotic phase	<ul style="list-style-type: none">• The first 72 hours after a disaster• Lifesaving, first aid and evacuation are prioritized
Emergency Restoration Phase	<ul style="list-style-type: none">• Four days to one month after a disaster• Gradual recovery of transportation and information networks
Recovery Phase	<ul style="list-style-type: none">• Two to six months after a disaster• Reopening social life and economic activity
Reconstruction Phase	<ul style="list-style-type: none">• Over six months after a disaster• Improved infrastructure, transportation, and information networks. Termination of external support for affected areas

Message from JAOT

Celebrating the issue of Road to Reconstruction

Upon publication of Road to Reconstruction, I would like to express my deepest condolences and sympathies to all those affected by the latest disasters, and our thoughts and prayers remain with those who are striving to recover. This report contains the JAOT's support activities during and after the Great East Japan Earthquake, the 2016 Kumamoto Earthquake, and 2016 Typhoon No.10. Its purpose is to inform the general public of the role of occupational therapy in disaster relief, and I hope that this volume further promotes the recovery, health, and well-being of those affected.

When the Great Hanshin-Awaji Earthquake occurred on January 17, 1995, we received messages and donations from many occupational therapy associations and individuals not only domestically, but also internationally. Once again, I would like to express my sincere gratitude to everyone who supported us at that time. I was able to experience firsthand that support in times of difficulty gave us courage and pushed us toward recovery. In light of our own experience, JAOT sends messages and provides necessary support when large scale disasters occur both in domestically and overseas.

The Disaster Relief Act provides an administrative framework to undertake disaster support measures in Japan. However, this act does not specify occupational therapist as a profession. Under the Act, disaster relief activities are conducted under the supervision of local governments. When disasters occur, corresponding prefectural associations of occupational therapists lead disaster relief activities. Therefore, in order for occupational therapists, for example, to work in evacuation shelters, good rapport with relevant organizations such as local governments and medical associations is essential. JAOT gathers information on damage of affected prefectures and their needs in order to provide appropriate support pursuant to local circumstances. JAOT launched the volunteer registration system, and we also hold a disaster relief seminar every year with the aim of training and dispatching staff during disasters. In response to rehabilitation support needs during the Great East Japan Earthquake, the Japan Disaster Rehabilitation Assistance Team (JRAT), consisting of 13 rehabilitation organizations including JAOT, was established. During the 2016 Kumamoto Earthquake, JRAT dispatched staff members and provided continuous support. JRAT was incorporated in April 2020 and has been taking actions to establish a local JRAT in each prefecture, develop human resources, and build rapport with relevant organizations.

In conclusion, JAOT firmly supports people's lives after disasters. However, we will never know when disasters occur. Therefore, JAOT makes an effort to develop rapport with residents in communities and relevant organizations as a preparation for disasters. We greatly appreciate your warm and continuing support for the activities of prefectural associations of occupational therapists and JAOT.

Japanese Association of Occupational Therapists
President
Haruki Nakamura

Support activities conducted by JAOT

Great East Japan Earthquake

Kumamoto Earthquake

1. Great East Japan Earthquake (2011～)

1) Activities in FY 2011

Japanese Association of Occupational Therapists (JAOT) established the Disaster Headquarters on March 12, 2011, the day following the Great East Japan Earthquake. The first Headquarters meeting was held on the 13th to establish and promptly post the following policies on the website.

1. To set up a dedicated email address for communications with associations of the affected prefectures, and to collect information about members' safety and damage in the affected areas
2. To open a bank account for a disaster support fund (raise donations widely from members)
3. To provide 300,000 yen to each of the four associations (Iwate, Miyagi, Fukushima, and Ibaraki Prefectures) as an initial support fund
4. To accept membership fee waiver requests from affected members
5. To survey the impact on training facilities
6. To assist members with employment
7. To initiate volunteer activities

Below we report on disaster support activities conducted in FY 2011 in line with these policies.

(1) Information Gathering

As soon as the Disaster Headquarters were established within JAOT, associations of the affected prefectures were contacted to confirm earthquake damage. The Disaster Headquarters were also established by each association of the affected prefectures, and confirmation of the safety of members was already in place. On March 14, persons in charge of disaster response and their contact information were confirmed in every association of the affected prefectures, and a coordination framework utilizing a constant liaison was organized. After that, the liaison and coordination were maintained through associations of the affected prefectures and JAOT; in doing so, JAOT staff members visited the affected areas as necessary, and JAOT held meetings to continue to coordinate with associations of the affected prefectures. In addition, related organizations were contacted, and a framework to provide disaster support activities in coordination with these organizations was established.

A dedicated page was provided on the JAOT website to report actions taken by the Disaster Headquarters, and to obtain information and opinions from members. A total of 26 announcements were posted by the Disaster Headquarters by February 2, 2012.

(2) Fundraising

A dedicated bank account was opened on March 15 to raise funds aiming at support for associations of the affected prefectures, resources for volunteer activities by JAOT, purchase of relief supplies, etc. Contributions were made by many members, supporting members, prefectural associations of occupational therapists, hospitals and organizations to whom members belonged, as well as foreign donors; the funds collected by June 2012 amounted to 13,531,328 yen.

The funds were transferred by request to associations of the affected prefectures to support their disaster relief activities, and used to cover expenses required to dispatch disaster support volunteers from JAOT to the affected areas. In addition to the monetary funds, many members donated supplies that were delivered to the affected areas.

(3) Initial Financial Support for Associations in Affected Prefectures

After establishing the Disaster Headquarters, 300,000 yen were transferred immediately to each of the occupational therapy associations of Iwate, Miyagi, Fukushima, and Ibaraki Prefectures.

(4) Response to Affected Members

The following support was provided as a response to affected members. In so doing, a call for applications was published repeatedly via JAOT news, the JAOT website, and associations of the affected prefectures.

- 1. FY 2011 membership fees waiver for those affected by the Great East Japan Earthquake:** Acceptance of applications started from March 23, 2011 and 69 applications were accepted by March 1, 2012; Sixty-five applications were approved.
- 2. Installment or deferred payments of FY 2011 membership fees for affected members not eligible for waivers:** One application for installment payment and two applications for deferred payments were accepted during the application period from July 15 to December 15, 2011.
- 3. FY 2011 membership fees waiver for those evacuated because of the Fukushima-Daiichi Nuclear Power Plant accident:** Acceptance of applications started from July 22, 2011 targeting members evacuated from the restricted areas, deliberate evacuation areas, evacuation-prepared areas, and special evacuation recommendation spots. All of 19 received applications were approved.

(5) Response to Pre-Qualification Education and Training

An emergency email survey was conducted on March 17, 2011 to confirm earthquake damage to schools in the affected areas. A more detailed survey was carried out on April 21. In addition, opportunities for clinical training in institutions where members belonged to were urgently examined; 892 institutions nationwide confirmed such opportunities. After that, the Training and Education Division (former name) took charge of introducing available training facilities to schools.

(6) Provision of Information on Job Opportunities to Affected Members

Aiming to provide disaster-affected members with re-employment opportunities, we requested cooperation from occupational therapy facilities, occupational therapy schools, and prefectural associations of occupational therapists. Then, job opportunities information was posted on the JAOT website. The number of job postings amounted to 166 by the end of March, 2011.

(7) Volunteer Activities

A disaster support volunteer center was established so that members could register as volunteers. 128 members registered during the 1st month, and eventually their number amounted to 248. At the earliest stage (April 3 to May 9, 2011), we coordinated with relevant rehabilitation organizations for efficient support activities, and we, as healthcare professionals specializing in teamwork, were dispatched to Wakabayashi ward in Sendai City and implemented a pilot program. The program involved 10 volunteers.

After that, upon requests of associations of the affected prefectures (Iwate, Miyagi, and Fukushima) and relevant organizations (“Advice and Help for Disaster-affected Disabled Children Project” by Japan Developmental Disabilities Network, which is commissioned by Fukushima Prefecture), JAOT dispatched appropriate personnel. The program started from April 15, 2011, and a total of 133 volunteers were dispatched by March 31, 2012 (Iwate Association Occupational Therapists: 37 persons, Miyagi Association of Occupational Therapists: 64 persons, Minamisoma City in Fukushima Prefecture: 23 persons, “Advice and Help for Disaster-affected Disabled Children Project” in Fukushima Prefecture: 9 persons).

The disaster support volunteers deployed the following activities:

- 1. Arrangement and adjustment of living environments in evacuation shelters:** As an initial response, arrangements were made to provide evacuation shelters with social and private spaces, handrails and other safety facilities for the elderly and disabled, etc., so as to make the living environment as comfortable as possible.
- 2. Formation of daily rhythms and participation in activities:** Various measures were taken in order to create daily rhythms in the monotonous environment of evacuation shelters, such as preparation of daily schedules and implementation of small-group activities to boost motivation (exercise, handicraft, walking, etc.).
- 3. Individual support for seniors and people with disabilities who were experiencing a decline in physical functioning in evacuation shelters, homes, and housing:** Physical conditions and living situations as well as the needs for rehabilitation were confirmed and evaluated, and then guidance was provided regarding a decline in ADL (standing up, rolling over, eating, etc.). In addition, assistive devices were fabricated and provided as necessary.
- 4. Individual support for people with mental disorders in evacuation shelters, homes, and provisional housing:** Living conditions of persons with schizophrenia, depression and other disorders were confirmed and evaluated, and support was provided including continued counseling to eliminate anxiety. In addition, somatic interventions and other therapies were provided to persons experiencing loss of motivation or depression.
- 5. Support for disaster-affected disabled children:** Advice about evacuation shelters and procedures were provided to families with disabled children requiring special support; evacuation shelters and new living conditions were assessed, and individual support plans were prepared for each child, including assistance for special schools.

2) Activities in FY 2012

Activities of FY 2012 followed the same basic policies as in FY 2011. With regards to the response to disaster-affected members, membership fee waivers were continued only for those evacuated due to the Fukushima-Daiichi Nuclear Power Plant accident. Volunteers activities included dispatching 4 additional persons to “Advice and Help for Disaster-affected Disabled Children Project” in Fukushima Prefecture; another major project was “Creation of New Motivation in Life for the Elderly 2012” commissioned by Iwaizumi Town in Iwate Prefecture. The project involved efforts of occupational therapists to promote self-activities of the elderly aiming at a new motivation in life; 30 volunteers were dispatched to support the project.

3) Activities in FY 2013

The articles of incorporation of the Association were amended with its restructuring into a general incorporated association in April 2012. As a result, “Project Aiming at Support of the Disabled, Elderly, Children etc. Affected nuclear Accidents and Natural Hazards’ were added to the scope of activities (Art. 4, Par. 6 of the articles). After a one-year preparation period, the Disaster Prevention Office was established for realization of such projects. The major projects undertaken in FY 2013 include summarizing and publishing a full report in JAOT journal on “A questionnaire Survey Related to Disaster Support Volunteers,” holding a volunteer meeting during the 47th Japanese Occupational Therapy Congress and Expo (Osaka), compiling essential documents such as “Basic Guidelines on Large-scale Disaster Support Activities” (based on “Manual for Large-scale Disaster Support Volunteer Activities” of 2007, completely revised with regard to experience of the Great East Japan Earthquake), “Manual for Disaster Support Volunteer Activities”, or “Manual for Acceptance of Disaster Support Volunteers”, and issuing “Report on Disaster Support Activities in Great East Japan Earthquake” to summarize disaster support activities through 3 years of FY 2011 – 2013. In so doing, JAOT recognized the importance of disaster awareness, and deployed projects toward building a framework for cooperation with regional associations of occupational therapists, related organizations, and national and local governments, etc.

Furthermore, participation of specialists in “Advice and Help for Disaster-affected Disabled Children Project” in Fukushima Prefecture was continued in FY 2013, and members were dispatched as volunteers.

2. 2016 Kumamoto Earthquake (2016～)

(1) Initial Response

Two powerful earthquakes struck Kumamoto City of Kumamoto Prefecture on April 14, 2016 and April 16th, 2016 with magnitudes of 7.0 and 6.2, respectively. On the day of the first earthquake, the president of JAOT contacted the president of Kumamoto Association of Occupational Therapists to express his sympathy for Kumamoto Prefecture and to confirm constant information sharing. A Disaster Headquarters was established within JAOT on April 15, and it announced a message of condolence and sympathy to 7 prefectures in Kyushu region and began gathering information. Immediately after the predawn earthquake on April 16, the headquarters received an evacuation and damage report from Kumamoto Association of Occupational Therapists and the Oita Association of Occupational Therapy. The Headquarters held a meeting to discuss action plans.

(2) Publication of reports on the JAOT website

An initial report was published on the JAOT website on April 18, and a total of six reports were published by July 19.

◆Initial Report

Establishment of Disaster Headquarters, information gathering, and cooperation with JRAT Disaster Headquarters

◆Second Report

The following initial response policies in line with “Basic Guidelines on Large-scale Disaster Support Activities” were determined.

1. Provision of 300,000 yen to Kumamoto Association of Occupational Therapists as an initial support fund
2. Acceptance of membership fees waiver requests for FY 2016 from affected members
3. Raising donations for disaster relief activities
4. Preparation for dispatch of disaster support volunteers
5. Cooperation with JRAT Disaster Headquarters (dispatching JAOT staff members)

◆Third Report

Since it was decided that JRAT would lead support activities, JAOT expressed its intention to conduct support activities cooperating fully with the activities of JRAT.

◆Fourth Report

Acceptance of membership fees waiver requests from affected members.

◆Fifth Report

Raising donations for disaster relief activities/

◆Sixth Report

Completion of JRAT’s relief support activities on July 16.

(3) Fundraising

JAOT raised funds between April 19 through June 30, 2016, and contributions were made by prefectural associations of occupational therapists (7), organizations/companies (3), individuals (15), others (3) which amounted to 933, 980 yen. The funds were used for “Project on Plowing Fortune” conducted by Kumamoto Association of Occupational Therapists.

(4) Activities within JRAT

JRAT Kumamoto Disaster Headquarters (within the Kumamoto Kinoh Hospital) and JRAT Disaster Headquarters (within Japanese Physical Therapy Association: Tamachi) were established on April 15. JAOT dispatched staff members to JRAT Disaster Headquarters from April 15 and a total of 68 members including members of JAOT Disaster Prevention Office were dispatched in order to provide continuous support.

(5) Support Kumamoto Association of Occupational Therapists’ “Growing Fortune” Project

As a dispatch request for the “Growing Fortune” project, which was conducted by Kumamoto Association of Occupational Therapists between May 2017 through March 2018, was received, JAOT called for participation of members who registered as disaster relief volunteers.

Iwate prefecture

Great East Japan Earthquake 2011/3/11

Outline of Earthquake in Iwate Prefecture

◆Overview of the Earthquake Disaster

Date/Time : March 11, 2:46 pm

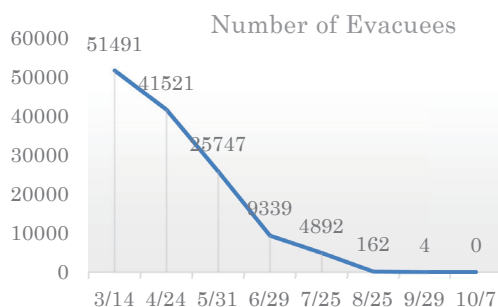
Size : Magnitude 9.0

Largest recorded seismic intensity : 6 (Ofunato City, Kamaishi City, Takizawa Village, Hanamaki City, etc.)

Tsunami : Ofunato City 8.0m or greater at 3:18pm, Miyako City 8.5m or greater at 3:26

◆Number of Evacuees

Maximum Number : 51,491 (12 cities, town and village in coastal area)



(Source: Great East Japan Earthquake Rehabilitation Support Activity Report)

◆State of Damage

Deaths 4,671

Missing persons 1,173

Injured persons 206

Damage to housings : 24,560 houses

(12 cities, towns and villages in coastal areas)

	No. of evacuees	No. of shelters
Coastal Areas	39,489	316
Inland	2,032	47
Total	41,521	363

	No. of houses	No. of residents
Provisional housings	12,735	29,201
Government rented privately owned houses as provisional housing	3,665	9,707
Total	16,400	38,908

Chaotic – Recovery Phases

March – August, 2011

◆Characteristics of the earthquake in Iwate

The main cause of death was drowning rather than building collapse. Among the victims whose ages were identified, those aged 60 or older accounted for 65% percent (according to Mr. Satoshi Takahashi, director of Iwate Disaster Medical Support Network). We tried to find solutions to this unprecedented situation.



Coastline, Otsuchi

◆Report from Iwate Disaster Prevention Office

3 hospitals and 33 clinics were completely destroyed and 6 doctors died. 9 nursing homes got washed away and 14 others were rendered inhabitable by the tsunami. 6 Community General Support Centers on the coastline and 110 home-based services were affected by the earthquake and tsunami. 18% of 9,150 home-based service users in care manager offices died or were forced to move to other regions. yofumi Oi: Disaster rehabilitation support in Iwate-background story and future”



【Rehabilitation Support Activities in Iwate】

In Iwate, support centers covering a large area have been established since 2000 and a community rehabilitation system is well established. Iwate Rehabilitation Center (hereinafter referred to as the Center), which acts as the Iwate Rehabilitation Support Center, dispatched a support team to affected areas in the early stage of the disaster to provide care and prevention services and minimize the negative impact on people's health. In addition, the Center collaborated with the relevant organizations in order to re-develop a community support system.

In prior to providing support, collaboration and liaison with relevant organizations were required. Even though the damage was huge and very widely spread, a lack of rehabilitation resources including doctors and therapists in some coastal regions of Iwate and a risk of confusion to dispatch a support team to such regions with limited resources were the priority issues to be addressed. Thus, rehabilitation support activities were implemented after assuring that staff, including doctors, public health nurses (the government), and therapists who were working as a hub in affected areas or each district were communicated and coordinated with. The Center started providing support in Rikuzentakata City on April 1, 2011, followed by Kamaishi City, Noda Village, and Yamada Town. On April 2, a disaster relief meeting was held with Iwate Physical Therapist Association and Iwate Speech-Language-Hearing Therapists Association to decide the regions to which each association would dispatch a support team. Even though wide area support centers themselves were affected by the tsunami or were involved in accepting patients and clients from other hospitals and facilities, support

activities at provisional housing area gradually commenced.

Figure 1 shows the municipalities and number of people evacuated as of May 2011. In May 2011, there was already a certain number of evacuees in facilities throughout Iwate, and the major difficulty was to provide a rehabilitation support service not only to evacuees at shelters in affected areas but to evacuees in the inland areas of Iwate. Therefore, support was first provided to Shizukuishi Town, followed by Hanamaki City. Wide area support centers in the inland areas of Iwate also began to carry out activities such as group exercises targeting evacuees staying at hotels or Japanese inns in Hachimantai City and other cities. In addition, and nurses were dispatched to counsel at provisional housings.

Evacuation Centers	Just after disaster		Movement of evacuees		As of 10 May 2011		Provisional Housings (25/8/2011)
	Inland	Coastline	Inland	Coastline	Inland	Coastline	Coastline
	Maximum of 54,429 people evacuated	Kuji Miyako Kamaishi Kesen	Hot spring village, etc.	Kuji Miyako Kamaishi Kesen	48 Hot spring village, 2,293 people Hachimantai 106 Shizukuishi 382 Morioka 376 Hanamaki 666 Kitakami 195 Oushu 140 Ichinoseki 150	305 places, 34,201 people Noda 298 Miyako 2,470 Ymada 2,787 Otsuchi 5,263 Kamaishi 3,548 Ofunato 5,049 Rikuzentakata 14,080	Total 13,984 houses, 90.7% occupied. About 1,300 houses are vacant

Figure 1 Overview of evacuees

(Source: Kiyofumi Oi “Disaster rehabilitation support in Iwate-background story and future direction”)

【The situation of Iwate Association of Occupational Therapists when the earthquake hit】

Iwate Association of Occupational Therapists located in the inland of Iwate prefecture was hit by a huge earthquake, followed by a blackout, water supply outage, and shortage of supplies. It was difficult to make contact by phones but email was restored a few days after the disaster. Iwate Association of Occupational Therapists established the Disaster Headquarters on March 13. Email was restored on March 14, and damage assessment information and safety confirmation of Iwate Association of Occupational Therapists’ members were carried out by Iwate Association of Occupational Therapists’ directors using a mailing list. Confirmation of all members’ safety (476 members as of March 2011) was completed in the beginning of April; fortunately, no members died or were reported missing; after that, however, reports emerged about the dead and missing among members’ families. Furthermore, 7 members were living in evacuation shelters.

【Iwate Association of Occupational Therapists’ support for people in evacuation shelters】

On April 1, we learned that a member of Iwate Association of Occupational Therapists who was working at the visiting rehabilitation office in Kamaishi City and Otsuchi Town entered the health-care group of the Kamishi Region Disaster Headquarters. Iwate Association of Occupational Therapists’ Disaster Headquarters held discussions with Iwate Physical Therapist Association and Iwate Speech-Language-Hearing Therapists Association, and on April 2, decided to give support to Kamaishi Region in coordination with these prefectural associations. On April 3, Iwate Association of Occupational Therapists Main Office arrived in Kamaishi and immediately began support activities.

At the beginning, support was mainly provided by the members of Iwate Association of Occupational Therapists, but it was anticipated that an increase in demand for support could not be handled by only the members. Thus, we asked JAOT to dispatch members to assist in support activities between Monday and Friday. Once a framework to dispatch 2 or 3 members a day was ready, we were able to begin support activities on May 1.



Evacuation shelters (April, 2011)



Support provided in shelters

【Support activities conducted by Iwate Association of Occupational Therapists】

Participants: People living in evacuation shelters and their own homes

Support provided:

1. To support people who are at risk of disuse syndrome and people with physical disabilities who were experiencing difficulties in the shelters
2. To conduct an environmental assessment of shelters and determine evacuees rehabilitation needs on Sundays.

Processes:

Phase 1 (April – mid May)

- The aim was to assess living situations and clients' needs.
- Members of Disaster Headquarters and directors of Iwate Association of Occupational Therapists acted as support staff

Phase 2 (Mid May – end of June)

- To set up an appropriate organizational framework including a request of support staff and implement activities
- Support staff members consisted of members of Iwate Association of Occupational Therapists and JAOT

Phase 3 (Mid June – end of July)

- Participants moved to provisional housing. Support to achieve a smooth transition and education on how to use local services were provided.
- Local occupational therapists took over the role

◆Details of support in shelters

- Number of supporters : 357
- Number of corresponded cases : 842
- Iwate Association of Occupational Therapists members : 96
- JAOT members : 38

Reconstruction Phase

September, 2011 – February, 2017

From September 2011 to February 2017, support was provided in provisional housing, within the frame of Iwate's existing community rehabilitation system, in collaboration with wide area support centers (Figure 2). Iwate Prefecture spans a wide area, as large as Shikoku island. Since cars were the main means of transportation, it was impossible to provide rehabilitation support at a single facility. Thus, Iwate Association of Occupational Therapists held discussions with Iwate Physical Therapist Association and Iwate Speech-Language-Hearing Therapists Association to decide the regions where each association could offer support.

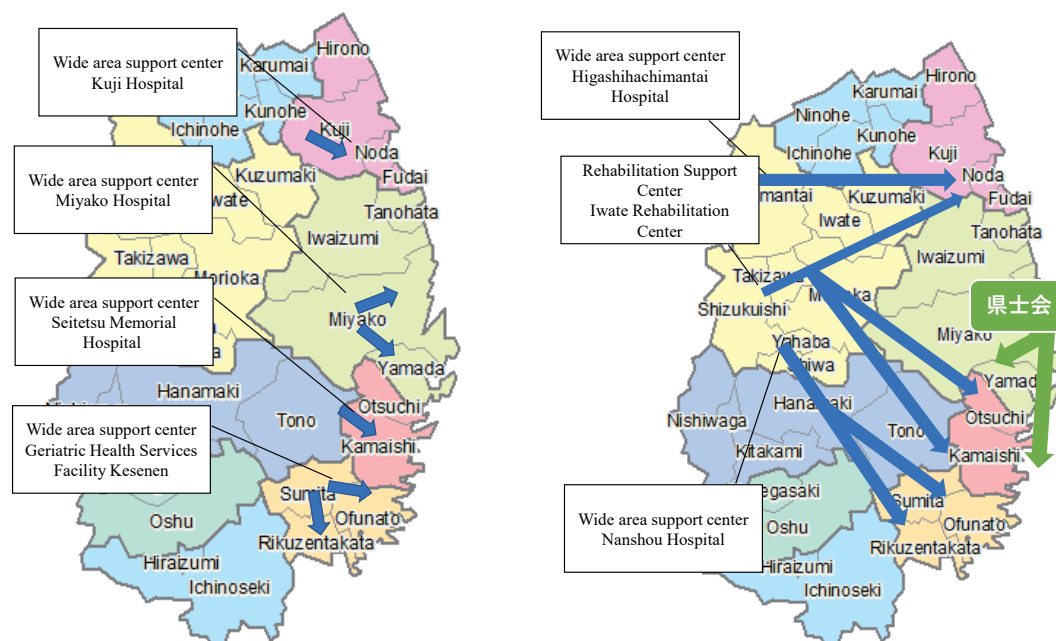


Figure 2 Wide area support centers' rehabilitation support at provisional housing

Left: coastal area Right: inland area

(Source : Kiyofumi Oi "Disaster rehabilitation support in Iwate-background story and future direction")

【Iwate Association of Occupational Therapists' Support at Provisional Housings】

Iwate Association of Occupational Therapists held a meeting to report regional support activities and exchange opinions on whether or not to end its activities. During the meeting, participants complained of loneliness and uneasiness, and Iwate Association of Occupational Therapists decided to stay close beside evacuees and continue providing support activities at provisional housing. In August 2011, Iwate Association of Occupational Therapists worked out a plan for secondary support, namely, "Plan of Support Activities for Living in Provisional Housing" which targeted at the residents of provisional housing, and submitted it to the Social Welfare Council of Yamada Town and Kamaishi City.

“Plan of Support Activities for Living in Provisional Housing”

The plan demonstrated that evacuees living in provisional housing were at risk of social withdrawal, loneliness, and disuse syndrome; scheduling and implementation of work activities using temporary meeting places, and counselling on living in provisional housings are implemented to mitigate such risks.

The plan's goal was to help the residents lead work activity classes and events independently, thus contributing to formation of communities in provisional housing (Figures 3, 4).

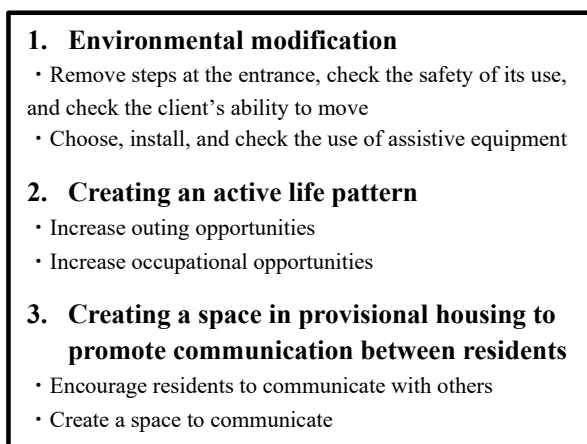


Figure 3 Living support at provisional housings

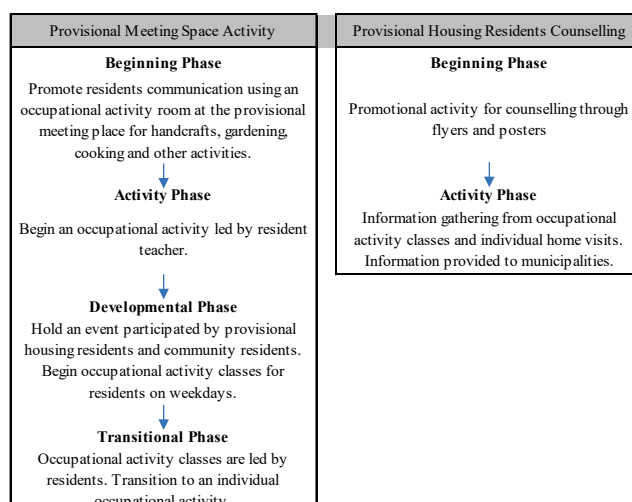


Figure 4 Occupational therapy program

(Iwate Association of Occupational Therapists : Report on Great East Japan Earthquake Disaster Relief Activities)

A provisional housing in Kamaishi City was selected as a target of support. Later, we received a report from and evacuee who was a member of Iwate Association of Occupational Therapists that residents at the provisional housing needed support, and it was decided that support activities to be provided at 3 provisional housing areas in Yamada Town. In Yamada, a reconstruction support network of local volunteers “Odense Yamada” requested support for residents in provisional housing, and activities were co-hosted with Odense Yamada. Iwate Association of Occupational Therapists’ headquarters recruited volunteers from members of the association to provide support.

The activities were announced one week in advance, and local members of Iwate Association of Occupational Therapists, and supporters put up the posters and passed out the leaflets, while delegating members to participate and prepare materials. Activities that were reported in a newsletter distributed among the residents the followings day.



Provisional housing



Making a basket



Walking



Bon Festival at provisional housing

【Support in Kamaishi City】

- November 2011 – February 2017
- Started providing monthly support activities (two sessions in daily) at the common room in provisional housing. We gradually reduced the number of sessions to once a month (one session daily) from May 2012, and once-every-two-months from August 2016.
- 2 or 3 members of Iwate Association of Occupational Therapists acted as supporters.

【Support in Yamada Town】

- October 2011 – March 2014
- Once a month (two sessions daily) in provisional housing in three regions
- About 6 members of Iwate Association of Occupational Therapists acted as supporters.

【Co-host with Odense Yamada】

- August 2011 – August 2013
- Held at the community centers near provisional housing in each region
- Men's cooking, housekeeping, gardening, and exercise classes which aimed at preventing the risk of men's social isolation.

Support activities in provisional housings

	Yamada Town	Co-host with OYamada	Kamaishi City
Period	3.5 years	2 years	5 years 3months
Venue	3 venues	4 venues	1venue
Frequency	55 times	16 times	53 times
Number of people supported	619	237	777
Number of OTs	287	84	144

※OYamada (Reconstruction support network by local volunteers “Odense Yamada”)

Miyagi Prefecture

Great East Japan Earthquake 2011/3/11

Outline of Earthquake in Miyagi Prefecture

◆Overview of the Earthquake Disaster

Date/Time : March 11 (Friday), 2:46pm

Epicenter : Sanriku coast (N38.1, E142.5)

※ 130 km east of Ojika Peninsula

Depth : Approximately 24 km

Magnitude : 9.0

Largest recorded seismic intensity : 7 (Kurihara)

Tsunami : Port of Sendai 7.2m (Reported by Japan

Meteorological Agency on April 5, 2011)

Ayukawa in Ishinomaki : 8.6m (Reported by Japan

Meteorological Agency on June 3, 2011)

※Reference : Highest tsunami recorded by tsunami tracing method conducted)

Shizukawa, Minamisanriku Town : 20.2m

Utatsu, Minamisanriku Town : 26.1m

Onagawa Town : 34.7m

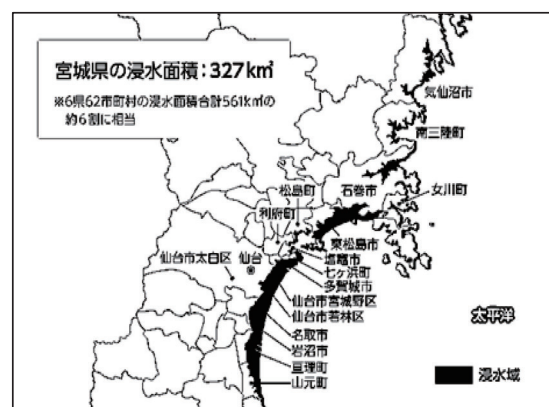
◆Damaged Infrastructure

Power outage: 1,545,494 units (at peak)

※ Recovered on June 18, 2011

Water: 35 municipalities

Gas: 13 municipalities



Source: Miyagi Prefecture's Restoration and Reconstruction



Damage in Miyagi Prefecture

◆Extent of Damage (as of February 28, 2019)

Human Casualties (pending)

Deaths (including related death) : 10,565

Missing : 1,221

Severe injury : 502

Minor injury : 3,615

※ Above data includes damage from aftershocks on April 4, July 25 and 31, August 25, and October 10.

Damage to Residences (pending)

Destroyed (incl. flooding above floor level) 83,004

Heavily damaged (incl. flooding above floor level) 155,130

Partially damaged 224,202

Flooding under floor level 7,796

Damage to non-residences 26,796

◆Number of evacuees

No. of evacuees : 320,885 (at peak: March 14, 2011)

No. of shelters : 1,183 (at peak: March 14, 2011)

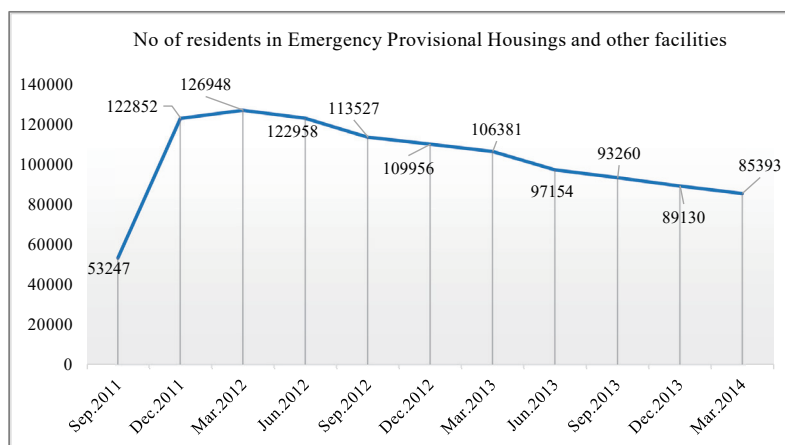
※ All shelters in Miyagi closed on December 30, 2011.

No. of evacuees outside Miyagi :

9,206 (April 2012) → 170 (February 2019)

◆Emergency Provisional Housing and residents

	April 2012 (at peak)	February 2019
Prefabricated provisional houses (No. of residents)	21,610 homes (53,269)	196 homes (388)
Privately rented houses (No. of residents)	25,137 units (67,753)	138 units (314)



Source:
Miyagi Prefecture's Restoration and Reconstruction
Efforts

Chaotic – Recovery Phases

March – August, 2011

【Initial Response】

The probability of a subsequent earthquake off the coast of Miyagi was estimated at approximately 60% within 10 years, 90% within 20 years, and 99% within 30 years. After the Iwate-Miyagi Nairiku Earthquake in 2008, Miyagi Association of Occupational Therapists prepared the “Manual for Disaster Support Activities” (came into force as from February 12), and offered intra-prefectural cooperation in case of disasters. The earthquake caused Miyagi extensive damage, including communication network disconnection, infrastructure disruption, and fuel and information shortages due to the chaotic situation.

【Support Activities in Evacuation Shelters】

On March 18, 2011, a meeting to discuss contingency plans was held and the Disaster Headquarters according to “Manual for Disaster Support Activities” (revised on June 15) was established. The Disaster Headquarters continued collecting information about Miyagi Association of Occupational Therapists members’ safety, utilizing websites to gather and disseminate the latest information, working with relevant organizations including Miyagi Prefectural Government, Japanese Association of Occupational Therapists (JAOT), and Miyagi Physical Therapy Association, and securing source of revenue to recruit disaster relief volunteers and conduct support activities.

- March 19: Received a disaster relief support request from the Health Promotion Division, Department of Health and Welfare, Miyagi Prefecture Government (Health Promotion Division of Miyagi Prefectural Government) to evacuation shelters in Kesennuma area, Ishinomaki area, and within the jurisdiction of Iwanuma Public Health Center (Natori City, Iwanuma City, Watari Town, and Yamamoto Town) which suffered severe damage by the tsunami.
- March 22: Health Promotion Division of Miyagi Prefecture Government, Miyagi Physical Therapy Association, and Miyagi Association of Occupational Therapists held a collaborative consultation and received a dispatch request to conduct needs assessment in Ishinomaki area, Iwanuma City, and Watari Town. We began to collaborate with JAOT to provide disaster relief support in the affected areas
- March 24 – April 2: Dispatched staff to conduct a needs assessment in Ishinomaki area, Yamamoto Town, and Kesennuma area.
- April 3: Inspected Wakabayashi Gymnasium in order to provide support and collaborate with the use of JAOT model project (Wakabayashi in Sendai City)
- April 8: Discussed the provision of assistive devices with the Miyagi Prefecture Rehabilitation Support Center
- April 9: Received a dispatch request from Kesennuma Public Health and Welfare Office
- April 11: Briefed members of Miyagi Association of Occupational Therapists about disaster relief volunteering, and requested a dispatch of JAOT disaster support volunteers.

Flow of disaster relief volunteering

Dispatch request from Miyagi Prefectural Government
(Health Promotion Division or Public Health and Welfare Office)

⇒A request was received, registered volunteer members were asked to join

⇒Held an orientation about each dispatch area

⇒Began support activities

※A report on disaster support activities should be submitted

1. Support Activities in Ishinomaki Area

- April 7: In response to a request for cooperation in research on evacuees' daily performance and economy class syndrome, we worked with the Health Promotion Division, Department of Health, Ishinomaki City (Ishinomaki Health Promotion Division), the East Miyagi Public Health and Welfare Office, and Japanese Red Cross Ishinomaki Hospital to begin support activities at evacuation shelters.
- April 16: Conducted a research on evacuees' daily performance and provided assistive devices (walking sticks, silver cars, etc.,) for those who were living in their homes or shelters and had a substantial need for assistive devices
- April 23: Began providing support at social welfare institution evacuation shelters in response to a request for assistance to transfer evacuees from general evacuation shelters to social welfare institution evacuation shelters. Environmental modification, participation in activities, mini-days, and individual support were conducted in collaboration with Ishinomaki City Hospital, Japan Primary Care Association, and physical and occupational therapists from 10 relevant rehabilitation organizations. Support at social welfare institution evacuation shelters continued until September with the help of JAOT's disaster relief volunteers.
- May 1: Upon a request from a physical therapist in the east of Miyagi Public Health and Welfare Office, we made a round of health checkups of evacuees in designated shelters in Higashimatsushima City and Matsushima Town.



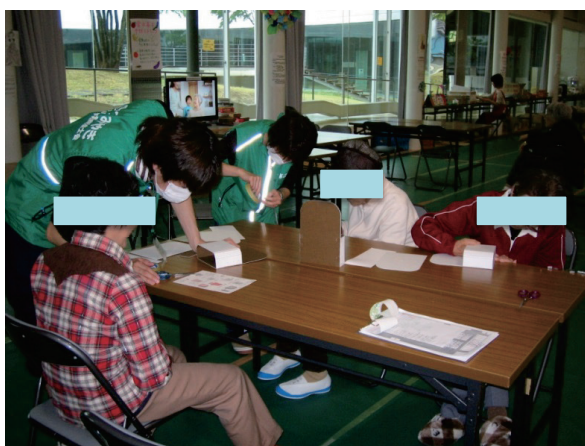
Cardboard bed



Making cardboard beds



Social welfare institution evacuation shelter
outside Ishinomaki City



Mini-Day at the
social welfare institution evacuation shelter



Environmental modifications
at a social welfare institution evacuation shelter



Assessing risk of disuse syndrome

2. Support Activities in Kesennuma Area

“Recovery from Disaster Kesennuma Community Rehabilitation Support Team” was established at Kesennuma Public Health and Welfare Office.

Upon a request from Kesennuma public health nurses, care managers, nurses from visiting nursing homes and staff from medical teams, Kesennuma area rehabilitation specialists (PT, OT and ST), Miyagi Physical Therapy Association, and Miyagi Association of Occupational Therapists started working together to provide support services on April 16. The purpose of support was to sustain ADLs, advise on assistive devices and care, minimize care burden, host a rehabilitation consultancy for each evacuation shelter and living community, and conduct exercise sessions to minimize the risk of disuse syndrome. As evacuation shelters closed when people moved to emergency provisional housings and social resources resumed, the support ended.

<Considerations when Providing Support>

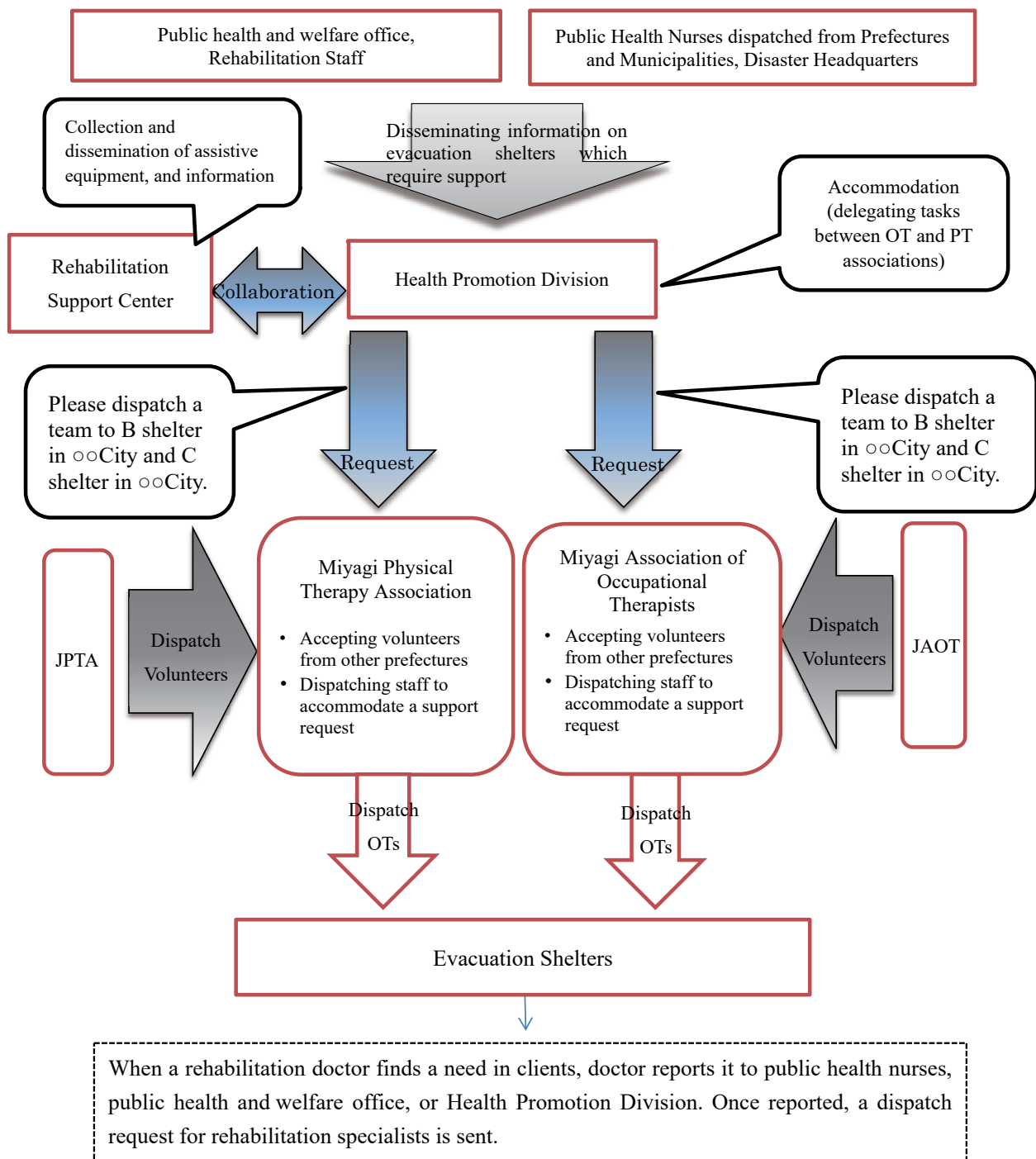
Kesennuma Public Health and Welfare Office in Miyagi

1. “Support” is different from training or rehabilitation services provided at hospitals.
2. Main purpose is to conduct rehabilitation and make recommendations to improve activities of daily performance and reduce burden of clients, families, and careers.
3. Without a request, do not prepare a rehabilitation plan or force clients and families to carry it out.
4. Be aware that environmental modifications to individuals in shelters can be undesirable and become a cause of trouble with other evacuees.
5. For security, be punctual and return to office as scheduled.

Flowchart:

Dispatching rehabilitation specialists to evacuation shelters

March 30, 2011: Health Promotion Division, Miyagi Prefectural Government



© Please contact Rehabilitation Promotion Team if you need support from PT, OT or rehabilitation doctors. A support team will be dispatched.

© A team of Niigata University and Tohoku University is working on the test for economy class syndrome, exercise education, and provision of compression stockings. Contact Shokuiku Promotion Team for any requests or questions. A support team will be dispatched.

Reconstruction Phase

September, 2011 – February, 2017



coshel = making things

【Welcome to “Coshel Group”】

A working team from Miyagi Association of Occupational Therapists provided a monthly disaster relief group activity, the “Coshel Group” at the emergency provisional housings (47 units) in Higashimatsushima City Neko area between September 2011 and March 2014. A limited number of volunteers working at the emergency provisional housings and people gathering from other areas were the reasons to form the “Coshel Group”.

With the support from Higashimatsushima public health nurses and the president of a residents' association, the team of volunteers from Miyagi Association of Occupational Therapists was able to use a community hall close to emergency provisional housings to open a salon for the residents. The salon received a request from Higashimatsushima City to provide activities that 1) become a hobby, 2) activate brain, 3) target men, 4) have a name that makes people feel energetic. “Coshel” means making things in Miyagi dialect. The team planned and conducted three activities, a cat exercise (pole exercise), tea time, and making things under the concept of “Coshel Healthy Body, Coshel Things, and Coshel Peers” every month.

Coshel peers



Having a cup of tea

Coshel healthy body



Hand massage to relax



Miyagi Association
「Coshel group」 core members



Cat exercise to improve flexibility

“Cat exercise” is an exercise using a pole made of newspaper. Some people continued this exercise at their homes and we were able to see an improvement in their flexibility. Making things activity began with a nameplate, and something that is seasonal, simple but fancy, and can be made from materials that could be easily obtained. Some of the participants were male, and some participated with their children and grandchildren. During a tea time, people not only talked about the disaster or their lives but enjoyed concentrating on making and sharing their work with peers. Through the support activity “Coshel Group”, occupational therapists recognized their responsibility to promote people’s connections, occupational connections, and opportunities, and think together for their participation.

Fukushima Prefecture

Great East Japan Earthquake 2011/3/11

Outline of Earthquake in Fukushima Prefecture

◆Overview of the Earthquake Disaster

Date/Time : March 11(Friday), 2:46pm

Epicenter : Sanriku coast (N38.1, E142.5)

※ 130 km east of Ojika Peninsula

Depth : Approximately 24km

Magnitude : 9.0

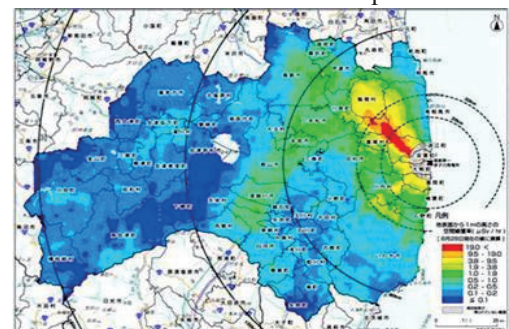


◆Fukushima Nuclear Power Station Accident

After an hour of earthquake, Fukushima Daiichi Nuclear Power Station of Tokyo Electric Power Company Holdings was hit by 14-15m height of tsunami. Station blackout occurred in units 1-5. A core meltdown accident occurred which was caused by the loss of sufficient cooling. It resulted in the radiation leakage and lead to a serious nuclear accident.



Hama Street after the earthquake



Source: Nuclear Regulation Authority

36 days after the disaster

【To Start Support Activities】

Each branch to begin support activity was agreed at the board meeting of Fukushima Association of Occupational Therapy (April 16, 2011)



Many members of Soso branch, where the power station was situated at, evacuated and it was extremely difficult to begin support activity.



To get back a normal life

Providing support activity for evacuees is important but we, members of Fukushima Association of Occupational Therapy are too evacuees. It was also necessary for us to get our life back, return to a normal work routine, take a good rest, and relax.

The support activity was started by people who had enough energy and ability to support others rather than Fukushima Association of Occupational Therapy or each branch giving the direction.



The situation of each evacuation shelter is different and support activities were provided in many different ways. The next section will introduce Aizu & Minamiaizu branch's support activities.



Evacuation shelters

Emergency Restoration Phase

April – May, 2011

【The Early Days of Support Activities】

On the weekends in April, we asked people who evacuated in shelters (gymnasiums etc.) if there was anything that they were having trouble with at shelters.



We heard the voices “Every morning and night, we do radio gymnastics with public health nurses”, “A dance teacher comes to give us a lesson”, and “I can walk and do not have any issues”, and there seemed to be nothing was bothering them.



Activities at shelters

【Changes in Support Activities】

Purpose : Delivering occupations to shelters just for a change

We restarted support activities at shelters in May 1. People began to open up to therapists through participation in occupations and confided their issues, “To tell you the truth, I had a light stroke 5 years ago and my hands do not move like it used to be”, “It is not easy to walk around the shelter and I often stumble. I fell in the bathroom”, and “I find it difficult getting up from the mat on the floor”.



We conducted a simple hand and balance assessment, and it was apparent that most residents had some kind of issues and were experiencing a difficulty in living. Through occupations, people felt unwind and relaxed and opened up to therapists. To provide life support at shelters, social environment needs to be approachable for people to talk and share their stories since some people felt anxious after the disaster and were unfamiliar to live in an environment like shelters.

Recovery Phase

May – August, 2011

Transition from Fukushima Association of Occupational Therapy to Consultation Support Team

【Establishment of Fukushima Consultation Support Specialist Team】

Fukushima Consultation Support Specialist Team, a part of Fukushima prefecture commissioned project, was established on May 19, 2011. The team consisted of 6 organizations; Fukushima Care Manager Association (the organization in charge), Fukushima Certified Social Workers, Fukushima Association of Psychiatric Social Workers, Fukushima Association of Psychiatric Social Workers, Fukushima Physical Therapy Association, and Fukushima Association of Occupational Therapy.



Coordination meeting

Purpose of Activities

- ◆ To appropriately grasp the need of people living in evacuation shelters within Fukushima and function as one-stop center of general consultation.
- ◆ To provide consultation support including advice on the use of long-term care insurance and welfare services and mental health care in order to minimize the impact of living in evacuation shelters for a long period of time.
- ◆ To provide support services for evacuees is a main task of the team, but the team always cooperates and collaborates with other relevant stakeholders to avoid being a burden on municipalities.
- ◆ To work as a specialist team with respect to each other in order to provide necessary support for people and lead them to appropriate services.

Source: Fukushima Consultation Support Specialist Team Activity Report (as of April 2015)

Flowchart: Consultation Support Specialist Team

※Needs are identified based on information provided by municipalities or patrol screening by support teams

①Significant decline in physical functioning	②Decrease in mental activity and motivation	③Suspected with dementia
④Appropriate consultation and treatment required	⑤ Use of supporting the independence of persons with disabilities	⑥Support for various procedures required
⑦It is ok for now but will require continuous supervision and support for life reconstruction		

I. The person him/herself is not conscious or uncertain of needs

⇒A team in the community conducts an initial intake (it is desirable that some consultants conduct it)

- A team coordinator in the community decides the main member who conducts an intake

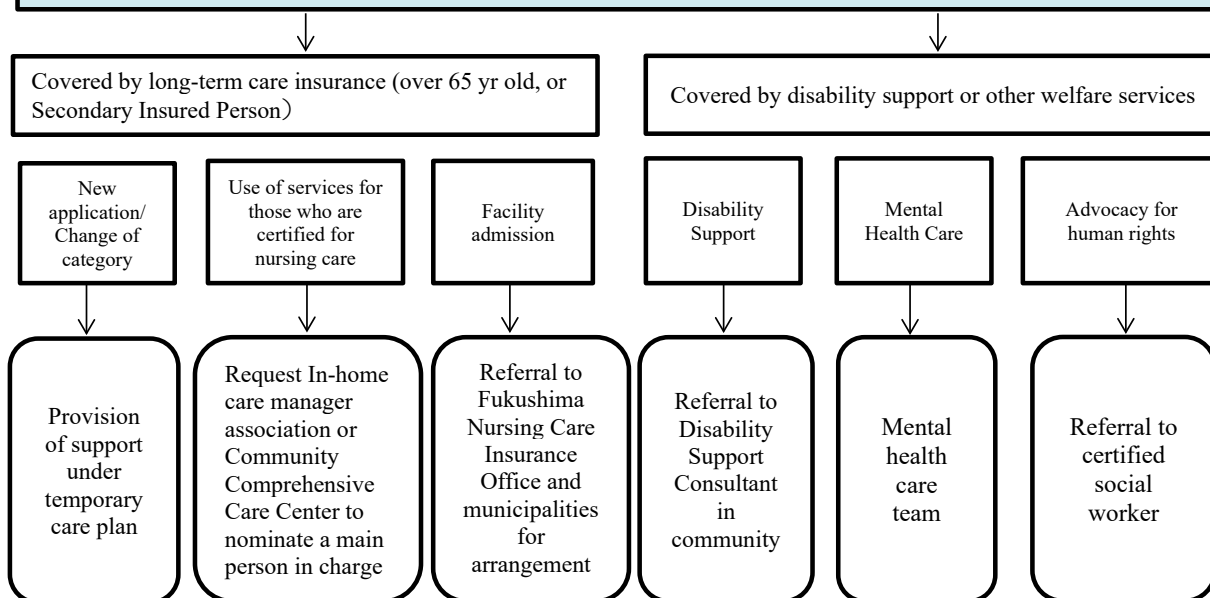
⇒In case a chief complaint is clear, a specialist team is dispatched.

- A request is sent to the organization in charge of specialist teams

(1). Screening by PT, public health nurses etc., (2). Consultation support by mental health care team, (3). Consultation support by a long-term care support specialist, (4). Needs identification by public health nurses and MSW, (5). Consultation support by Association of Certified Social Workers, (6). Referral to administrative agencies, (7). Continuous monitoring support By Fukushima Consultation Support Specialist Team



II. Intention to use medical, nursing care or welfare services is clear



The role of Consultation Support Specialist Team is to manage medical, welfare and nursing care of communities. The team identifies the needs of evacuees and leads them to appropriate services without any delay.

Source: About Activity of Fukushima Consultation Support Specialist Team



Reconstruction Phase

September, 2011 – March, 2013

【Activity as Fukushima Consultation Support Specialist Team】

Many evacuees at shelters moved to provisional housings. To start with, advice on living environment including installation of handrails and removal of steps was the main support activity and the support was provided in collaboration with Fukushima Physical Therapy Association. Exercises, recreation and occupational activities were provided with the aim of preventing care and social withdrawal.

Introducing occupations to lead a regular life and improve the level of activity was required since people in an unfamiliar environment tended to isolate themselves.



Removal of steps at provisional housings



Occupational activities at provisional housings

【Publication on “How To live in Winter”
(2 years after the earthquake)】

Many evacuees had to accommodate themselves to a new living environment with a big gap in climate (homes are in the area with a warm climate and shelters are in the area of heavy snowfall). There was a request from Okuma Town and Naraha Town and the team conducted a seminar to tell the tips to live in winter and how to walk in the snow and use a shovel. Also, a brochure “How to Live in Winter” was distributed. It contributed to minimizing the risk of falls of residents and supporters.



How To live in Winter



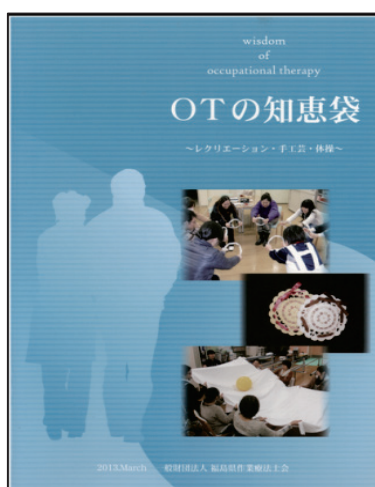
Demonstration on how to use a shovel



Seminar targeting local government staff to inform the points to be careful in winter

【Publication of OT's pearls of wisdom (since 2 years after the earthquake)】

With the grant from JAOT, the team published a guidebook “OT’s pearls of wisdom”, which contains information on recreation, handcraft and gymnastics activities. The guidebook was published to help evacuees participate in activities in their own time since occupational therapists were not able to come and support evacuees in evacuation shelters all the time. The guidebook contains how to conduct recreation, handcraft and gymnastics activities, things to care when participating, and ideas for activity grading.



OT's pearls of wisdom



Simple, easy to understand



Kumamoto prefecture

2016 Kumamoto Earthquake 2016/4/14・16

Outline of Kumamoto Earthquake 2016

◆Overview of the Earthquake Disaster

Date/Time: April 14, 9:26pm (foreshock)
Epicenter: Kumamoto Chiho
of Kumamoto Prefecture (N32°44.5', E130°48.5')
Depth: 11km
Magnitude: 6.5

Date/Time: April 16, 1:25am (main shock)
Epicenter: Kumamoto Chiho of
Kumamoto Prefecture (N32°45.2', E130°4.7')
Depth: 12km
Magnitude: 7.3

◆Seismic activities

Earthquakes with seismic intensity level of 6 upper
after April 14, 9:26pm

Date	Time	Seismic intensity
April 14	21:26	7
	22:07	under 6
April 15	0:03	over 6
April 16	1:25	7
	1:45	under 6
	3:55	over 6
	9:48	under 6

Aftershocks

(Number of earthquakes with seismic intensity over 1)
4,140 aftershocks by midnight, November 13

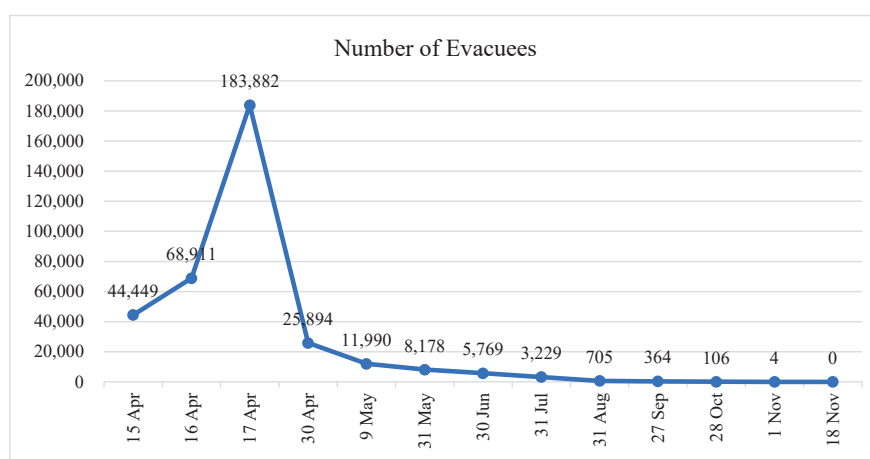
Source: Cabinet Office, the Extreme Disaster Management
Headquarters, Japan Meteorological Agency' report



Damage in Kumamoto Prefecture

◆Number of Evacuees

No. of Evacuees : 183,882 (Total population of Kumamoto prefecture: 1,774,538)



◆Human Casualties

Deaths: 50

Related deaths: 220 (as of February 13, 2019)

※ Source: Kumamoto Prefecture Disaster and Crisis Management Administration

◆Damage to Residences

Destroyed: 8,339

Heavily damaged: 31,847

Partially damaged: 137,295

※ Source: Kumamoto Prefecture Disaster Headquarters

◆Damaged Infrastructure

Power outage: Up to 470,000 houses (April 16)

※ Source: Ministry of Economy, Trade and Industry

Interruption of gas supply: Up to 105,000 houses (April 16)

※ Source: Ministry of Economy, Trade and Industry

Water outage: Up to 445,857 houses (April 16)

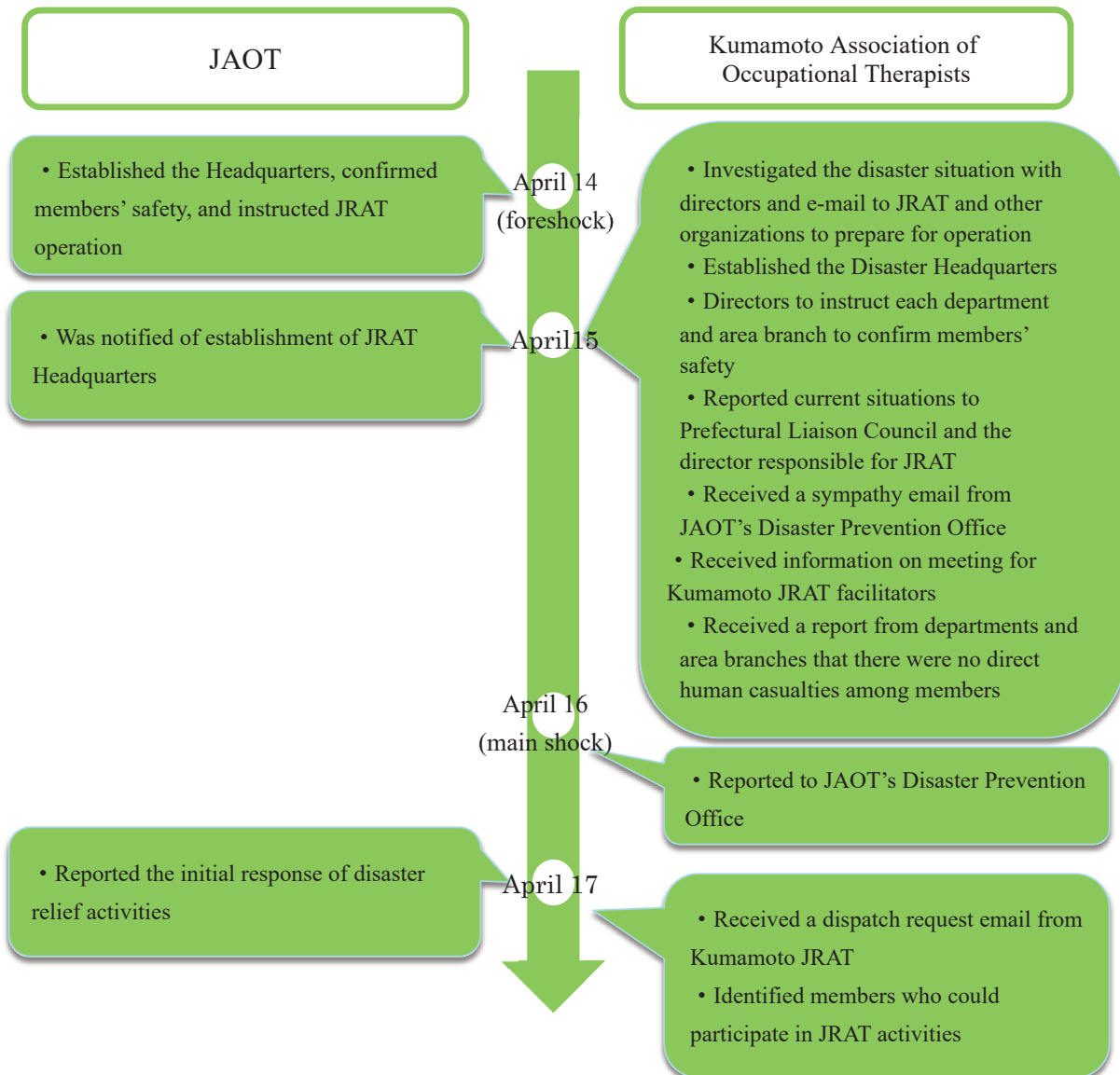
※ Source: Ministry of Economy, Trade and Industry

Chaotic - Emergency Restoration Phases

April – July, 2016

【Initial Response】

On April 15 (the day after the foreshock), the Disaster Headquarters was established and safety confirmation of members and investigation of actual damage in the affected areas were in place. Since the situation was chaotic immediately after the earthquake, and the emergency contact network was not well arranged, it took considerable time to gather necessary information. Also, a list of members who could respond to the Japan Disaster Rehabilitation Assistance Team (JRAT)'s dispatch request was prepared.



Japan Disaster Rehabilitation Assistance Team: JRAT

JRAT, a disaster rehabilitation relief team, endeavors to promote collaboration between affiliated organizations on daily basis in order to confront adverse circumstances with people in affected areas. In the event of disasters, the team protects frail evacuees, people with disabilities, and the elderly from the risk of disuse syndrome, and offers support in difficult situations, and facilitates their independence and recovery. The team promotes the development of well-structured policies and systems for people to receive secure, safe, and quality rehabilitation. (Source: JRAT website)

【Main activities as JRAT】

Coordination Department	Became a part of Medical Care and Rescue Coordination Headquarters of Kumamoto Prefecture and the command was executed in collaboration with other relevant organizations
Operation Department	Team matching, development of manuals and assessment tools, information sharing, and data administration
Team on site	Shared information with public health nurses, conducted environmental assessments on evacuation shelters and implemented preventative measures to reduce the risk of disuse syndrome

The extent of damage caused by the foreshock was less severe, and it was possible for Kumamoto-JRAT to deal with the situation without support from other prefectures. However, the main shock hit Kumamoto and the damage spread much wider than previously thought, leading to a dramatic increase in the number of evacuees and evacuation shelters. Many medical institutions and facilities were damaged, and the situation exceeded the capacity of Kumamoto-JRAT to deal with. Therefore, support teams were dispatched from other prefectures, and support activities were conducted in the damaged areas.



Although the team had to start the activities without a manual, it was supported by the Headquarters in Tokyo and people with experience in logistics management from other prefectures. The team gradually became organized.

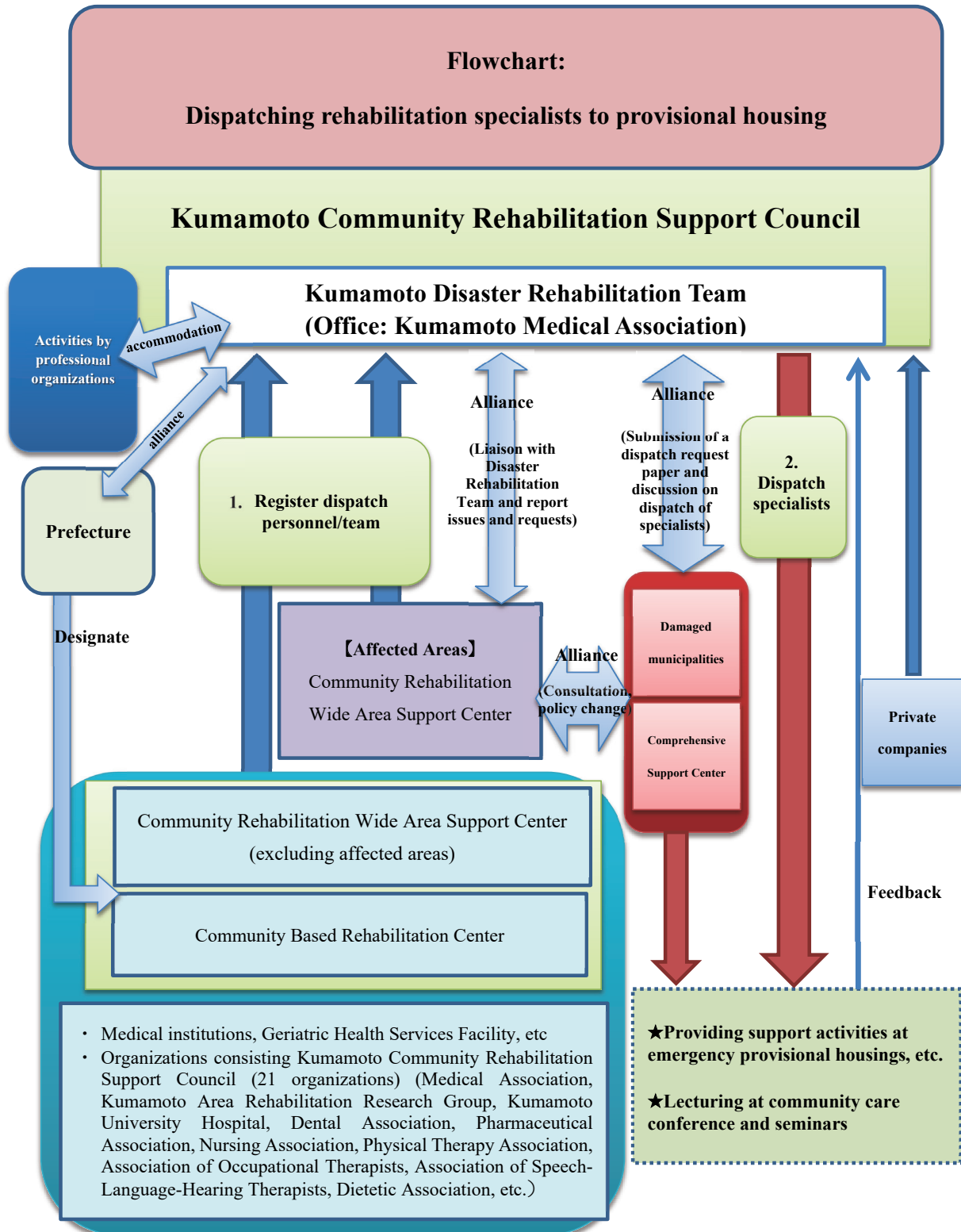
Teams on site: total 554 teams
 ⇒total number of people participated: 1,774 people
 Headquarters operation: 756 people

Recovery – Reconstruction Phases

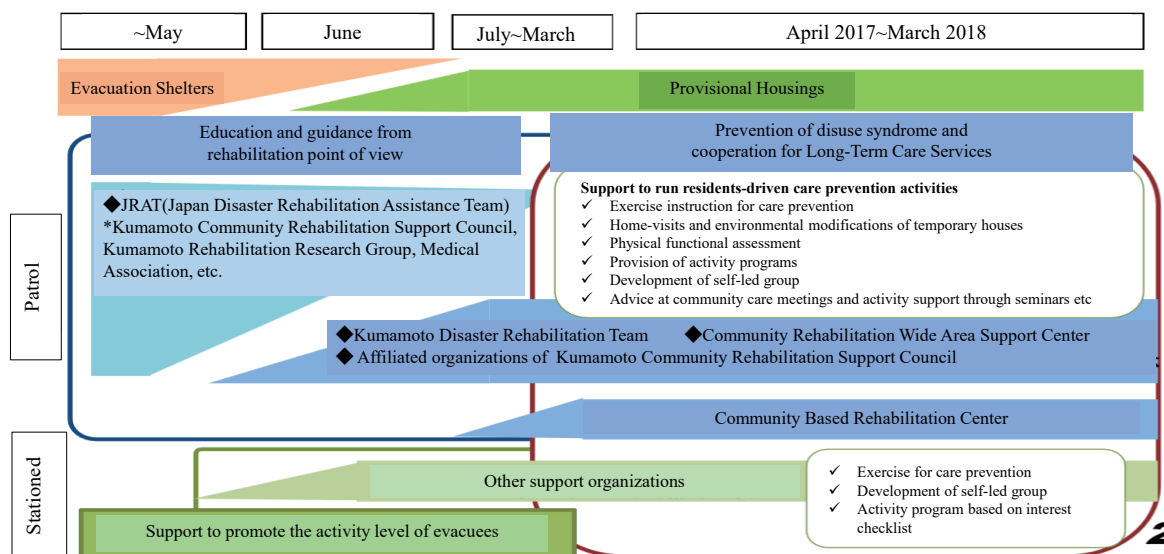
July, 2016 – March, 2018

【Activities of Kumamoto Disaster Rehabilitation Team】

The evacuees began to move into emergency provisional housings from evacuation shelters. As JRAT's support was completed in mid-July, Kumamoto Disaster Rehabilitation Team was established.



Framework for Kumamoto Disaster Rehabilitation Activities



Source: Kumamoto Disaster Rehabilitation Team

【Purpose】

- Preventing disuse syndrome and reducing the percentage and level of long-term care needs
- Introducing free time activities other than care and social welfare services
- Introducing activities people can participate in at evacuation shelters and emergency provisional housing
- Supporting people to re-build their lives
- Providing psychological support
- A comprehensive approach to meeting evacuees needs
- Reducing the stress of supporters in affected areas



Reconstruction Phase

2 April, 2017 -

【Kumamoto Association of Occupational Therapists' "Fuko (Growing Fortune) Project"】

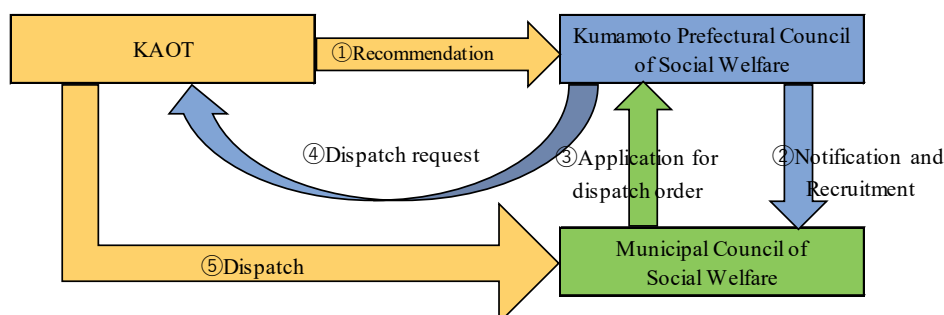
Fuko (Reconstruction)



Fuko (Growing Fortune)

- Healthcare monitoring and environmental modifications of residents who are suffering from sudden changes in their lives are the most important support activities, and these will eventually reduce the risk of disuse syndrome.
- As we move to the next phase of disaster support, people's needs will change too. In addition to healthcare monitoring and environmental modifications, we need to discuss the importance of teaching people how to live a new life and create new hobbies.
- Many residents lost their homes and were forced to live in provisional housing. Environmental factors in addition to personal factors need to be carefully considered when providing support for such people.
- The project "Fuko (Growing Fortune)", led by residents, was launched as a tool to form a community.

Support by Kumamoto Association of Occupational Therapists



In May 2017, therapists began social farming activities at three evacuation housing centers in Misato Town and participated in residents led activities. A harvest festival was held on March 25, 2018.

Iwate prefecture

2016 Typhoon No.10 Iwaizumi in Iwate Prefecture 2016/8/30

Outline of 2016 Typhoon No.10

◆Outline of Iwaizumi

Iwaizumi is located in the Kitakami mountain range of northeast Iwate prefecture, and is the largest town in Honshu at 992.9 square kilometers (51 km east-west, 41 km north-south) (Figure 1).

The town is surrounded by the Kitakami mountain range which reaches an altitude of over 1,000 meters; 94% of the total area is forest. Three rivers empty into the Pacific Ocean, and houses along the valley form various small communities.

As of 2015, the estimated population is 9,842 (4,174 households). **The rate of aging is over 40%.**



Figure 1 Iwaizumi in Iwate

◆State of Damage

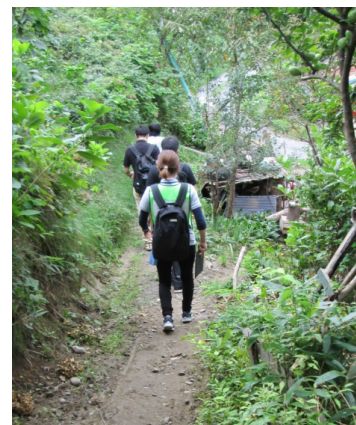
On August 30, Typhoon No.10 hit the town and the river had overflowed its banks. It caused extensive damage to housing and facilities. A group-home with an extended care facility for the aged, the only outpatient rehabilitation facility in town, was destroyed.

September 2: 873 people (428 households) in isolation

September 4: 7 evacuation shelters

(As of November 2016: death 19 people, missing 2 people)

(Source: Satoru Okubo et al, (2016) Report on rehabilitation support activity in Iwaizumi Town, Iwate after 2016 typhoon No10)



OTs heading to affected areas

Emergency Restoration – Recovery Phases

September – October, 2016

【Support system and support for evacuees in shelters (September 6 - 15)】

On September 16, 2016, Iwate JRAT began support activities in collaboration with Typhoon 10 Iwate Disaster Medical Support Network Medical Rescue Support Team. Iwate JRAT also cooperated with the Iwate Association of Occupational Therapists, Iwate Physical Therapist Association, and the Association of Speech-Language-Hearing Therapists. Iwate JRAT attended the healthcare and public welfare liaison meetings held by Iwaizumi Town for information sharing. At the beginning, there were seven evacuation shelters. Because of widespread road collapse, the team split into two factions to provide separate support in the eastern and western areas of town.

Disaster Medical Care Coordinator	Medical Association	Iwate Medical University	Japanese Red Cross Society Iwate Branch	Iwate Prefectural Central Hospital
Dental Association	Pharmaceutical Association	Nursing Association	Morioka JRC Hospital	National Hospital Organization
Iwate JRAT	Japan Psychiatric Hospitals Association Iwate Branch	Iwate Prefecture Disaster Welfare Wide Area Support Promotion Agency	Kitakami Saiseikai Hospital	Society of Certified Clinical Psychologists
Dietetic Association	Iwate Prefecture Bureau of Medicine	Iwate Prefecture Bureau of Welfare	Disaster Prevention Volunteer Support Network	

Figure 2 Typhoon 10 Iwate Disaster Medical Support Network Medical Rescue Support Team (19 organizations)

(Source: Satoru Okubo et al, (2016) Report on rehabilitation support activity in Iwaizumi Town, Iwate after 2016 typhoon No10)

【Preparation to support people who remained at home (September16 - October 2)】

The basic data of 106 clients (name, home address, etc) of outpatient rehabilitation was lost in the flood. The facility staff members gathered information and prepared to provide support for people who remained at home. After the safety confirmation, and upon a request from the clients themselves and public health nurses, it was decided to provide support for 80 clients who remained at home.



Support activities at evacuation shelters

【Support for people who remained at home (October 2 - 31)】

To reach people who remained at home, it took almost 90 minutes each way because of widespread road collapse. Since communities along the valley could not be detected by GPS, Iwate JRAT teamed up with occupational therapists in the affected areas to conduct home-visit support.

Support

Supporters on site : Total 315 people (over 52 days)

Evacuees targeted : Total 600 people (evacuation shelters 279, homes 321)



OTs working on site



Support activities for people who remained at home

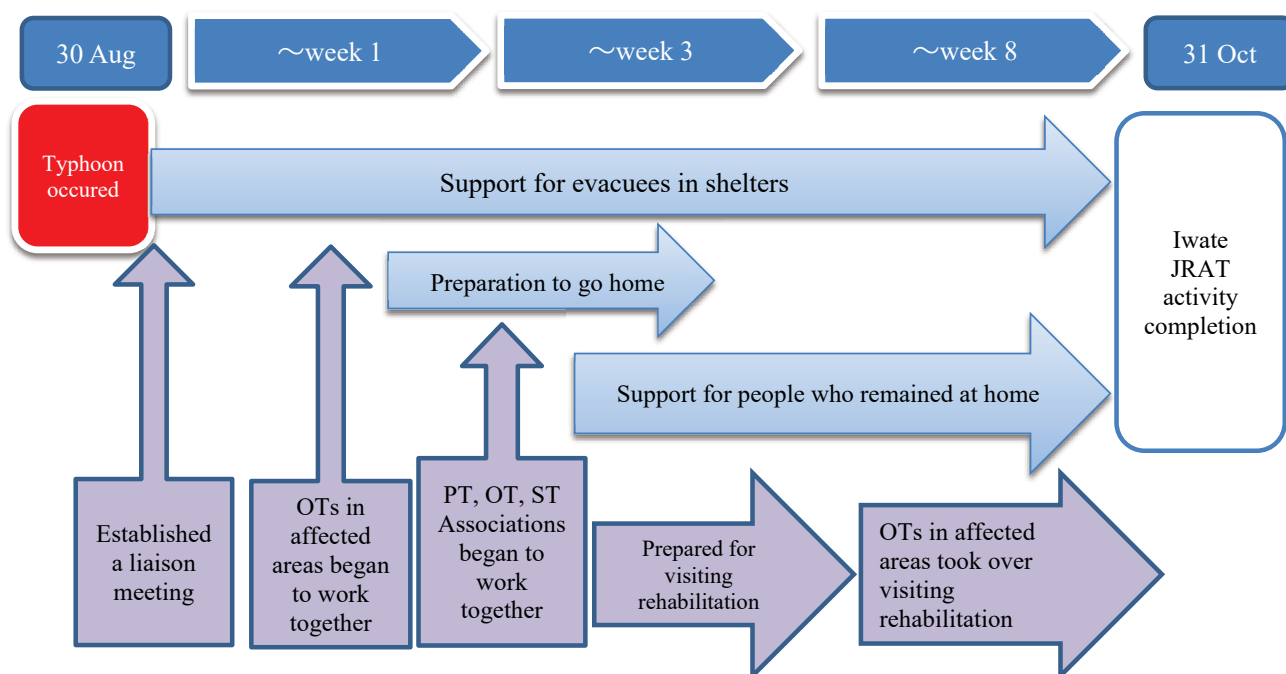


Figure 3 The Process of Support Activities

(Source: Satoru Okubo et al, (2016) Report on rehabilitation support activity in Iwaizumi Town, Iwate after 2016 typhoon No10)

Iwate JRAT Support System

Headquarters

Headquarters was set up in Iwate Rehabilitation Center (Shizukuishi Town). Main tasks were providing direction to teams on site and accommodating teams to dispatch.

【Operational Headquarters】

Operational headquarters was set up in Saiseikai Iwaizumi Hospital. Main tasks were information sharing with public health nurses upon receiving direction from headquarters, matching with teams on site, preparation of assessment papers, and data management.

Teams on site

【Units on site】

Units consisted of 2 -4 members of Iwate Association of Occupational Therapists and occupational therapists in affected areas. Units visited evacuation shelters and homes to conduct assessments and individual and group sessions to reduce the risk of disuse syndrome.

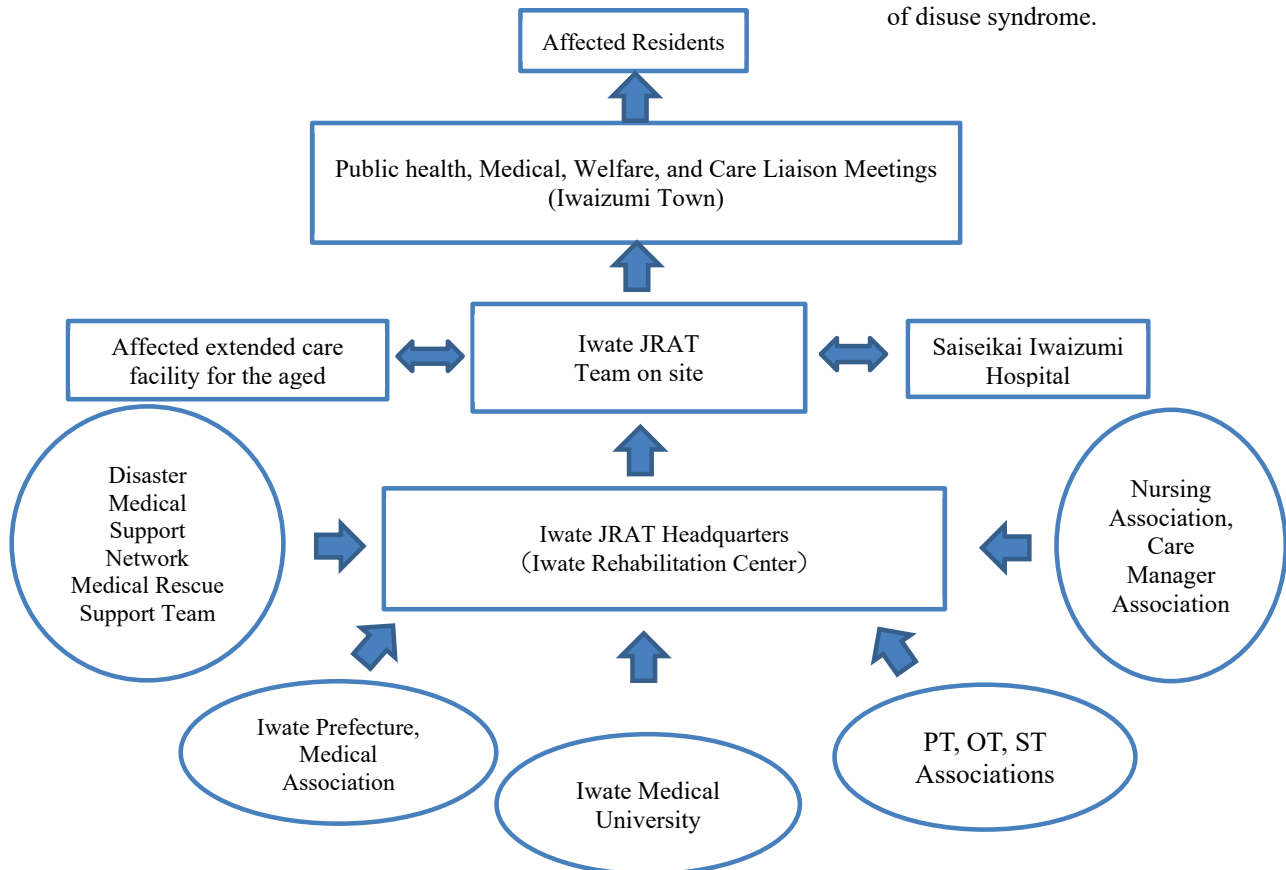


Figure 4 Disaster Rehabilitation Support Structure in Iwaizumi Town

(Source: Satoru Okubo et al, (2016) Report on rehabilitation support activity in Iwaizumi Town, Iwate after 2016 typhoon No10)

Iwate JRAT activities were completed at the same time as the local visiting rehabilitation services began. Throughout the activities, Iwate JRAT tried to provide rehabilitation support without a delay by grasping the situations of evacuation shelters accurately and identifying and supporting people with long-term care needs who remained at home.

Support activities in affected four prefectures

- How they worked together -

The following reports on when occupational therapists were dispatched to the four affected prefectures, and where they were assigned provide disaster support activities.

1. Great East Japan Earthquake

1) Iwate

During the reconstruction phase, Iwate Association of Occupational Therapists began support activities upon a request from Iwate Prefecture and Council of Social Welfare of affected municipalities.

2) Miyagi

Upon a request from Miyagi Prefecture and affected municipalities, rehabilitation specialists in public health centers took a role of coordinator and Miyagi Association of Occupational Therapists conducted support activities.

3) Fukushima

Upon a request from Fukushima Prefecture and affected municipalities during the recovery phase, Fukushima Association of Occupational Therapy conducted support activities as part of the specialist team.

2. 2016 Kumamoto Earthquake

• Kumamoto

JRAT began its activities soon after the earthquake occurred and worked with Kumamoto Disaster Rehabilitation Team during the recovery phase. Kumamoto Prefecture and Councils of Social Welfare in affected municipalities took a role of coordinator and Kumamoto Association of Occupational Therapists provided support activities during the reconstruction phase.

3. 2016 Typhoon No.10 (Iwaizumi Town in Iwate Prefecture)

• Iwate

Iwate Association of Occupational Therapists conducted support activities as part of Iwate JRAT.

The role of occupational therapists in disaster relief activities

- Lessons learned from the Great East Japan Earthquake, 2016 Kumamoto Earthquake and 2016 Typhoon No.10 -

Many occupational therapists in affected areas and disaster support volunteers contributed their time to support people affected by the Great East Japan Earthquake, 2016 Kumamoto Earthquake, and 2016 Typhoon No.10. Below is a report on the role of occupational therapists in disaster relief activities.

1. Chaotic Phase (Onset of Disaster - 72 hours)

Since the top priority during the first 72 hours is search-and-rescue and lifesaving medical triage, occupational therapists as one of medical professionals got involved in transporting injured people and administration. Another role during the chaotic phase was gathering information on damage caused by the disaster and modifying the environments of Disaster Headquarters, evacuation shelters, and other relevant facilities to meet the needs of users.

2. Emergency Restoration phase: Living support in emergency shelters (Day 4 – 1 month)

Support at evacuation shelters is required during this phase. Firstly, the support activities were begun by prefectural associations of occupational therapists in the Great East Japan Earthquake and JRAT in the 2016 Kumamoto Earthquake and 2016 Typhoon No.10.

1) Functional assessment of evacuees in shelters

A good understanding of the environmental situation and health conditions of evacuees in evacuation shelters is required. Therapists conduct health checkups and gather information on how people live in evacuation shelters.

2) Environmental modifications in shelters

There is not enough personal space for individuals in evacuation shelters. Since the elderly and people with disabilities, in particular, will find difficulties living in such situations, therapists need to address these issues and create a comfortable environment for people. It can be done by securing personal space, removing steps, and improving accessibility within a shelter, etc.

3) Selection of assistive equipment

Since the elderly and people with disabilities are more likely to face barriers and obstacles to the physical environment in evacuation shelters, therapists prescribe shoes and walking sticks and secure safe access within a shelter. Therapists address living difficulties, for example, by creating a table for people experiencing difficulty when eating and selecting and prescribing assistive equipment to meet the demands of individuals.

4) Building a stable daily rhythm

Living in shelters may lead to people's loss of purpose in their lives, inactivity, and monotonous life. Therapists provide opportunities to participate in group activities such as exercise and occupational tasks (handcraft, gardening, etc) to help people achieve and maintain a stable daily rhythm.

5) Maintaining physical functioning and preventing the risk of disuse syndrome

The reduction in daily activity level and physical functioning eventually leads to physical inactivity and disuse syndrome. Living in a shelter over a long period of time has a greater risk of physical inactivity among elderly and people with disabilities. Early detection of disuse syndrome, implementation of preventative measures such as group exercise, and provision of ADLs support including standing up and waking up tasks are essential.

3. Recovery Phase: Living support in shelters and provisional and reconstruction housings (2 – 6 months)

This is the phase in which evacuees move to provisional and reconstruction housing from evacuation shelters. Since more personal spaces are available in provisional housing, therapists can provide more individualized support. As there is still a risk of social isolation or withdrawal, measures to minimize its risk should be introduced.

1) Environmental modifications at provisional and reconstruction housings

Therapists conduct necessary modifications and make recommendations in order to meet individual needs. Such modifications include removing steps to reduce the risk of falls and installing handrails.

2) Increasing the level of activity with the aim of reducing a risk of social isolation/withdrawal

Although more personal spaces are available, there is still a risk of social isolation or withdrawal as a result of reduced opportunities to communicate with others. Therapists help people form a community by introducing opportunities to participate in group exercise and occupational tasks (handcrafts, gardening, etc.).

3) Maintaining physical functioning to ward off disuse syndrome

The reduction in daily activity levels and physical functioning eventually leads to physical inactivity and disuse syndrome. In particular, the elderly and people with disabilities experience a decreased level of activity caused by changes in their environment. Therapists implement preventative measures such as group exercise and provide ADL support, for including standing up and waking up tasks.

4. Reconstruction Phase: living support in provisional and reconstruction housings (6 months -)

Since living in shelters over a long period of time causes a sense of disturbance and instability in physical and mental functioning, continuous support for evacuees are required.

1) Living support to prevent social withdrawal and disuse syndrome

Therapists implement group exercise and occupational activities (handcrafts, gardening etc.,) in community spaces. Continuous support such as exercise and occupational activities are essential in order to achieve a stable daily rhythm.

2) Supporting formation of a community

A new community is formed as people begin to settle into a new life. Forming a group or community through occupations which draw out people's individuality is an important step during this phase. Therapists open a salon where people can participate in occupational activities and exercise, and the salon should be eventually led by residents.

【Lessons Learned】

Looking back upon our experiences over those disasters, the community JRAT has been established in each prefecture in recent years, and occupational therapists are taking an important role in disaster relief activities during the chaotic and emergency restoration phases. Although occupational therapists will continue to work as part of JRAT, community JRAT in each prefecture will be required to strengthen their level of collaboration with other specialists in order to prepare for future disasters.

During the recovery and reconstruction phases, JRAT activities gradually come to an end and activities will be led by prefectural associations and municipalities. During natural disasters, nothing seems to be more important than the mutual assistance within the community. Communication with other therapists in nearby prefectures and organizing a support system will be essential.

In addition, a smooth transition to Comprehensive Community Care System is necessary for evacuees as they eventually become residents in those areas. Therapists not only complete their support in medical care for people affected, but have an important role in establishing a good rapport within the community and government. It is hoped that the spirit of local networking is nurtured even when there are no disasters to make sure that evacuees have access to continuous support.



JRAT supporting people who remained at home
after 2016 Kumamoto Earthquake

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