

**Topics: Recent topics in public health in Japan 2026**

## &lt; Review &gt;

**Disaster Health Emergency Assistance Team:  
Overview, challenges, and prospects**TOMIO Jun<sup>1)</sup>, HAYAKAWA Takahiro<sup>2)</sup>, TAKAOKA Seiko<sup>3)</sup>, IKEDA Kazunori<sup>4)</sup><sup>1)</sup>Department of Health Crisis Management, National Institute of Public Health<sup>2)</sup>Department of Health and Welfare Services, Tochigi Prefecture Government<sup>3)</sup>Health Emergency Assistance Department, Japan Public Health Association<sup>4)</sup>Wakayama Prefecture Shingu Public Health Center**Abstract**

Large-scale disasters create complex public health challenges that extend beyond medical care, including the maintenance of administrative commands, coordination, and information management. Japan established the Disaster Health Emergency Assistance Team (DHEAT) to address these challenges by supporting local health authorities' disrupted administrative functions during disasters. Experience from major disasters, particularly the Great East Japan Earthquake in 2011, revealed that damage to government offices and public health centers can severely impair coordination, decision-making, and the effective use of external support. These incidents emphasized the need for a dedicated mechanism to reinforce the administrative capacity of disaster-affected areas and to serve as a basis for developing the DHEAT. The DHEAT is a nationally standardized framework through which trained personnel from prefectures and designated cities are dispatched to disaster-affected areas to support health, medical care, and welfare administration. Its core function is to reinforce administrative command-and-coordination capacity by supporting prefectural Health, Medical and Welfare Coordination Centers and public health centers. Key activities include information collection and analysis, coordination among response organizations, facilitation of meetings, and support for planning and decision-making, rather than the direct provision of services. Operational experience from multiple disaster responses, including heavy rainfall disasters and the 2024 Noto Peninsula Earthquake, demonstrated the role of DHEAT in stabilizing administrative functions during the acute and prolonged response phases. Previous deployments supported inter-organizational collaboration, continuity of coordination under conditions of infrastructure disruption, and effective allocation of limited human and material resources, as disaster situations have evolved. A multitiered training system supports DHEAT operations, emphasizing peacetime capacity building, operational readiness, and leadership development. Training programs are aligned with different levels of responsibility, ranging from basic competencies for public health center staff to advanced coordination roles at the prefectural level. Institutional arrangements, including national and regional coordination councils and mechanisms for early-phase deployment, support inter-prefectural cooperation and strengthen preparedness for future disasters. Ongoing challenges include variability in the structure and positioning of coordination centers across prefectures, constraints on sustaining experienced personnel owing to routine staff rotation, and limitations in preparedness for large-scale, long-term nationwide deployments. Strengthening systems for human resource development, clarifying functional roles within disaster health governance, and enhancing readiness for wide-area disasters remain essential to ensure the continued effectiveness of DHEAT as a core component of Japan's disaster health response framework.

**keywords:** command and coordination; Disaster Health Emergency Assistance Team; Health, Medical, and Welfare Coordination Center; public health center

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## I. Introduction

Large-scale natural disasters produce complex and wide-ranging health consequences that require rapid, coordinated public health and medical responses [1]. Japan evolved disaster health response systems owing to the repeated occurrence of major disasters. Since the Great Hanshin–Awaji Earthquake in 1995, efforts have focused on strengthening disaster medical response capacity, particularly through the development of the Disaster Medical Assistance Team (DMAT), which provides emergency medical care during the acute phase [2].

However, the Great East Japan Earthquake of 2011 exposed critical limitations to approaches predominantly focused on medical service delivery. Extensive damage to the social infrastructure, including government offices and public health centers, led to the collapse of administrative functions in affected local governments [3]. Although many external personnel were dispatched nationwide, challenges in command, coordination, and information management hindered the effective use of these resources [4]. This emphasized the importance of supporting administrative command-and-coordination functions in post-disaster public health responses.

Consequently, Japan established the Disaster Health Emergency Assistance Team (DHEAT) in 2018 to support local health authorities affected by disasters [3]. Unlike other disaster response teams, which provide direct health and medical services, the DHEAT focuses on strengthening administrative coordination across health, medical care, and welfare. Since its establishment, the DHEAT has been deployed during several disasters, including extended operations during the 2024 Noto Peninsula Earthquake [5-9]. This study describes DHEAT's functions and operations, outlines its training framework, and discusses recent developments and future challenges as of late 2025.

## II. The DHEAT's origin and development

The Great East Japan Earthquake caused extensive damage to lifelines and transportation networks, particularly in coastal areas affected by tsunamis. Several municipal offices and public health centers were destroyed or rendered inoperable, resulting in a significant breakdown in administrative capacity [3]. Consequently, affected local governments faced significant difficulties in carrying out essential public health activities, including coordinating health and medical services, managing information, and implementing environmental health measures [4].

During the disaster response, approximately 140,000 person-days of support from local government staff nation-

wide were deployed to affected municipalities [4]. Despite this large-scale mobilization, the post-disaster review identified essential lessons, such as the limited support resources not always being used effectively or allocated appropriately in response to the evolving disaster situation. A major contributing factor was dysfunction in the command-and-coordination structure of the affected municipalities, which were overwhelmed by damage, personnel shortages, and information constraints [3]. This emphasized the need for a system specifically designed to support the command-and-coordination functions of health and medical operations conducted by the affected prefectures' health authorities after large-scale disasters, which served as the conceptual basis for the development of the DHEAT [3].

In January 2014, the National Association of Directors of Public Health established the Committee for Standardizing Health and Medical Operations during Disasters. The committee examined approaches to improve disaster response efficiency and effectiveness, including the introduction of the Incident Command System and the standardization of key functions, such as information management, support provision, and systems for receiving external assistance. Simultaneously, discussions on institutionalizing the DHEAT were initiated [3].

In January 2016, the committee compiled the challenges of institutionalizing the DHEAT, producing an Interim Report and Draft Operational Guidelines. Based on these documents, the committee recommended that the Minister of Health, Labour and Welfare begin concrete considerations for establishing the DHEAT [3].

Before its formal establishment, the Kumamoto Earthquake occurred in April 2016. Following a post-disaster review, the Ministry of Health, Labour and Welfare (MHLW) issued guidelines in July 2017, calling for the establishment of Health and Medical Coordination Centers within affected prefectural governments and strengthening command-and-coordination functions led by public health centers [10]. In March 2018, the MHLW officially issued the Operational Guidelines for the DHEAT, formally establishing the DHEAT system [11].

## III. The DHEAT's role in prefectural disaster health, medical care, and welfare systems

Japan's administrative structure comprises national, prefectural, and municipal (city, town, and village) levels. Several public health centers are typically established within each prefecture, serving as wide-area, specialized, and technical hubs that coordinate and support health, medical, and welfare services within their respective municipalities (Note: Large cities and Tokyo's special wards have their

own public health centers). Health, medical care, and welfare systems during disasters also follow this structure, with prefectures supporting public health centers, which support municipalities under their jurisdiction.

In accordance with the MHLW guidelines issued in July 2017, it was recommended that a Health and Medical Coordination Center be established under the Disaster Response Headquarters of prefectural governments during large-scale disasters [10]. This center is responsible for coordinating comprehensive health and medical operations in the affected prefecture. In 2022, revisions to the guidelines explicitly expanded the scope of coordination to include welfare services, reflecting increased recognition of vulnerable populations' needs during disasters [12]. Consequently, the Health and Medical Coordination Center was renamed the Health, Medical and Welfare Coordination Center [12]. This center serves as the core command-and-coordination platform, with support teams operating at different sites that collect, organize, and analyze information on health, medical, and welfare needs.

When comprehensive coordination is difficult with only the resources within the affected prefecture, the prefecture may request personnel support and assistance from other prefectures, cities, and special wards with public health centers under the Basic Act on Disaster Management and related laws and regulations [13]. The DHEAT is the primary mechanism for delivering external administrative support, thereby reinforcing the command-and-coordination functions of prefectural and local public health administrations during disasters [1].

#### IV. The DHEAT's functions

The Operational Guidelines for DHEAT have been revised several times since their initial issuance, reflecting the accumulated operational experience and evolving disaster response needs. Under the current guidelines, the DHEAT is defined as a dispatch team composed of prefectural officials who have undergone specialized training and exercises [1]. Its primary purpose is to support the command-and-coordination functions of health, medical care, and welfare administration in disaster-affected local governments, which are predominantly conducted in Health, Medical and Welfare Coordination Centers and public health centers in affected prefectures and municipalities during disasters [1].

The DHEAT's core mission is not the direct provision of medical or welfare services but the strengthening of administrative coordination capacity. In particular, the DHEAT supports public health centers and related facilities in affected prefectures by facilitating the systematic collection,

analysis, and use of information and assisting with overall coordination among relevant organizations [3]. Through these activities, the DHEAT contributes to the effective management of health emergencies during disasters.

#### 1. Fundamentals of DHEAT operations

The DHEAT activities are based on the following fundamental principles [1]:

- 1) DHEAT personnel are dispatched from prefectures and designated cities other than the affected prefectures to provide external administrative support during disasters. These personnel support the command-and-coordination functions of prefectural Health, Medical and Welfare Coordination Centers and public health centers in the affected areas.
- 2) Under the direction of the relevant public health center, the DHEAT supports the coordination of health and medical operations in municipalities under the jurisdiction of the public health center. This arrangement ensures that DHEAT operations are closely aligned with the local administrative structures and needs.
- 3) The basic dispatch configuration is called a "unit" (*han* in Japanese). A single "unit" or a series of "units," with some or all members rotated in succession, is called a "team," which ensures continuity of operations over extended periods. The standard operational period for each DHEAT unit is one week or longer, providing sufficient time for handovers and sustained support.
- 4) Each DHEAT unit operates independently concerning transportation, communication, accommodation, and daily living needs. This principle reflects the assumption that disaster-affected areas may experience severe disruptions to lifelines and transportation infrastructure and aims to minimize the operational burden on affected local governments.

#### 2. Composition of DHEAT

The DHEAT predominantly comprises local government employees and is organized based on the following principles [1]:

- 1) Prefectures and designated cities form DHEATs using their own staff and may include teams or personnel from cities with public health centers or special wards within the prefecture.
- 2) DHEAT members include various professionals who completed specialized training, such as physicians, dentists, pharmacists, veterinarians, public health nurses, clinical laboratory technicians, registered dietitians, mental health and welfare workers, environmental health inspectors, food hygiene inspectors, and other specialists. Personnel responsible for logistics are also included. A unit typically comprises approximately five members,

balancing mobility and functional capacity, with members collaborating across professional boundaries.

- 3) Personnel who have not completed specialized training may also be deployed in large-scale disasters that require a substantial number of units.
- 4) Depending on local circumstances, personnel from other local public bodies or relevant institutions, such as universities, research institutes, hospitals, and clinics, may be included as DHEAT members, provided that they are granted the status of local government employees.

### 3. The Coordinating DHEAT and its role

To ensure the effective operation of the Health, Medical and Welfare Coordination Center, the Coordinating DHEAT was established in 2022 [1]. It leads operations and coordination within the prefectural Coordination Center and oversees and integrates health, medical care, and welfare coordination, including collaboration with affected public health centers and related organizations. The Coordinating DHEAT refers prefectural appointed individuals, such as public health physicians, who completed specialized training and exercises; concurrent roles are permitted. During disasters, the Coordinating DHEAT appointed by the affected prefecture assumes the leadership role within its Coordination Center. Although the terminology may appear complex, it is important to distinguish the Coordinating DHEAT, which refers to an individual who leads the coordination within the affected prefecture, from the DHEAT teams dispatched from outside the prefecture, which provide external administrative support.

## V. The DHEAT dispatch process

To ensure the timely and effective deployment of the DHEAT during large-scale disasters, a structured system for preparation, dispatch coordination, and cost management was established [1]. The MHLW conducts the overall coordination of the DHEAT dispatch at the national level. Additionally, administrative coordination and system operations are managed by the DHEAT Secretariat, which is housed within the Japan Public Health Association [1].

### 1. Preparations for DHEAT dispatch [1]

To prepare for disasters, each prefecture and designated city designates a coordinating contact point for DHEAT matters within its main administrative office. This contact point is registered with the MHLW, and the information is shared with the DHEAT Secretariat. Additionally, prefectures and designated cities maintain rosters of personnel who are eligible for DHEAT deployment through a DHEAT Dispatch Coordination System. This system enables local governments to manage information concerning potential DHEAT members and respond promptly to deployment re-

quests.

### 2. DHEAT dispatch coordination process

Dispatch coordination during disasters follows a standardized multistep process using the DHEAT Dispatch Coordination System, as outlined below.

- 1) When a disaster occurs, and a Health, Medical and Welfare Coordination Center is established, the affected prefecture assesses whether comprehensive coordination of health, medical care, and welfare operations can be achieved solely through internal resources. If such coordination is deemed difficult, particularly when external health and medical teams are expected to be deployed, the affected prefecture may request the coordination of the DHEAT dispatch from the MHLW. When making this request, the affected prefecture specifies the desired start date, expected deployment duration, number and type of personnel required, anticipated tasks, and planned operational locations.
- 2) Upon receiving a request, the MHLW issues administrative notices to prefectures and designated cities other than the affected prefecture, requesting information on the feasibility of dispatching DHEAT personnel.
- 3) Prefectures and designated cities examine their capacity to dispatch DHEAT personnel. If the dispatch is considered feasible, the responsible department prepares a DHEAT dispatch plan. This plan includes details such as the scope of feasible activities, the proposed dispatch schedule and team composition, names and affiliations of DHEAT members, their professional backgrounds and training histories, previous disaster deployment experiences, and contact information for coordination purposes. Where appropriate, prefectures may also consult cities with public health centers or special wards within their jurisdiction to form joint teams.
- 4) Prefectures and designated cities respond to the DHEAT Secretariat regarding the feasibility of dispatching and submit their dispatch plans. The DHEAT Secretariat consolidates this information and shares its results with the MHLW.
- 5) Based on the submitted dispatch plans, the DHEAT Secretariat drafts proposals to allocate DHEAT teams to affected prefectures and coordinates these allocations with the prefectures. The results are shared with the MHLW, and notifications are issued to the affected prefectures requesting support, and to the prefectures and designated cities dispatching DHEAT teams.
- 6) Once the affected prefecture accepts the coordination proposal, it formally requests dispatch from the dispatching prefecture or designated city. Additionally, the affected prefecture coordinates reception arrangements, including assigning operational locations, such as coordi-

nation or public health centers, logistical considerations, and clarifying administrative matters related to dispatching and cost-sharing.

### 3. Costs and compensation [1]

The dispatching prefectures or municipalities bear the costs of dispatching DHEAT personnel. However, where applicable, reimbursement may be sought from the receiving prefecture under mutual support agreements or in accordance with the relevant legislation, including the Basic Act on Disaster Management. All dispatched personnel are covered by local government employees' accident compensation funds under the Local Government Employees' Accident Compensation Act, ensuring uniform protection during deployment.

## VI. DHEAT operations

Following the institutionalization of the DHEAT in 2018, it was deployed for four major disasters by the end of 2025. These deployments reflect the progressive development of the DHEAT's role in supporting administrative command-and-coordination functions for health, medical care, and welfare during disasters. Table 1 presents an overview of the operations during each disaster.

### 1. Heavy Rain Event of July 2018

#### 1) Disaster overview [5,14]

Record-breaking rainfall caused widespread flooding and landslides across western Japan, particularly in the Okayama, Hiroshima, and Ehime prefectures, resulting in 237 deaths and 432 injuries. Extensive damage to residential

areas and infrastructure, including medical facilities, led to prolonged evacuations and significant public health challenges. Many individuals were displaced, with evacuations peaking at approximately 28,000 individuals.

#### 2) DHEAT operations [3,5]

This disaster marked the first operational deployment of the DHEAT. Among the unaffected prefectures, 16 municipalities formed seven teams comprising 29 DHEAT units. DHEAT personnel were deployed to support coordination functions at public health centers and related administrative offices, organize health information, coordinate support teams, and stabilize administrative operations. During this disaster, no prefectural-level coordination center was established; however, an ad hoc coordination center was set up at the public health center level in the affected area of Okayama Prefecture. The DHEAT assumed operations from the DMAT at the coordination center and supported the establishment of local healthcare systems after the other relief teams terminated their operations.

### 2. Heavy Rain Event of August 2019

#### 1) Disaster overview [6,15]

Heavy rain caused river flooding, inundation, and landslides in Saga Prefecture, resulting in four deaths and two injuries. Additionally, oil leaked from an ironworks and spread throughout the river basin.

#### 2) DHEAT operations [3,6]

Three municipalities from neighboring prefectures formed two teams, and four DHEAT units were dispatched. A Health and Medical Coordination Center was established at the Saga Prefectural Government Office, and a local

**Table 1 Overview of the DHEAT Operations (2018–2025)**

Disaster (Date of application of the Disaster Relief Act*)	Affected prefecture	Dispatched DHEAT (Team/Unit)	Operational location	Operational period**
Heavy Rain Event of July 2018 (July 5, 2018)	Okayama Hiroshima Ehime	7 teams/29 units (16 municipalities)	[Okayama] 2 Public health centers [Hiroshima] 2 Public health centers (including branch office) 1 City office [Ehime] 1 Public health centers	July 12–August 31
Heavy Rain Event of August 2019 (August 27, 2019)	Saga	2 teams/4 units (3 municipalities)	Prefecture office 1 Public health center	August 31–September 11
Heavy Rain Event of July 2020 (July 4, 2020)	Kumamoto	4 teams/9 units (6 municipalities)	3 Public health centers 1 Village office	July 4–24
2024 Noto Peninsula Earthquake (January 1, 2024)	Ishikawa	22 teams/104 units (34 municipalities)	Prefecture office 3 Public health centers 5 Cities/Town offices (including Branch office) 2 Evacuation centers	January 4–March 19

\* Earliest date when there were multiple effective dates for a single event.

\*\*Total period from the start of the first team's operation to the end of the last team's operation.

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Health and Medical Coordination Center was established at the public health center responsible for the affected area. This deployment marked the first time that the DHEAT provided operational support at a prefectural Coordination Center. Under the direction of the Welfare Division Technical Supervisor, serving as the Deputy Head of the Coordination Center, the DHEAT assumed secretariat functions previously handled by the DMAT logistics teams and the Japanese Red Cross. Beyond routine secretariat tasks, the DHEAT supported coordination meetings, responses to higher-level administrative meetings, and planning for post-deployment arrangements. One team focused on streamlining Coordination Center operations and ensuring a smooth handover to relevant departments following the center's closure.

### 3. Heavy Rain Event of July 2020

#### 1) Disaster overview [7,16]

Heavy rain caused river flooding, inundation, and land-

slides across a wide area of Japan, resulting in 84 deaths and 80 injuries. Particularly, Kumamoto Prefecture suffered severe damage, with 14 residents of a special nursing home in a village dying during the floods. Owing to this disaster occurring during the COVID-19 pandemic, infection control at evacuation centers was prioritized.

#### 2) DHEAT operations [3,7]

Six municipalities formed four teams that dispatched nine DHEAT units. Owing to COVID-19, support was limited to teams from neighboring prefectures. The DHEAT operations encompassed comprehensive administrative functions, including information management, convening and managing meetings, planning response measures, and coordinating external assistance. In addition, DHEAT personnel supported field-level activities coordinated through public health centers, including aid for vulnerable populations and door-to-door visits, while ensuring compliance with COVID-19 infection-control protocols.

**Table 2 DHEAT operational activities by Location and Phase for the 2024 Noto Peninsula Earthquake**

Location	January 2024	February–March 2024
Prefectural office (Health, Medical and Welfare Coordination Center)	<ul style="list-style-type: none"> <li>• Establishment and operation of the Coordination Center</li> <li>• Command-and-coordination structure development</li> <li>• Information collection and aggregation</li> <li>• Situation analysis and assessment</li> <li>• Planning of response measures</li> <li>• Meeting management</li> <li>• Preparation of meeting materials</li> <li>• Preparation of meeting minutes</li> <li>• Liaison and external coordination</li> <li>• Development of operational roadmaps</li> <li>• Coordination of the public health nurse team deployment</li> <li>• Data entry into information systems</li> <li>• Infectious disease control</li> </ul>	<ul style="list-style-type: none"> <li>• Information collection and aggregation</li> <li>• Situation analysis and assessment</li> <li>• Preparation of meeting materials</li> <li>• Data entry into information systems</li> </ul>
Public health centers	<ul style="list-style-type: none"> <li>• Establishment and operation of the Coordination Center</li> <li>• Information collection and aggregation</li> <li>• Situation analysis and assessment</li> <li>• Planning of response measures</li> <li>• Meeting management</li> <li>• Liaison and external coordination</li> <li>• Infectious disease control</li> </ul>	<ul style="list-style-type: none"> <li>• Establishment and operation of the Coordination Center</li> <li>• Information collection and aggregation</li> <li>• Situation analysis and assessment</li> <li>• Planning of response measures</li> <li>• Meeting management</li> <li>• Preparation of meeting materials</li> <li>• Preparation of meeting minutes</li> <li>• Liaison and external coordination</li> <li>• Infectious disease control</li> </ul>
Cities/Towns	<ul style="list-style-type: none"> <li>• Establishment and operation of the Coordination Center</li> <li>• Situation analysis and assessment</li> <li>• Planning of response measures</li> <li>• Meeting management</li> <li>• Liaison and external coordination</li> <li>• Coordination of the public health nurse team deployment</li> <li>• Infectious disease control</li> </ul>	<ul style="list-style-type: none"> <li>• Situation analysis and assessment</li> <li>• Planning of response measures</li> <li>• Meeting management</li> <li>• Liaison and external coordination</li> </ul>

Source: Survey of operational activities of the DHEAT for the 2024 Noto Peninsula Earthquake [9].

Based on the responses of 57 DHEAT unit leaders, operational activities with implementation rates of  $\geq 80\%$  at each location and phase were listed.

#### 4. 2024 Noto Peninsula Earthquake

##### 1) Disaster overview [8]

A 7.6 magnitude earthquake struck on New Year's Day 2024, causing significant damage, predominantly in the Noto region of Ishikawa Prefecture. In addition to 228 direct deaths, hundreds of disaster-related deaths were reported, resulting in a combined total of more than 700 fatalities by the end of 2025. As a winter disaster on a mountainous peninsula, damage to social infrastructure, such as roads and water supplies, persisted over the long term, necessitating secondary evacuations to remote areas.

##### 2) DHEAT operations [8,9]

This was the first DHEAT deployment in response to a major earthquake. Thirty-four prefectures and designated cities formed 22 teams, dispatching 104 DHEAT units. For more than two months, DHEAT personnel supported operations at the Ishikawa Prefectural Government's Health, Medical and Welfare Coordination Center, public health centers, municipal offices, and large-scale evacuation centers. Given the disaster's scale and the prolonged public health needs, long-term deployment of multiple teams was required. Table 2 presents the typical operations by operational location and phase.

### VII. DHEAT training framework

The DHEAT comprises personnel from prefectures and other local public bodies who have completed specialized training and exercises [1]. Accordingly, systematic human resource development is a core component of the DHEAT framework. Recognizing this need, training programs for DHEAT personnel were initiated before the formal institutionalization of the DHEAT in 2018. Approximately one year before institutionalization, in the 2016 fiscal year, the DHEAT Basic Training was launched across eight regional blocks as part of the National Association of Public Health Center Directors' Community Health Promotion Initiative [3]. Simultaneously, DHEAT Advanced Training was introduced by the National Institute of Public Health [3].

The DHEAT Basic Training was designed for a broad range of personnel in prefectural governments and related organizations who were expected to serve as future DHEAT members. Its objectives were to understand DHEAT's fundamental mission and functions, acquire basic knowledge of disaster support and reception, and establish appropriate administrative systems for receiving and coordinating external assistance. In contrast the Advanced Training aimed to cultivate personnel who were capable of playing central roles in the DHEAT and managing operations during dispatch and support coordination.

Following the establishment of the Coordinating DHEAT,

the overall training structure was reorganized into a three-tiered system beginning in the 2023 fiscal year. This structure reflected the differing levels of responsibility within the DHEAT framework and supported the development of operational personnel and leadership. The training framework for the 2025 fiscal year is outlined below. The overall structure and content of each program are annually reviewed and updated based on participant feedback and expert consultations, including findings from MHLW research projects, to ensure continuous human resource development improvements for DHEAT.

#### 1. DHEAT Basic Training [17]

DHEAT Basic Training, also known as Public Health Center Disaster Response Training, is an entry-level program designed to cultivate DHEAT members. Its objective is to ensure that participants understand the roles and actions required in a public health center immediately after a disaster, as well as the functions and operations of the DHEAT. By strengthening baseline competencies during peacetime, the program aims to enhance preparedness for deployment during disasters.

The training is conducted by the DHEAT Secretariat four times per year. Each session is a one-day in-person program for local government officials who may become DHEAT members. Approximately 8–10 participants from 12 prefectures attend each session, ensuring that all 47 prefectures are covered over the course of the four annual sessions. Participants gather at designated venues within their own prefectures, and the program is simultaneously broadcast online. Moreover, the completion of e-learning modules is required before attendance.

#### 2. DHEAT Basic Training: Training for planning and operation leaders [18]

This supplementary program was designed to develop personnel capable of serving as facilitators of the DHEAT Basic Training. Participants acquire the skills necessary to plan and conduct disaster response training within leading public health departments of prefectural and designated city governments, including serving as lecturers and exercise facilitators.

The DHEAT Secretariat conducts this training annually as a one-day in-person program, and targets the personnel responsible for disaster preparedness at the prefectural or designated city level, with up to two participants per prefecture annually. The completion of e-learning modules is also required before attendance.

#### 3. DHEAT Standard Training [19]

This training aims to enhance DHEAT members' operational capabilities and cultivate leaders who can play a central role during deployment. The program emphasizes advanced competencies, including leading DHEAT opera-

tions at assigned locations during disasters, and planning and implementing DHEAT training programs.

This training is conducted online by the National Institute of Public Health twice a year (three times a year from 2026), with each session lasting two days. It targets local government officials, who are expected to serve as unit leaders during DHEAT deployment. The completion of the DHEAT Basic Training is a prerequisite for participation. Each session accommodates 40 participants.

#### **4. Coordinating DHEAT training [20]**

This training was designed to cultivate and strengthen the competencies of personnel appointed to serve as Coordinating DHEATs. The program enables participants to establish and operate Health, Medical and Welfare Coordination Centers during disasters, strengthen collaboration with affected public health centers, effectively receive and manage external assistance, and conduct peacetime activities that support these functions.

The DHEAT Secretariat conducts this training biannually in a one-day, in-person format. The primary target audience is the Coordinating DHEATs or their candidates from each prefecture; however, other Coordination Center personnel, such as lead public health nurses, are also eligible to participate. Up to four participants from each prefecture may attend each year. Additionally, completion of e-learning modules is required before attendance.

### **VIII. Recent developments concerning DHEAT**

The DHEAT has been deployed during four major disasters since its establishment. Although operational experience has steadily accumulated, the role and positioning of DHEAT within the health, medical care, and welfare systems in the affected prefectures have not yet been fully consolidated. Moreover, several institutional and operational developments have been introduced recently to address emerging challenges and strengthen the DHEAT framework. The key developments are outlined below.

#### **1. Establishment of the National DHEAT Council and Regional Block DHEAT Councils [21]**

The National DHEAT Council was established in 2022 to enhance preparedness for large-scale disasters and establish a rapid support and cooperation system for the affected prefectures. The council serves as a national forum for discussing the DHEAT's operation, coordination, and strategic direction across prefectures and designated cities. Through information sharing and discussions on deployment experiences, the council contributes to the standardization and improvement of DHEAT operations nationwide.

The Regional Block DHEAT Councils were established in 2023. Japan is divided into six regional blocks, and each

council serves as a platform for prefectures and related organizations within the block to discuss region-specific coordination systems, operational arrangements, and training requirements. These councils operate in close coordination with the National DHEAT Council, forming a multitiered governance structure. Regional Block Councils have recently taken the lead in organizing training programs and conducting practical exercises related to DHEAT operations. These activities have strengthened inter-prefectural relationships and are expected to play an increasingly important role in improving preparedness and dispatch coordination during future disasters.

#### **2. DHEAT Advanced Coordination Team [1]**

DHEAT deployments are typically initiated in response to requests from affected local governments, and personnel may not be dispatched for some time. Delays in the initial deployment have been a challenge in previous disasters. Consequently, the DHEAT Advanced Coordination Team was operationalized in fiscal year 2024.

The Advanced Coordination Team enables the deployment of DHEAT personnel during the acute phase of a disaster, typically within 48 hours. Its primary functions include rapid damage and need assessments in affected prefectures and support for the early establishment and operation of the Health, Medical and Welfare Coordination Center. Unlike standard DHEAT, the Advanced Coordination Team is dispatched at the request of the MHLW and is expected to share information promptly with both the MHLW and the DHEAT Secretariat.

Although the Advanced Coordination Team has not yet been deployed, its anticipated role requires a high level of mobility from the outset of a disaster and the capacity to contribute to high-level administrative decision-making under severe time constraints. Consequently, securing and retaining local government officials with the expertise, experience, and availability required for this role is an important future challenge for the DHEAT framework.

### **IX. Challenges and future prospects for DHEAT**

Unlike other health, medical, and welfare assistance teams, DHEAT does not provide direct clinical or welfare services. Its primary mission is to support the administrative functions required for the comprehensive coordination of health, medical, and welfare operations during disasters. Consequently, DHEAT's roles and functions are not always readily visible, particularly in comparison with teams that deliver direct services. Clarifying DHEAT's role as an administrative coordination mechanism and fostering a shared understanding among stakeholders remain essential for effective disaster operations.

A related challenge arises from variation in the positioning and operational structures of Health, Medical and Welfare Coordination Centers, which serve as DHEAT's primary operational bases. These centers may be located within prefectural offices and public health centers, and their organizational arrangements differ across local authorities. Although national-level standardization is difficult due to differences in disaster risk, population size, and administrative capacity, articulating common principles remains important. These include the core functions of the Coordination Centers, DHEAT's role within them, and its relationship with other assistance teams. Disseminating these principles through training and exercises is critical for achieving functional consistency.

Human resource development represents another major challenge. DHEAT members are typically local government employees subject to regular personnel rotations, which limits the ability to retain experienced personnel and preserve institutional knowledge. In addition, few local governments maintain dedicated disaster-focused public health units, constraining the development of advanced coordination expertise. The absence of a national DHEAT registration system further complicates efforts to secure sufficient, high-quality personnel. Establishing a structured system to record training histories and deployment experiences could help mitigate these challenges.

Preparedness for rapid, large-scale deployment also remains limited. To date, DHEAT operations have primarily relied on deployments from neighboring prefectures or regional blocks in response to localized disasters. Although initiatives such as the DHEAT Advance Coordination Team aim to strengthen early-phase responsiveness, a major wide-area disaster—such as the anticipated Nankai Trough earthquake—would require sustained, nationwide mobilization. Developing deployment plans that account for long-term, large-scale operations is therefore an urgent priority.

Since the Great Hanshin–Awaji Earthquake, Japan's disaster health and welfare system has evolved on the assumption that external specialist teams will be available. However, because local governments are the primary actors in disaster response, strengthening their preparedness and response capacity remains essential. DHEAT occupies a unique position as both an external support resource and a mechanism for coordinating the effective use of other external teams. Establishing a framework that simultaneously develops DHEAT personnel and enhances local governments' capacity to receive and utilize support will be central to the future effectiveness of Japan's disaster health governance.

## Conflicts of Interest

The authors declare no conflicts of interest.

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<総説>

災害時健康危機管理支援チーム (DHEAT) の現状と課題, 今後の展望

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抄録

大規模災害が発生した場合、被災した地方自治体では指揮調整機能が混乱し、限られた支援資源の有効活用や被災状況に応じた適正配分が困難となり、健康危機への対応に支障を来すことが懸念される。このような課題に対応するため、被災自治体の保健医療行政における指揮調整機能等を人的に支援する枠組みとして、2018年に「災害時健康危機管理支援チーム (DHEAT)」が設置された。DHEATは、専門的な研修・訓練を受けた都道府県等の職員から構成される派遣チームであり、災害発生時には被災都道府県等の保健医療福祉調整本部や保健所等に派遣され、健康危機管理に必要な情報収集・分析、関係機関との全体調整などが円滑に実施されるよう支援を行う。派遣の基本単位は、医師、保健師等の専門職および業務調整員からなる約5名の「班」であり、班の全部または一部の構成員が交代しながら継続して活動する一連の単位を「チーム」と呼ぶ。DHEATの派遣は、被災都道府県、厚生労働省、DHEAT事務局、派遣元自治体との調整を経て、被災自治体が派遣元自治体に要請する形で行われる。2025年末までに4つの災害への派遣実績を有し、令和6年能登半島地震では34の都道府県・指定都市から100を超える班が派遣され、2か月以上にわたり活動が行われた。研修体系としては、「保健所災害対応研修 (DHEAT基礎編)」、「同企画運営リーダー研修」、「DHEAT標準編研修」に加え、「統括DHEAT」に任命された職員等を対象とした「統括DHEAT研修」が実施されている。近年では、全国DHEAT協議会および地方ブロックDHEAT協議会を通じて体制整備や人材育成に関する検討が進められ、構成員の技能維持・向上に向けた訓練等も継続的に行われている。さらに2024年度からは、災害発生の急性期における迅速な情報収集や保健医療福祉調整本部の設置・運営支援を目的として「DHEAT先遣隊派遣事業」が開始されるなど、初動対応の強化が図られている。一方で、DHEATの役割・機能の明確化、関係組織との役割分担に関する共通理解の醸成、人事異動を考慮した人材の確保・育成・維持、巨大地震等の広域災害を想定した持続的な派遣体制の整備といった課題も残されている。今後はDHEATの機能強化を通じて、地方自治体や保健所の健康危機管理能力の一層の向上を図ることが重要である。

キーワード：災害時健康危機管理支援チーム (DHEAT), 指揮調整, 保健医療福祉調整本部, 保健所