

## Restoring Health Care and Welfare Services after the Great Eastern Japan Earthquake\*

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*The opinions and remaining errors are the responsibility of the authors alone.*

### 1. Damage to Health Care and Welfare Facilities

From the perspective of health care and welfare services, the main characteristic of the Great Eastern Japan Earthquake that struck the three prefectures of Iwate, Miyagi, and Fukushima is that, while coastal facilities suffered severe damage from the tsunami, facilities located inland experienced comparatively little damage.

In Iwate, for example, inland hospitals such as the Morioka Red Cross Hospital, the Iwate Central Hospital, and the Iwate Medical University Hospital, which play a central role in providing health care services in the prefecture, restored normal operations quickly after the earthquake, and they have been accepting patients from coastal areas. On the other hand, many of the 15 hospitals located in 8 coastal municipalities were severely damaged. Even hospitals that suffered little damage have to see patients that damaged hospitals would ordinarily have treated. Moreover, about 40 of the roughly 120 coastal clinics were washed away by the tsunami, and it is unclear if they will reopen. As a result, the health care environment in the coastal region has degraded significantly. As for welfare facilities, 108 of the 394 facilities providing welfare services for the elderly in the prefecture lost staff members and experienced physical damage. Of those facilities, 9 were completely destroyed by the tsunami, and the remaining 99 were partially damaged. About 50 residents of those facilities died, and roughly 80 are missing. Many of the surviving residents were relocated to facilities in inland Iwate, and there are concerns about upcoming shortages in elder care facilities. In addition, the Ministry of Health, Labour and Welfare (MHLW) reports that, as of June 7, other prefectures around the country have taken in 227 people requiring care.

*\*This essay is a slightly modified version of a text that contributed to the joint report published with the Development Bank of Japan Inc. entitled "[Plans and issues for the restoration from the Great East Japan Earthquake.](#)"*

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In Miyagi as well, inland hospitals have restored standard levels of care. However, in the coastal towns of Ishinomaki, Kesenuma, and Sendai, which are located in the secondary health care zone, severe damage to the main hospitals in Ishinomaki and Kesenuma has degraded the health care environment, and that area will probably continue to require support in the future. Although Sendai was damaged, the health care situation is gradually recovering because many large hospitals are located there. According to a report by the Miyagi Medical Association, medical records containing patient information were damaged in 163 health care facilities. At the same time, facilities providing welfare services for the elderly in Miyagi were heavily damaged. In late March it was verified that 33 facilities were damaged, 168 residents and staff members had died, and 224 people were missing. Accordingly, MHLW reports that 953 people are taking refuge in elderly care facilities in other parts of the country as of June 7.

In the case of Fukushima, the accident at the nuclear power plant has had a greater impact than the earthquake or the tsunami, and the changing situation at the plant will largely determine how the area responds to the disaster. Since hospitals and clinics suffered little physical damage, finding refuge for residents of welfare facilities has been a higher priority. According to MHLW, as of June 7 facilities in other parts of the country have taken in 111 nursing home residents and 515 residents of facilities for the disabled.

### **2. Lessons Learned Two Months after the Disaster**

Immediately after the disaster, DMAT (Disaster Medical Assistance Team) entered the stricken area. DMAT is a medical team that was formed in the wake of the Great Hanshin-Awaji Earthquake of January 17, 1995. Its members receive special training allowing them to provide acute care in places where large-scale disasters or high-casualty accidents have occurred. However, DMAT only works for about two days, so after DMAT's work was finished, rescue operations were conducted by the Japan Medical Association's JMAT (Japan Medical Assistance Team) and doctors and nurses sent by groups like the Japanese Red Cross. Based on interviews with doctors who worked in the disaster zone, articles in the mass media, and comments by Professor KAMI Masahiro (University of Tokyo Institute of Medical Science, associate professor) and UMEMURA Satoshi, a member of the Upper House of the Diet, a report entitled "How Has Japan's Health Care System Dealt with the Disaster Area?" released online by The Genron NPO, outlined the lessons learned two months after the disaster<sup>1</sup>.

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<sup>1</sup>日本の医療は被災地に向かいあったのか [How Has Japan's Health Care System Dealt with the Disaster Area?], 18 May 2011, Genron NPO, <http://www.genron-npo.net/studio/2011/05/post-4-2.html>

**Lessons for Conducting Rescue Operations**

(Confusion in information gathering and chain of command, loss of patients' medical records)

1. There was no direct route for information from disaster areas to reach government agencies or the task force headquarters. Instead, that function was served by individuals with their own personal networks in the stricken areas.

2. Immediately after the disaster, it was not known how many patients were in life-threatening situations. About three days later it became clear that there were many patients in need of dialysis or insulin injections.

3. There was no smooth process for finding means of transporting patients. For example, rescuing dialysis patients required transporting them to medical facilities outside of the disaster area. Facilities that could accept patients were found quickly. However, even though bus companies told the prefectures that they wanted to help transport patients, prefectural governments said they could not allow it without instructions from MHLW. At the same time, MHLW said it could not give permission without a request from the prefectures, and neither side was willing to make a decision. The reason for their reluctance was probably that they wanted to avoid taking responsibility if patients' conditions grew worse while they were being transported.

4. With this lack of a direct route for information to reach government agencies and the tendency for agencies to avoid taking responsibility even if they received information, people working in the disaster zone were deeply troubled by the absence of directives from the national and prefectural governments. For example, many ambulances were sent to the area from all over the country. However, there were cases when a fully fueled ambulance at a patient's side stayed put and did not do its job because nobody told the driver where to transport the patient.

5. There was an excessive supply of doctors who rushed to the scene to carry out rescue operations. In addition to the national government's DMAT and the Japan Medical Association's JMAT, physicians from a variety of health care organizations and groups went to the disaster zone. But the fact that the chain of command was not centralized prevented the doctors from doing an adequate job.

6. The medical needs of the disaster victims were quite different from the needs of victims of the 1995 Hanshin-Awaji Earthquake. After the Hanshin-Awaji quake there were many victims with serious external injuries. However, since the tsunami was the main cause of damage in the recent disaster, there were many fatalities but few injuries. This was another reason why DMAT could not

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function sufficiently. On the other hand, there was great need for everyday medical treatment, such as care for the elderly in shelters, but there was a delay in creating a system to provide such care.

7. The tsunami also caused the loss of patients' medical records, another factor that stood in the way of providing disaster victims with appropriate medical care.

**Lessons for Reconstruction Planning**

(Urgency of preventing the scattering of medical personnel)

8. Private hospitals in regions that were forcibly evacuated because of the nuclear accident have to keep their staff employed in order to eventually reopen. However, it is difficult for hospitals to pay salaries when their income has been cut off, and they cannot prevent their staff from taking jobs at health care facilities in other areas.

9. If the owners of private health care facilities that suffered damage want to rebuild in the original location, they face the same problem of having to take out second loans on top of existing debts that other disaster victims are facing.

**3. Examining the Reconstruction Plans of Disaster-Stricken Prefectures**

Iwate Prefecture has created a plan, provisionally titled "Iwate Prefecture Plan for Reconstruction after the Great Eastern Japan Earthquake and Disaster." The following is an excerpt from a section of the plan entitled "Developing a System to Provide High-Quality Health Care Capable of Responding to Disasters."<sup>2</sup>

<Urgent Tasks>

- Develop temporary service centers, rebuild facilities, and help facility operators secure staff, all in keeping with the conditions in disaster areas, in order to restore functionality to health care and welfare facilities

<Short-term Tasks>

- Improve systems for providing medical relief during disasters and help to secure lifelines for health care facilities
- Concentrate on ensuring that disaster areas have health care workers (doctors, pharmacists, nurses, caregivers, etc.), and nurture diversity of personnel

<sup>2</sup> 岩手県東日本大震災津波復興計画 [Iwate Prefecture Plan for Reconstruction after the Great Eastern Japan Earthquake and Disaster], June 2011, p. 34, Iwate Prefecture, <http://www.pref.iwate.jp/view.rbz?cd=32806>

<Mid-term Tasks>

- Work in conjunction with the city planning process to develop health care and welfare facilities that correspond to population density and the needs of the elderly
- Rebuild a network capable of demonstrating the full capabilities of regional health care and welfare facilities
- Build a comprehensive regional care system to provide the elderly with the peace of mind of living in the areas they are accustomed to
- In preparation for the outbreak of a large-scale disaster, provide municipal health centers, nursing care and disabled care centers with disaster prevention capabilities, as well as developing publicly-funded, privately-operated facilities that function both as health care facilities and disaster prevention centers

The draft of Miyagi Prefecture’s “Basic Plan for Earthquake Reconstruction in Miyagi Prefecture” contains the following passage, in a section entitled “Urgent Focal Point 6: Health Care and Welfare.”<sup>3</sup>

As well as ensuring the health and hygiene of disaster victims, we will develop a system to provide both the equipment and facilities and the personnel needed to deliver urgent medical care, working with each region to address the fact that coastal hospitals and clinics are no longer functioning. Furthermore, in order for disaster victims to receive the stress-free care they need, we will work to improve the pharmaceutical delivery system and to ensure that there will be no interruptions in the operation of the health insurance system. At the same time that we provide shelter and education in prefectural facilities for children who lost their parents in the disaster, we will improve the support system for the elderly and the disabled, beginning by rebuilding elder care centers that were severely damaged in the earthquake.

In addition to the prefectural government’s plan, Tôhoku University, which is located in Miyagi Prefecture, announced on June 16 its own “Tôhoku Medical Mega-Bank Plan.” Many of Tôhoku University’s research facilities were damaged in the recent earthquake. As a result, the university intends to rebuild its research infrastructure with the goal of creating a next-generation biomedical information system. At the same time, it wants to serve the function of sending physicians to health care facilities in disaster-stricken areas. However, the fact that various prefectures and universities have begun to come up with their own reconstruction plans independently of each other is problematic. Each of the plans depends on long-term subsidies from

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<sup>3</sup> 宮城県震災復興基本方針 [Basic Plan for Earthquake Reconstruction in Miyagi Prefecture ], April 2011, p. 5, Miyagi Prefecture, <http://www.pref.miyagi.jp/seisaku/sinsaihukkou/kihonhousin/kihonhousinsoan.pdf>

the national government, and there is a risk that chaos could break out as the plans' sponsors compete for funding.

#### **4. Recommendations**

In this context, it is necessary to keep the following issues in mind when developing plans for the reconstruction of health care and welfare systems.

1) We should design systems for everyday use with features that are useful during disasters, such as a centralized chain of command, a medical records database, and systems for managing the distribution of medical supplies and equipment across a wide area. In order to accomplish that goal, we will have to come up with ideas for creating medical network entities covering large regions, perhaps even crossing prefectural boundaries, rather than rebuilding the self-contained institutional structures that previously existed in each secondary health-care zone. Moreover, those regional medical network entities should maintain centralized databases of the medical records of the region's residents for everyday use, as well as backup servers for those databases.

2) Precise timelines must be established for each type of concrete task that needs to be carried out: urgent, short-term, mid-term, and long-term. In particular, rebuilding medical facilities should not be a matter of simply rebuilding the same number and types of hospitals and clinics that existed before the disaster. Instead, it is necessary to consider compatibility with new concepts in urban design, where disaster victims have relocated, and future demographic changes.

3) Immediate steps must be taken to prevent highly skilled medical personnel such as doctors, nurses, pharmacists, radiologists, and clinical engineers from scattering to different parts of the country. For that purpose, it is essential to guarantee their livelihoods until the new system has been created. We should also devise plans to provide preferential treatment to entice those who have already taken jobs in other regions to return. In addition, in the case of doctors who lost their facilities in the tsunami and were left with nothing but their loan obligations, it will probably be necessary to take special steps to reduce their debts if they stay in the region.

4) Many people lost their families and their livelihoods in the Great Eastern Japan Earthquake. Therefore, when rebuilding welfare facilities, rather than responding exclusively to the needs of former residents currently taking refuge in other regions, we also need to consider the new welfare needs that will develop in disaster areas in the future.

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5) Among damaged medical facilities, the number of clinics is overwhelmingly larger than the number of hospitals. In the health care field, once a facility has been built and fully equipped, fees for treatment provide a reliable source of working capital, and as long as investments are not excessive, it is possible to operate profitably. However, in the case of public welfare, long-term sources of funding are required not only for construction and equipment costs, but also to provide living assistance for the needy. Thus, in the long term, it will probably take more funding to rebuild the welfare system than the medical system.

6) In the future, after the reconstruction project is complete, rather than relying on public financial support, in principle we should aspire to create health care and welfare networks that can be operated independently at the regional level.

In order to accomplish these tasks, it is most important to secure sources of funding and determine how the new system will be operated. I would like to make the following recommendations.

**1) Health care reconstruction and welfare reconstruction should be carried out by separate entities.**

In this country, the entities that work for the public good by providing health care and welfare include the national and local governments, as well as social medical corporations and social welfare corporations. Many social medical corporations operate facilities for the elderly as well as medical facilities, and some social welfare corporations run hospitals and clinics. There are also cases where social medical corporations and social welfare corporations are essentially run as part of the same entity. However, while society's health care needs are easily understood, social welfare needs are diverse at the outset, and the configuration of those needs is likely to change as time passes. For that reason, I believe that reconstruction planning for health care and welfare systems should be carried out by separate entities.

**2) The health care system should be operated by an independent administrative agency (non-civil service) or social medical corporation with broad regional authority.**

The easiest way to rebuild medical facilities is to put prefectural governments in charge of them. However, doing so would be the equivalent of merging the rebuilt facilities with debt-prone public hospitals, making it difficult to verify the suitability of the reconstruction plan for the future. Moreover, to bring labor costs in line with the private sector while providing special measures to help doctors from the disaster zone settle their debt obligations means that employees must not be civil servants. The first supplementary budget guaranteed 90.6 billion JPY (~1.1 billion USD) for rebuilding medical facilities in the disaster area. It is worth considering the idea of using that money to establish

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a social medical corporation that would assume most of the debts of doctors who work for the corporation and use its future profits to repay those debts. Furthermore, the decision about whether to establish one new health care entity for the entire disaster area or multiple entities should be based on such factors as the location of new residential areas that are built for disaster victims and the availability of health care professionals.

**3) All of the social welfare corporations in Japan should contribute to establish a large-scale social welfare corporation for the disaster-stricken area of eastern Japan.**

Each type of welfare facility run by the national and local governments operates as a compartmentalized bureaucracy with its own internal hierarchy. As a result, privately operated social welfare corporations have more practical knowledge than national or local governments when it comes to prioritizing society's diverse and ever-changing welfare needs and operating their facilities accordingly. On the other hand, the annual adjusted profits for all of the nation's social welfare corporations is estimated at over 400 billion JPY (~5 billion USD), with net assets of roughly 13 trillion JPY (~161 billion USD). Thus, looking at existing social welfare corporations as a whole, they could certainly afford to contribute the seed money needed to establish what might be called the Social Welfare Corporation for the Reconstruction of Eastern Japan. Furthermore, in order to continue gathering donations and efficiently allocate those funds to welfare facilities in the disaster area, it would be desirable to have a single welfare corporation overseeing those operations.