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Photos from the authors' visit to the disaster-affected area three weeks after 3/11

JAPAN WOMEN'S NETWORK FOR DISASTER RISK REDUCTION

Opposite, damage after the earthquake and tsunami near the city of Sendai; above, an evacuation center in Fukushima; below left, four women who were widowed by the tsunami; below right, temporary housing in Sendai.

Foreward

AKIKO DOMOTO

The strengths and weaknesses of every society are laid bare when disaster strikes. Perhaps as consolation in times of tragedy, we tend to gather around hopeful narratives – stories of great heroism, sacrifice, compassion, generosity and endurance. But if we do not also acknowledge the failures that were made in the face of adversity, we will surely fail again at the time of the next calamity.

Within minutes of the massive earthquake and subsequent tsunami that struck the northeast coast of Japan's main island on March 11, 2011, dreadful images of the disaster flashed around the world. Horrified viewers everywhere responded with a wave of global generosity and compassion for which all Japanese remain deeply humbled and grateful.

In subsequent days, what television viewers saw was mostly Japan at its best (with the glaring exception of events at the Fukushima Dai-ichi nuclear power plant). Rescue and relief teams raced to the scene swiftly and efficiently. Friendly nations flew in aid. And the victims showed typical Japanese *gaman* – stoic endurance of the unbearable.

For those who know Japan, none of this was surprising. So when an American news anchorman asked his reporter on the scene, "Has the looting begun yet?" they could only shake their heads. That is not how a society shaped by dealing with disasters over millennia responds.

Beyond the hopeful narratives: gender discrimination

Those of us concerned with disaster response and reconstruction must look, however, beyond what goes right in each disaster to identify and rectify that at which we fail time and time again. And that is the purpose of this report. From the moment the quake struck, we knew the problem would appear almost immediately, having seen the same phenomenon after the 1995 Kobe earthquake and the 2004 Niigata quake. The needs of women survivors would be woefully neglected in the aftermath. And women's views and interests would be ignored in the course of reconstruction.

During "normal" times, women in Japan live in a society where patriarchal traditions and male-centered social systems predominate, and where discrimination is deeply rooted, though not always obvious. In times of disaster, however, such male-centric attitudes and discriminatory practices come glaringly to the surface.

Sure enough, within days we began to hear stories from Tohoku about the harsh conditions in the evacuations centers faced by women, children, the elderly, the disabled and other vulnerable groups. Organized solely by men and operated on the basis of bureaucratic expediency, the tightly regimented shelters completely disregarded the women's needs. For example, there was no privacy in which to change or nurse babies. And the organizers had not even thought to stock female sanitary supplies.

Although these issues were largely ignored by the media, reports began to filter through to women across Japan. And concern mounted among the nationwide network of accomplished women (from the professions, academe and business) to which I belong. Beyond the immediate concern for the survivors, we had long been alarmed by the lack of gender sensitivity in plans for disaster risk reduction and reconstruction. But it took the March 11 disaster to galvanize us into action.

This report is an account of what we have done in the two years since.

Japan Women's Network for Disaster Risk Reduction is formed

Within three weeks of the disaster, we had begun to form a network of activists with specialization in various fields, and to seek support from women's groups and individuals nationwide.

In early April, our core group – the authors of this report – visited Fukushima and Miyagi, two of the three hardest-hit prefectures, to talk with evacuees, local physicians and political leaders.

Upon returning to Tokyo, we began immediately to lobby the government to include a gender perspective in disaster-related policy, and to reform both policy and systems to make them gender sensitive.

With information coming directly from women in the disaster-affected areas, and the participation by women from all parts of Japan, our momentum grew quickly. Thanks to support from women legislators, we were able to get our issues actively discussed in government. And – as you will read in my report – we were able to achieve significant results within a relatively short period.

Five perspectives on the struggle

My report provides a narrative history of our networks activities, particularly our intensive effort to influence key legislation on reconstruction efforts. In their own reports, my esteemed colleagues provide several useful perspectives on other issues:

Miho Ohara, of the Center for Integrated Disaster Information Research at the Tokyo University Graduate School of Interdisciplinary Studies, reports on women's experiences with various emergency response functions in the wake of the 3/11 disaster.

Prof. Hiroko Hara, a leading expert on gender studies in Japan, has continued her role as a social activist since retiring as professor at Ochanomizu Women's University, in Tokyo. She provides a chronology of key events in Japan's struggle for gender perspective in disaster response and reconstruction.

Reiko Aoki, of the National Women's Education Center of Japan, coordinates activities for women's centers throughout Japan. She reports on fundraising efforts by the National Council of Women's Centers.

Dr. Keiko Amano, Japan's pioneer in gender-specific medicine, reports the results of a survey of frontline healthcare providers on women's experiences with emergency medical care and health issues in the disaster's aftermath.

The big question

All of our reports revolve around our joint efforts to get gender sensitivity embedded as a fundamental aspect of disaster risk reduction in Japan. But we should also answer the "big question."

Why is gender sensitivity missing from disaster risk reduction in Japan?

The reason is clear. In Japan, disaster prevention and management is seen as a man's job – not an activity for women.

Our current system ignores the valuable contributions that women can make. In spite of the fact that women are in reality, the driving forces of community resilience, they are not recognized as participants and members of society on equal terms with their male counterparts.

At the national, prefectural and municipal levels, there have been very few women involved in the disaster prevention councils, so there are few avenues by which women can raise their concerns. This makes it very difficult to address and improve the situation.

However, we are determined to change the existing order – and we will.

The Hyogo Framework

At the Second UN World Conference on Disaster Reduction, held in Kobe in 2005, the Hyogo Framework for Action (HFA) was adopted. (Hyogo is the prefecture of which Kobe is the capital.) The HFA clearly states that "a gender perspective should be integrated into all disaster risk management policies, plans and decision-making processes, including those related to risk assessment, early warning, information management and education and training."

The Japanese government amended its Disaster Prevention Basic Plan after adopting the HFA to include "perspectives including men and women." In the same year, disaster management was included in the Second Basic Plan for Gender Equality. Unfortunately, that was the extent of its gender sensitivity. Issues of women and gender are seen nowhere else, and gender sensitivity has been completely absent from all other DRR policies made since. Neither budget nor personnel were designated for gender-related issues. As a result, gender sensitivity was completely absent from the response to the 3/11 disaster, and many women faced great difficulties as a result.

In October, 2012, Margareta Wahlstrom, the Secretary-General's Special Representative for Disaster Risk Reduction, spoke at a ceremony in Kobe marking the 10th anniversary of the Disaster Reduction & Human Renovation Institute. She described how many women are the pillars of disaster recovery, contributing to the reconstruction of strong communities and societies. To look at women only as victims of disaster is a mistake. Only if women take initiative and play a central role can this mistaken notion be corrected.

I learned that even after the 2005 adoption of HFA, very few DRR-related organizations around the world have embraced a gender-sensitive approach in their work.

Until I heard her speech, I had always thought of gender sensitivity in disaster risk reduction specifically in terms of Japan. But Ms Wahlstrom opened my eyes to the reality that this is a challenge shared by women around the world.

So before the Third UN World Conference on Disaster Reduction to be held in Japan in 2015, I hope we can ensure that gender is not only clearly written into the next Framework for Action, but actually implemented as well.

I see this Fourth Global Platform for Disaster Risk Reduction as a critical step towards that achievement. And toward that end, I would like to present this account of our struggle in Japan.

Akiko Domoto

A note on style: *When rendered in English, the compact Chinese characters in the official names of Japan's most serious recent disasters form two huge mouthfuls: "The Great East Japan Earthquake and Tsunami" and "The Great Hanshin-Awaji Earthquake." To save ink, paper and strain on the reader's eyes, throughout this report we will refer instead to "3/11" (a popular name for our 2011 disaster echoing New York's 9/11) and "the 1995 Kobe earthquake."*

How we wrote gender perspective into Japan's disaster legislation

AKIKO DOMOTO
Environmentalist, Feminist and Former Governor of Chiba Prefecture

Women's needs seen from the top

Every year from 2001 through 2009, it was my responsibility as governor of Chiba Prefecture to lead a large-scale disaster response drill involving all the emergency services and government functions. My jurisdiction covered 6.2 million people inhabiting an area between Tokyo and the Pacific coast that is roughly twice the size of Luxembourg. Some of the drills even required me to be flown by helicopter to a designated command center from where I had to authorize tactical response measures.

Disaster planning and response being among the most crucial duties of a prefectural governor in Japan, I had the opportunity to observe in great detail how each function of local, prefectural and national government is expected to respond in the event of a major disaster.

When the devastating earthquake struck Japan's northeast coast at 2:46 pm on March 11, 2011, followed by the massive tsunami, Chiba was at the southernmost end of a 700-kilometer swath of destruction and, mercifully, suffered relatively little damage. Having completed my second term as governor two years earlier, I was not called on to put into practice what I had learned in the drills.

As I watched the television news coverage of response efforts, though, I knew what was supposed to be happening. So I could see clearly what was going according to plan and where the authorities were overwhelmed by the scale of the disaster.

What is more, I was on the alert for evidence of what I knew to be a woeful gap in Japan's emergency preparedness: an awareness of women's needs. From my time as governor I knew that among all the teams and committees tasked with disaster response planning, women were almost entirely absent.

Lack of gender sensitivity adds to survivors' misery

In the days and weeks after 3/11 I assembled a group of women specializing in gender issues – the authors of this report – and on April 1 we traveled to Fukushima and Miyagi prefectures on a fact-finding mission and to initiate a survey of medical care for those affected by the disaster.

As we visited several evacuation centers, it did not take long to find evidence in support of our hypothesis.

At the Azuma Athletics Park, where 1,300 people from Minamisoma had been evacuated from the exclusion zone surrounding the Fukushima Dai-ichi Nuclear Plant, we met families who had fled with nothing but the clothes on their backs. The tsunami swept two kilometers inland, leaving 1,032 of the 65,000 residents either missing or dead. Unable to return to their homes, the dazed survivors sat in circles, filling the large gymnasium.

Making their circumstances even more miserable, the man in charge of the shelter would not let the evacuees put up dividers. This meant there was no place for women to change, for infants to nurse or for the elderly to change their diapers.

At another shelter, Rokugo Middle School in Sendai, we found a similar situation. The scale of the disaster overwhelmed the city administration, with the result that shelters were operated on an ad hoc basis. So local community leaders, most of whom were elderly men with outdated values, took charge. As one leader told us: "The disaster has been difficult, but family, relatives and neighbors are all getting along. I want to be able to see everyone, which is why I won't allow them to put up any cardboard dividers."

An elderly woman had a different perspective: "There's food, but I've lost four kilograms because it's difficult having absolutely no time or space for ourselves."

Like most older Japanese, the women were unaccustomed to challenging authority. So they just endured the situation. But it wasn't just women. Elderly men were also burdened by a lack of space to deal with bodily functions and change their diapers. Privacy was sacrificed for the sake of the shelter leaders' convenience.

To make matters worse, many evacuation centers had not thought to stock women's sanitary supplies or incontinence aids for the elderly. These are not concerns that would even occur to many men.

To us, all this was just one aspect of a male-centered mindset that prioritizes physical infrastructure and institutional expediency at the expense of social infrastructure and the actual needs of people – women in particular. To revive communities after disasters, it is essential that people's everyday needs are met, and that a sense of normalcy is quickly restored, especially in regard to nutrition, health and welfare.

Forming a network for action

From observations during our visit to the disaster area, and intense discussions after, our group reached two main conclusions:

- That women survivors faced manifold problems, indignities and absurd discrimination. That gender-related obstacles women experience in everyday life were being amplified by the hardship of disaster. That gender roles were being hardened in an environment where domestic violence and sexual harassment were intensifying.
- That women were not participants in decision-making processes.
- That there was a lack of consideration for the caregivers of the sick and disabled. Furthermore, even when individual pregnant or nursing mothers, disabled, or elderly would appeal to the shelter leaders, they would not listen, and the claimants were compelled to simply endure.

In response, we decided to call on our personal contacts among women's organizations throughout the country in order to urgently push for change. This led to the formation of [Women and Disaster Network Japan].

While numerous other NGOs were formed to directly support women in the disaster areas, our network focused on demanding systemic change from the national and local governments: proposing policies based on gender equality in disaster prevention and response.

To this end, we gathered support from a wide range of women's organizations nationwide: Political action groups, like the International Women's Year Liaison Group Japa and Accountability Caucus for the Beijing Conference; National organizations, including the National Federation of Regional Women's Organizations and the National Council of Women's Centers; Academic groups, such as the Society of Japanese Women Scientists and the Japanese Association of University Women; Professional bodies, such as the Japan Medical Women's Association and Japan Society of Disaster Nursing; plus international, welfare and educational NPOs and NGOs in various fields. In all, more than 100 organizations rallied to our cause.

Three months after 3/11, on June 11 we held the 6/11 Symposium on Disaster, Reconstruction and Gender Equality. As a result, we drafted a demand to the national government to include gender perspective as a fundamental aspect of disaster and recovery policy, and to allow women from the disaster areas to participate in the policy-making process.

Over the following summer we mobilized women's groups nationwide to lobby senior government bureaucrats and legislators to implement our resolution. We besieged them with personal visits and petitions.

But even as we worked to gather support, the fight began right away as reconstruction efforts got off on the wrong foot.

The fight to get a voice for women in reconstruction

One month after the disaster, the government established a Reconstruction Design Council to guide rebuilding efforts in Tohoku. As we feared, out of fifteen members named to the council, only one was a woman.

Shortly thereafter, in May, the Council announced its "Seven Principles for the Reconstruction Framework." Here again, we were disappointed by the focus on infrastructure and economic recovery, and a lack of attention to social concerns. There was no evidence of a gender-equal perspective.

In our view, the Seven Principles were not consistent with the Disaster Risk Reduction (DRR) goals outlined in the Hyogo Framework for Action (HFA). HFA emphasizes "region building," which includes issues of the environment, public health, welfare, medical care, education, culture, and other social concerns. If these concerns are at the core of recovery plans – as they should be –gender equality must be an indispensable element. Women's skills, experience and resilience must be recognized and utilized. While HFA clearly reflects all these concerns, the government's Seven Principles completely ignored them.

As a former member of the Upper House of Japan's Diet, I know my way around our nation's legislature and how to get things done. So in response to these unfortunate developments, we were able to invite Diet members to an emergency dialogue on May 19, which we called "Aftermath of the Disaster from a Gender Perspective – Thinking with Women Diet Members." Thirteen women legislators showed up to meet with 50 members of our network.

The consensus that emerged was to demand that the government improve the situation, and all participants signed a "Demand for the enforcement of gender equality in response to the 3/11 disaster." This called for the administration to increase representation by women, the elderly and disabled persons in the Reconstruction Design Council, and to make them active participants in the recovery plans.

Subsequently, we submitted 15 separate petitions, and negotiated with the National Diet, the Recovery Office, and other bodies in charge of the reconstruction.

Whether in response to our petitions or not, ten days later on May 29, the Reconstruction Design Council announced its finding that, "in regards to region building, it is important to aim for a true planned society, an active society and gender equal society, by having women, elderly, disabled, and various people participate in the consensus development process."

While this was limited to "region building," having "women, elderly, disabled" and "gender equal society" written in was our first success with the petitions, and our first step.

Basic Act on Reconstruction and the 6/11 Symposium

As hundreds of participants from all over Japan gathered in Tokyo for our 6/11 Symposium, "The Basic Act on Reconstruction" was making its way through the Diet, passing into law on June 20. Right up front in a section entitled "Basic Philosophy," it states that "opinions of the residents in the disaster-afflicted regions shall be respected and opinions of a wide range of people including women, children and the disabled persons shall be taken into account."

Although the content of this passage was somewhat unsatisfactory to us, our ability to influence the legislative process was unmistakable. So we took this small achievement as a useful stepping-stone as we moved from petitioning and raising awareness toward realizing concrete gender equity policies and measures.

In that respect, our 6/11 Symposium was perfectly timed. After a great deal of enthusiastic discussion, several proposals emerged from the symposium:

- To demand the proactive placement of women in decision-making bodies such as recovery and prevention councils, and the thorough inclusion of gender perspective in disaster prevention, response and recovery.
- To demand an increase in the number of members on the Reconstruction Design Council, and the inclusion of members with a gender equality perspective, especially women.

- To demand that the Reconstruction Agency and similar organizations reflect the interests and opinions of women, children and disabled persons with a gender-equal perspective.

More important than any specific resolution, though, was the fact that we came together as a national movement with great enthusiasm and common purpose. We generated momentum.

Maintaining momentum created by the 6/11 Symposium

To maintain that momentum after the 6/11 Symposium, we decided to shift our activities to embed these abstract concepts as concrete measures in reconstruction plans.

Our first victory came with the June 14 meeting of the Upper House Special Committee on Reconstruction. Specifically mentioning the nationwide turnout for our symposium, Senator Tomiko Okazaki confronted Prime Minister Kan, demanding that he increase the number of female members in the Reconstruction Design Council.

The prime minister responded by apologizing that there had not been more representation from the beginning, and promised to make changes immediately. Chalk up one more small victory for our side.

One week later the Reconstruction Design Council published a report – *Hope Beyond the Disaster* – that advocated building "an inclusive society that does not leave anyone out," adding that "women, among others, who have difficulty voicing their opinions use the disaster as an opportunity to actively participate in local regional development. Above all, we must always maintain the viewpoint of gender equality."

In the section on community development, mention was made that "when collecting the opinions of residents, due attention needs to be paid to ensure the opinions of women, children, the elderly, the disabled, and foreign residents, among others, are appropriately reflected" and of securing "employment for people in the disaster region, including young people, women, the elderly, and the disabled" in a "health/medical care, nursing and welfare system that focuses on providing comprehensive community care services."

All this was commendable, however…

Including women as a category amoung "women, children, the elderly, the disabled and foreign residents" labels all women as vulnerable in times of disaster and makes women the mere subjects of policy. It does not treat women as actors in the formulation of policy. Reading this, it was difficult to think that women were being treated as sovereign or adults.

A flurry of petitions

The Gender Equality Bureau in the Prime Minister's Office was tasked with overseeing the implementation of the Basic Law for a Gender-Equal Society, which was passed in 1999. I felt that there was a similar need with the Reconstruction Headquarters: to have an office specialized in drafting policy from a gender perspective, and playing a constant role in cross-sectional planning and coordination.

After the 1995 Kobe earthquake, despite clear mention in the Basic Disaster Management Plan of need for "the perspectives of both genders," no action was taken. This is because no structure was put in place to play a constant role in planning and coordinating the effort. Believing that we must not make the same mistake, we prepared a new petition on June 28, which asked for several specific changes in the wording of the guidelines for the Reconstruction Design Council:

- To the report statement regarding the "thorough incorporation of gender perspective" and "the participation of women," add, "This is particularly important in key local authorities and autonomous organizations that are closely involved with people's everyday lives."
- To the report statement regarding "increasing the number of members of the Reconstruction Design Council," add, "appoint members with the perspective of gender equality, and particularly female members even to council organizations dealing with community reconstruction efforts in areas affected by the nuclear plant accident."
- Add "Establish a 'Gender Equality Perspective' post (tentative name) in the current Reconstruction Headquarters in Response to 3/11, as well as to local prefectural response offices, that will play a constant role in cross-sectional planning and coordination. This will be taken over by the Reconstruction Agency."

In addition, we also stated our core demands for equalizing the roles of men and women in participating in disaster management and reconstruction:

"While it is desirable for the perspective of equal participation of men and women to be included in community building, this is still a narrow approach. This is not simply about women being able to participate in discussions and share their perspectives; we must take up the challenge of overcoming our fundamental social problem of gender inequality during normal (non-disaster) times." Using disaster as an opportunity to correct the structural distortions in Japan's socioeconomic structure is the essence of our challenge to reduce risk.

We also pointed out the report's narrow interpretation of DRR, which was translated as simply "disaster reduction." In the petition, we defined the term as "an approach that seeks not to completely prevent or guard against a natural disaster, but rather focuses on minimizing the impact of such a disaster. Disaster reduction requires both structural [hard] measures (development of seawalls and coastal levees, etc.) and people-oriented [soft] measures.

The international understanding of "soft measures" is taken more widely to mean "overcoming social vulnerability." There is an awareness that eliminating social fissures or gaps, or social exclusion, caused by gender, locale, age/class, ethnicity, religion etc. creates social resilience to disasters.

We put this forward in Petition No. 7 on July 11, calling attention to the point that the necessity and significance of gender equality does not end with community building.

Entering the homestretch for drafting

In a July 14 discussion with governing party legislators on gender equality and reconstruction, we realized we had entered the homestretch in the process of drafting the ordinances (details for implementation) of the Reconstruction Act.

We included a request to clearly incorporate concrete policies on gender equality in the ordinances, to establish gender equality staff throughout the reconstruction administration and to proactively appoint women to decision-making bodies.

For the first time, we also demanded that "because the ratio of women is extremely low in central, prefectural and municipal disaster management councils, the Basic Act on Disaster Control Measures be revised so that women can participate." In the existing Basic Act on Disaster Control Measures, members of the central and prefectural disaster management councils are appointed from specified job areas where men are in the majority, such as chiefs of police and fire-fighting agencies. It is thus difficult to appoint women to disaster management councils, and governors are unable to appoint the heads and staff members of women's centers, which are the prefectural and municipal bodies most familiar with women's issues in the community.

So we requested that the law be revised to increase the number of female committee members nationwide to thirty percent.

After the July 14 meeting, our working team put their heads together and expanded the content of the demands. After much further discussion over ten meetings, the demands were revised. Finally, at the last moment and after a great deal of navigating the corridors of the Diet, we were lucky to get the crux of the demands included.

On July 28, the Basic Guidelines for Reconstruction were announced, including the following key points:

- "From the standpoint of gender equality, women's participation will be promoted in all aspects of the reconstruction process."
- "Support foundation building to develop a system of 'comprehensive community care services' on the basis of needs in the disaster-affected regions, which will integrate the continuous provision of services in the areas of health, medicine, nursing, welfare and housing so that people can always live in the community with a sense of security."
- "...building an inclusive society that does not leave anyone out."

We were pleased that the Guidelines incorporated a substantial portion of our requests. There were actually 12 sections that incorporated points regarding gender equality. To be honest, I thought, "Finally."

One key victory was the mandate for the establishment of a "Gender Equality Perspective" post in the Reconstruction Headquarters to carry out cross-sectional planning and coordination between the various authorities. Our hope is that we will see substantial positive outcome – not simply the placement of a bureaucrat at a desk.

In the past, for a gender equality perspective to be included in the various policies, women of Japan have had to work hard to get their voices heard. We should not have to shout to be heard, but in a male-centered policy-making system we will not be heard until we achieve fundamental reform of the social structure. This makes each attempt at gender-sensitive reform a very difficult and time-consuming task.

In this case, we were halfway successful in our efforts to change the wording of the Basic Act on Disaster Control Measures, which was passed on June 22, 2012. While we failed to get a requirement for thirty percent women appointees to the disaster management councils and committees, we succeeded in striking down the requirement that appointees come solely from specific male-dominated occupations. All levels of government can now appoint people with expertise in social welfare or academics specializing in disaster prevention. And it is working: many woman have already been appointed in communities across Japan.

While I cannot say we were completely successful – the inclusion of many of our demands into the Basic Policy for Reconstruction represents a rare victory that was the result of our intense lobbying activities.

Conclusion

Japan is often called an "archipelago of disaster," and our long history records many calamities that have profoundly shaped our culture and left us with an instinctive predilection to pull together when the worst happens.

Fortunately, the six decades since 1945 have been a period of relative volcanic and seismic calm with fewer disasters than many other eras. But historical averages show that calm cannot last and we are being told to prepare for a period of massive earthquakes. For example, in August 2012 it was predicted that 320,000 fatalities could result if a magnitude 9 Nankai Trough quake (i.e. simultaneous quakes along the Tokai, Tonankai, and Nankai faults) were to occur. A Nankai Trough quake of about magnitude 8 has occurred every 90 to 150 years.

Clearly, preparedness is crucial at the national, prefectural and municipal levels. Undoubtedly, infrastructure is a critical concern in terms of preparedness, resilience and reconstruction. But there is no reason whatsoever that we cannot excel in both the "hard" and "soft" aspects of disaster response and reconstruction. There is no excuse for ignoring the "soft" needs of men, women, children and especially vulnerable groups such as the elderly and the disabled.

In contrast to "hard" measures like anti-tsunami seawalls, the cost of addressing social needs is minimal. In fact, all that is required is the social mindset that comes part-and-parcel with adopting a gender-equal perspective.

The key to achieving this is inclusiveness. The truly disaster prepared and resilient society is one in which the interests and opinions of all residents – men, women, children, the disabled, the elderly and foreign residents – are considered crucial from policy-making through tactical response.

The same sense of community is equally vital on an international level. When disaster struck Japan on 3/11 we were deeply humbled by the tremendous outpouring of goodwill and support from governments and individuals around the world. That spirit of shared humanity may just be the most hopeful force on our planet.

And that is the spirit that a gender-equal perspective always strives to nurture and cultivate.

JAPAN WOMEN'S NETWORK FOR DISASTER RISK REDUCTION

The 6/11 Symposium on Disaster, Reconstruction and Gender Equality

Top, a minute's silence held by attendees to the Symposium. The authors of this report giving presentations; Reiko Aoki (above), Miho Ohara (opposite top), Hiroko Hara (left) and Akiko Domoto.

3/11 Emergency Disaster Response Issues as Seen from the Gender Perspective

MIHO OHARA
Tokyo University Graduate School of Interdisciplinary Studies
Center for Integrated Disaster Information Research

This report considers gender issues in emergency disaster response and discusses appropriate emergency disaster response measures, based on findings from studies on the needs of both men and women after 3/11 and the actual response.

1. Considerations Regarding Gender in Emergency Disaster Response

Many issues regarding the differences between men and women's needs were identified after the 1995 Kobe Earthquake. These can basically be divided into: 1) Women in need of care; 2) Women as caregivers to those in need; and 3) Women involved in society.

Differences in the needs of men and women were also identified in the stricken areas after the 3/11 disaster, and have become the focus of the Gender Equality Bureau Cabinet Office and various NPOs. Most of the issues had already been identified after previous disasters but the livelihood of women in agricultural and fishing related industries arose as a new issue after this earthquake. This chapter will focus on disaster relief efforts and investigate why these efforts did not consider gender issues.

(1) The Lack of a Shared General Concept

Women wear many faces within the family structure, depending on their age and position. As shown in Figure 1 (p.13), women's needs can be divided into those as a "care receiver" and as those of a "care giver." Since these are usually vaguely discussed as "women's needs," a specific, shared notion of the serious issues faced by women in different situations does not come into the conversation. Also, discussions do not take into account the numbers and distribution of women playing different roles in different situations.

(2) A Lack of Quantitative Data on Target Group Needs

After a disaster, the necessary emergency supplies and emergency medical care change as utilities such as electricity and water are restored. The groups in need of priority consideration and support also change, as do the needs of men and women. Right after a disaster, the numbers and situations of those in need can be difficult to ascertain, making support and consideration that conform to people's needs difficult to ascertain. It is important to study the necessary personnel and communications systems that can quickly identify target groups after a disaster prior to the occurrence of such an event.

Currently, there are only vague standards for adjusting the support as the situation changes, partly because of the lack of quantitative analysis of past emergency response and relief efforts. Therefore, it is difficult to take gender into consideration during personnel and equipment planning for emergency response and relief. This results in regional disaster plans that do not have a specific image of the appropriate response because they do not breach the subject of gender or use only vague terms, such as "consideration."

(3) Fragmented Bureaucratic Fiefdoms

In recent years, administrative services have been fragmented. While some local governments have disaster response offices, these generally remain the domain of fire, disaster prevention and crisis management bureaus. When a disaster occurs, these offices handle the response independently, so the issues illustrated in Figure 1 become the domain of different government departments. Pregnant women and infants, for example, are handled by the children and family support offices; the elderly are handled by nursing insurance offices; and the disabled by disabled person's welfare offices. It becomes necessary for these offices to quickly identify those in need and share information in real time with other offices because of the inherent inefficiency of the offices working independently. In many local governments, a gender equality office or division is set up as a cross-sectional organization between various offices. The gender equality office should be central in overseeing the distribution of those who require attention and support during a disaster.

2. Analysis of Men and Women's Needs and the 3/11 Emergency Response

This section will examine the specific issues of disaster emergency measures that consider men and women's needs using, as an example, the situation after the 3/11 disaster in Sendai City.

(1) Responding to the Needs of Shelters

The number of people who need emergency shelters changes dramatically depending on when utilities are restored, the distribution of goods, and whether people have somewhere safe to go. Figure 2 (p.13) shows the change in the number of refugees and the number of shelters after the disaster. The number of refugees reached a maximum of 10,947 people on March 12, the day after the earthquake; the number of shelters reached a maximum of 288 on March 14, 3 days after the earthquake. The last shelter closed on July 31. Since the disaster was larger than anything that had been covered in the March 2007 Regional Plan for Disaster Prevention, drastic changes were made. Permanent staff were placed in emergency shelters, and worked hard to get a grasp on the number of refugees actually in the shelters. However, they did not have the resources to determine the numbers of men, women, elderly, or those in need of medical attention. It is very important for the response to be based on people's actual needs, but gathering and managing such information requires time and labor.

Under the Regional Plan for Disaster Prevention, several offices – such as the Health and Welfare Office – were in charge of the provision and distribution of food and daily necessities. However, these duties were quickly consolidated into the Finance Office after the disaster. Then, on March

Figure 1: Issues from a women's perspective that arise during a disaster

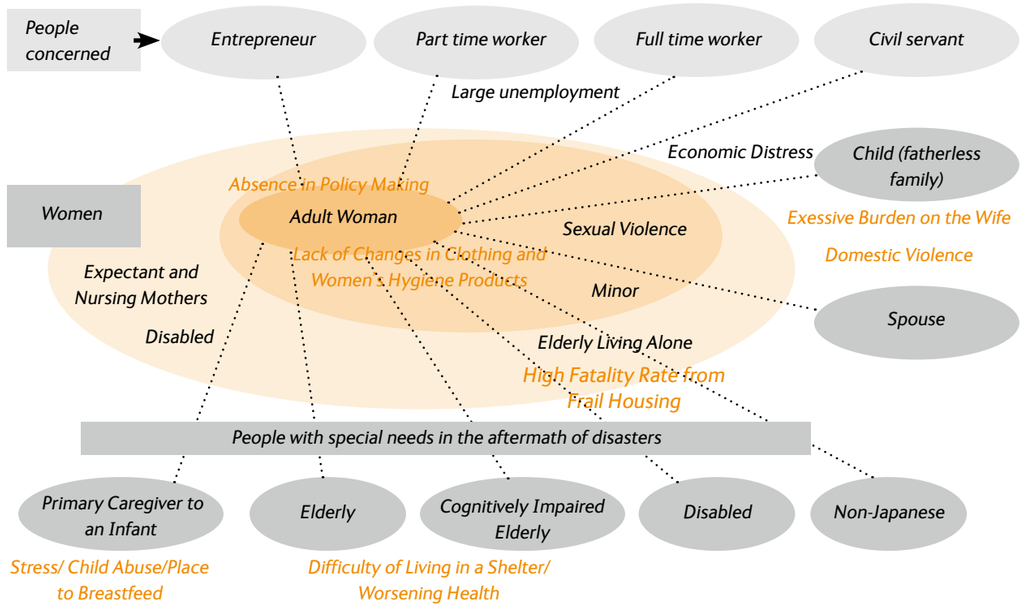

Figure 2: Change in the number of Refugees and Shelters in Sendai City

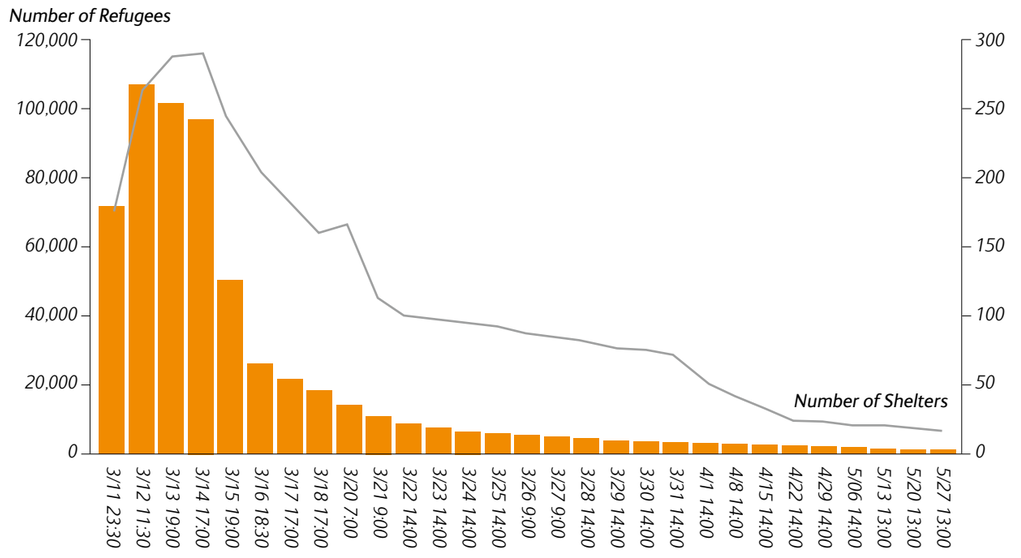

Chart 1

Utilities Lost	*Days Lost*	*Percentage who lost utility*
Electricity	6.0	98.8%
Water	11.7	76.9%
Gas	29.4	80.2%
Gasoline	21.5	69.6%
Landline Phone	8.9	81.6%
Cell Service	6.3	78.4%
Internet (Home)	8.6	95.4%
Internet(Mobile phone)	6.4	43.9%
ATM	12.1	82.8%
Delivery Services	28.4	–

15, the Ground Self-Defense Forces were put in charge of distribution. Each day, shelters would fill out a form listing the supplies they needed, and the Ground Self-Defense Forces would distribute supplies. The smooth distribution of supplies was possible due to the city's focus on the distribution of goods and the cooperation of the Ground Self-Defense Force. A research group analyzed the contents of the delivery request forms and delivery manifests.

An arrangement with the Miyagi Cooperative to distribute emergency supplies of feminine hygiene products, adult and children's diapers, and wet wipes had been concluded in April, 2010. Although 14,500 feminine hygiene products were delivered to the shelters, as arranged, the demand for feminine products reached a peak on March 23. Due to a shortage of emergency stores, the requested amount could not be delivered. After an appeal by the city through the media, donations came in from around the country and the demand was met on March 28. Sendai's emergency supply distribution arrangement was the first of its kind, and should be regarded highly. Although the actual number of refugees based on attributes such as sex and age could not be determined, their needs were determined and met through the delivery request forms. It became apparent at a later hearing, however, that it was often difficult for women to express needs such as feminine hygiene products and dividers for privacy, because the shelter leaders and permanent administrative staff who filled out the delivery request forms were largely male.

A reexamination of the type and amount of emergency supplies based on the lessons learned is sorely needed. According to a survey presented at the 2008 Conference of Prefectural Governors, the percentage of women on the disaster prevention planning committees and among the consultants for emergency supplies was as low as 10.6 percent at the prefectural level, and 4.2 percent at the municipal level. According to the same survey, only 6.8 percent of the crisis management staff at the prefectural level are women; only 6.1 percent at the municipal level. Some have said that many were saved because women volunteers were part of the planning of the emergency supply distribution arrangement in Sendai. These participants added a women's perspective to the issues of supply management, such as the size of underwear. It is important that women take part in the disaster response process.

The larger the disaster, the longer people will need to stay in shelters, and the harder it is to move supplies. It is important to guarantee the continuous distribution of emergency supplies within the stricken areas. It is also important to ensure local emergency aid does not run out before supplies can be brought in from outside of the disaster area. It is necessary to study the required emergency stores and distribution from this experience to prevent goods from running out after a future disaster.

(2) Needs and Response of Welfare Shelters

Sendai City created 40 welfare shelters that took in 288 people. Of these, 26 facilities that had prior agreements to take in people from intensive care elderly homes, elderly welfare centers, and centers for the disabled, actually took in such refugees. Agreements had been made with 52 facilities before the earthquake, but many were either damaged during the earthquake and tsunami or no longer had enough staff to operate. There were 14 other facilities without previous agreements that were established for the care of seniors with cognitive impairments and those from rehabilitation facilities.

In Sendai City, even in areas where there was no damage from the tsunami, many people suffered from damaged utility facilities and gasoline shortages. Because food delivery was hampered, many at home and not in special care facilities found themselves having to go to shelters. When considering plans for welfare shelters, it is important to also consider those who will be forced to leave their homes when utilities are down.

The 14 facilities in Sendai City that were established without previous agreements were not entered into the Self Defense Force's supply distribution system. The Health and Welfare Office's Nursing Insurance Division and Disabled Person's Support Division delivered food to these 14 facilities on their own. The Health and Welfare Office's Preventative Care Division delivered food to the elderly in their homes through the Local Comprehensive Support Center. However, according to hearings, after the utilities went down some disabled gathered for shelter at other places, such as vocational centers. These places were not considered welfare shelters, however, and material aid was not provided. There is controversy over how broad support should be, since even healthy people face serious obstacles

to their livelihood during a disaster. Women often face this challenge as special caretakers of family members. Consideration must be given to support these women and keep this from becoming too immense a burden.

In most shelters, nurses making the rounds recommended that refugees be moved to welfare shelters as necessary. Doctors from the local medical association also made rounds, but information gathered this way was not acted on. Unlike permanent staff, doctors and nurses who travel to various shelters are able to compare shelters and make judgments based on this comparison. It would be prudent to put the opinions of those who regularly monitored various shelters into practice. At hearings held by the city, the opinions of aid workers from other areas were said to be invaluable. A system that takes diverse viewpoints into account is necessary.

(3) Needs and Response Outside of Shelters

After the earthquake, 840,000 houses were left without power. Three wards that were not directly hit by the tsunami had their power restored one week later, on March 17. There were also 230,000 households without water for 19 days, until the supply was mostly restored on March 29. Gas was restored to 310,000 homes by April 16. Even households that didn't suffer from the tsunami itself were put under great duress by the loss of these critical utilities.

Tokyo University's Center for Integrated Disaster Information Research (CIDIR) conducted a web survey of households in the disaster area not directly impacted by the tsunami. The survey was conducted from February 17 to 26, 2012, and 989 people between the ages of 20 and 69 responded. Of these, 100 were elderly, and of those, 89 were women in their 60s. According to the survey, 98.9 percent of respondents lost electricity, 76.9 percent lost water, and 80.2 percent lost gas. Chart 1 (p.14) shows the average number of days it took to restore various utilities and the percentage of respondents who lost those utilities. On average, electricity and mobile phone service was restored within one week, while gas took the longest to be restored. The average response for "when life got back to normal" was 59 days, meaning that it took more than just the restoration of facilities for people to feel that life was back to normal.

Respondents were also asked about the difficulties they faced with: 1) their life and home, and 2) their health and wellbeing. The response was divided into a) the first three days, b) after the first three days until the end of the first week, and c) from the first week to the end of the first month after the earthquake.

The most common problem in the first category for the first three days was "cleaning up broken glass and other debris," at 51.8 percent. From day four to the end of the first week the most common problem was "the inability to wash underwear," at 52.5 percent. From the end of the first week to the end of the first month the most common problem was "the inability to take a bath," at 64.5 percent. During all three periods the second most common concern was "a lack of variety and balance in meals," at around 45 percent. The number of respondents who said "the inability to take a bath" increased dramatically in the last period, and the time it took to restore gas had a large influence. The issues of "dealing with raw garbage," "not being able to stay in lines for an extended period of time," and "the closing of preschools and kindergartens" increased slowly over a period of time, and were not alleviated within the first month. While the total percentage of respondents who replied with "the closing of preschools and kindergartens" was small, it remained a long-term problem for 30-40 percent of the 72 respondents with nursery or preschool age children. The number of respondents who put down "not being able to remain in line for extended periods of time" was large among those with infants and family members who needed nursing care. Comparing the responses of men and women, 10 percent more women responded with "lack of variety and balance in meals," "the inability to bathe," and "inability to wash underwear" than men. This has been confirmed by the chi-squared test as a statistically significant difference. Since this difference in men and women's responses dissipated as time passed, women's awareness of pertinent issues can be thought to be higher than men's. Statistically, there were no items with a larger response among men.

Of difficulties with people's health and welfare, the most common problem for the first week was "an inability to sleep well," at 34.8 percent for the first three days and 30.8 percent from the fourth day until the end of the first week. The most common issue from the end of the first week to the end of the first month was "depression" at 38.1 percent, which increased rapidly as time went on. Responses including "difficulty of getting everyday medicine," "the inability to visit a hospital or clinic," "the worsening of chronic disease," "depression," "irritability" and "fights with family" all gradually increased over time; they were not alleviated even after one month. Comparing the responses of men and women, 10 percent more women responded with "an inability to sleep" and "depression" in all of the time periods. This has been confirmed by the chi-squared test as a statistically significant difference. In all the time periods, women reported "increased fights with family" twice as often as men, which shows women's high awareness of this issue.

It is clear that life was difficult even for those not directly affected by the tsunami, and that their wellbeing was affected over a long period of time. Nurses did not visit people outside of the shelters because the population was dispersed. But those outside of the shelters also faced difficult situations. It is necessary to create a system to set up advisory services, and to make the location and utilization of these services common knowledge, so that those who need support and consideration are not left on their own.

3. Standardization of Disaster Response that includes the Gender Perspective

One year after the disaster, the national government revised its Basic Disaster Prevention Plan, and various local governments reassessed their earthquake and tsunami damage simulations and disaster prevention plans. As mentioned in the previous section, it is necessary to gather quantitative data about disaster areas needs and recovery

work in order to develop a shared concept about the necessary amount of support and consideration. Generally, the 6W1H shown below is necessary when forming a disaster response plan. Analyzing the quantitative data from previous disasters and preparing a standardized disaster response model according to 6W1H will lead to the creation of an effective and efficient disaster response plan. Multiple standardized disaster response models are required to meet the different needs that arise from a variety of disasters, such as earthquakes with or without tsunamis, or with or without large fires. These models can then be adapted to work with regional characteristics in making practical regional disaster prevention plans. This should raise the standard of disaster response and relief for the entire nation. Also, "who" does not stop with the government. It is also necessary to examine what kind of cooperation can be gained from other organizations, such as local trade organizations, medical associations, NPOs and volunteers from outside of the area.

6WH1:

6W
1. When
2. Whom
3. What
4. Where
5. Who
6. Why

H1
1. How

Acknowledgment: Thanks to the Sendai City Economics Office and related offices for their cooperation in holding the hearings and gathering related data.

The Women's Centers Network Fundraising Project for 3/11 Disaster Relief

REIKO AOKI
The National Council of Women's Centers

The nonprofit National Council of Women's Centers is a network organization of 89 women's centers all over Japan. Women's Centers in the 3/11 disaster areas began relief activities for affected people immediately after the earthquake occurred. Centers all over Japan continue to provide support to Fukushima residents evacuated due to the accident at the Fukushima Daiichi nuclear power plant. The National Council has also raised funds and implemented a number of projects to assist relief activities.

We are very grateful to all those who contributed to the fundraising project. This is a report on how the funds were spent on support to various groups.

The fundraising project

A total of ¥3,755,279 in donations was received: ¥3,276,492 from organizations and individuals in Japan; ¥478,787 from overseas through Japan Women's Watch (JAWW).

Among overseas contributors, Thanpuying Sumalee Chartikavanij and the members of Thai Women's Watch donated $3,933, the NGO CSW/NY donated $1,348 and an additional $145 in November, and two women from the Philippines, Ms. Aurora Dios and Senator Leticia Shahani, donated $2,070.

How donated funds were spent on support

1) Emergency relief supplies

Two Women's Centers in Iwate Prefecture made visits to women who had lost their homes because of the 3/11 disaster, and were living in evacuation centers. Essential supplies, such as underwear, cosmetics, baby baths, etc. were delivered to them. Funds spent: ¥600,000.

Participating centers:

- Iwate Prefectural Center for Gender Equality: Visit to disaster areas
- Morioka Women's Center: Delivery of emergency funds

2) Consultation, a toll-free phone number system and workshop for consultancy staff

Women's Centers in Fukushima and Aomori prefectures set up a toll-free phone number and established a booth for consultations with women. An exclusive space was also set up in an evacuation center for use in changing clothes and breastfeeding infants. Local women's organizations supported these operations and also held workshops for the consultancy staff. Funds spent: ¥1,000,800 (part of this from overseas donations).

Participating centers:

- Fukushima Gender Equality Center: Staff workshop at the evacuation center's space for women.
- Association for Supporting Autonomous Women: Setting up of a toll-free phone number
- Aomori Prefectural Center for Gender Equality: Establishment of a "relaxation room"

3) Network and care, etc. for evacuees from Fukushima Prefecture

The Saitama Prefectural Center for the Promotion of Gender Equality created an information exchange network for people who had evacuated from Fukushima Prefecture because of the nuclear power plant accident. Funds spent: ¥469,000 (part of this from overseas donations).

Participating centers:

- Saitama Prefectural Center for Promotion of Gender Equality (With You Saitama), Disaster-Link Café Committee

4) Lecture meetings, symposia and workshops

Women's organizations in Osaka, Miyagi and Tokyo held lecture meetings, symposia and workshops to discuss the disaster and disaster relief from the gender perspective. Funds spent: ¥921,000 (continuing).

Participating centers:

- Osaka City Gender Equality Center, Central Building: "Toward March 11, 2012 – The Role of the Gender Equality Center in Disaster Recovery"
- Public Interest Foundation, The Japan Association for Women's Education (JAWE)
- Miyagi Women's Culture Association: "Disaster and Recovery – Network Building Emphasizing the Participation and Viewpoint of Women"

5) Employment and entrepreneur support

The Tokyo and Aomori Women's Centers supported women in finding employment in the disaster areas and also provided support for women setting up businesses dealing in local farm produce, etc. Funds spent: ¥129,100 (part of this from overseas donations).

Participating centers:

- Ota Ward Center for Gender Equality
- Aomori Prefectural Center for Gender Equality: Support for new business development in the disaster areas

The "Women's Centers and the Disaster" website

Information about support provided by the Women's

Centers was publicized on the website, which we intend to continue updating.

We hope you will cooperate with us in continuing to share information.

(NPO) The National Council of Women's Centers contributes to the promotion of the formation of a gender-equal society by implementing workshop programs all over Japan on such issues as as women-related facilities and information projects.

Japan Women's Building
2-6-8 Shiba Koen, Minato-ku, Tokyo, Japan
Tel: 03-6426-1700
Fax 03-6426-1701
URL: http://j-kaikan.jp
E-mail: info@j-kaikan.jp

http://j-kaikan.jp/help

Gender issues in disaster prevention, disaster relief and the reconstruction process in Japan

HIROKO HARA

Nihon Bosai Hyakunenshi **("A 100-year Record of Disaster Prevention in Japan") was published in 1990. The publication included a chronological table covering the period from the first year of Meiji (1868) through to the end of the Showa period (1989), but in the entire book there is only one mention of special considerations for the elderly and none at all of gender issues.**

1. The Kobe Earthquake, January 17, 1995

(1) Overcoming the difficulty of gaining access to statistics on earthquake-caused deaths by age and gender

Following the Kobe Earthquake of January 17, 1995, the national government and local governments began to release gender/age-disaggregated data on the number of dead, after saying it was extremely difficult to ascertain correct figures and a heavy load to calculate (Table 1). Overall, the number of women who died was greater than the number of men; the number of deaths of elderly women was particularly high because there are more elderly women than elderly men.

There was more damage among the poor because they tend to live in seismically less stable areas where property values are lower. Ideally, a cross-tabulation showing socio-economic factors, such as whether the casualties were on social welfare or whether they were in a high tax bracket, should be made available (even though it might be technically quite difficult). The relationship between gender and class is another issue that needs to be investigated.

(2) Activities by women

The activities of the NGO "Women's Net Kobe" helped bring more attention to the subject of "disaster prevention and gender issues." Women's Net Kobe was originally involved in efforts to increase the number of women members in the Kobe City Council and the Hyogo Prefectural legislature. They were active even prior to the Kobe Earthquake, and one of their early activities

Table 1: Number of Deaths due to the 1995 Kobe earthquake by Age and Gender

Age at the time of death	*Men*	*Women*	*Total*	*%*
0 - 4	67	55	122	1.91
5 - 9	64	66	130	2.03
10 - 14	66	79	145	2.26
15 - 19	70	102	172	2.69
20 - 24	151	148	299	4.67
25 - 29	81	92	173	2.70
30 - 34	60	85	145	2.26
35 - 39	62	57	119	1.86
40 - 44	97	109	206	3.22
45 - 49	118	162	280	4.37
50 - 54	173	236	409	6.39
55 - 59	212	249	461	7.20
60 - 64	261	299	560	8.75
65 - 69	272	385	657	10.26
70 - 74	266	411	677	10.57
75 - 79	222	369	591	9.23
80 - 84	264	413	677	10.57
85 - 89	155	242	397	6.20
90 - 94	39	100	139	2.17
95 - 99	9	19	28	0.44
100 -	4	2	6	0.09
age at the time of death/ gender unknown	–	–	9	0.14
Total	2,713	3,680	6,402	100.00

Source: Hyogo Prefecture's 2008 report, Hanshin Awaji Daishinsai no shisha ni kakaru chosa nitsuite *("Regarding a survey on deaths from the Great Hanshin-Awaji [Kobe] Earthquake) (news released on December 22, 2005) (http://web.pref.hyogo.jp/pa20/pa20_000000016.html)*

was setting up a "Women's House" to function as an information exchange hub. Though the house was lost in the earthquake, the group was already set up and running, and were therefore able to provide extensive and systematic support to earthquake survivors. Their establishment of a support hotline for domestic violence survivors after the earthquake deserves special mention. Women's Net Kobe compiled records and published a book (*Women's Net Kobe*, 1996), but it was not until nearly a decade after the earthquake that it became well-known domestically and internationally (Masai, Kuzunishi, and Kondo 1998). In line with the group's original intentions, their representative, Reiko Masai, stood for the Kobe Council in 1995, but lost the election. Women's Net Kobe's original objective was partly reached when the Act Concerning Support for Reconstructing Livelihoods of Disaster Victims was passed in May 1998, thanks to the efforts of Tomoko Nakagawa, at the time a member of the lower house of the national Diet from Takarazuka, Hyogo Prefecture. (Nakagawa became mayor from April 20, 2009, and is now serving her second term.)

2. Action taken by the Council for Gender Equality, Cabinet Office

In 2002, seven years after the Kobe earthquake, Kaoru Honoki, a professor at Kobe University and Reiko Masai, leader of Women's Net Kobe, reported on the situation of the women victims of the earthquake at a meeting of the Cabinet Office's Impact Survey Case Study Research Team (ISCRT). Mari Osawa, the secretary general of the Human Security and Gender Committee of the Science Council of Japan, was also a member. This report had such an impact on committee members and government officials that disaster issues were included in the second and third Basic Plans on Gender Equality.

There was some progress in the government's response to the Chuetsu Earthquake in October 2004 and the Indian Ocean Earthquake and Tsunami in December 2004. Partly because of the lasting influence of the ISCRT of 2002, when the Chuetsu Earthquake occurred, a female officer from the Cabinet Office Gender Equality Bureau was dispatched to the support and countermeasure office of the affected area in order to make sure that women's points of view were reflected. This was the first time that the government response included the gender issue. When the Indian Ocean Earthquake and Tsunami occurred in December 2004, Japan immediately made a donation of one million dollars through the United Nations agency UNIFEM. The Japanese government's response to the Indian Ocean disasters is mentioned in the White Paper on Disaster Management FY2006 (2006, Vol. 1, Chapter 4-1, 1-3).

Following this, from 2004 through 2005, the Council for Gender Equality and the expert committee on the Basic Plan on Gender Equality began to debate disaster prevention policies from a gender perspective. The Second Basic Plan on Gender Equality introduced a new field, "Priority field 12: Promoting gender equality in fields requiring new initiatives." This includes disaster prevention in addition to other fields, such as science and technology, community development, town planning, tourism and the environment.

The Third Basic Plan on Gender Equality, which was approved by the Cabinet on December 17, 2010, includes the disaster prevention field from the point of view of gender equality as a part of Priority field 14. Specifically, in the contents of this plan, Priority field 14 is "Promoting gender equality in the area of regional development, disaster prevention, environment and others."

3. Event at Japan Women's Conference, Hiroshima (October 19-20, 2007)

In the private sector, Japan Women's Conference is held each year in a different Japanese city. Many people are involved in organizing the conference, including city office employees as well as NPOs and NGOs. At the Women's Conference held in Hiroshima in 2007, a session titled "Including women's views into disaster prevention measures" was held (Organizing Committee of Japan Women's Conference, 2007, Hiroshima (ed.) 2007).

4. "Disaster and women's empowerment" at the FY2005 International Forum on Women's Learning, National Women's Education Center

A session on "Disaster and women's empowerment" was held at the 2005 International Forum on Women's Learning in the National Women's Education Center. A lively discussion from a wide range of perspectives took place, with speakers from abroad also contributing (NWEC 2005).

5. "Conference on disaster prevention for women" and the "Anamizu Declaration"

On March 25, 2008, at a conference on disaster prevention for women in Anamizu, Ishikawa Prefecture, the "Anamizu Declaration" was proclaimed. After an earthquake occurred there in 2007, members of an NGO set up by disaster survivors in the Kobe region to help recovery efforts came to support Anamizu residents, creating the momentum for the Conference. The support from Kobe meant a lot to the people of Anamizu; as one participant said, "The people from Kobe didn't just come and give moral support, they provided great practical support."

6. Special Committee on Gender Equality, National Governors' Association, chaired by Akiko Domoto, Governor of Chiba

Disaster and gender were recognized as important national issues by the Special Committee on Gender Equality under the National Governors' Association (NGA), and a survey was conducted. (Special Committee on Gender Equality, National Governors' Association 2008). When Akiko Domoto became the governor of Chiba Prefecture in 2001, four female governors participating in the NGA were joined by several other governors in a special committee to develop the project. A survey titled "Disaster prevention measures from the point of view of women and local residents" was sent to all prefectures and municipalities in Japan. Responses were received from all the prefectures and 1,746 municipalities (96.6 percent). In response to recommendations from the prefectural governors, many prefectures built a framework for integrating the local government's policies on women's participation in disaster prevention into action at township and village levels.

7. Review of White Paper on Disaster Management

I reviewed White Papers on Disaster Management from 2001 through 2010 to analyze their descriptions on women and gender. Women have been participating in the volunteer fire corps' national conferences and other events under the name of the "Women's Fire Prevention Club." Originally they were the fire corps' "wives of officers" group, but they seem to have gradually become more involved in system building in the community.

In the 2006 issue of the white paper, there were a number of places that deserve attention. On December 26, 2004, the Indonesian earthquake occurred and in January 2005, a special ASEAN leaders' meeting was held in Jakarta.

8. Final Declaration of the Asia-Pacific NGO Forum on Beijing + 15

In 1995 the 4th World Conference on Women was convened by the UN in Beijing. Government leaders participating in the Conference adopted the Beijing Platform for Action, identifying 12 comprehensive critical areas of concern to be addressed globally. Each year in the spring, the Commission on the Status of Women is held at the UN Headquarters in New York, mainly to discuss set themes. The 2010 session marked 15 years since the Beijing Conference. To commemorate this, large-scale, inter-government meetings and NGO forums were held in each of the UN's five regions. The Asia-Pacific regional NGO forum was held in October 2009 in Quezon City, a suburb of Manila. The forum's declaration recognized that in disaster women face various gender-specific problems, such as sexual abuse. Cases where women are extremely disadvantaged when it comes to recovery efforts were also mentioned.

9. UN World Conference on Disaster Reduction (WCDR) and the Asian Conference on Disaster Reduction

As part of the International Decade for Natural Disaster Reduction, the World Disaster Reduction Conference was held in Yokohama in 1994, and the "Yokohama Strategy and Plan of Action for a Safer World" was adopted. This document made no specific mention of gender or women. However, in the "Hyogo Framework for Action 2005-2015," which was adopted at the UN Disaster Reduction Conference held in Kobe about ten years later, reference is made to a document from the 23rd Special Session of the UN General Assembly: *Women 2000: gender equality, development and peace for the 21st Century.* This framework mentions paying attention to gender-sensitive disaster countermeasures.

Within Asia, the Asian Disaster Reduction Center (ADRC) was established in Kobe in 1998 and the Asian Disaster Reduction Conference has been held almost annually since 2002. It was held in Japan in 2003, 2009 and 2010, at Kobe. The conference summary from 2010 says: "In line with the ASEAN Charter, the AADMER (ASEAN Agreement on Disaster Management and Emergency Response) work program 2010-2015 will also promote a more people-centered approach to disaster risk reduction, by including issues related to vulnerable groups such as children, elderly and people with disabilities as well as gender perspectives" (ADRC 2010).

This surely bodes well for the conference's host country, Japan, with the progress of both domestic and international practice. Unfortunately, Japan's Basic Act on Disaster Control Measures, last revised on August 31, 2011, did not mention gender and women's issues.

Conclusion

Disaster prevention and disaster response at the national, prefectural and municipal level in Japan must include women, the elderly and persons with disabilities from the policy-making stage.

For this to happen, prefectural governors and local mayors must be very conscious of the issues, including disaster prevention, immediate response, management of evacuation centers, temporary housing design, medical and health services, individuals and public opinion and the reopening and rebuilding of businesses. Moreover, women, the elderly, persons with disabilities and children should also be a part of the decision-making regarding the kinds of measures necessary and individual proposals for the recovery process.

The disaster prevention perspective was also included in the amended Basic Act for Persons with Disabilities. On July 29, 2011, this amended law, designed to overcome cases of miscommunication of information to people with disabilities after the 3/11 disaster, was passed in the Upper House of the Diet, making it compulsory for the national and local governments to take into account the situation of people with disabilities when creating disaster prevention and crime prevention measures.

It is also necessary to implement the gender perspectives of diverse actors in the area of international cooperation. This issue is being addressed by Kishie Shigekawa, a member of the Human Security and Gender Committee and professor at the Graduate School of Environment and Disaster Research, Fuji Tokoha University, along with Keiko Ikeda, of Shizuoka University. There are a few academics focusing on this as a research subject, but their number is small and must be increased. Finally, it is necessary to publish and promote books such as *The book of how to protect your children from earthquakes* (Nobue Kunizaki, 2001) and *50 ways to protect children from crime* (Nobue Kunizaki, 2005), which are extremely useful.

An Examination of Medical Care and Healthcare Management in Clinics and Shelters after 3/11

DR. KEIKO AMANO
Japan Association for Gender Specific Medicine

I. Survey Objective

The purpose of this survey is to clarify the emergency medical care issues as seen from the medical activities of the Prefectural Medical Association members who shouldered the burden of medical treatment and health care after the March 11 disaster. It is also meant to serve as documentation for those looking at how to best structure disaster emergency medical care.

II. Survey Executing Agency

Senior Researcher: **Dr. Keiko Amano** (Japanese Association for Gender Specific Medicine)
Participating Organizations:

- Women and Health Network
- Gender-Specific Medicine Center, Fukushima Medical University
- Miyagi Medical Women's Association
- Fukushima Medical Association

III. Survey Method

The survey was conducted by questionnaire with the cooperation of the Miyagi Medical Women's Association and the Fukushima Medical Association.

Miyagi Prefecture: The survey was mailed to 96 members of the Miyagi Medical Women's Association on June 6, with June 30 as the deadline for response. A total of 50 members responded (60.2 percent).

Fukushima Prefecture: Copies of the survey were mailed to 325 doctors who visited the shelters, with 10 copies each sent to 16 hospitals on July 29, with a response deadline of August 15. There were 188 responses (38.8 percent).

The survey content: Questions 1 through 5 on demographic data; Questions 6 through 22 on the situation at the facility the respondent worked at during the disaster; Questions 23 through 33 on the situation in the shelters.

IV. Survey Results (Summary)

A. Clinics, Hospitals and Care Facilities (not including free responses)

Some 78 percent of the doctors were also victims of the disaster, but 45.9 percent of those did not close their offices. Within one week, 87.3 percent of the medical institutions had reopened. The continuation or resumption of medical services served as a source of relief for local residents.

When asked what was important when restarting a clinic, 54 percent said the building's safety, 42 percent said water, 40 percent said electricity and 40 percent said staff. Having the proper infrastructure was considered more important than having medicine (20 percent of respondents).

An overwhelming 82 percent of respondents said a lack of gasoline and kerosene was the biggest obstacle once the facilities had been reopened. Other responses focused on infrastructure, medicine and staff. Lack of water was cited by 48 percent, 38 percent said a lack of medicine, 22 percent said staff shortages, and 22 percent said road and transportation disruption. Other responses pointed out the importance of information: 20 percent cited the lack of disaster information, and 16 percent cited the disruption in telecommunications.

Illnesses that increased over the period of time from the end of the first week to the end of the first month were insomnia, mental health ailments, and anxiety about radioactive contamination. However, the anxiety about radioactive contamination in Miyagi Prefecture only increased from 2 percent to 8 percent, while in Fukushima Prefecture it increased greatly – from 12.8 percent to 29.3 percent.

Some 77 percent of the respondents said there was no difference between the illnesses of men and women at medical institutions; 11 percent said that there was a difference. One week after the disaster, more women cited insomnia and mental health ailments. That trend continued to the end of the first month, with the number of women reporting anxiety about radioactive contamination increasing drastically. After the first week, a large number of men reported high blood pressure and insomnia. After the first month, the number who reported insomnia increased, and anxiety about radiation leakage also appeared later. Generally, women react earlier on the mental side, while men first react physically, the then later follow the same path as women.

Among the patients at medical institutions, 72 percent reported anxiety about aftershocks, 66 percent about radioactive contamination, 46 percent about the nuclear power plant, 34 percent about their lost homes, 34 percent about their lost jobs and companies, 33 percent about their and their family's futures, 28 percent about the deaths of their family members or relatives, 24 percent about resettlement, 21 percent about the worsening of a chronic disease, and 21 percent about the lack of privacy in the shelters. The seriousness of post-traumatic stress is striking.

Illnesses reported by medical institutions 1 week and 1 month after the disaster

	1 week after	*1 month after*
High blood pressure	35%	29%
Cold/Influenza	30%	29%
Insomnia	26%	35%
Gastroenteritis	20%	21%
Worry about radioactive contamination	11%	25%
Mental health ailments	-	29%

B. Shelters (not including free responses)

After the 3/11 disaster, the number of medical personnel placed in shelters in Miyagi and Fukushima prefectures went up by 82 percent. In Fukushima alone the number went up by 95 percent.

The day of the disaster, 6 percent of the respondents entered the shelters. As time passed, the percentage increased, with 41 percent entering on the second or third day after the disaster. Only 10 percent entered after the first month.

While 45 percent of the medical personnel said they experienced some kind of problem in the shelters, 51 percent said they did not. While 60 percent of the doctors from hospitals experienced trouble, only 39 percent of private practitioners reported problems. This is likely the result of private practitioners being used to being primary care givers, and consulting on a wide range of illnesses.

The most common problem medical personnel experienced in the shelters was dealing with the elderly, which was reported by 76 percent of the respondents. Other common problems were dealing with infants, at 63 percent, dealing with women, at 52 percent, and dealing with the handicapped, at 44 percent. A lack of appropriate medicine for the above groups was a common reason for the trouble (30–50 percent). However, in the case of the handicapped, the lack of someone to look after them was listed as the reason 46 percent of the time (36 percent gave the lack of medicine as the reason). When dealing with women, the most common reason was not having the space to examine women at 67 percent, with lack of medicine at 30 percent.

The ailments that increased the most from the end of the first week to the end of the first month were insomnia, mental health ailments, and worry about radioactive contamination. However, worry about radioactive contamination in Miyagi Prefecture stayed the same at 5.9 percent, while it increased from 9.5 percent to 18.4 percent in Fukushima.

Of the respondents, 85 percent said there was no difference in the ailments suffered by men and women in the shelters.

Health care providers said the utility most lacking in the shelters was heating, at 40 percent, followed by the lack of medicine and the lack of hygiene supplies, both at 25 percent, and the lack of plumbing at 22 percent. The heating situation at temporary housing facilities is serious. Although this is only a concern in colder regions, it is important to remember.

Regarding sanitary conditions in the shelters, 66 percent responded between "sufficient" and "fair."

The top ten most indispensable disease control measures for shelters were: toilets at 56 percent, water at 54 percent, hand washing at 48 percent, quarantine of the sick at 45 percent, ventilation at 33 percent, masks at 26 percent, bathing at 25 percent, heating at 25 percent, gargling at 24 percent and balanced nutrition at 21 percent.

Of the doctors in shelters, 77 percent approved of a medical and health care consultation service in the shelters. Of those who approved, a very high 90 percent responded that they were between "useful" and "somewhat useful." Doctors whose facilities had not been damaged tended to say "useful," while those whose facilities had suffered damage responded with "somewhat useful".

Some 89 percent of respondents said that consideration of the victim's gender was necessary: 48 percent said "very important," 40 percent said "somewhat important." There was no real difference between the opinions of doctors working in hospitals and private practitioners. A total of 67 percent of the respondents also said that not having the space to examine women patients was a problem.

Of the respondents, 94 percent said that dividers were necessary to maintain privacy: 66 percent said "very important" and 27 percent said "somewhat important."

C. Free Response Summary

Question 22: "After experiencing the earthquake, what are your thoughts on the medical care in shelters, clinics, hospitals, and care facilities after a disaster?"

The responses can be broadly categorized as follows:

- **Training Beforehand, Preparation for Disasters:** 1) Medical facilities must be protected from disasters. 2) A certain amount of gasoline, food and medicine needs to be stored. 3) Roles during emergency disaster situations must be decided in advance: a manual should be created with evacuation points and processes decided in advance. 4) Habitual disaster drills must not be neglected. 5) Digital medical records need to be backed up in the "cloud" or some other offsite location.
- **Cooperation in Medical Care, Swift Resumption of Medical Care:** 1) For patients, the quick resumption of medical care is a priority. 2) There should be cooperation and backup of functions and posts other than doctors. 3) A medical network with other areas, and a system for medical institutions to support each other should be created.
- **Utilities** 1) Quick restoration of utilities is a priority. 2) Independent power generation should be available. 3) Ensuring sewage services through the use of rain and well-water is important.
- **Information, Communication, Transportation:** 1) A system for dispersing information on not just the reopening of public hospitals, but clinics as well is necessary. 2) Create a communications

structure between medical association members using social media and mailing lists. 3) Provide accurate information regarding radiation. 4) Establish a communication method when regular communications systems are down. 5) Deal with gasoline shortages.

- **Comments regarding administration and medical associations:** 1) Include medical associations in local disaster prevention systems. 2) Understand the limits to administration-centered medical activities. Administration and medical associations should cooperate to delineate the roles of clinics, hospitals and care facilities during a disaster and the conduct training. 3) Prior training of medical leaders/coordinators for a disaster.

Question 33: "Opinions on shelters and medical treatment and health care management within them."

The responses can be broadly categorized as follows:

- **The Shelter Environment:** 1) There were too many people in each shelter and too much distance between shelters for administration to control. 2) Privacy was not maintained. 3) There were hygiene problems (water, toilets, ventilation, quarantining disease, etc.). 4) Dietary problems. 5) Facilities were shabby, cold and lacked noise reduction measures. 6) There was not enough consideration for the needs of the elderly, handicapped, children, and women. 7) Transportation services are necessary for those in need of medical exams.
- **Systematic coordination of shelters:** 1) Bureaucratic positions and personnel to coordinate shelter information are necessary. 2) Information and maps of various facilities around the shelters are necessary. 3) A means of identifying refugees and other people is required. 4) A structure and personnel for coordinating medical support is necessary. 5) Rules for how the administration and volunteers back up medical teams are necessary.
- **Health Care Management and Medical Practice within the Shelters:** 1) There were coordination problems between local medical personnel and medical support staff from outside the prefecture. 2) Various kinds of medical personnel (doctors, nurses, pharmacists, OT, PT, care managers, helpers, clerks) must quickly ascertain evacuees' needs. 3) Regular visits to a predetermined hospital or the setting up of a department with the same faculties as a clinic within or near the shelter is desirable. 4) A system that allows doctors visiting shelters to give out prescriptions is desirable. 5) Team medical care is necessary. 6) Education or training in public sanitation and health for administrative staff at the shelters is necessary. 7) Space for medical consultation is necessary.
- **Comments to the Medical Associations:** There was not enough information or instruction from the medical associations.
- **Transmitting and Obtaining Information:** 1) There was a noticeable difference in the information available between central and outlying districts. 2) A system for backing up medical exam results and other information is necessary.

V. Consideration

Following are four sections looking at A) the disaster response situation, B) the activities of medical associations and governments, C) future disaster medical care, and D) the special characteristics of ailments found in medical institutions and shelters in the disaster area.

A. Representative reports from the disaster areas:

Fukushima Prefecture: Once the earthquake and tsunami were followed by the accident at the Fukushima Dai-ichi nuclear plant,medical personnel were ordered to evacuate certain areas. Important issues in disaster emergency medical care are recorded in the following onsite medical reports by the presidents of three local medical associations.

Soma-gun *(Kashiwa village medical association president):*
The Soma-gun Medical Association includes physicians from Minamisoma, Soma, Shinchi and Iitate. Communication and transportation were cut-off due to the tsunami.

Minamisoma City

- The order was given to take shelter indoors. Hospital in-patients, rehabilitation centers for the elderly, and kindergartens were asked to evacuate.
- Except for hospital directors and doctors with home-care patients, most doctors were evacuated.
- After that there was little to no contact.

Soma City

- The day after the tsunami the situation in the Public and Central Hospitals was like a field hospital in a war zone.
- Due to the large number of patients, hospital staff dealt with in-patients and private practitioners dealt with outpatient care.
- The city ascertained the number of patients in 15 shelters.
- Private practitioners went around to the shelters, but no other support was received for 11 days.
- After that, JMAT teams arrived and a better understanding of the situation in the shelters began.
- In order to preserve the health of the 30,000-odd citizens not in the shelters, the shelters were left to the JMAT teams and the private practitioners set out to reopen their clinics as soon as possible.
- By March 29, 80 to 90 percent of the clinics had been reopened.

Futaba-gun *(Isaka Medical Association President):*

- The order to take shelter indoors was given on March 11. Contact could not be made with the prefecture's Disaster Response Headquarters, and due to the destruction of the roads the area's doctors could not gather. Everyone spent several days in their own areas without information.
- The danger increased with the explosions on March 14 and 15.
- A second evacuation to Koriyama took place.
- On March 16 a DMAT team arrived, but due to the small number of casualties quickly withdrew, leaving the site with a shortage of doctors.
- From March 19 a DMAT team from Toho University stayed for one week and was extremely helpful.
- In April a JMAT team arrived.
- From around April 10 infectious diseases began to spread, and the JMAT teams helped at the Koriyama Healthcare Center until it closed in August.
- The manual that had been prepared was useless.

Iwaki City *(President Mokuta of the Iwaki City Medical Association)*
There was widespread damage along the coast from the earthquake and tsunami. Refugees flooded in. On March 12, 140 shelters were established in Iwaki, accommodating 19,574 refugees, around 30 percent of which were elderly. At this point medical care for the refugees was an urgent problem.

- On March 13, hospitals and the city medical association divided up the shelters and began making rounds.
- A lack of communication within the city medical association made it impossible to secure doctors.
- Support from Tokyo JMAT teams was requested.
- After that, worries about radioactive contamination spread, and food, medicine, and gasoline distribution stopped.
- Several days after the disaster a survey of the situation in the shelters was conducted with the participation of nurses.
- On March 18, a distress call was made to the Japan Medical Association.
- Upon receiving the request from the Japan Medical Association, the Aichi Prefecture Medical Association gathered necessary medical supplies in one day, and on March 19, chartered a helicopter to transfer 800 kilograms of supplies to Fukushima Airport.
- Medical supplies from the national government finally arrived on March 25, but were mostly worthless.
- On the night of March 18, a JMAT team from the Aichi Prefecture Medical Association entered Iwaki City.
- From then on, support from JMAT teams from various areas was received.
- On March 28 a team from Fukushima Medical University arrived.
- By April 6 the number of shelters had decreased to 45 with 2,806 refugees.
- With evacuees moved to temporary housing the number of teams was gradually decreased. Medical care was transferred to local medical institutions as the teams pulled out.

Miyagi Prefecture*: Dr. Yamauchi of the Tohoku University Hospital Emergency Center coordinated the DMAT teams of Miyagi Prefecture.*
Mobile phones connected only 3 percent of the time, and disaster priority phones only 10 percent of the time.

- 22 DMAT teams gathered at the Sendai Medical Center on the morning of March 12, and 71 teams on the morning of March 13, and were dispatched to hospitals in disaster stricken areas.
- Information from areas along the coast was scarce, which made dispatching teams there difficult.
- Until the second day, hospitals responded to queries regarding whether they needed support with "we're fine."
- There were few injured among the survivors of the tsunami, and there wasn't much for airlift personnel to do.
- On March 13 it was learned that Ishinomaki Municipal Hospital was flooded and isolated.
- An emergency meeting was held at 1 am on March 14 to consider emergency countermeasures.
- DMAT transported around 170 patients on the same day.
- Ishinomaki Red Cross Hospital received over 1,200 patients on March 13 alone.
- With transportation systems destroyed, there were a great number of patients who could not get to a hospital right away.

In 2010 Ishinomaki City established a Network Conference for disaster medical workers consisting of the prefecture, cities, main hospitals, local medical associations, Japan Self-Defense Force, and the police. Dr. Ishii of the Ishinomaki Red Cross Hospital was appointed the Miyagi Prefecture Disaster Medical Coordinator by the prefecture one month before the March 11 disaster.

Dr. Ishii began an evaluation of the shelters 6 days after the disaster.

An assessment of the medical treatment, hygienic environment, and utility restoration in over 300 shelters began immediately following the disaster.

A team of 10 to 20 Japanese Red Cross Society Logistical Support members was stationed in the disaster counter-measures office to register medical support teams, enter and manage assessment data and take the minutes at meetings.

Disaster Health Care Professionals were added to the disaster counter-measures office by the end of the week. With the situation changing constantly, the presence of professionals was reassuring.

The number of patients at the shelters and Ishinomaki Red Cross Hospital did not decrease after the clinics within the city reopened.

Dr. Ishii and the director of the Tohoku University Hospital, Dr. Satomi, determined together that long-term medical support was necessary.

A new system was instituted, putting operations in designated areas under the the long-term charge of medical support teams.

B. Disaster prevention activities of the national, prefectural and local medical associations

During the disaster, the urgent necessity of involving the medical associations in disaster prevention and response planning became evident. Two points were identified regarding the role of medical association activities centered around JMAT during the March 11 disaster and their future roles.

It is important to strengthen the placement and role of medical treatment during disasters by involving medical associations in the planning of disaster prevention and

response at the city, prefecture, and national levels.

To restore local medical care, it is important for medical associations, which provide the most intimate medical care to local residents, to participate in reconstruction planning.

In April of 2011, the Japan Medical Association and six other organizations formed the Survivors Health Support Liaison Council. Upon a request from the government's Special Headquarters for Measures to Assist the Lives of Disaster Victims, the following two goals were set:

1) The dispatch of mid-term medical teams to respond to the medical needs of affected areas.
2) to determine the healthcare needs of the shelters and disaster areas while implementing the necessary initiatives to prevent the spread of infectious diseases and insure the health of survivors.

Dr. Katsumasa Haranaka was appointed president of the Japan Medical Association, which presently consists of 34 organizations. The designation of the Japan Medical Association as a designated public entity, and its participation in the Central Disaster Prevention Council are necessary to include JMAT in the national basic disaster prevention plan. Dr. Haranaka was appointed a member of the Central Disaster Prevention Council's Disaster Planning Promotion Investigative Commission. This commission reevaluated the basic disaster prevention law and disaster prevention legislation, and recapped the response to the March 11 disaster. Their final report was released in July of 2012. It is necessary for the prefecture and city medical associations to participate in local disaster prevention councils in concert with the movements of the central organizations.

C. Shaping Disaster Medical Care

There are several important items recorded in the "Report from the Investigative Commission on the Shape of Disaster Medical Care" as agenda items for this survey.

Disaster Base Hospitals

There were 33 disaster base hospitals in the three prefectures (Iwate, Miyagi, Fukushima) at the time of the March 11 disaster. While two of the hospitals suffered damage, none were completely destroyed. Each prefecture did their best to gain information using EMIS as an intermediary, but there were hospitals for which this information was not entered for several reasons: they were not contacted until the next day; hospitals in the disaster areas input information directly into EMIS; DMAT and prefecture agents did not input data; the fear of hospitals possibly collapsing; and the situation with utilities. Gasoline shortages and destroyed roads often resulted in shortages of food, medical supplies and fuel to run generators. The following six items are issues to focus on.

1) Earthquake-proofing disaster base hospitals.
2) Preparing satellite phone and internet connections to safeguard against disruption of landline and mobile phone service.
3) At Disaster Base Hospitals triage and initial medical diagnosis, inpatient care, surgery, dialysis and other medical services were maintained through widespread power outages over a long period of time due to the provision of generators by the Japan Self-Defense Forces.
4) A minimum supply of water was secured at Disaster Base Hospitals due to existing water tanks, wells, and the provision of water by the utilities companies even during water outages in disaster areas. It is necessary to take steps to make sure the necessary amount of water for medical care will be available during water and power outages, such as preparing wells that work without electricity, building water tanks, and guaranteeing priority in the restoration of facilities from the water companies.
5) It is necessary to have enough food, water, and medical supplies for three days, and to assume a large number of visiting patients and staff will not be able to return home. It is also necessary to arrange to receive preferential distribution of supplies from related organizations and merchants during a disaster before the disaster actually occurs. It is especially necessary to arrange systems for providing and managing medical supplies at the prefectural level as decided in the Ministry of Health, Labor and Welfare's Disaster Prevention Action Plan.
6) Coordinating between medical institutions and helicopter companies for the transportation of survivors and patients to heliports is necessary. It is desirable to establish heliports within medical institution premises to reduce the amount of time it takes to transport patients.

Systems for Providing Medical Treatment and Care during Disasters

After the March 11 disaster, DMAT teams reached an unprecedented 1,800 members in 380 teams from 47 prefectures dispatched to Iwate, Miyagi, Fukushima and Ibaraki Prefectures. The contents of their activities over 12 days are as follows:

1) Information transmission and medical diagnostic aid in disaster area hospitals.
2) Local area emergency transportation via ambulances and helicopter.
3) Wide area transportation via Self-Defense Force's equipment.
4) Rescue and emergency treatment of patients cut-off by the tsunami. 16 helicopters from 16 prefectures were dispatched to disaster areas, and transported over 140 patients.

Issues with DMAT

1) Deaths due to the tsunami.
2) There was a smaller number of critical care trauma victims than expected.
3) DMAT teams, which are meant to be self-sufficient, ran past their usual 48-hour operation time frame, and ran out of supplies.
4) It was extremely difficult to determine medical needs, with communications difficulties compounding the situation.
5) Large numbers of DMAT teams entering the disaster areas increased the workload on the headquarters, making it difficult for them to provide support.
6) It took time to coordinate between relevant organizations for medical transport over a wide area.

Regarding the Dispatch of Medical Teams during the 3/11 Disaster

As of October 7, 2011, 12,115 people in 2,589 teams have been dispatched from JMAT, University Hospitals, Japan Red Cross Society, National Hospital Association, Japan Dental Association, Japan Pharmaceutical Association, Japanese Nursing Association and other medical organizations. These teams responded to the difficult medical needs of survivors with chronic maladies.

However, the system for managing and dispatching teams to hospitals and shelters at the municipal level was insufficient, and it took time to create an organization at the prefectural level that could coordinate the dispatch of medical teams.

The three following points should be considered for future response measures:

1) Rethink the training and mission contents of DMAT to include a wide variety of medical issues.
2) Plan for the quick establishment of a DMAT Office or Prefectural Coordination Headquarters with stronger central command and coordination abilities to dispatch registered DMAT members and supporting personnel.
3) Develop and train a specialized DMAT logistical team in hospital support, information gathering, and logistical support to place in DMAT Offices and Prefectural Coordination Headquarters to ensure that there will be proper personnel to support the logistical support teams.

Points one through five regarding Disaster Base Hospitals in the Ministry of Health, Labour and Welfare's *Report from the Investigative Commission on the Shape of Disaster Medical Care* are also applicable to other disaster-area hospitals and clinics. The recommendation regarding the shape of DMAT teams during disaster will also serve as a reference for future JMAT management.

D. Special Characteristics of Ailments in Shelters and Disaster Area Hospitals, and the Nuclear Accident

The three most common ailments in the shelters and disaster-area hospitals were high blood pressure, common colds and insomnia, both one week and one month after the earthquake. Comparing illnesses of one week and one month after the earthquake, insomnia, mental health ailments, and anxiety over the radioactive contamination increased the most.

Anxiety over radioactive contamination in disaster-area hospitals was at 12.8 percent in Fukushima Prefecture the first week and increased to 29.3 percent, much more than in Miyagi Prefecuture, which started at 2 percent and went up to 8 percent. In shelters, anxiety over radioactive contamination stayed at 5.9 percent from the end of the first week to the end of the first month in Miyagi Prefecture, but jumped from 9.5 percent at the end of the first week in Fukushima Prefecture to 18.4 percent.

The anxiety of the citizens of Fukushima Prefecture over radioactive contamination is reflected in the psychological issues reported by hospital patients. Among patients who responded, 72 percent said they had issues with panic from aftershocks, 66 percent said radioactive contamination, 46 percent said anxiety over the nuclear accident, 34 percent said loss of their homes, 34 percent said loss of their job or company, 33 percent said they worried about the future of themselves and their families, 31 percent said they worried about the future of living in a shelter, 28 percent said they suffered from the loss of family and loved ones, 24 percent worried about resettlement, 21 percent had chronic diseases which became worse, and 21 percent suffered due to the lack of privacy in the shelters.

However, in Miyagi Prefecture, 74 percent were panicked by aftershocks, 52 percent suffered from losing their homes, and 48 percent suffered from losing family and loved ones. In Fukushima Prefecture, 73 percent had anxiety about radioactive contamination, 71 percent were panicked by aftershocks, and 51 percent had anxiety about the nuclear accident. In hospitals where doctors recorded the sex of the patients, women patients were more affected by anxiety from radioactive contamination. The problems of women one week after the disaster were insomnia and mental health issues. This trend continued to the end of the first month, but anxiety over radioactive contamination rose from 16 percent to 44 percent. On the other hand, in men, the remarkable ailments in the first week were high blood pressure and insomnia. After the first month, insomnia rose to 32 percent, and anxiety over radioactive contamination jumped from 8 percent to 28 percent. Generally, women responded to psychological issues at an earlier stage, and had a great deal of anxiety over the nuclear accident and radioactive contamination. From this survey it is obvious that the citizens of Fukushima Prefecture, especially women, suffer a great deal of anxiety about invisible radiation.

Initiatives taken in Fukushima Prefecture

Prefectural medical schools, with Fukushima Prefecture at the core, are conducting a survey of the healthcare management in their regions. The goals of the survey are to keep watch over their health over the long term, improve future health, and belay fears about the effects of radiation. The survey involves estimating radiation dosage levels and giving healthcare based on the level of exposure.

In June of 2011, an initial survey began with 30,000 people in Namie, Iitate Village and Kawamata. In August, the survey was distributed to 25,000 people throughout the prefecture. Responses to 50 percent of the initial surveys were collected and an analysis is underway. Of the 9,497 respondents in the initial areas (excluding those working at nuclear facilities) 99.33 percent were exposed to less than 10 mSv of radiation over 4 months. From these results, it is estimated that the additional exposure over one year will not exceed 20 mSv.

Starting in October of 2011, all residents under 18 years of age in the prefecture (roughly 360,000) received a thyroid ultrasound scan. These examinations are planned to continue for a period of 30 years.

Those for whom further professional care is deemed necessary as a result of the survey and further screenings will be introduced to medical university facilities, where detailed surveys about mental health and lifestyle will be administered. Other detailed surveys will also be administered, such as the survey for expectant and nursing mothers.

This kind of survey is unprecedented, and will provide a valuable opportunity to gain scientific evidence regarding exposure to low-level radiation over long periods of time. Presently, what is wanted most is a way to reduce anxiety about radioactive contamination. For doctors, it is a necessity to share accurate knowledge and information about radiation with the citizens of the prefecture.

Other Special Characteristics

The ten most indispensable things for preventing the spread of infectious diseases in the shelters were: toilets (56 percent), water (54 percent), hand-washing (48 percent), quarantining infected patients (45 percent), ventilation (33 percent), medical masks (26 percent), bathing (25 percent), heating (25 percent), gargling (24 percent), and nutritional balance (21 percent).

While it is fortunate that there was no great outbreak of infectious diseases after the disaster, Dr. Mitsuo of the Tohoku School of Medicine Infection Control and Diagnostics Laboratory had this to say about the situation in the shelters in a medical journal:

"Within the shelters, the disruption of the medical system and stoppage of utilities such as plumbing, electricity and gas, combined with cramped communal living over an extended period of time, drinking water shortages and insufficient hand washing due to water shortages, the deteriorating sanitation of toilets and garbage storage, and malnourishment from lack of food, were all major factors in the spread of infectious diseases.

Tohoku University had made support and cooperation between the medical associations and the administration its mission, forming the Tohoku Crisis Management Network for Infectious Diseases, and performing diagnosis and treatment of infectious diseases, as well as implementing infection control measures. However, in the early stages after the disaster, the combination of a breakdown of utilities such as water and electricity combined with the difficulty in obtaining information made dealing with infectious diseases extremely difficult.

There are a number of issues that need to be dealt with: ensuring communication and information sharing between hospitals, shelters, local governments, clinics and social welfare facilities when telephone and internet are disrupted; setting standards for infectious disease control when utilities and logistics are disrupted or stopped completely; setting up a system for examinations by dispatch medical personnel; training support for an infectious disease control headquarters; and information communications starting with the mass media. During large-scale disasters, it is extremely important that expert organizations such as medical associations, government administrations, universities, etc., are in regular communication before an event occurs.

After the 3/11 disaster, the most desired utility in the shelters from the viewpoint of healthcare providers was heating (40 percent). Losing body heat is very damaging to one's health, and heating is a large factor in maintaining health and preventing the spread of infectious diseases.

Regarding problems reported by healthcare providers regarding examinations, "dealing with the elderly" at 76 percent, "dealing with infants" at 63 percent, and "dealing with women" at 52 percent, all had high numbers.

A common cause for all three of the above was the "lack of medicine," but for "dealing with the disabled" the largest reason was "there was no one to take care of them" at 46 percent, with "lack of medicine" at 36 percent. With women, the main complaint was "there is no space to examine women" at 67 percent, with "lack of medicine" at 30 percent. The unease about not having a space to examine women can also been seen in that 89 percent of doctors who responded that considering the sex of the patients in medical treatment was necessary, and the 94 percent of doctors who said dividers were necessary to maintain privacy for the patients.

Glossary

DMAT (Disaster Medical Assistance Team)
These national Disaster Medical Assistance Teams were developed in 2005 based on the lessons learned from the 1995 Kobe earthquake. The teams consist of doctors and registered nurses trained in emergency medical care and administrative staff who go to the locations of large accidents, outbreaks, or large scale disasters within 48 hours to provide medical treatment and support to hospitals.

EMIS (Emergency Medical Information System)
A system to share information on the actual situation of operations in medical facilities and disaster emergency medical care across prefectures in order for governments and medical institutions to rapidly deliver the appropriate medical care and relief aid.

JMAT (Japan Medical Association Team)
These disaster emergency medical teams were formed immediately after the Great East Japan Earthquake by the Japan Medical Association. The consist of one doctor, two registered nurses, and one administrative staff who are dispatched from three days to one week.

Dr. Keiko Amano (above, second from left) and Hiroko Hara (right) during the fact-finding trip to Sendai.
Below: Wakabayashi Ward, Sendai

Some of the authors traveling to Sendai: Dr. Keiko Amano (second from left), Miho Ohara (third from left), Akiko Domoto (center) and Hiroko Hara (third from right).

JAPAN WOMEN'S NETWORK FOR DISASTER RISK REDUCTION

Author Profiles

AKIKO DOMOTO began her career in the 1960s as a television journalist and producer. Following her election to the Upper House of Japan's Diet in 1989, during 12 years as a parliamentarian she played a pivotal role in the drafting of landmark social legislation and was an active participant in inter-parliamentary bodies, including GLOBE (Global Legislators for a Balanced Environment), for which she served as president in 1999. In 2001 she was elected Governor of Chiba Prefecture and served two terms in office thru 2009. Since 2009 she has been an active policy advocate on gender and social issues and biodiversity.

MIHO OHARA is an associate professor at the University of Tokyo's Center for Integrated Information Research (CIDIR), Interfaculty Initiative in Information Studies. She graduated from the master course of the University of Tokyo's Department of Civil Engineering in March 2001, and received a PhD degree in September, 2005. She worked as a Research Associate at the university's International Center for Urban Safety Engineering (ICUS), Institute of Industrial Science from 2003 to 2008. Her research fields are disaster risk reduction planning, people's capacity building against disaster and the effective use of disaster information.

AOKI REIKO is a research fellow at the National Women's Education Center of Japan, an associate professor at Wako University and Ferris University and a permanent board member of the National Council of Women's Centers. She was an information specialist at Tokyo Women's Plaza until 2000, and the director of the Koshigaya Gender Equality Support Center from 2001 to 2006. She was also operations coordinator at the Saitama Prefectural Center for Promotion of Gender Equality from 2006 to 2009. Her specialty is gender issues.

HIROKO HARA has been the vice-representative of the Women and Health Network Japan(WHJ) since 1994. She is also a professor at Josai International University's Faculty of International Humanitarian Studies and professor emeritus of Ochanomizu University. She received her PhD in Anthropology at Bryn Mawr College in 1964. Hara was president of the Japanese Society of Ethnology from 1990 to 1992, and was awarded the Prime Minister's Commendation for Efforts Toward the Formation of a Gender-equal Society in 2009. Her specialties are cultural anthropology and gender studies.

DR. KEIKO AMANO is a pioneer in gender-specific medicine in Japan and president of a Japan-based network of gender-sensitive medical experts. She has contributed greatly to the expansion of women's clinics in Japan. Amano graduated from the University of Tokyo's School of medicine in 1967, where she began lecturing in 1988. In 1993, she became a professor at Tokyo University of Marine Science and Technology, and in 2002, she was appointed vice director of Chiba Prefectural Tougane Hospital and director of Chiba Prefectural Institute of Public Health. From 2009, she has been an advisor at Seifuso Hospital. Her specialty is cardiac medicine.