Recent Japanese studies of the vulnerable people and its support system at the time of disaster

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1. Outlook of the countermeasures for the vulnerable people in Japanese disaster management

- 2004: Many floods: Death of elderly people
  → 2005 Guidelines, mainly for evacuation activities
- 2004: the Nigata chuetsu EQ: Disaster related death
  → 2006 Amended Guidelines, including the maintenance of shelters’ healthy environments
  → 2006 Consideration for the vulnerabilities was included in the Basic disaster prevention plan
- 2007: Guide book of the preparation of measures for supporting Persons Requiring Assistance During a Disaster (PRADD)
  → This guide book decide how to make support plan for PRADD
- 2013: Amendment of Disaster Countermeasure Basic Act
  → Making the usage rule of privacy information

Outline of Guidelines

| Improving the information communications system | • Announcement of evacuation preparation information
| • Establishment of a support unit for people requiring assistance
| • Secure communications by making use of various means such as the Internet, emergency call message service, etc. |
| Sharing of Information concerning people requiring assistance during a disaster | • Collection and sharing of information on people requiring assistance in various ways
| • Promotion of exceptional use of social welfare-related personal information to prepare evacuation support systems |

After the flood disaster, in 2004

- Over half of casualties were elderly people by the floods.
  (For example, six of nine casualties in Sanjyo city in Nigata pref. were over 70 years old.)
- Learned from these flood’s lessons, cabinet office made the first “Guidelines for Evacuation Support of People Requiring Assistance During a Disaster” in 2005
- Before this guideline, many people and organization use various words for the vulnerable people like weak people for disasters. Officially this guide line decided the standard word “People Requiring Assistance During a Disaster” (PRADD)

Amended guidelines in 2005

- The guidelines in 2004 were mainly for the evacuation activities at flood disasters.
- After the Niigata chuetsu EQ in 2005, there were many “disaster related death” because of the bad environment in shelters.
- Based on these lessons, guidelines in 2004 was amended in 2005.
- Amended guidelines was not only for evacuation activities, but also for good living environment in shelters. And it indicated the importance of efforts by the vulnerabilities themselves.
### Outline of Guidelines

<table>
<thead>
<tr>
<th>Creating a tangible evacuation support plan for people requiring assistance during a disaster</th>
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<tr>
<td>• Creation of an evacuation support plan for each individual requiring assistance</td>
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<td>• Recognition of the importance of making communities resilient to disasters</td>
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<th>Assistance at evacuation centers</th>
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<td>• Establishment of an information desk for people requiring assistance at evacuation centers</td>
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<td>• Establishment of welfare evacuation centers</td>
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<th>Collaboration among related organizations</th>
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<td>• Continuity of welfare services in disaster situation</td>
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<td>• Wide-area support of health nurses</td>
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<td>• Establishment of a committee on evacuation support of people requiring assistance at the municipal level</td>
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(From "Disaster Management in Japan." Cabinet Office, Government of Japan)

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### Support plan for PRADD

- Decided that all municipalities had to make the plan until March, 2010. (But not succeeded.)
- Support plan for PRADD was composed of two part. One is overall plan. The other is individual plan for each PRADD. (Individual plan is more difficult to make.)

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### 2013: Amendment of Disaster Countermeasure Basic Act

- At this amendment, consideration for the vulnerable people was specified clearly.
- Especially municipalities have to make the list of "the People Requiring Assistance During a Evacuation Activities".

**Terms**

- "People Requiring Assistance During a Disaster" (PRADD)
- "People Requiring Considerations" (PRADEA)
- "People Requiring Assistance During a Evacuation Activities" (PRADEA)

*Some research groups use "Persons with Special Needs at times of Disaster (PSND)" for PRADD.*

### Ordinance of Kobe city for the support to the vulnerable people

- The first case of such ordinance for the vulnerable people in Japanese municipalities
- The vulnerable people have to secure their housing and living environment, provide their information and contact to community, cooperate to establishing support system for them.
- Kobe city and communities have to support the vulnerable people by collecting information, making support plan for them, and setting counseling staffs in each special welfare shelters.

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### Three important issues for the vulnerable people’s evacuation

1. To collect and to share the information of PRADD at the normal time.
2. Safety confirmation and evacuation support for PRADD after disasters.
3. Continuity of medical and health care service for PRADD and maintenance of sound environment in shelters.

(From "Natural disasters and survivors support." Eiichi YAMASAKI 2013)

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### Five roles for the vulnerable people’s evacuation

- Integrator of evacuation support system (Municipalities)
- Confirmation of existence of PRADEA
- Information collection of PRADEA
- Supporter for evacuation activities of PRADEA
- Supporter for evacuation life of PRADEA

(From "Natural disasters and survivors support." Eiichi YAMASAKI 2013)
Supporters for the vulnerable people

- Municipalities
- Police
- Fire department, and Voluntary community fire company.
- Voluntary organization for disaster prevention, and other community organizations
- Local welfare commissioner
- Social welfare council
- Business organization in medical and welfare care.

Local welfare commissioners

- Local welfare commissioners are voluntary consultants and coordinators between residents and municipalities, designated by the Welfare Commissioners Act.
- Local welfare commissioners are special part-time public officers. (But salary is very small, almost volunteer.)

Gender equality

- Guideline for countermeasures of disaster risk prevention and disaster recovery from the standpoint of gender equality, by Cabinet office, 2013.5

2. Recent Studies for the vulnerable people at the time of disaster: from the Journal of social safety science

A Qualitative Study on How Persons with Special Needs at times of Disaster (PSND) Were Responded to During the 2007 Noto Hanto Earthquake: From the Response Process of Supporting Organizations for Elderlies in Need of Care, JSSS, No10, 2008.11
Nicolle COMAFAY, Youko KITAHAMA, Kaori TOBIOKA, and Shigeo TATSUKI

- The Noto Hanto EQ in 2007 is the first big earthquake after the establishment of guidelines for the PRADD.
- Method: This research was qualitative study based on the interviews for 75 health nurses, and group interviews (workshops).
- The purpose was to clarify the time line of countermeasures, to analyze and assess the changes of organization’s roles for the PSND (=PRADD).
**Results 1**

Task changes according to the phases

<table>
<thead>
<tr>
<th>Routine</th>
<th>Non-routine</th>
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<tr>
<td>Same as pre-disaster</td>
<td>Type 1 Established, Type 3 Extended</td>
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<tr>
<td>New</td>
<td>Type 2 Expanded, Type 4 Emergent</td>
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Fig 19 Changes of communities’ and private operators’ response

Fig 20 Changes of public organizations’ response

**Empirical Risk Aversive Behavior Modeling - Based on the Assistance for Persons with Special Needs in Times of Disaster, JSSS, No10, 2008.11**

Yuko OCHI, Nicolle COMAFAY, and Shigeo TATSUKI

- Purpose: To analyze the relations between risk conscious and disaster risk prevention actions (DRPA) of residents. (Not only the vulnerable people, but all residents.)
- Method: Questionnaire surveys in 2007, to the residents at two districts in Kyoto city. This research analyzed the relationships between the variable numbers.
- Result: Disaster schema (ability to image the disaster situation) is the fundamental factor of DRPA. Disaster schema changes risk cognition and normative belief. Risk cognition changes his/her behavior and intention. Normative belief changes community activities or trust for social system.

- This research based on the theory that personnel vulnerability was decided by not only his/her mental and physical condition, but also his/her environment. (International Classification of Functioning, Disability and Health(ICF) by WHO in 2001)
- One difference point between the 2005 guideline and the 2006 guideline for PRADD is the role of PRADD.
- The 2006 guideline indicate the importance of active disaster prevention countermeasures by the vulnerable people themselves.
Study on Evacuation assistance for elderly and disabled people in case of Sayo-cho Flood Disaster cased by Typhoon 9th in August, 2009 -Through questionnaire and interview research to commissioned welfare volunteers, No13, 2010.11 Katsushige TAKEBA, Kazuyoshi OHNISHI, Akiko TANIGUCHI

- This is an experimental study based on the questionnaire survey (68 person) and interviews (45 person) for Local welfare commissioners (=commissioned welfare volunteers).
- By this flood many local welfare commissioners were damaged, therefore they had difficulties to support the vulnerable people. This research try to clarify such situation.
- This research did not use established analysis framework. Authors developed their own analysis method.

### Planned information flow and roles of organizations in charge

- **West-Harima branch of Hyogo prefecture**
  - (River-water-level-measuring organization)

- **Fire department**
- **Sayo town**
- **Police**

- **Voluntary community fire company.**

- **Local welfare commissioners**
- **Community association**

### Evacuation information

- **Residents**
- **Cooperate commissioners**

### The vulnerable people

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**a) Local welfare commissioners supported the vulnerable people directly (35 cases)**

- **West-Harima branch of Hyogo prefecture**
- (River-water-level-measuring organization)

- **Fire department**
- **Sayo town**
- **Police**

- **Evacuation information**

- **Voluntary community fire company.**

- **Local welfare commissioners**
- **Community association**

- **Residents**

### The vulnerable people

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**b) Local welfare commissioners were damaged (31 cases)**

- **West-Harima branch of Hyogo prefecture**
- (River-water-level-measuring organization)

- **Fire department**
- **Sayo town**
- **Police**

- **Evacuation information**

- **Voluntary community fire company.**

- **Local welfare commissioners**
- **Community association**

- **Residents**

### The vulnerable people

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**c) Local residents responded on a voluntary basis (3 cases)**

- **West-Harima branch of Hyogo prefecture**
- (River-water-level-measuring organization)

- **Fire department**
- **Sayo town**
- **Police**

- **Evacuation information**

- **Voluntary community fire company.**

- **Local welfare commissioners**
- **Community association**

- **Residents**

### The vulnerable people

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**d) Local welfare commissioners didn’t receive evacuation information from Sayo city (15 cases)**

- **West-Harima branch of Hyogo prefecture**
- (River-water-level-measuring organization)

- **Evacuation information**

- **Voluntary community fire company.**

- **Local welfare commissioners**
- **Community association**

- **Residents**

### The vulnerable people
Study of Casualties of Elderly and Disability People by the Analysis of Aggregate Data by the Local Municipalities in the Great East Japan Earthquake, JSSS, No18, 2012.11
Asaka MATSUMOTO, Shigeo TSTSUKI

- Basic cross sectional statistical analysis based on published data.
- Death rate of the disabled was larger than average, especially the physically disabled.
- Death rate over 60 years old was larger than average.
- But death rate in Iwate prefecture was not as large as that of Miyagi and Fukushima.
- Average death rate is almost same in three prefectures: Iwate, Miyagi, and Fukushima. But death rate of disabled and elderly people are different between prefectures.
- Authors indicated one hypothesis: Death rates of the vulnerable people were effected by the support system for the vulnerable people in each prefectures.

Other research papers

Relative Analysis between a Community's Disaster Recovery Potential and Social Capital, JSSS, No11, 2009.11
Emi IDABASHI, Eichi ITODIGAWA, Yoshio KUMAGAI and Michitaka UMEMOTO
Clarifying the Situation of the Victims with Special needs on Evacuation Site Using the 7 Livelihood Domain Model , JSSS, No11, 2009.11
Keiko TAMURA, Fumi OKADA, Reo KIMURA, Munenari INOGUCHI, Shigeo TATSUKI, Haruo HARASHI
GIS Mapping of Social Vulnerability of Disabled Persons Based on Person-In-Environment Model of Vulnerability Using Data From Hyogo Ward, Kobe City, No11, 2009.11
Nicolle COMAFAY, Chikako NAKAMURA, Jiro YOKOTA, Shigeo TATSUKI

3. Exist data of questionnaire surveys and interviews about the vulnerable peoples.

「震災被災地における要援護者への個別・地域支援の実践的研究」報告書,2013.3, 全国コミュニティライフサポートセンター

Individual and community support for the vulnerable people in the earthquake damaged area. Japan Community life support center

- Research of support centers for the vulnerable people in three prefectures: Iwate, Miyagi, Fukushima
- Research of Unofficial special welfare temporary housings.
- Research of training programs to the support staff working at support project for the vulnerable people.

被災時から復興期における高齢者への段階的支援とその体制のあり方の調査研究事業報告書,2012.3, 富士通総研

Staged support system to elderly people from response phase to recovery phase. Fujitsu Research Institute.

- Questionnaire surveys to municipalities, Social welfare councils, and business operators of welfare facilities.
- Interview surveys to municipalities, business operators of welfare facilities, and supporters.

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東日本大震災後の要援護者の行動実態と支援実態に関する調査・研究事業,2013.3, 東北福祉大学

Situation and support system of the vulnerable people after the Great East Japan EQ, Tohoku Fukushima University

- Questionnaire survey to welfare facilities, and day care service operators.
- Questionnaire survey to municipalities.
- Questionnaire survey on web to the vulnerable people and their families.
- Interview surveys to community general support centers and support and coordinate centers of home-based care.
Research for Establishment of Wide-area welfare support system at the time of Disaster, Fujitsu Research Institute.

- Research on mutual support system of welfare facilities, and support team to the disaster damaged area.
- Questionnaire survey for prefectures.
- Interview surveys for prefectures, and welfare service operators.