



21/Feb/2014

Input Paper

Prepared for the Global Assessment Report on Disaster Risk Reduction 2015

**Public Health & Primary Health Care, re-developing & preparation of the training for coming mega-disaster in Japan after Great East Japan Earth Quake (GEJEQ) 2011**

Training of DHEAT (Disaster Health Emergency Assistant Team) & PCAT (Primary Care for All Team)

**Dr. Kentaro Hayashi, M.D. MSc**

Barefoot Doctors OKINAWA (NGO): President

**Nahoko Harada, RN, MSN**

National Defence Medical College: Assistant Professor

Table of Contents

1. Back Ground

[1. Lack of concept of minimum standard for public health and primary care issue for the disaster victims at GEJEQ](#_Toc373851395)

[2. Lack of concept of Cluster Approach toward the response for the humanitarian emergency at GEJEQ](#_Toc373851395)

[3. Weak recognition of principle of self-management, principle of do-no-harm and Lack of concept PFA training toward the response for the humanitarian emergency at GEJEQT](#_Toc373851395)

2. Consequence

1. Recognition of importance of “human right based approach”, “Cluster approaches & Coordination”

2. Recognition of importance of PFA

3. On going process of the action accepting the lessons from GEJEQ in public health and primary health care sector

3. Training and its contents

4. Problem

5. Suggestion

[References 10](#_Toc373851397)

[In the text: **Error! Bookmark not defined.**](#_Toc373851398)

[In the Bibliography: **Error! Bookmark not defined.**](#_Toc373851399)

**1. Back Ground**

**Lack of concept of minimum standard for public health primary care issue for the disaster victims**

In the Great East Japan Earthquake (GEJEQ) 2011, poor performance of public health and primary health care from sub-acute phase to chronic phase has been observed. Management of evacuation camps was lack in idea of “SPHERE Standard”.

According to the report from “SaiGaiJi No KouSyuEiSei”1), which published after the GEJEQ, means “Public Health in Disaster” in English, condition of evacuation shelters, “HiNanJyo” in Japanese, settled in school or gymnastics which was appointed to be a place to evacuate when mass scale disaster happen by the government, were lack of consideration of human right base in their management.

Report from "Higashinihon Daishinsai Ishinamaki Saigaiiryou No Zen Kiroku”2), whole report of disaster medicine in GEJEQ in Ishinakai, written by Disaster Coordinator of Ishinamaki area, describes the condition of WatSan in few evacuation center of Ishinomaki area. Lack of the number and accessibility of the toilet deteriorate the sanitary condition of the camp. Same, phenomenon was observed in many other “HiNanJyo”, Evacuation Center, in Tsunami affected area and NGO “Cannas” and Japan Primary Care Assoication (JPCA) 311 disaster response team called PCAT, stand for “Primary Care for All Team”, report3)4) one of the typical case from Kesennuma. They found the temporary box toilet in outside the “HiNanJyo” which Self Defence Force brought but because of the order of the director of the “HiNanJyo” appointed from Kesennuma municipality, People cannot use those toilet even the toilet inside the building is full of filthys. Especially lack of the consideration was apparent in disables, elderly people and woman, especially pregnant and child. Style of toilet would be a good example. Those who are difficulty in walk, it is quite difficult to use Eastern (or Japanese) crunching style toilet which have to crunch over the hall. Young generation of Japanese population, especially under 5, doesn’t have a experience to use those style of the toilet and have a lot of difficulty in managing their stools and waist. Such kinds of poor management resulting in prevalence of Noro-Virus infection cause the diarrhea and which affected fatally for the elderly or disable people in the shelter3)4).

Food, which is one of the basic human rights for the population, provided by the government to the evacuee is also lack the idea of human well being. Their provision of the food was lack in consideration of the balance of nutrition and lack of consideration of the disable and elderly. There are no systems to check the quality and nutritious balanced of the food provided to evacuee. PCAT appointed that those imbalances of the nutrition of the food would be result in further deterioration of the chronic/life style diseases such as hypertension, obesity and diabetes. Report from Japan Dietitic Association5) tells that budget constriction for the food for the evacuees makes difficult in preparation the food target for elderly or the population who has difficulty in mastication in both chewing and swallowing. For those populations, they need to hire the extra personnel in preparing and distribution of those foods. Population who has allergy in specific foods are also face with difficulty to find the appropriate food for them.4)5)

Residential space as “HiNanJyo” would also be a lack in consideration of human right. Lack of privacy or protection for the woman, pregnant woman and baby are reported from “Women’s Network for East Japan Disaster”6) and PCAT4). Not only those vulnerable populations, but the consideration for the disables and elderly were totally lack at the beginning. “Cannus”report3) few concrete case of the difficulty of residing of the disable person in “HiNanJyo”. Because of the inappropriate residential condition of the elderly population who require nursing and medical services, “Ishinomaki Municipal Hospital”, supported by “PCAT” and“Nishikata IryhouFukukshi Kenkyukai (Nishikata Medical and Social Welfare Reserach Unit)”, organized the special total package welfare evacuation center called “YuGaKuKan” for those population in Ishinomaki city7).

Population who seeking help was not only reside in the “HiNanJyo”, Some of victims were residing in corrupted house and living in the condition which was lacking of human right aspect. Most affected population among those groups are elderly who need a nursing care regularly. NGO-JIMNet, PCAT report that because of lack of consideration of those population as victims and its vulnerability, those population have to be live without dignity in Ishinamaki area and in result, a lot of tragedy was reported including death by fatigue and weakening enhanced by the cold weather8)4). Not only those elderly populations who need a nursing care, pregnant woman, immigrant and other vulnerable populations are totally affected by paralysis of health surveillance system and services, PCAT reported4).

**1-2. Lack of concept of Cluster Approach toward the response for the humanitarian emergency at GEJEQ**

In very early stage of “HiNanJyo”, as well as lacking of the concept of human right base approach, lacking of the concept of cluster approaches were one of the core factors which makes difficulty in effective response for the vulnerable population. As already mentioned, in both places and areas, “HiNanJyo” and residence of affect area, one of the typical and most vulnerable populations in this disaster was elderly people who require the nursing care or special services according to the condition. Taking care of those populations requires a multi-dimensional approach. Not to mention about medicine and nursing, physiotherapeutic rehabilitation support, nutrition support, psychological approach and the construction and creation of the life space both in hard-ware and soft-ware is quite important from usual. However in GEJEQ, lack of coordination with multi-professional approach was rare to observe in taking care of elderly population. “Cannas” described in their report that the difficulty in cooperation with “HiNanJyo” even among the medical/nursing organization3). After the PCAT reporting to the municipal government of this issue, such discordance was solved only after one month from 11th March 2011, the date of GEJEQ happen4).

Elderly population of Kesennuma city, northern part of Miyagi prefecture, 70000 population, also face with difficulty in survive not only the one who evacuated in shelter but more the one who reside in their own house or apartment located on disaster affected area. Especially those whom got regular packaged welfare services, including medical and nursing, nutrition and mastication, rehabilitation and exercise support, were severely affected not only because of the lack of aspect of human right but also the lack of concept of cluster approach. Doctor from Kesennuma Municipal hospital and private clinics finds out those vulnerable populations after 1 week of disaster and start their own effort to provide the services however; those efforts would result in vain because it couldn’t be a total care only by the medical aspect. Many professional organizations, Japan Physiotherapist Association, Japan Nutritionist Association, Miyagi Nursing Universities also found same problem and they try to support those population however, because of lack of coordination, those effort were result in vain as well. 3 weeks after the GEJEQ, JPCA and Home Visiting Medical Care Association start to coordinate those gaps among the concerns group and organized the cluster meeting and formed the team called “JRS: Junkai Ryouyou Sientai”, stand for home visiting care team for elderly and disable4)9)10).

Same problems occurred in Ishinomaki city but the scale of it and dimension of it is different. In Ishinomaki city, which has 160000 populations, those whom need a regular package welfare services were also evacuated to the “HiNanJyo” and the number of it was more than Kesennuma city. Addition to the lack of consideration of human right aspect, lack of coordination inside the health cluster, and between the other cluster of Ishinomaki city, lead a difficulty in management of those population which evacuated in “HiNanJyo” as well as population who need a regular total package welfare services reside in corrupted house. Each party, PCAT, Japan Nursing Association, Conglumeration of 10 association to support phisical rehablitation service at GEJEQ (Higashi Nihon Daishinsai Rehabilitation Shien Kanren Jyu Dantai), Japan Dietetic Association, Nishikata Medical and Social Welfare Reserach Unit start to form the coordination meeting led by the Ishinomaki Municipal Hospital, Ishinomaki Municipal government and Medical Disaster Coordinator of Ishinomaki, after 6 weeks of GEJEQ2)4)7). Kind of special cluster for the elderly population who requires package welfare services was formed. They decided to open the special total packaged welfare evacuation center called “YuGaKuKan”. “YuGaKuKan” is citizen hall owned by culture and education department of sub-municipality of the Ishinomaki city called Kahoku Township. However, because of the lack of coordination with other cluster, residence and immigration department, transportation department, education department, and cultural department, the launch and real operation, providing total packaged welfare services was postponed till beginning of the May, it was almost 2 month after the date of GEJEQ2)4).

**1-3. Weak recognition of principle of self-management, principle of do-no-harm and Lack of concept PFA training toward the response for the humanitarian emergency at GEJEQ**

Principle of self-management, concept of not to harm oneself in other word, and principle of do-no harm, is one of the important recognition during the humanitarian action at disaster. However, except few organizations, understanding of those principles of humanitarian action have quite weak even the medical or psychological organization which dispatch certain number of medical or psychological professionals to the affected area of GEJEQ. PCAT is one of the organizations which concerns about the principle of the “self-management” and “do no harm” however, they couldn’t took any action for those problem till the psychological problem of the volunteer become appear and reported to the head quarter12). Most of health worker and organization didn’t have an idea about “Psychological First Aid (PFA)” and deepen and spread the damage for both health workers and victims. There are not so much report how the health workers suffered the psychological damage after the medical or health promotion activity because of lack of PFA training and there are no report or academic survey that shows the lack of PFA training worse the psychological damage to the victims. As well as those fact, report of the recognition of importance of PFA training before the GEJEQ is rare without the case of PCAT13)14)15)16)17). However, certain number of under report cases led National Center of Neurology and Psychology (NCNP) to declare the necessity of PFA training for future humanitarian worker. Dr. Yoshiharu Kin of NCNP mentioned in his talk with atomic accident committee that lack of PFA trainer will be one of the most urgent issues for preparation for coming mega disaster18).

**2. Consequence**

**2-1. Recognition of importance of “human right based approach”, “Cluster approaches & Coordination”**

Accepting the fact above, both sectors, public health & primary health care, has been considered about strengthening and reinforcement for disaster response especially target on vulnerable population found in GEJEQ.

National Health Board Directors Association (NHBDA), which consist of Head of Prefectural municipal level public health officer declare in the petition on budget and fiscal measures in 2013 that “We cannot respond effectively for the public health issue including WASH, nutrition and many other primary health care matter occurred in GEJEQ.” They said “Especially for the vulnerable population both in the shelter and the resident living in affected area, we have to make minimum standard of public health issues for evacuation shelters and resident living in affected area by referring UNHCR standard or SPHERE standard”19).

National Public Health Center Director Association (NPHCDA) declares the necessity of coordination and cluster approach in preparation for next disaster. According to the “Petition on budget and fiscal measure of administration/governance of Public Health Center in 2013”, they are emphasis on coordination and cluster approach both in governance/administrative level, from nation, prefecture, city, to township, and topic or professional/occupational level such as cluster approach of mentioned in SPHERE standard. Addition to those basic ideas of cluster approach, they mentioned in 2 specific issues which describe the characteristic topic of GEJEQ. Special attention to the victim for radiation disaster and to the population need a total welfare package services such as elderly, disable and person who has incurable diseases both in the shelter and the resident living in affected area20).

Disaster Public Health Forum Japan (DPHFJ), led by Dr. Shigeru Omi, former Regional Director of the Western Pacific Regional Office for the World Health Organization, and MoH research member of the “Establishment of the action team concerns about public health issue in the disaster” which include concerns member of the NHBDA and NPHCDA, was formed few month after GEJEQ and member ship is spreading from National government level such as National Institute of Public Health Japan (NIPHJ) and National Center for Global Medicine (NCGM) to private association level such as JPCA. Accepting declaration of NHBDA and NPHCDA, DPHFJ also declare that the importance of both important concept, human right base approach and cluster approach which could be a core counter major for coming mega disaster in Japan and surrounding country. Parallel to the reforming of the both law concerns about disaster response “Disaster Countermeasures Basic Act” and “Disaster Relief Act”, DPHFJ emphasis the importance of “Private-Public Partnership (PPP)”, for public health and primary health care response for the disaster. DPHFJ also emphasis on the international cooperation for the response, including acceptance of the foreign aid workers concern with public health and primary health care and standardization of minimum standard of the condition of the affected victims according to the international standard21)22)23).

Japan Medical Association (JMA) is one of the biggest professional associations in Japan and sends the primary health care providers called JMAT; stand for Japan Medical Association Team, during GEJEQ. Terms and duration of the dispatch was comparatively short like 3to 4 days in the affected area in the early stage till 3month after the disaster. However, number of the doctors they send to the affected area comes up to 3000 and the number of the team including the nurse and pharmacist comes up to 2000. This project idea was launched in 2010, one year prior to the GEJEQ so systems and training for the primary health provider was not yet set up when the GEJEQ hit the Japan. They finished sending the teams to the affected area in middle of 2012. In “disaster medicine work shop of JMAT 2012, JMA declare that all the municipal and regional JMAT office should establish the training course based on SPHERE standard24).

JPCA is academic and authorized organization to issue the certificate of specialist of Family Medicine, Primary Care Physician and General Practitioner. As mentioned previously, 311 disaster response team called PCAT send 300 of primary health care specialist physician to the affected area and the team including nurse, pharmacist, midwife, emergency medical technician, dentist, oral care and mastication specialist, physiotherapist, public health nurse and public health specialist, biological specialist, psychologist and psychotherapist, nutritionist, acupuncturist, occupational therapist, social worker, according to the condition of the affected area and victims. As core concept of the primary health care consist of “Accessibility”, “Comprehensiveness”,　“Coordination”, “Continuity”, “Accountability”, it was easy to adapt the human right based approach and cluster approach. So from the beginning of the launching of the disaster specific response team PCAT, there activity was based on approach mentioned in SPHERE standard25).

**2. Recognition of importance of PFA**

As previously mentioned, there were less research and report that mentioned about the gravity of the lack of the PFA training at GEJEQ, the fact of campaigning of PFA by NCNP to the health sector and future humanitarian worker would be one of the proof that there had been lack of recognition of importance of PFA training toward the response for the humanitarian emergency and lead the unexpected damage to the health provider consequently. After the GEJEQ, led and initiate by the MoH and NCNP, team called DPAT, stand for Disaster Psychological Assistant Team, aim for swift and appropriate provision of the psychological support services after the complex humanitarian emergency, and managing system of it has planned to establish26). Parallel to this movement, taking PFA training is strongly recommended to all the sectors which have an possibility to got in touch with the victims and enter the affected area for humanitarian support. As well as campaign of PFA led by National Center for Neurology and Psychology27)28), Japan Society of Traumatic Studies also recommend the PFA training for organizational disaster preparation for the future humanitarian action29).

**3. On going process of the action accepting the lessons from GEJEQ in public health and primary health care sector**

Recognition of importance of “human right based approach”, “Cluster approaches & Coordination” and principle of “self-management and do no harm”, both public health sector and primary health care sector start to reform the disaster response system and team for coming next mega disaster. For reinforcement of public health sectors, DHEAT, “Disaster Health Emergency Assistant Team” has proposed to be established by NHBDA and NPHCDA, DPHFJ30). Since after the GEJEQ, DPHFJ proposed to the MoH Japan to establish the team concerns about public health issue in the disaster. First, they proposed to called it DPHAT, Disaster Public Health Assistant Team, however, the sound of the abbreviation of the team DPHAT is quite similar to the DPAT, “Disaster Psychological Assistant Team” which establish also after the GEJEQ led by National Center for Neurology and Psychology and concerned party, they change the name to DHEAT31).

DHEAT is proposed to be a team which enters the disaster affected area immediately to assess the damage of health and concerns facilities, WASH and nutritious condition of the victim, living condition concern with health issue and establish the surveillance system concern with health crisis including infectious diseases. Acquirement, reservation and distribution of the human resources and supplies according to the assessment would also be a role of the DHEAT they mentioned in the proposal document issued in 2014 February. DHEAT would be under control of municipal government, and work under the cluster which organized by the government. Team would not only consist by the government officer but open to the public health specialist belong to NGOs with registration and specific training by the mind of public-private partnership31).

 The concrete system and organization to run this action is still under construction by the National MoH, District MoH of each municipality and concerned parties, however, accepting those ideas, National Institute of Public Health Japan (NIPHJ) start pilot training for the DHEAT since 2012 June.

And for the primary health care sector, PCAT (Primary Care for All Team) established by Japan Primary Care Association (JPCA) has been eagerly working for establishment of the disaster training course for Primary Health Care Providers. Since GEJEQ, JPCA also had send the team called PCAT to provide the primary health care for the victims in affected area, especially target for the vulnerable population in the context. They were the only organization which provided the disaster response training based on SPHERE standard before dispatched to the field during the GEJEQ25).

**Training and its contents**

Pilot training for DHEAT was practiced by Department of Health Crisis Management Research (DHCMR) of NIPHJ. This department has a responsibility to offer the initial training for the public health doctor before to dispatch to the assigned position of municipal level public health officer or public health position inside the municipal government. As well as those training, this department has been in charge of offering the update training for public health officer, public health nurse and public health concerns person of municipal government. According to the requirement from NHBDA and NPHCDA, DPHFJ through health service bureau of cancer measure and health promotion division & General division of MoH30), NIPHJ start to organize the curriculum for the purpose to make a pilot training program for DHEAT. Middle level training opportunity and higher level training opportunity which offered by the DHCMR of NIPHJ for the public health officers were shifted for the pilot training for the DHEAT project32), 33). Both trainings, middle and upper level, took three days. Contents for the middle level trainings are basic level training of SPHERE standard include group discussion and desk simulation of evacuation camp, health information management system simulation called H-Crisis and which establish especially for the health crisis management such as disaster or the pandemic of infectious diseases, simulation using the health information management system and lecture about basic knowledge about WASH, psychological management, radiation management and communication management include media control those which become a typical problem at GEJEQ. Upper level training consists of middle level training of SPHERE standard which more emphasis on cluster approach including area mapping desk simulation of affected area, PFA training of WHO version and H-Crisis simulation which is same content of middle class training32), 33).

 For the primary health care providers, JPCA and the team PCAT has continuously developed the training program based on SPHERE standard and PFA. Accepting the fact of increasing of the psychological disorder and symptoms such as alcohol abuse, PCAT makes PFA as mandatory training for all the volunteers from 2011 November. Since April, trials to put as mandatory training of PFA for the volunteer workers and staffs had been continued however till August 2011, it had been difficult to have their own trainer. After getting trainers of training of WHO version of PFA for the staff, we could offer the services not only the doctors but all the staffs and volunteers, concern with GEJEQ support. After closure of “HiNanJyo”, PCAT continuously give support the affected area and victims through the rehabilitation of the affected hospital and medical staffs. For those staffs, PCAT provide the PFA training for their understanding of the principal of “self-management and do no harm”. Since 2012, PCAT has been trying to develop the new training module for primary health care provider especially focus on the primary health care doctors utilizing Intra-Professional-Work method and focus more on coordination and cluster approach25).

**Problems**

As describe, public health and primary health care sector has been paying effort to establish the training system according to the lessons they learned from GEJEQ however, there are few points which have to overcome for concrete and effective preparation for the next coming mega-disaster. Firstly, it could be said that stand point between the government sector and private sector. As one of the three core components of Japanese constitution is “respecting fundamental human right”, “human right approach” could be quite well accessible to both, government and private, sector. However, perception and construe of the human right has been changing quite swiftly; there are the gap between the understanding of human right between government sector and private sector. Especially Japanese is law-governed country and Japanese law system is written law system and took time in changing the law. Private sector could find the issue concerns with human right in the field however, it takes time to share with the government side and take action toward the problem because the government side have to change or try to find the new construe or understanding of existing law to take action for the newly pointed out issue concern with human right even during the disastrous situation. This gap will accelerate by the aging society. Aging society what we are facing/living now, is first experience for human being and discovering of new aspect of human right in aging society is just on the process. For example, there is no legal frame work for euthanasia in disaster situation for the one who has incurable decease or condition. Problem of lonely death at evacuation shelter is difficult to judge whether those condition could be said as lack of dignity in terms of human right point of view even in the non-disastrous situation. Aspect of palliative medicine is also one of the human right based apporach but it could be difficult to have legal frame works which could be a legal back ground to apply palliative medicine during the disaster. Those problems are also link with cultural and social aspect but without legal frame work, it could be difficult to take action including establishing minimum standard and training session for concerns parties.

Second point is social and cultural gap between the concerns parties especially about the perception of death of elderly people in aging society. PPP would be the exactly the one which could work effectively in the pre, during and post disaster as DHEAT mentioned in their report from human rights and technical aspect. In 2013, reform of the law, “Disaster Countermeasures Basic Act” and “Disaster Relief Act”, which mentioned about PPP was announced and it was 2 year after the GEJEQ22)23). However, those reforms still not mentioned about how to deal with the support from foreign official entity and foreign private entity in the future disaster. Hopefully those will be reform again or possible to have appropriate interpretation or construe for accepting effective relief from foreign entity. By those effort, hopefully we will accept foreign support and in such case, those minimum standards for disaster relief worker also should be acceptable for international entity as well. However, how to overcome difference of cultural and social point of view toward the aging society and elderly in terms of human right would not be clear. As I mentioned it, perception and recognition for euthanasia, lonely death and palliative medicine is different by the individual or the organization depend on the belonging culture and society and those differences will be more apparent for the foreign entity or the organization34).

**Suggestion**

Seamless and borderless cooperation is necessary for preparation in coming mega-disaster. Aging society is not only the feature of Japan now on but global problem. Lessons we learn from GEJEQ especially about management of disaster in aging society, must be involved in those trainings.

# References

1. O. Kunii, et al, *Saigaiji no Koushuueisei: watashitachi ni dekirukoto* [Disaster Public Health: what we could do? ], (Nanzando, 2002)
2. T. Ishii, *Higashinihon daishinsai ishinomaki saigai iryouno zenkiroku: Saidaihisaishi wo iryouhoukai kara sukutta ishi no nana kagetsu*, [Whole record of disaster medicine of Ishinomaki, Great East Japan Earthquake: 7 month life of the doctor who prevent the meltdown of health system of one of the most affected area], (Kodansya, 2012)
3. Zenkoku Houmon borantia naasu no kai Kyannasu, ed., *Borantia naasu ga tuduru Higashi nihon daishinsai: dokyumento* [Voice of the volunteer nurses of Great East Japan Earthquake: Document], (Sanshoudou, 2012)
4. K Hayashi*, “*activity report of 311 Disaster response team PCAT, Primary Care for All Team 2011”, Japan Primary Care Association (internal document). 2012
5. <http://www.dietitian.or.jp/eq/index.html>　(accessed 21st Feb 2014)
6. <http://risetogetherjp.org/?cat=10> (accessed 21st Feb 2014)
7. <http://www.city.ishinomaki.lg.jp/cont/10151000/9001/kokusaijinndouforum.pdf> (accessed 21st Feb 2014)
8. <http://www.jim-net.net/news/info/2011/03/> (accessed 21st Feb 2014)
9. <http://www.kesennuma-hospital.jp/collection/files/04/04-01.pdf> (accessed 21st Feb 2014)
10. <http://yuunomori3.jugem.jp/?eid=54> (accessed 21st Feb 2014)
11. Higashi nihon daishinsai rihabiriteishon shien kanren ju-dantai “Daikibo saigai rihabiriteishon taiou manyuaru” Sakusei waakingu guruupu, ed., *Daikibo saigai rihabiriteishon taiou manyuaru* [Response Manual of Physical Rehabilitation at Mega disaster], (Ishiyaku Shuppan Kabushiki Gaisya, 2012)
12. N Harada, (on process), A two year advocacy of mental health and psychosocial support in emergency settings: Psychological First Aid, An official Journal of Japan Primary Care Association , Supplement “Great East Japan Earth Quake. Activity of PCAT –Primary Care for All Team”, Japan Primary Care Association, TOKYO, Japan
13. N Harada. A Tsutsumi. Psychological First Aid: BLS of mental health (Workshop). The 18th Annual Meeting of Japanese Association for Disaster Medicine. Kobe. January 2013.
14. N Harada. Implementation of Psychological First Aid to the Great East Japan Earthquake Disaster responders. The 18th World congress for disaster and emergency medicine. Manchester. United Kingdom 2013
15. N Harada, K Hayashi, and M Maezawa. “An evaluation of the Psychological First Aid for the 311 responders: Its feasibility and effectiveness” Annual meeting of the Japan Association for International Health. Okayama, Japan. October 2012
16. N Harada, “Psychological First Aid: An educational program for humanitarian crisis responders” International Conference of the Global Network of WHO Collaborating Centers for Nursing and Midwifery, Kobe, Japan. July 2012
17. N Harada. “Psychological First Aid: An educational program for humanitarian crisis responders and its efficacy” Sigma Theta Tau International Honor Society of Nursing Chi Chapter Research Day, Massachusetts, MA June 2012
18. <https://www.nsr.go.jp/committee/yuushikisya/kinkyu_hibakuiryo/data/0002_03.pdf> (accessed 21st Feb 2014)
19. National Health Board Directors Association,*“Petition on budget and fiscal measures in 2013”, National Health Board Directors Association (internal document), 2013*
20. National Public Health Center Director Association, “Petition on budget and fiscal measure of administration/governance of Public Health Center in 2013”, National Public Health Center Director Association (internal document), 2013
21. Disaster public Health Forum, “Petition to the Health Services Bureau 2012”, Disaster public Health Forum (internal document), 2013
22. Disaster Countermeasures Basic Act (legarl reform 2013）, <http://www.bousai.go.jp/taisaku/minaoshi/kihonhou_01.html> (accessed 21st Feb 2014)
23. Disaster Relief Act, <http://law.e-gov.go.jp/htmldata/S22/S22HO118.html> (accessed 21st Feb 2014)
24. http://dl.med.or.jp/dl-med/eq201103/jmat/jmat\_20120310.pdf
25. K Hayashi, “activity report of 311 Disaster response team PCAT, Primary Care for All Team 2012”, Japan Primary Care Association **（**internal document). 2013
26. <http://www.mhlw.go.jp/seisakunitsuite/bunya/hukushi_kaigo/shougaishahukushi/kokoro/ptsd/dpat_130410.html> (accessed 21st Feb 2014)
27. <http://www.ncnp.go.jp/nimh/seijin/H22DisaManu110311.pdf> (accessed 21st Feb 2014)
28. <http://www.ncnp.go.jp/nimh/pdf/kenkyu58.pdf> (accessed 21st Feb 2014)
29. <http://www.jstss.org/topics/02/306.php> (accessed 21st Feb 2014)
30. Health Service Bureau-Cancer measure and health promotion division & General division MoH Japan*,* “Requests from concerns parties relating to disaster health-related training” (internal document), *2013*
31. Disaster public Health Forum, “Petition to the Health Services Bureau 2013”, Disaster public Health Forum (internal document), 2014
32. [*https://www.niph.go.jp/entrance/h25/course/short/short\_hoken01.html*](https://www.niph.go.jp/entrance/h25/course/short/short_hoken01.html)(accessed 21st Feb 2014)
33. [*https://www.niph.go.jp/entrance/h25/course/short/short\_hoken02.html*](https://www.niph.go.jp/entrance/h25/course/short/short_hoken02.html)(accessed 21st Feb 2014)
34. Kentaro. H, (On process), “Post disaster health activity of Temporary Shelter Utilizing IT tools and Crowd System at Yamamoto-Cho”, An official Journal of Japan Primary Care Association , Supplement “Great East Japan Earth Quake. Activity of PCAT –Primary Care for All Team”, Japan Primary Care Association, TOKYO, Japan