The Invisible Human Crisis: Mental Health Recommendations for the Care of Persons Evacuated and Displaced by the Hanshin-Awaji (Kobe) Earthquake

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April 1995

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DEDICATION

Special honor and thanks are extended to the earthquake survivors who honestly and generously shared with the authors their traumatic life experiences. It is the human insights of these adults and young people that form the basis of this report.

ACKNOWLEDGEMENTS

This report was funded by the Sasakawa Foundation, Tokyo, Japan. Mr. Koichi Takagi the fund's Executive Director and his research assistant Mr. Kinya Narabayashi facilitated the successful completion of all aspects of this report.

The field work was made possible by the administrative assistance of Dr. Shigeru Suganami, President of Association of Medical Doctors for Asia (AMDA) and his associates Drs. Hideki Yamamoto and Norihiko Kuwayama.

Appreciation is extended to those volunteers from AMDA Japan Volunteer Center (JVC) who helped organize and conduct all field interviews. These energetic and generous volunteers include: Ms. Kimiko Kasahara, Ms. Eri Tada, Mr. Kei Yuhara, Ms. Hisayo Kamiya, Mr. Yoskicazu Nagao and Ms. Nosaki.

The technical assistance in Kobe and Boston of Dr. Kenji Shibuya was invaluable. Drs. Naoko Miyaji, Kazue Nakajima and Brian Flynn contributed their professional knowledge.

INTRODUCTION

On January 17, 1995 at 5:46 AM an earthquake struck the Japanese mainland and caused massive physical and emotional trauma to those immediately effected, as well as the Japanese nation. This earthquake lasted for twenty seconds with its epicenter the north part of Awaji-shima, 24 km off the shore of Kobe city. Approximately 5,500 were killed, 34,500 injured and over 320,300 left homeless or in need of evacuation. More than 80,000 homes were totally destroyed and almost 100,000 partially destroyed.

Images of fire and the destruction caused by the Hanshin-Awaji earthquake slowly reached all nations. International media described the great human suffering of this natural disaster and increasingly spoke of the hundreds of thousands of refugee and displaced persons generated by the earthquake. It was this media reference to the Hanshin-Awaji earthquake survivors as refugees and the close professional working relationships of the Harvard Program in Refugee Trauma (HPRT) at the Harvard School of Public Health (HSPH) with Japanese colleagues in Cambodia, that inspired HPRT to extend an offer of assistance. For over fourteen years, HPRT has provided mental health assistance to Indochinese refugees in the United States, Thailand and Cambodia. Over the past two decades, the psychosocial and economic impact of traumatic life experiences on refugee populations have been well documented; these new insights and knowledge are influencing international humanitarian assistance and policy. While a natural disaster does not have the same psychological effect on persons as the brutality of human-caused mass violence, the devastation of individual lives, families and communities by an earthquake the magnitude of the recent one in Japan is still enormous. The possibility that HPRT in

partnership with HPRT' Japanese colleagues might be able to contribute its refugee knowledge to assist those affected by the Hanshin-Awaji earthquake was, therefore, considered. The Sasakawa Foundation responded favorably to the latter and facilitated the field work and resulting policy recommendations formulated in this report.

During February and March 1995, HPRT conducted two field trips to the earthquake area. The purpose of these trips were three-fold:

1. To assess the traumatic life experiences of the earthquake survivors and to determine the magnitude of social and psychological problems effecting evacuated and displaced persons;
2. To formulate policy recommendations aimed at solving the major mental health problems of the above targeted group within the unique cultural context of their historical and socio-political environment;
3. To establish a bi-national, bicultural partnership and reciprocal relationship between HPRT and Japanese professionals and citizens in order to facilitate international co-operation and support.

The authors found in Kobe, Japan an influx of Japanese volunteers along with local citizens and professionals (many with damaged lives) of extraordinary energy and generosity of time and spirit contributing to the recovery and reconstruction of the Hanshin region. The authors of this report were especially impressed by the dignity and courage of the more than 150 evacuees interviewed for this report. In spite of traditional stereotypes in the West of Japanese reserve, those interviewed, including elderly women and adolescents openly and honestly shared

with us their painful life experiences. All believed that their stories could help the assistance of others more damaged than themselves.

This report, although informed by field work, is not based upon a scientific epidemiologic survey and needs to be read cautiously. Its recommendations and conclusions must be considered within the concrete realities of everyday life in the earthquake zone. While HPRT aspired through field work and bi-national discussions to achieve a report sensitive to Japanese culture and socio-political practices, lack of nuances and the overlooking of intimate details of the many ethnic groups and Japanese social classes effected by the earthquake might have occurred. This report should be considered by its readers as an opportunity to discuss, amend and/or change its conclusions in order to relieve the suffering of the earthquake survivors. This report also strives to guarantee that the reconstruction process will not only rebuild the physical infra-structure of the region, but also repair the socially and emotionally damaged lives of all citizens.

METHOD

The following method was used to establish the cultural meaning of trauma, the types of trauma experienced by the earthquake survivors and its psychosocial impact on their lives.

First, the existing international research literature on the mental health impact of earthquakes was reviewed and compared to the existing scientific literature on refugee trauma. Two overviews used summarizing the literature on natural disasters include:

- Disaster Response and Recovery: A Handbook for Mental Health Professionals by Diane Myers, RN, MSN Copy Editor- Bruce Hiley-Young, MSW, LCSW National Center for Post-Traumatic Stress Disorder, Menlo California August, 1994. US Department of Health and Human Services, Center for Mental Health Services. DHHS publication No. (SMA) 94-3010 1994.
- Psychosocial Consequences of Disasters. Prevention and Management, Division of Mental Health, World Health Organization Geneva 1992 WHO/MNH/PSF/91.3 English only; general distribution.

The refugee trauma literature is available upon request from HPRT.

Second, the magnitude of the impact of the earthquake on the region was reviewed. Figure 1 situates the earthquake geographically; the disaster area occurred in the Hanshin region which comprises primarily Hyogo prefecture and its largest city, Kobe city (N=1.5 million). Figures 2 and 3 reveal the local districts of Kobe city which had the greatest destruction in property and human lives. Nagata district experienced the largest loss of property secondary to fire. Higashinada district had the largest loss of life (N=1216), followed by the Nada (N=712)

Figure 1. Hyogo prefecture and Kobe city

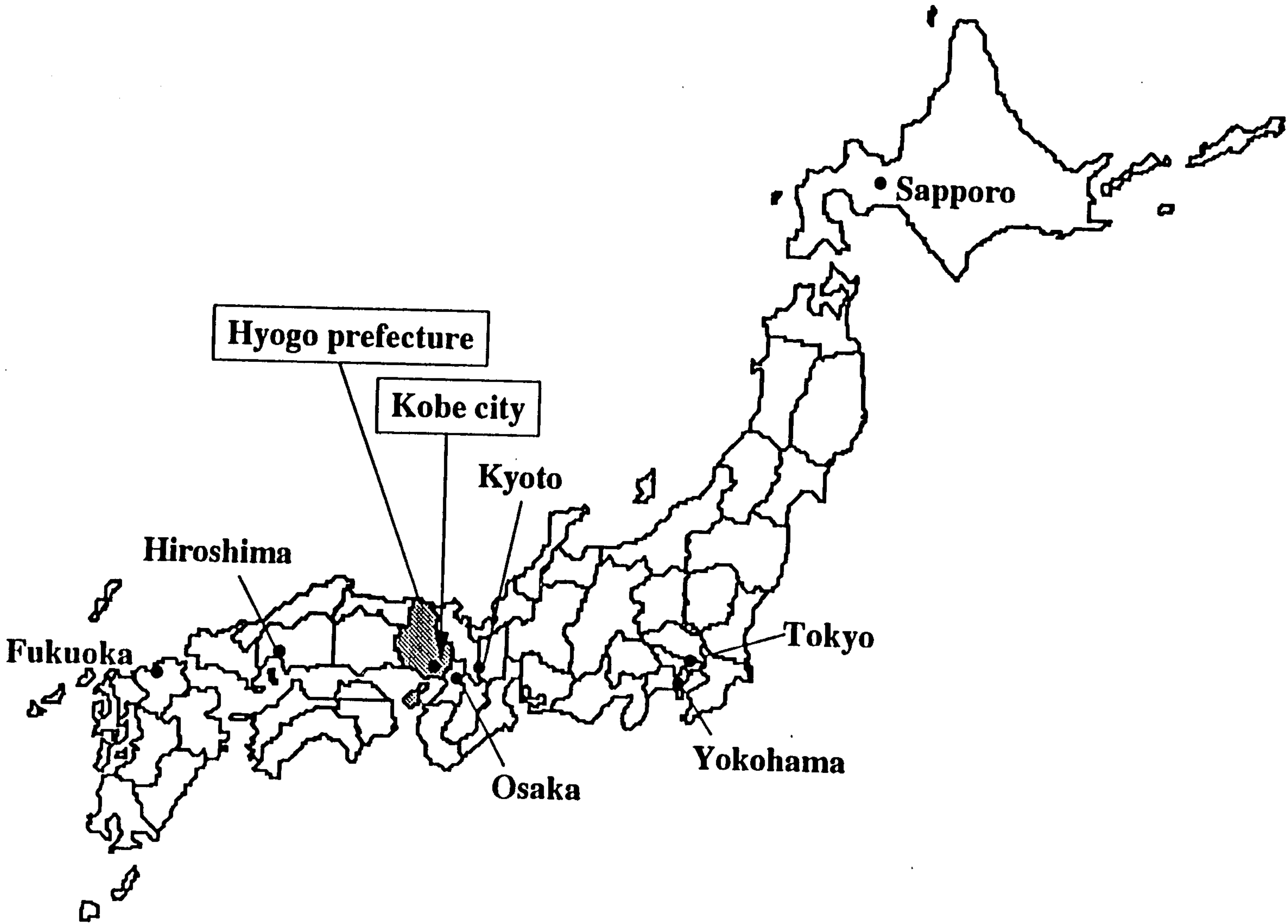
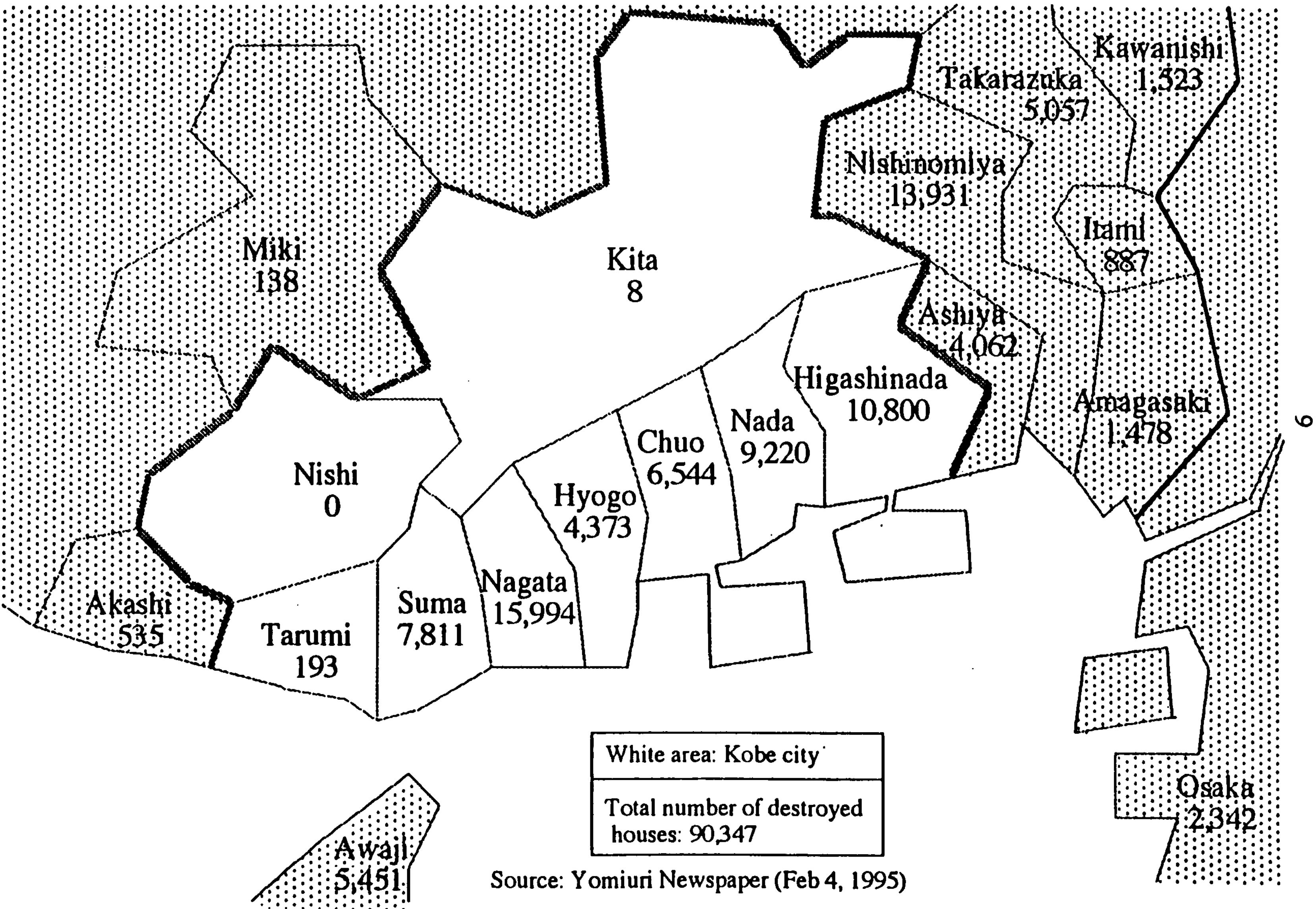
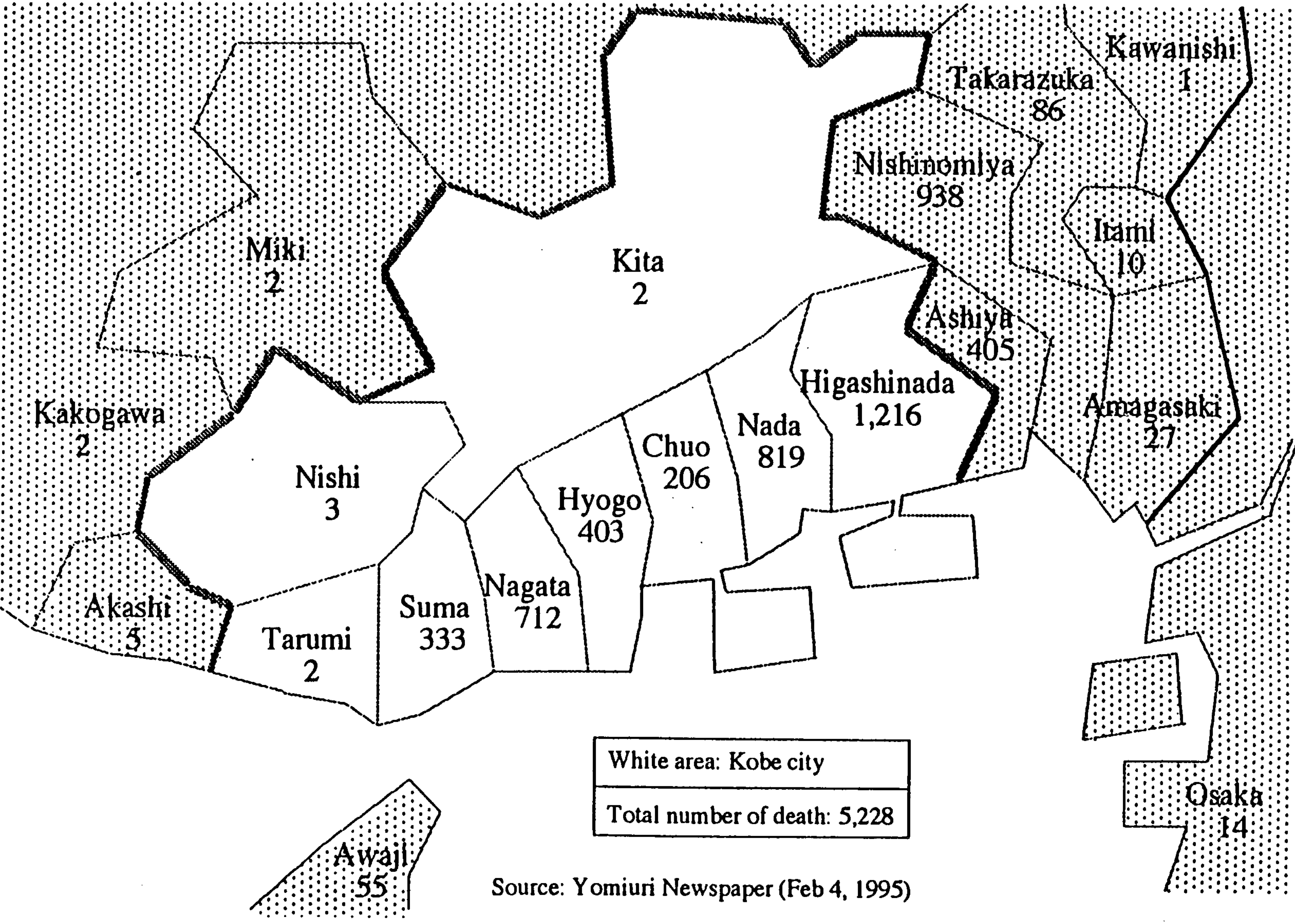


Figure 2. Number of houses destroyed in Kobe city and surrounding areas (Feb 3, 1995)



Source: Yomiuri Newspaper (Feb 4, 1995)

Figure 3. Number of death in Kobe city and surrounding areas (Feb 3, 1995)



Source: Yomiuri Newspaper (Feb 4, 1995)

and Nagata (712) districts of Kobe city. Kobe is the sixth largest city in Japan, and Japan's second largest port. It is well-known for its international character and multi-ethnic society. For example, Japanese terms like "Toppa" and "Hai Kara" are used to describe Kobe citizens. "Toppa" describes those who like something "new and strange" and "Hai Kara" describes those who like Western goods and expensive products. Kobe's large population of Koreans (N=28,000) and its smaller population of Vietnamese and Chinese primarily live in the Nagata district. Because of the magnitude of destruction and ethnic diversity of the Nagata district, it was chosen as the primary site (along with Hyogo district) of the field study.

Third, a key informant field survey was conducted in the Nagata and Hyogo districts. A survey questionnaire was designed to assess from evacuation shelter residents information on their traumatic life experiences before and after the earthquake, the impact of these traumatic events on their physical health, mental health and social functioning, including employment, the quality of humanitarian assistance, the extent and value of public education regarding the earthquake and the accessibility of concrete social services, emotional support and counseling.

Our survey questions were based upon HPRT's model of community diagnosis developed and utilized in refugee camps in Thailand and in Cambodia. This model assumes that survivors of extraordinary life experiences such as mass violence and natural disasters will develop psychological symptoms of distress which are, in fact, normal human reactions to severely traumatizing life experiences. Figure 4 summarizes the basic principles of community diagnosis. Community diagnosis strives to identify those aspects of a local community which are capable of providing the therapeutic support necessary to relieve the psychological symptoms of community

Figure 4

THE FOUR COMPONENTS OF COMMUNITY DIAGNOSIS

1. **CULTURAL MEANING OF TRAUMA**: The community diagnosis describes the cultural and socio-political meaning of traumatic life experiences, including torture, mass violence and natural disaster.

2. **CULTURAL SPECIFIC SYMPTOMS**: These symptoms include the manner in which members of the society express their emotional suffering and upset. "Folk diagnoses" are those cultural/linguistic definitions which categorize these symptoms.

3. **DISABILITY**: The community diagnosis describes the social and behavioral changes that result from traumatizing life experiences. Three areas of social assessment for disability include:

    - Intellectual Mastery: ability to understand and respond to the complexity of life experiences - includes intelligence, cognitive flexibility, vocational skills and survivor skills.

    - Social Competence: ability to differentiate oneself from others; to get along with others; to appreciate the other's point of view, needs and opinions (e.g. empathy, sympathy).

    - Obligations and Responsibilities: ability to be responsible for one's actions, to be accountable for oneself, to be able to take responsibility for caring for others.

    The community diagnosis summarizes the impact on the individual's work, family life and community involvement.

4. **COMMUNITY SUPPORT:** The community diagnosis identifies those community interventions which reduce symptoms, minimize disability, and promote social and economic autonomy.

members in order to maximize their social autonomy, resilience and economic self-sufficiency. Appreciating the unique cultural aspects of each dimension of community diagnosis is essential. There are no short-cuts to this; both Japanese politicians, medical practitioners as well as cultural outsiders such as HPRT, need to speak with the earthquake victims in order to understand trauma and its effect.

Over 150 interviews were randomly conducted by HPRT's teams. Each team included Japanese and American professionals. Evacuees were selected to be interviewed from all age groups, i.e., elderly, middle-aged adults, adolescents, small children and mothers with their infant children. Men and women were equally represented. Evacuees were selected from shelters of every type including tent cities, gyms, classrooms, sidewalk shelters, and ethnic enclaves. Small children and their teachers were interviewed in day care centers; adolescents were interviewed in their schools. Key professional informants were also interviewed who were teachers, general medical doctors, psychiatrists, child psychiatrists, psychologists, volunteers, nurses, and social service workers.

The interviews were conducted during two field trips: February 4 to February 11, 1995 and March 2 through March 14, 1995.

MAJOR FINDINGS

1. The Cultural Significance of Trauma

A. The Earthquake

As anticipated, the earthquake itself was terrifying to experience by all survivors interviewed in the evacuation shelters. The majority were sleeping when the trembling began. Walls and roofs fell on sleeping people; one elderly woman described being buried alive under the rubble of her house. Furniture, books, dishes and most possessions were scattered and destroyed.

The major traumatic life experiences associated with the earthquake itself included:

(1) loss of property;

(2) separation from family, friends and neighbors;

(3) witnessing the death of friends, neighbors and family members; unable to help people dying in the fires.

(4) loss of familiar environment, including shops and marketplace;

(5) loss of businesses and inability to commute to businesses and jobs; loss of income;

(6) loss of memorial tablets and mementos of loved ones;

(7) death of friends, neighbors and family members

(8) destruction of schools, day care centers, medical clinics and the local hospital.

The loss of home was acute, especially for the elderly and school aged children. One Japanese adolescent summarized this by saying, "the value of material things have changed for all of us; I miss my home not my house." Almost all these interviewed missed the familiarity and security of their local neighborhoods and their city.

The following vignette of a leader in a shelter summarizes the experience of many.

Mr. X is a 50 year old widower who lives alone. His house collapsed on him during the earthquake. After rushing outside to save himself he worked all day to help others. He still has nightmares of a neighbor burning to death in a fire while he watched on unable to help. He begins to cry when he speaks about losing his memorial tablet in which he keeps alive the memory of his deceased wife and parents. He has relatives outside Kobe, but he refuses to move from the shelter. He wants to help others and move back into the neighborhood which he loved where he will be able to take care of himself.

While the memorial tablet has great significance to older Japanese survivors and its loss has thrown many into "shock", children similarly miss the loss of friends, sports, school and their personal possessions. For example:

Y is a ten year old Japanese boy. His home was destroyed in the earthquake. He told us of this deep feelings of the loss of his personal "memorial" things such as his coin collection. He attends school from the evacuation center in which he lives. School is only for half a day; classes are brief; there is no time to play. He has no outlet for recreation; he misses sports.

B. Trauma of the Evacuation Centers

The majority of those interviewed felt that their experiences in the evacuation shelters were painful, humiliating and very injurious to their physical health and emotional well-being. The interviews revealed the negative psychological impact of living passively with strangers and the poor living conditions of the shelters and evacuation centers.

The most traumatic aspects of the evacuation shelters included:

(1) lack of privacy

(2) lack of cleanliness

(3) coldness (no heat)

(4) only blankets to sleep on

(5) lack of hot meals

(6) inability to take care of one's personal hygiene

(7) limited recreational activates for children; no place to study for school aged students.

Women of all age groups complained that they had no place to change their clothes. Strangers could look at them in their underwear; they often had to change in small, filthy portable toilets.

The majority of those living in shelters slept uncomfortably on blankets surrounded by boxes of food and a few possessions; the lives of an entire family were neatly arranged on a space approximately the size of two large blankets. One young woman in her late twenties , who was interviewed, stated, "I've been here for 40 days and just yesterday they put a two foot

cardboard wall around my space so that I can have some privacy at night." Another elderly woman stated she wanted to kill herself because she could no longer tolerate the lack of privacy and the unfriendliness of those who slept around her in a small classroom. As her asthmatic condition was worsened by the earthquake, her cough had gotten worse resulting in her fellow evacuees shouting disrespectfully at her to "shut-up."

C. Uncertainty of the Future

In spite of government plans to assist the earthquake survivors, few knew what these plans actually were and how they would be effected by the plan. Almost all evacuees interviewed stated that they did not know where they would end up living and how they could pay for their new living situations. Many had enormous debts on businesses, homes and apartments which they could no longer pay.

The elderly felt they were either a financial burden to their children or that they would not be able to continue to live alone and maintain their autonomy; middle-aged people did not know how they would rebuild their homes and their businesses; young people were uncertain how they could help themselves and their families. Adolescents worried about their education, wanted to be useful to their families and their communities but did not know what to do. Information did not seem to be available to them.

This interview with an elderly Korean woman highlights the traumatic nature of uncertainty.

Mrs. Z is Korean and has lived in Japan a long time. She lives alone and has no relatives. When the earthquake struck, her entire house collapsed in on her trapping her

in bed. She was suffocating to death when her neighbors rescued her. She now states she wants to die. In fact, she says she is "dead." She lost all her possessions and her home; she has nothing. She feels hopeless about the future. She has no idea how she is going to live. No one has spoken to her. She exists isolated in the shelter. She is so upset she does not even know how to go about asking for help from the local government officials. She wishes her neighbors had let her die the day of the earthquake.

2. Physical and Psychological Symptoms

More than half of the evacuees interviewed had physical and psychological symptoms. Many had experienced a worsening in previous existing medical illnesses such as asthma and diabetes. Some had developed new medical illnesses since the earthquake such as high blood pressure. Major psychological symptoms revealed included chronic anxiety, depression, poor sleep, nightmares, irritability and anger; some evacuees in fact, were so upset they indicated to the interview team they often felt suicidal and were considering killing themselves if their situation did not improve. In spite of a relative lack of activities in the shelter, most evacuees were effected by fatigue and malaise. These symptoms most likely reflected the stress they felt. Almost all who were symptomatic believed their symptoms were having a major negative impact on their ability to function including their ability to perform chores and work.

Significant differences in symptoms were exhibited by different age groups. Predictably, the majority of the elderly had great emotional upset. Their previous medical illness had become worse. They were plagued by severe fatigue, insomnia, nightmares, and were constantly thinking about the earthquake; some reported they felt like they were losing their mind.

Very young children (under 6) had problems with irritability, poor sleep, fatigue, increased separation anxiety, and increased generalized fearfulness. There was a wide variation in their degree of symptomatology and behavioral disturbance. Many young children, for the first time, engaged in aggressive play. There was a breakdown in discipline, and an increase in regressive behavior. Parents felt they were unable to be patient and supportive with their children's behavioral problems.

School age children (6-12) worried considerably about school. They complained of poor concentration in school, poor sleep, nightmares, fear that during the night another earthquake would occur, and sadness over having lost their homes, personal possessions and mementos. Some children were very upset about friends who were killed; many did not know the whereabouts of their friends. The children complained that they had little access to sports and arts.

The following vignette illustrates the problems of young children and their parents:

A large Kobe child care center was in one of the hardest hit areas. It had no running water. An employee of the center made the following observations: many of the parents lost their homes and/or their jobs. Many lost their jobs because the businesses at which they were working were destroyed. Over one third of their children lived in evacuation centers. Upon arrival, the preschoolers from the evacuation centers have difficulty separating from their parents; they are fearful and clinging. They are exhausted so they are given a nap as soon as they arrive.

Individual and group interviews with adolescents and individual interviews with their volunteer friends and teachers revealed young people who were doing an admirable job coping with their distress. Japanese adolescents, in general, do not seem to reveal their upset as openly as the younger Japanese children described above. Although the adolescents interviewed did not openly express their feelings, they were deeply concerned about their future, especially school and expressed profound sympathy for the suffering and worries of their parents. Some could not believe what had happened to them, felt life was a "dream" and felt their situation was unreal. Most interviewed for this survey did not want to be alone and felt a need to discuss their problems with other adolescents. Yet, nobody was encouraging them to do this. One teacher reported to us, "the kids look okay, but every day I see them break-down when they are alone." They also felt ready and willing to be helpful to their parents and the community.

Not surprisingly, a significant minority of those interviewed had no symptoms at all. For example, one eighty-five year old man who lived with his children was completely untouched by the disaster. He attributed his healthy disposition to his religious practices in a traditional Japanese religion call Ujigami and to his general philosophy of "avoiding anger because it poisoned the mind."

In contrast to the high prevalence of psychological symptoms, the majority of evacuees interviewed did not feel hopeless about the future. In fact, most felt that everything would eventually work out although they had no idea how this could happen. It was the general impression of the HPRT interviewers that those evacuees who lived in shelters along with their extended family, neighbors and friends had a more optimistic attitude than isolated families.

3. Availability of Social and Mental Health Services

Outreach is defined as a process whereby medical, mental health and government officials leave their offices and clinics and go directly into the environment where the evacuees are living, working and attending school in order to assist them. Scientific evidence demonstrates that outreach is the most effective way of providing mental health and social services to disaster victims.

The field survey revealed an almost total lack of outreach by government officials and mental health professionals including psychiatrists and psychologists. None of the evacuees in any of the shelters studied were told what to expect psychologically from the earthquake. In only one shelter, a small pamphlet answering questions regarding the medical and mental health impact of the earthquake, had been distributed without discussion. Community meetings and organized discussions among shelter residents were lacking. Adolescents had no opportunity to find friends and/or discuss their worries with other adolescents or adults. Overall, organized educational and planning meetings on concrete social service planning, medical and mental health issues were found to be non-existent.

All professional informants surveyed, i.e., volunteers, teachers, mental health professionals and government officials - indicated they had received no training on how to deal with the impact of the earthquake on the displaced persons they served. Although many human service providers had been severely effected by the earthquake, they had no idea how to reduce their own stress and upset in order to maximize their efficiency and minimize their capacity to become depressed and overwhelmed by their work.

All evacuees interviewed indicated they had received no training on how to deal with the

impact of the earthquake on their lives and where to seek help, if needed. For example, mothers with small infants expressed their concern about providing proper nutrition, hygiene and medical care to their babies, as well as concern for the baby's future development in view of their total loss of property and income. The mothers interviewed felt incompetent, frustrated and felt unable to cope with the coldness, lack of privacy and uncleanliness of the shelters. They felt they were unable to keep their babies warm and clean. They were also sleep deprived, irritable, fatigued and depressed by the earthquake. Unfortunately, these mothers and infants received little information or training in child care. Similarly, the child care workers, many who were negatively effected by the earthquake, were not trained and did not know how to deal with the trauma-related problems of these mothers and infants, as well as other young children they met who had emotional and behavioral problems.

In spite of lack of training and public education to providers and earthquake survivors, it was the universal opinion of all interviewed that public education on the medical and mental health sequelae of the earthquake was essential. They also desired that public health education be combined with readily accessible practical counseling that included psychological counseling and concrete social services related to housing, employment and the personal rehabilitation of their lives. Most individuals interviewed wanted this counseling to come from government officials, medical doctors, and nurses. A significant minority were interested in the help of psychiatrists.

IMPLICATIONS OF THE MAJOR FINDINGS

Three major implications emerge from the specific findings of this field work and the general scientific knowledge known on refugee trauma and national disasters:

1. Prevention of Long-Term Physical and Psychological Disability

It is critical that policy planners do everything within their capacity to minimize social disability and emotional suffering among the Kobe survivors. Prior epidemiologic studies of earthquakes survivors cannot be used to predict the level of mental illness that will develop among the survivors of the Hanshin-Awaji over the next three to five years. It is expected from the experience in other countries that almost all survivors left homeless and/or experiencing death, injury and loss of property will initially develop psychological distress. Many will become symptomatic and have difficulty at the beginning of the catastrophe functioning at full capacity. These stress reactors are normal human responses to traumatizing life situations. Unfortunately, the Hanshin-Ajawi earthquake survivors had no time to adapt to their new future- ie. their lives were totally transformed within twenty seconds. In spite of the enormity of this social earthquake, over time it is predicted that most survivors will become asymptomatic as life returns to normal. The field research of this report, however, revealed many evacuees who were well on their way toward developing serious mental illness if their situations were not dramatically improved over the next few months. It is the concern of the authors of this report that government officials and the medical community have not already generated a long-term plan for evaluating and caring for the mental health needs of survivors.

2. High Risk Vulnerable Groups

This survey of Hanshin-Awaji evacuees and displaced persons reaffirms previous scientific research that certain specific groups of earthquake survivors are at special high risk for developing chronic disabling mental health problems.

These vulnerable groups include:

(1) Elderly

(2) Adolescents and children

(3) Mothers and infants

(4) Medically and physically handicapped

(5) Individuals with serious mental illness before the earthquake

(6) Families whose member (s) were killed or injured during the earthquake

The aggressive approach demonstrated by Japanese psychiatrists in Kobe in locating and treating their mentally ill patients who had been ill before the earthquake, should serve as a model for the identification and care of all vulnerable groups.

3. Bridging the Gap Between Resources and Mental Health Services

This survey found no relationship between allocation of resources, medical and psychiatric services and the mental health needs of those interviewed in the evacuation shelters. There was no evidence of an organized and co-ordinated mental health plan, including lack of public education and an outreach program capable of providing concrete social services and psychological counseling directly to the community.

Volunteers, teachers, general medical doctors, mental health professionals and day care workers had little training on how to identify and care for survivors of a devastating earthquake. Similarly, the negative psychological impact of the earthquake trauma on local government officials and human service providers seemed to be ignored; if neglected, the long-term stress on these workers will have long-term detrimental effect on their efficiency and emotional well-being.

This overall general lack of information by survivors and their helpers on the predictable traumatic effect of a massive natural disaster might explain why "outreach" into the effected communities and shelters did not seem to exist. The offering of concrete social services, medical care and psychological counseling directly into the shelters and homes, schools and work places of survivors is essential for assisting those who have been left confused, bewildered and powerless by their overwhelming life experiences. Mobilizing the remaining personal resources of the survivors is also essential for the long-term rehabilitation of their families and communities.

RECOMMENDATIONS

1. Preventing a Mental Health Crisis

A human and mental health crisis of great magnitude may develop from the Hanshin-Awaji earthquake if local and national policy makers over the next five years are unable to coordinate a major mental health program. The prevention of mental illness and social disability among large numbers of earthquake survivors depends upon implementing public measures that can return citizens to normal lives as quickly as possible. Until that theoretical endpoint can be achieved (for many, their losses may not make this goal achievable) policy makers must provide a safe and secure environment, minimize further losses, establish work and economic support, and increase social and community solidarity. Most importantly, it is the universal lesson learned from traumatized populations world-wide that trauma survivors must be actively involved in the rehabilitation of their personal, family and community life. Politicians, volunteers, doctors and all assistance providers to survivors must work in partnership with the survivors, listen to the stories of their suffering, consider their opinions and mobilize them to actively use their own resources for rehabilitation and recovery. Even the poorest elderly Japanese citizens who has lost everything during the earthquake can be enlisted in contributing to their own future well-being.

Unfortunately, most evacuees interviewed in this survey felt that their feeling of powerlessness generated by the earthquake was increased by their lack of contact with local authorities and the limited information they received. This tendency by the authorities to have minimum involvement of the survivor community in their own assistance along with the traumatizing conditions of the evacuation shelters, and the impact of these shelters on the

evacuees as a second major disaster (often worse than the earthquake) demonstrated a lack by policy planners of a general concept of basic human needs.

The proper allocation of knowledge, training and resources to address the human needs of the earthquake survivors is essential in order to guarantee their long-term physical and psychological well-being. It is, therefore, recommended that a major mental health policy group be immediately formed by the Governor's office of the Hyogo prefecture to coordinate all mental health activities at the local level with linkages to the Prime Minister's emergency program. This mental health policy group must focus on the prevention of mental illness, protection of high risk vulnerable groups, dissemination of public information, the establishment of a network of counseling services for the non-mentally ill, and the provision of easy access to psychiatric care for those suffering from serious psychiatric disability. This administrative and planning committee should exist for the duration of the potential crisis, which is a minimum of three to five years. It should consist of members from the following: teachers, nurses, general medical doctors, public and private psychiatrists, child psychiatrists and psychologists, local ethnic communities, the local medical association, representatives of volunteer organization and those who represent the health needs of children and the elderly. Japanese and American colleagues of this report could participate as committee observers.

2. Participatory Reconstruction and Redevelopment

An essential goal of the new mental health coordinating committee and the entire reconstruction process must be to re-establish local communities and neighborhoods. All administrative bodies dealing with evacuees should know the importance of the neighborhood

system to the cultural identity of Japanese and non-Japanese earthquake survivors. Most evacuees are enthusiastic to live with neighbors with whom they shared their lives and common experiences. Many evacuees interviewed indicated their desire to remain in the shelters close to their devastated homes in order not to burden their relatives as well as maintain their independence and autonomy. For this reason, elderly citizens strongly preferred to live in the place where they had established their local identity and community of support. Modern Japanese families most likely cannot be counted upon to resolve the essential basic human needs of the earthquake survivor due to the excessive magnitude of the problem. While examples of local activities such as communal meals, music performances and other local events were noticeably absent in the shelters, the majority interviewed wanted to participate in activities which recognized their membership in a local or ethnic community. The role of the memorial tablet and the participation of some evacuees in partially destroyed shrines, temples and churches further revealed the desire of the evacuee to hold onto those religious and folkloristic elements which gave meaning to their lives.

According to the evacuees, as they moved into the evacuation shelters, they tried to find the safety of their neighbors and, in a few days, started to talk among themselves how they could rebuild their lives. For this reason, many do not want to move into "temporary housing" which is located far from their communities of origin and separates them from each other. The lottery system of assignment to temporary housing, while on the surface appearing to be fair, in fact, scatters the evacuees throughout the region. This policy makes them distrustful of the government administration. The survivors would like to build their temporary housing at the place where their homes were destroyed in order to rebuild their community solidarity. Emphasis

on neighborhood reconstruction will guarantee the fair and equitable allocation of resources to ethnic communities and those who were discriminated before the earthquake. For the reconstruction, the government should employ the policy of "participatory reconstruction and redevelopment." The local and central government must link with the newly emerging neighborhood systems based on Japanese traditions summarized by the expression Rin-Jin-Ai (neighbors, love and help each other). Government policy must informally and formally support the re-vitalization of neighborhoods through re-establishment of local traditions and customs. Finally, it is the fear of the authors of this report that the temporary shelters as planned will become ghettoes of human misery and alienation. It is the obligation of the government authorities to survey these temporary shelters one year from the date of this report in order to ascertain the mental health status of the residents of these new living arrangements and provide corrective remedies if necessary.

3. Community Compassion

The magnitude and suddenness of the earthquake and lack of preparedness of citizens and authorities have led to a larger national discussion of the relative success of relief efforts and reconstruction activities. With few exceptions, the national response of Japanese society, and the local response of volunteers, government officials and providers have been extraordinary. In spite of criticism of numerous governmental agencies, a disaster of the severity of this one is beyond the range of human and political comprehension. Again, the policy of participatory reconstruction and development prescribes an overall high level of community compassion for providers and victims alike. For example, in the Kobe region, the so-called "warriors for the

recovery," - i.e., employees of the telephone, gas, water and electricity companies, police and self defense force members, fire fighters, hospital staff, volunteers, local government officials - have been working day and night without sufficient meals and sleep. They work for the public leaving their individual losses until later, since many are earthquake survivors and the family members of victims or injured persons. It is important that these self-sacrificing individuals be provided training in disaster relief and receive the psychological support necessary to minimize many of the self-destructive aspects of their work while maximizing their effectiveness on the job.

Community compassion must extend to the survivors as well. The authors witnessed limited examples of insensitivity of helpers towards survivors. Teachers criticized students for not being prepared or clean; parents were impatient with children; medical doctors refused to help evacuees who were depressed; government officials screamed at elderly who were too upset to understand them. Both the helpers and the assisted survivors in a disaster can be severely stressed by the overwhelming problems caused by the disaster resulting in a vicious circle of insensitivity, lack of trust, and cooperation among each other. The authors were unable to determine if educational institutions, employees, businesses, and neighboring social and political organizations were able to re-formulate their rules and guidelines and provide more flexible rules and practices in order to accommodate the special needs of the earthquake survivors.

The national and local media have a pre-eminent role in maintaining public awareness and support of the survivors not only during the next few months, but over the next few years when the accumulated stress of time will eventually begin to break down many survivors. In addition, the general public must keep in mind how difficult it is for a young student or adult who has lost everything, to witness the normal lives of those not damaged by the earthquake and

the affluent society around them.

4. Outreach

Almost all of the survivors interviewed in this survey wanted psychological and concrete social service support through readily available counseling and public education. The counseling system in Japan under normal conditions is informal, loosely organized and unable to deal with the special needs of earthquake survivors. It is recommended that the policy planners establish a small number of outreach centers throughout the effected districts that can provide psychological counseling along with practical advice on economic and social recovery. The centers must be able to conduct "outreach" activities, including home visits and on-site consultations to local schools, day care and elderly centers. They should be able to help upset people cope with the practical details of reconstruction, such as obtaining loans, fixing their homes and living in temporary shelters. These centers should be staffed by both medical specialists, such as nurses and psychologists, and social service workers who are capable of establishing trust with the ethnic communities in which the center resides. They must also have the capacity to assist the most vulnerable groups such as the elderly and children. The interviews revealed that the evacuees placed high value on the counseling skills and approaches of visiting nurses. Doctors and visiting nurses from the various ethnic communities served, such as Japanese, Korean and Chinese might be employed. Of course, center staff should be able to identify and refer the seriously mentally ill to the local mental health system. Both private and public general psychiatrists and child psychiatrists must be arranged in a referral network that allows their

services to be readily available to survivors from all ethnic backgrounds, social classes and age groups.

5. **<u>Training and Public Education</u>**

Specialized training of local community providers such as teachers, day care center staff, government officials and employers in the advanced knowledge and skills necessary to assist earthquake survivors is a top priority. Advanced training in the identification and treatment of trauma-related emotional distress and serious mental illness is necessary for all members of the current "defacto" system that will be providing medical assistance to survivors, such as primary care physicians, visiting nurses, psychiatrists, child mental health providers. HPRT is currently having the Harvard Trauma Questionnaire (HTQ) and the Hopkins Symptom Checklist-25 (HSCL-25) translated and adapted to the special trauma events of the earthquake. These screening tools will be widely disseminated for clinical and psychosocial training in Kobe.

Finally, because of the enormous magnitude of damage and the hundreds of thousands of lives disrupted by the earthquake an extensive public education campaign is recommended. The human crisis of the Hanshin-Awaji should not be allowed to become invisible to the general public, and thereby, ignored. Fortunately, not all earthquake victims will become psychologically impaired. Yet, the majority will have time limited symptoms of distress and predictable behavioral and socio-economic responses to the disaster. Modern Japanese society through its electronic news media and printed publications can easily disseminate public mental health information to all segments of the earthquake zone including politicians, labor and education. Specific vulnerable groups and ethnic groups can be targeted through traditional arts,

including music, theatre and religious ceremonies. Innovative and modern approaches such as animated films and video, children's books, comics and the performing arts can be used to capture the interest of school age children and adolescents in order to teach them how to cope with the disaster. Adolescents and young adults can also be easily mobilized to contribute to the disaster relief, if provided the opportunity. The overall positive impact of public education on the psychological well-being of traumatized populations has been well-established in other disasters. The authors hope that the tremendous creativity and innovation of modern Japanese society will be used to address the human crisis of the Hanshin-Awaji earthquake.