

A REPORT OF THE CSIS
GLOBAL HEALTH POLICY CENTER

Mental Health Service Reform Post-Disaster

LESSONS FOR JAPAN

Author

Howard H. Goldman

October 2012



50
YEARS

| CHARTING
OUR FUTURE

CSIS

| CENTER FOR STRATEGIC &
INTERNATIONAL STUDIES

A REPORT OF THE CSIS
GLOBAL HEALTH POLICY CENTER

Mental Health Service Reform Post-Disaster

LESSONS FOR JAPAN

Author

Howard H. Goldman

October 2012



50
YEARS | *CHARTING*
OUR FUTURE

CSIS |

CENTER FOR STRATEGIC &
INTERNATIONAL STUDIES

About CSIS—50th Anniversary Year

For 50 years, the Center for Strategic and International Studies (CSIS) has developed practical solutions to the world's greatest challenges. As we celebrate this milestone, CSIS scholars continue to provide strategic insights and bipartisan policy solutions to help decisionmakers chart a course toward a better world.

CSIS is a bipartisan, nonprofit organization headquartered in Washington, D.C. The Center's 220 full-time staff and large network of affiliated scholars conduct research and analysis and develop policy initiatives that look into the future and anticipate change.

Since 1962, CSIS has been dedicated to finding ways to sustain American prominence and prosperity as a force for good in the world. After 50 years, CSIS has become one of the world's pre-eminent international policy institutions focused on defense and security; regional stability; and transnational challenges ranging from energy and climate to global development and economic integration.

Former U.S. senator Sam Nunn has chaired the CSIS Board of Trustees since 1999. John J. Hamre became the Center's president and chief executive officer in 2000. CSIS was founded by David M. Abshire and Admiral Arleigh Burke.

CSIS does not take specific policy positions; accordingly, all views expressed herein should be understood to be solely those of the author(s).

Cover: Japan earthquake and tsunami damage; photo by Kordian, <http://www.flickr.com/photos/kordian/5565668864/>.

© 2012 by the Center for Strategic and International Studies. All rights reserved.

Center for Strategic and International Studies
1800 K Street, NW, Washington, DC 20006
Tel: (202) 887-0200
Fax: (202) 775-3199
Web: www.csis.org



MENTAL HEALTH SERVICE REFORM POST-DISASTER LESSONS FOR JAPAN

Howard H. Goldman¹

The Great East Japan Earthquake of 2011

On March 11, 2011, a magnitude 9.0 earthquake struck northeast Japan. The earthquake was followed by a powerful tsunami, which in turn caused a nuclear disaster at the Fukushima power station. The Japanese Police Agency reported almost 16,000 deaths by the following day. The earthquake and tsunami caused widespread damage to the affected areas, including catastrophic losses to the health care infrastructure of the Tohoku region. Hospitals and clinics were destroyed, and injured individuals had very limited access to health care services following these events.² The nuclear disaster posed both immediate and future threats; there was great uncertainty about the risks associated with the nuclear fallout and the effects of the contamination of homes and towns in the Tohoku prefectures.

The disaster affected the mental health of individuals in the region and throughout Japan, spreading fear and concern. The first concern was for individuals who had an established mental disorder prior to the earthquake and required ongoing treatment or acute attention because of the exacerbation of their psychopathology in the wake of the disaster. In the immediate aftermath of the earthquake and tsunami, the mental health response took the form of voluntary mental health care teams. The teams arrived from all over Japan to attend to the needs of those with acute stress reactions and individuals who needed ongoing mental health services. The teams worked with local mental health authorities and practitioners to address ongoing mental health needs, as well as acute stress responses, most of which did not reach the level of a diagnosable mental disorder. Keys to the local collaboration were public health nurses. Together the nurses and the response teams provided information, psychological first-aid, psycho-education, watchful waiting, and treatment, as needed and appropriate.³

In the journal *Epidemiology and Psychiatric Sciences*, Japanese mental health experts Yoshiharu Kim and Yuriko Suzuki describe the impact of the Great East Japan earthquake on mental health, and they go on to examine a “sustainable mental health care system” for the future.⁴ They reported

1. Howard H. Goldman, M.D., Ph.D., is a professor of psychiatry at the University of Maryland, School of Medicine.

2. Y. Suzuki and Y. Kim, “The Great East Japan earthquake in 2011: Toward sustainable mental health care system,” *Epidemiology and Psychiatric Sciences* 21 (2012): 7–11.

3. Ibid.

4. Ibid.

that as the mental health teams withdrew from Tohoku over a six-month period, both national experts and local authorities recognized a continued need for enhanced mental health services in the region. They also recognized a need to change the way mental health services are delivered. In a country dominated by inpatient psychiatric services, they observed, “A shift to community mental health has been emphasized” in thinking about the future. Based on their experience with the disaster, Suzuki and Kim recommended, “To offer professional help effectively, we have to build on basic services, community resilience and collaboration with primary care.”⁵

This paper presents a framework for thinking about future development of mental health services in Japan, now that the emergency has passed. It reports on lessons from earlier disasters, describing the range of possible approaches to building an improved mental health services system. The examples, which are taken mostly from *Psychiatric Services*, are illustrative rather than exhaustive. Hopefully, they will be instructive as Japan considers options for change in the wake of the Great East Japan earthquake of 2011.

A Framework for Planning Future Mental Health Services

Disasters that destroy existing services and structures present a chance to repair, replace, rebuild, and/or change the previous system. The mental health system in Tohoku was severely damaged, and local planners are asking critical questions about the design of the new system. They will have to find a balance between repairing and replacing what once stood with something new and different, based on the best current evidence of effective service delivery. It remains to be seen whether Japan will return to the *status quo ante* or implement new approaches. Many questions remain as to what new approaches should be considered, what is needed to take advantage of them, and how Japan can best select an approach—or a mix of approaches.

There are various approaches to delivering mental health services: specialty services, primary care services, hybrid arrangements, and collaborative care. Perhaps the most common meaning of “mental health services” refers to specialty services provided by trained mental health specialists, such as psychiatrists, psychologists, social workers, mental health nurses, and counselors of various types. Many countries lack a significant cadre of such trained professionals and rely upon a primary medical care system of general medical doctors and nurses to deliver all or most mental health services. The primary care system often works in parallel with the specialty care system, even in countries with well-developed specialty mental health systems, such as the United States, the United Kingdom, Canada, and Australia. In such hybrid arrangements, the division of labor and responsibility varies, and the balance often depends on how services are financed. Some mental health services are delivered outside of the health care service sector entirely, such as in schools, adult and child welfare settings, housing arrangements and foster care, and the criminal justice system. One of the most promising approaches—“collaborative care”—involves a primary care manager and specialty mental health consultations to address a wide array of mental health problems.⁶

5. Ibid.

6. J. Unutzer, M. Schoenbaum, B.G. Druss, W.J. Katon, “Transforming mental health care at the interface with general medicine: Report for the president’s commission,” *Psychiatric Services* 57, no. 1 (2006): 37–47.

Deciding on a path to a new mental health system means adapting to national and local environmental conditions, including the preferences of the public, policymakers, practitioners, and patients; the consideration of stigma and discrimination concerning mental illness and mental health treatment; and economic incentives and political will. A number of key factors will determine the future direction: the willingness to change the established system; the availability and efficient allocation of scarce financial resources; human resource capacity; and strategic planning.

Post-disaster Needs and How They Vary by Time, Place, and Nature of Disaster

The incidence of mental health problems and mental disorders increases following disasters. The rates of anxiety and depression are double what are normally expected in a population that has not experienced a natural or man-made disaster. The needs of the population vary by time following the disaster, by the place or distance from the epicenter of the disaster, and by the nature of the disaster events. The needs for services increase in response to the increased incidence of problems, yet the general finding is that most individuals do not seek services.⁷

Immediately following a disaster, there is an acute reaction to the events, including stress response syndromes and an exacerbation of underlying psychopathology. In the medium term, approximately six to eight months after the acute event, as many as one-in-three exposed individuals can be expected to experience anxiety and/or depression. The long-term concern is about post-traumatic stress disorder (PTSD), which can be disabling.⁸

Needs increase the closer an individual is to the epicenter of the disaster. Distance can be actual, in terms of geographic distance from the center of an attack or a region affected by an earthquake or flood, or distance can be metaphorical or emotional. The impact of a disaster decreases with emotional distance; the effects of disaster tend to be greater for individuals who experience the loss of a loved one or of a home as well as those who were injured in the disaster.⁹ One of the world's leading experts on the mental health impact of nuclear disasters, Evelyn Bromet, reports, however, that in a nuclear disaster, such as Chernobyl and Three Mile Island, the perception of contamination (rather than actual exposure to radiation) determined the risk of an adverse emotional response.¹⁰

The nature of the disaster also affects the need for care. Some disaster events result in loss of life and injury, but do not have the added complications of residential displacement or loss of one's whole community, as happened in some parts of Tohoku in Japan. Loss of the health care infrastructure also compounds any efforts to address the stress response in the aftermath of disasters.

7. J.D. Elhai and J.D. Ford, "Utilization of Mental Health Services after Disasters," in *Mental Health and Disasters*, ed. Y. Neria, S. Galea, and F.H. Norris (New York: Cambridge University Press, 2009).

8. S. Galea, J. Ahern, and I.L. Resnick et al., "Psychological Sequelae of the September 11 Terrorist Attacks in New York City," *New England Journal of Medicine* 346 (2002): 982–987; P.S. Wang, M.J. Gruber, and R.E. Powers et al., "Mental health service use among Hurricane Katrina survivors in the eight months after the disaster," *Psychiatric Services* 58 (2007): 1403–1411.

9. Galea, Ahern, and Resnick et al., "Psychological Sequelae of the September 11 Terrorist Attacks," and Wang, Gruber, and Powers et al., "Mental health service use among Hurricane Katrina survivors."

10. Evelyn Bromet, "Will Japan face a mental health crisis?" CNN Opinion, March 16, 2011, <http://www.cnn.com/2011/OPINION/03/16/bromet.psychological.effect.japan/index.html>.

Lessons from Psychiatric Services after Specific Disasters around the World

Following a disaster, mental health planners have a number of things to consider in selecting an approach for rebuilding or replacing their mental health services system. The framework discussed earlier in this report suggested reliance on a specialty services approach, a primary care approach, or some hybrid of both approaches. The exact form of the mental health system will be determined by the local context.

The next section reviews papers from *Psychiatric Services* with which I have particular familiarity because I served as editor for many of them. I did not conduct an exhaustive review, since I am hoping that this selective overview of service responses to disasters will provide sufficient lessons to guide the design of a mental health service system for Japan in the future. After a very brief look at prior experiences in Japan, the paper discusses specialty approaches to post-disaster mental health care, followed by a discussion of primary care and primary care hybrid approaches.

Japan's Previous Disasters. *Psychiatric Services* is about to publish a paper by Minoru Sawa and his colleagues describing the caregiver burden he observed in Tohoku, following the Great East Japan earthquake of 2011.¹¹ Previous responses to Japanese earthquakes have been published, describing the deployment of emergency mental health teams; Shinfuku¹² focused on the Hanshin Awaji earthquake of 1995, and Shioiri¹³ discussed the 2004 Niigata quake. These papers primarily discuss the immediate responses rather than the design of a mental health system after the emergency has passed. Suzuki and Kim summarize the lessons of the mental health services response to these earlier Japanese earthquakes and conclude that the mental health teams sent following the Great East Japan earthquake of 2011 should not be using the discredited psychological debriefing techniques that had been recommended at the time of the earlier quakes. They report that there was some “confusion” among the teams as to the proper course of action to prevent PTSD, which led to a “waste of resources.” As mentioned in the introduction to this paper, Suzuki and Kim offer some useful lessons to guide Japan toward a “sustainable mental health care system.”¹⁴

Specialty Care Approaches. Kuo and colleagues reported on an earthquake in Taiwan, finding that the prevalence of several mental disorders was about twice the usual rates. PTSD was found to be 37 percent, and major depression was 16 percent.¹⁵ Only about one in four individuals sought treatment, primarily in the specialty mental health care system. The authors recommended that specialty mental health services systems develop effective outreach interventions to engage individuals with mental disorders following disasters.

In an article, “The Long Road Home: Rebuilding Public Inpatient Psychiatric Services in Post-Katrina New Orleans,” J.C. Abbo describes the response to the destruction of all 140 psychi-

11. M. Sawa, M. Takaze, and K. Noju et al., “A cross-sectional study regarding the impact of the Great East Japan earthquake on care-giver burden,” *Psychiatric Services*, forthcoming.

12. N. Shinfuku, “Disaster mental health lessons learned from the Hanshin Awaji earthquake,” *World Psychiatry* 1 (2002): 158–159.

13. T. Shioiri, “Psychological care during disasters: Through the experience during the 2004 Niigata Chuetsu Earthquake,” *Seishin Shinkeigaku Zasshi: Psychiatria et Neurologia Japonica* 112 (2010): 521–529.

14. Suzuki and Kim, “The Great East Japan Earthquake in 2011,” 7–11.

15. C.J. Kuo, H.S. Tang, and C.J. Tsay et al., “Prevalence of psychiatric disorders among bereaved survivors of a disastrous earthquake in Taiwan,” *Psychiatric Services* 54, no. 2 (2003): 249–251.

atric beds in the public mental health system.¹⁶ Although other resources were used during the rebuilding period, by the end of three years, all of the beds had been replaced. The mental health responses to the flood following Hurricane Katrina provided other lessons for the specialty mental health system in New Orleans. In another paper in *Psychiatric Services*, W. Scott Griffies focused on the health care infrastructure and the return of health care workers to their home communities following Katrina. He concluded that when patients are evacuated, funding must follow the patients to the new locations. The money should not follow the hospitals through the rebuilding, as resources are needed in the new settings to which the patients are evacuated. Resources must be shifted to remaining services in the immediate aftermath of a disaster like Katrina.¹⁷

The tragic events surrounding the September 11 terrorist attacks on the United States and the mental health responses have provided many lessons for other countries experiencing disasters, whether man-made, as in this instance, or a natural disaster. On the fifth anniversary of September 11, *Psychiatric Services* devoted an entire issue to the mental health responses.¹⁸ Most of the papers focused on Project Liberty, a specialty mental health response in New York City. Project Liberty provided counseling services to approximately 565,000 people during the two years following the attack on the World Trade Center. Like the response to the Great East Japan earthquake of 2011, Project Liberty employed community mental health outreach teams to encourage individuals to seek counseling. The specialty counseling services operated in parallel with other specialist care in New York City. The services proved effective at returning individuals to their prior level of functioning. For those who required more services, Project Liberty made referrals to other specialists in the community.¹⁹

Primary Care Approaches. Soon after the Great East Japan earthquake of 2011, Evelyn Bromet visited Tohoku. She shared her view that general medical doctors should be the main source of support and treatment in the affected areas in Japan.^{20, 21} She believed that in situations where stigma and discrimination against individuals with mental disorders were common, general medical doctors and nurses could be the first line of treatment and support for individuals with mental health problems.

Other experiences with disasters around the world support the effective use of general medical services for providing mental health services in the aftermath of disasters and in the intermediate period of rebuilding or redefining mental health services delivery for the future.

Bridget Bassilios and her colleagues in Australia found that, following the devastating brush-fires in Victoria in 2009, general medical practitioners served as the gateway to providing the majority of the mental health services to affected individuals.²² Individuals whose symptoms and dysfunction persisted were referred by general medical practitioners to allied health professionals,

16. J.C. Abbo, "The Long Road Home: Rebuilding Public Inpatient Psychiatric Services in Post-Katrina New Orleans," *Psychiatric Services* 59, no. 3 (2008): 304–309.

17. W.S. Griffies, "Health care infrastructure post-Katrina: Disaster planning to return health care workers to their home communities," *Psychiatric Services* 61, no. 1 (2010): 70–73.

18. *Psychiatric Services* 57, no. 9 (2006): 1251–1341.

19. S.A. Donahue, C.B. Lanzara, and C.J. Felton et al., "Project Liberty: New York's crisis counseling program created in the aftermath of September 11, 2001," *Psychiatric Services* 57, no. 9 (2006): 1253–1258.

20. Bromet, "Will Japan face a mental health crisis?"

21. Evelyn Bromet, personal communication with the author, January 2012.

22. B. Bassilios, L. Reifels, and J. Pirkis, "Enhanced primary mental health services in response to disaster," *Psychiatric Services* 63, no. 9 (2012): 868–874.

mostly psychologists trained to provide evidence-based psychotherapy. These services, referred to as “primary mental health services,” were well received and well utilized, reducing symptoms and improving psychosocial functioning. Bassilios suggests that this might be a model for use in a wide range of post-disaster mental health service responses all over the world.

Hybrid Care Approaches. Following Hurricane Floyd in the United States, a mix of psychiatrists and general medical doctors provided mental health services to affected individuals. This mixed-service response, which had been planned in advance for an emergency such as a natural disaster, was implemented successfully.²³ In Enschede in the Netherlands, following a fireworks explosion, a similar hybrid plan using psychiatrists and general medical doctors provided the response for mental health services, similar to the emergency response following Hurricane Floyd.²⁴

Collaborative Care Approaches. The successes associated with a variety of hybrid approaches to post-disaster mental health services suggests a strategy for developing and implementing mental health services after the emergency has passed. The strategy, called collaborative care, also takes advantage of specialty mental health services consultations that are connected to care provided by general medical doctors in primary care clinics.²⁵

Collaborative care is a service intervention designed to treat severe and persistent conditions in non-psychiatric (i.e., primary) care settings. The general model was developed by Edward Wagner, M.D., and his colleagues for a range of chronic medical conditions, including diabetes, congestive heart failure, and depression. The collaborative care model was specially tailored to the treatment of depression by Drs. Wayne Katon, Gregory Simon, and Jurgen Unutzer, among others. Collaborative care provides two types of professional support for the general medical doctor who is treating depression. One form is provided by a nurse care manager who interviews patients in the offices of general medical doctors, conducts standardized diagnostic assessments, and monitors the effects of treatments provided by the general medical doctor. The nurse care manager spends considerably more time with the patients than the general medical doctor is able to spend in face-to-face treatment. The other support comes from specialty mental health consultation. The general medical doctor and nurse care manager receive regular consultation from a psychiatrist for every patient under treatment.²⁶

The research evidence is very strong in support of the effectiveness of collaborative care. It was featured as a promising intervention by the President’s New Freedom Commission on Mental Health reports during the Bush administration in the United States.²⁷ Collaborative care has been implemented in many settings, including group and solo clinic practices of general medical doctors, as well as in organized settings. It has also been implemented in numerous countries around the world.

23. B. Fried, M. Domino, and J. Shadle, “Use of mental health services after Hurricane Floyd in North Carolina,” *Psychiatric Services* 56, no. 11 (2005): 1367–1373.

24. E.O. Noorthoorn, J.M. Havenaar, and H.A. de Haan et al., “Mental health services use and outcomes after the Enschede fireworks disaster: A naturalistic follow-up study,” *Psychiatric Services* 61, no. 11 (2010): 1138–1143.

25. Unutzer et al., “Transforming mental health care at the interface with general medicine,” 37–47.

26. Ibid.

27. President’s New Freedom Commission on Mental Health, *Achieving the Promise: Transforming Mental Health Care in America*, Final Report, DHHS Publication No. SMA-03-3832, Rockville, MD, 2003.

Lessons for Japan

Turning the lessons of disaster into opportunities for positive change is the challenge of the next decade for planners of mental health services in Japan. The triple disaster of the Great East Japan earthquake of 2011 destroyed much of the health and mental health infrastructure of Tohoku and has provoked a reconsideration of the current mental health system. So much tragedy and destruction create a unique opportunity to replace an old system overly dependent on inpatient services and lacking in community mental health resources in comparison with other nations using a more modern, evidence-based system.

The lessons from the literature suggest that some combination of specialty mental health services together with the dominant system of general medical services will be a likely starting point for creating a new system. Even specialty mental health services responses, such as those described in the aftermath of Hurricane Katrina or the terrorist attacks of September 11 in the United States, gave way to a significant involvement of the general medical sector in treating mental disorders and providing supports to individuals affected by the disasters. The other examples of hybrid approaches to mental health services delivery, such as those encountered following Hurricane Floyd in North Carolina, the fireworks disaster in the Netherlands, and the bushfires in Victoria, Australia, suggest the importance and effectiveness of the primary care sector of general medical doctors in delivering mental health services. The established practice of collaborative care offers a well-studied approach with effective implementations around the world.

What will be needed in Japan is a host of ingredients that go beyond available models and a framework for change. As noted, it will take political will to make changes, know-how to adapt service models to the unique challenges of Japan, and resources to rebuild and refashion a modern mental health services system for Tohoku and the rest of the people of Japan.



1800 K Street, NW | Washington, DC 20006

Tel: (202) 887-0200 | Fax: (202) 775-3199

E-mail: books@csis.org | Web: www.csis.org