

# THIS WEEK



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## Troubling thoughts

*A sustained commitment to mental-health treatment for Fukushima evacuees could also help survivors of future disasters.*

Natural disasters create bold images: winds blow, waves crash ashore, buildings burn. Yet some of the most important long-term consequences are invisible. Survivors can be gripped by anxiety, depression and post-traumatic stress disorder (PTSD) for years after a disaster — especially if they are unable to return home and rebuild.

This is exactly the situation faced by thousands of residents of eastern Fukushima prefecture in Japan, who fled their homes ahead of the meltdown of three reactors at the Fukushima Daiichi nuclear plant in March 2011. As described on page 290, many evacuees are now anxious and depressed about their long-term prospects. Researchers have found evidence that they suffer from elevated levels of anxiety and PTSD-related symptoms, and there are fears that substance abuse and other problems may be on the rise.

Mental health is a major component of the Fukushima Health Management Survey, the government effort to monitor survivors for adverse health effects from the accident. The survey includes a small but competent team of mental-health professionals who are chronicling mental-health and lifestyle issues. Last year, they heard from more than 90,000 evacuees who answered a brief questionnaire about their mental state. The results were not encouraging: levels of PTSD-like symptoms nearly a year after the accident were similar to those of workers who had responded to the 2001 attacks on the World Trade Center in New York.

The health survey's goal is not simply to record the effects of the accident, but also to support the evacuees. Counsellors targeted nearly 5,000 individuals for follow-up phone calls to discuss any mental-health problems. Unfortunately, a phone call may not be enough. The survey itself had less than a 50% response rate, and those who were called for follow-ups tended to stay on the line for just a few minutes — unwilling or unable to talk in detail about their problems.

The researchers involved in the health survey would like to do more. They want to conduct face-to-face interviews and set up counselling centres. But money is tight and the survey is already over budget. It currently spends about twice what the government has allocated, and budgetary wrangling between the prefectural and central governments could lead to further cuts. In this precarious financial environment, the team has found itself unable to hire long-term staff, or even print pamphlets about mental-health issues for the evacuees.

That is an unfortunate state of affairs because Fukushima presents a good opportunity to learn about the best ways to treat the mental-health problems of disaster victims. Although researchers have chronicled mental-health impacts from diverse crises ranging from 2005's Hurricane Katrina and the 2010 earthquake in Haiti to the ongoing Israeli-Palestinian conflict, the literature on how to actually treat these problems is fairly thin. Fukushima's evacuees are similar to survivors of other events in many ways. Nearly all suffer from sub-clinical symptoms that are difficult to diagnose. The size of the afflicted population makes one-on-one therapy impractical. And the

situation is complicated by a deep mistrust of the authorities, whom many evacuees blame for their present woes. But unlike many disaster zones, Fukushima is a developed region with a well-educated, well-documented and contactable population. Much could be learned by studying and treating these evacuees in the long term.

And the evacuees will need that help. Unlike the survivors of many other disasters (including those who were affected by the tsunami that sparked the nuclear meltdown), Fukushima's nuclear evacuees live in fear of radiation exposure. They worry that they or their children may fall ill from the accident, and their anxiety could grow as the years pass. Nearly half of all Japanese people will develop cancer at some point in their lives, and evacuees will wonder whether that cancer is connected to the accident. Studies of mothers who were evacuated from the 1986 nuclear disaster in Chernobyl, Ukraine, show that this anxiety for their children can last for decades, and

may never entirely go away.

Given all this, the Fukushima Health Management Survey deserves continued and even increased support from the government. Survey scientists should also seek lasting collaborations with researchers outside Japan so that the lessons learned there, so painfully earned, can be shared with the world. ■

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## Knowledge trades

*Institutions must carefully evaluate their researchers' relationships with Wall Street.*

Few researchers would care to put a price on their professional reputation. Yet when neurologist Sidney Gilman decided to divulge confidential clinical-trial data to a hedge-fund manager, he did exactly that. Court documents show that Gilman earned more than US\$100,000 for his illegal tips about the failure of an experimental drug for Alzheimer's disease; the hedge fund made \$276 million in direct gains and avoided losses. After he was caught, Gilman lost not only the cash but also his career, retiring from his position at the University of Michigan Medical School in Ann Arbor.

In recent conversations with a *Nature* reporter, several academics converged in their assessment of Gilman's case, which became the biggest insider-trading case in US history: “stupid”.

Nevertheless, many of these same academics continue to serve as