

# Psychological consequences remain profound among coastal communities devastated by the Great East Japan Earthquake

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A second round of aggregate findings from a study by Tohoku University's Tohoku Medical Megabank Organization (ToMMo) has revealed that depressive symptoms continue to be higher in coastal areas than in inland areas affected by the Great East Japan Earthquake and the tsunami that followed.

Of the 7,285 [residents](#) who participated in the study, 28 percent admitted to having [depressive symptoms](#) (CES-D: score of 16 and above). The prevalence rate for those living in [coastal areas](#) was higher than those in inland areas, with the odds ratio of 1.4 after adjusting for gender and age.

Similarly, the proportion of residents with a score of 13 and above for K6 - which assesses psychological health status including depression and anxiety - was higher in coastal areas than in inland areas (odds ratio 1.4: 95% confidence interval, 1.1-1.8).

Four percent of the 6933 participants were also found to have experienced distress and difficulty in daily life due to the recollection of events during the Great East Japan Earthquake, and are considered to be affected by considerable posttraumatic stress reaction (PTSR).

"The findings provide tangible evidence pointing towards continuing mental health needs among communities affected by the disaster" said

Prof. Hiroaki Tomita, who is leading ToMMo's mental health promotion group. The proportion of residents who showed considerable PTSD was also significantly higher in coastal areas than inland areas, with an odds ratio of 2.4 (95% confidence interval, 1.6-3.7).

Psychologists who have been trained to support psychological problems in post-disaster settings have provided support in more than 600 cases of telephone-based or face-to-face consultations to residents who had shown psychological problems in the survey.

On the other hand, the study showed no significant difference between coastal and inland communities in the ratio of residents who showed indicators for somatic problems - including *Helicobacter pylori* infection, which can cause various gastric problems - and raised NT-proBNP levels used as a marker for potential heart failure.

The Tohoku Medical Megabank Project Community-Based Cohort Study was started in 2013. The data was collected from residents who were recruited at specific health checkup sites established by municipalities in Miyagi Prefecture.

**More information:** [www.megabank.tohoku.ac.jp/eng/timeline/20140227\\_01](http://www.megabank.tohoku.ac.jp/eng/timeline/20140227_01)

Provided by Tohoku University

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