Social Capital and Mental Health among Displaced Residents From Futaba Town, Fukushima

Keiko Iwasaki^a, Yasuyuki Sawada^b, and Daniel P. Aldrich^c

January 2015

Abstract

Research has underscored the importance of social capital as a key factor in facilitating recovery of disaster affected areas, but none have studied its role in the population displaced by the Fukushima nuclear power plant meltdowns. Further, there is little literature on the relationship between mental health and social capital or changes in social capital before and after the disaster among affected residents. To bridge these gaps, we measure and analyze social capital and mental health of displaced residents from Futaba town in Fukushima Prefecture through survey research. Futaba town remains one of the most affected towns because of the nuclear power plant accident after the Great East Japan Earthquake on March 11th, 2011. Futaba residents were forced to evacuate from the town to locations across Japan and continue to live as displaced residents. We uncover three important findings. First, the average level of mental stress captured by the K6 score among Futaba residents has been unusually high compared with those of all prefectures in Japan. Their K6 scores are high compared even to those of other disaster affected areas by the Great East Japan Earthquake where people are not directly affected by the nuclear power plant catastrophe. Second, among the displaced residents, social capital has seriously deteriorated after the evacuation. Finally, we also found that having less health damage, having more income, and having high social capital (captured by "general trust") play important roles in maintaining good mental health. We also demonstrate that having less health damage and having more neighbors from Futaba town act as significant determinants of social capital. Our results create two important policy implications: 1) the impact of nuclear power plant accident on mental health of affected residents can be more serious than that of other natural disasters, and 2) social capital plays an important role for the mental health recovery of those disaster affected residents.

Keywords: Mental Health; K6; Social Capital; Disaster; Fukushima Nuclear Accident;

JEL Classification: Q54; I14; C13

^a Graduate School of Arts and Sciences, University of Tokyo, Tokyo, Japan Email address: <u>keikoiwasaki0218@gmail.com</u>

^b Faculty of Economics, University of Tokyo, Email address: <u>sawada@e.u-tokyo.ac.jp</u>

^c Faculty of Political Science, Purdue University, Email address: <u>daniel.aldrich@gmail.com</u>