



THE UNIVERSITY *of* EDINBURGH

News Release

Issued: 19 July 2016

Elderly Japanese most resilient in wake of triple disaster, study finds

Older people in Japan are more resistant to the impacts of disasters on their health than younger generations, a study suggests.

Research into the aftermath of the Fukushima earthquake, tsunami and subsequent nuclear meltdown found that the oldest were least likely to experience a deterioration of existing chronic conditions.

The study also reveals that the health of people living in the countryside was more resilient than that of urban dwellers following the triple disaster of 2011.

The findings are in contrast to previous studies that suggested that young, city-dwellers would be less susceptible to ill-health in the aftermath of a major disruptive event.

Experts from the University of Edinburgh worked with Dr Masaharu Tsubokura from the University of Tokyo to track 400 diabetic patients who were treated by a public hospital in Minamisoma City, 23km away from the Fukushima nuclear power plant.

They compared how well patients managed their blood sugar levels before the disaster in 2010 with how well they coped in the year following the earthquake.

Two-thirds experienced a deterioration in their body's ability to regulate diabetes, with the number classed as having acute problems controlling blood sugar levels increasing from 32 per cent to 41 per cent.

Age was the most significant factor in determining the level of robustness – with each additional year providing more benefit.

Evacuation did not protect patients from deteriorating health. A third of the patients studied left the area in the wake of the disaster. This group suffered an increased decline in its ability to control blood sugar, compared with those who remained.

Sarah Hill, director of the University of Edinburgh's Global Public Health Unit, said: "We were incredibly surprised by these results, as they run counter to received wisdom about the impact of disasters on health."

Ranked among the top universities in the world

“Younger, urban diabetics may have experienced greater stress as a result of the disaster causing greater disruption to their lives. Older patients may have been more content to stay put, meaning less upheaval and stress. The longevity of Japanese pensioners is well-known, so their healthy diet and lifestyle may also be a factor.

“The results will certainly help health professionals identify patients with chronic diseases who are most at risk in a disaster situation and ensure they get the appropriate help.”

The findings are from a paper, *Sociodemographic patterning of long-term diabetes mellitus control following Japan's 3.11 triple disaster: A retrospective cohort study*, published in the journal *BMJ Open*.

For further information please contact:

Edd McCracken, Press and PR Office, tel 0131 651 4400; email edd.mccracken@ed.ac.uk