LETTER

The increase in long-term care public expenditure following the 2011 Fukushima nuclear disaster

The increasing proportions of older people in populations are a reflection of global trends of increased longevity and decreased fertility rates. In the multifaceted consequences of this population change, the burden of increasing public expenditure on long-term care (LTC) may be one of the biggest problems for developed countries.[1]

Public expenditure on LTC is calculated by multiplying the number of adults aged 65 years and older by the average amount of public expenditure per individual in this age group. While it is estimated that the number of older adults will continue to increase in many countries, the corresponding increases in public expenditure per individual have not yet been clearly predicted.[2]

Disasters are a type of phenomenon that may lead to a rapid increase in proportions of older people in affected areas.[3] Following the 2011 Fukushima Daiichi nuclear disaster, the proportion of residents aged 65 years or older in Minamisoma City (Fukushima Prefecture), increased from 26% (18 649/71 602) in 2010, to 30% (19 548/64 642) in 2014, largely due to mass evacuation of younger residents for fear of potential irradiation.[4] Assessing the LTC expenditure after this disaster compared with that before the disaster is a unique way to evaluate the per person economic effect of increased proportions of older people.

In figure 1, we present changes in the average public expenditure per older person in Minamisoma City. Comparing predisaster to postdisaster years, the average public expenditure increased by 30% ($2210 vs $1693). In addition, there has been an increased dependence on public care services. According to the government, the number of patients requiring these services has increased from 2531 in 2011 to 3510 in 2014, which accounts for 3.5% and 5.4% of the overall population, respectively. As a result, the expenses for total public care services in Minamisoma City in 2014 were 1.5 times higher than in 2009.

These results indicate that a rapid increase in the proportion of elderly people can result in an increase in LTC public expenditure per person. The increased proportions of older people in the present case were induced by a decrease in the young population after the disasters, rather than an increase in the older population in the studied areas. Thus, we hypothesise that public care dependency increases following the reduced availability of informal care supported by young family members. This case highlights that increases in public expenditure on LTC in ageing societies can be caused by a loss of informal care opportunities.[5]

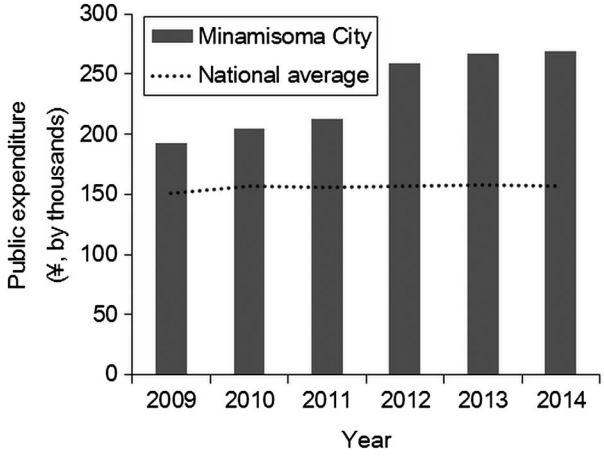

Figure 1 Public expenditure on long-term care (LTC) per individual aged 65 years and older in Minamisoma City.

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