Reviewer's report

**Title:** Mothers and daughters-in-law: A prospective study of informal care-giving arrangements and survival in Japan

**Version:** 1  **Date:** 12 April 2010

**Reviewer:** Masafumi Kuzuya

Reviewer's report:

This is an interesting manuscript that advantageously uses a unique data-set to make an original and needed contribution to the growing literature about the associations between informal care-giving arrangement and care recipients' survival in a cohort of Japanese elders.

However, this study does not provide the mechanisms of the association between arrangement and recipient mortality. There were no data on caregiver burden, caring periods, ADL status and comorbidity of recipients which strongly influence recipient mortality. The number of subjects was relative small not enough to have statistical power. In addition, although they have tried to control their study for potential confounders, this reviewer has concerns on the inadequate adjustments.

Major points:

1) Of 191 recipient participants, 117 survived until the study's end. Do all these recipient participants still live at home? If some of them institutionalized during follow-up periods, were they excluded for the analysis? Or still analyzed as recipient with certain living arrangement at baseline. Because it is obvious that institutionalization influences the mortality. And informal care-giving arrangement may also affect institutionalization.

2) Overall this reviewer does not feel there is enough information about the conditions of the recipients and this might explain the association seen. No data were presented on cognitive, ADL status and comorbidity. Although the study controls for possible confounders (recipient's age-group, care needs level, number of people living together, caregiver’s age, and service use), the severity of the recipients condition at the outset of the study could explain the associations of living arrangement and recipients' outcome.

3) The analyses were adjusted for daycare/visiting nurse service use in Table 2 and 3. The home help service/respite stay service use also needs to be used for the adjustment.

4) Why was the recipient' age categorized into three group (65-79, 80-89, 90years -)? Authors should justify this. This reviewer believes that the age is the strongest effector on the mortality for the disabled older people. Therefore, for the adjustment age should be used as a continuous variable instead of
categorized groups.

Minor point:
In discussion, the authors emphasized that the opposite pattern for male care recipients, i.e. better survival for those cared for by daughters-in-law compared to their own wives. However, no statistical differences were seen in K-M in male. And no Cox hazard proportional analysis adjusted for confounders were conducted in male due to the small number of male participants. Therefore, this statement should tone-down.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.