Reviewer's report

**Title:** Effect of in-home and community-based services on the functional status of elderly in the long-term care insurance system in Japan.

**Version:** 1  **Date:** 14 February 2012

**Reviewer:** Gianfranco Damiani

**Reviewer's report:**

Major revision

The authors deal with a very interesting topic. They examine the effect of in-home and community-based services on disability of the elderly, especially in a context of a mandatory social insurance model. They present a well-documented background to their hypothesis and clearly elucidate statistical methodology and sources of information. They cite well renowned articles as pillars for scientific debates on the topics.

Unfortunately, they classify subjects exposed to a different intensity of service utilization (1 service; 2+ services) and different kinds of services (in home services, community services and mixed services). As a consequence, interventions were heterogeneous.

As the authors specify, at-home services encompass a large variety of services: home-help, bathing, nursing visits, home rehabilitation, rental services for welfare equipment, purchase allowance for welfare equipment, allowance for modifying a house for home care and treatment management, and guidance conducted by doctors or other personnel. Similarly, commuting services are widely articulated: day care, outpatient rehabilitation, short stays for care/assistance in daily activities, and short stay for medical treatment at facilities.

Therefore, a “black box” of services is included in each category. Furthermore, there is a potential lack of consistency between the definition of one service, which could be specifically referred either to a medical, a nursing, a rehabilitative, a social or a personal care intervention and the definition of 2+ services, which could include more than one type of intervention compared with baseline (one service). This might lead to oversimplified and misleading conclusions.

For these reasons, the authors are invited to re-classify interventions on the basis of more specific criteria (i.e. see:

Impact of home and community-based services on hospitalisation and institutionalisation among individuals eligible for long-term care insurance in Japan.

Tomita N, Yoshimura K, Ikegami N.

BMC Health Serv Res. 2010 Dec 22;10:345.
They should also provide a revised version of descriptive statistics calculating a frequency distribution of interventions. Then inferential analyses should take into account these different patterns of distribution. Consequently, the part of discussion commenting new results should be revised.

Minor Revision
The authors should use uniform terminology more coherently (i.e., at home versus in home; commuting services versus community services).

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

**Quality of written English**: Needs some language corrections before being published

**Statistical review**: Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests**:

I declare that I have no competing interests'