Reviewer's report

Title: Factors associated with the utilization and costs of health and social services in frail elderly patients

Version: 1 Date: 20 March 2012

Reviewer: Esther Iecovich

Reviewer's report:

Major revisions

2. Background – the background lacks a theoretical framework of the study. For example, the conceptual model of Andersen (Andersen R. National health surveys and the behavioral model of health services use. 2008. Medical Care, 46 (7): 647-653) that relates to individual and contextual factors affecting service use can be an appropriate conceptual background for this study.

3. Methods – on p. 6 – use of services- can you please explain why data on outpatient care services in the private sector were obtained from the SII registers, whereas data on outpatient care services in the public sector were based on self-reports of the respondents? Can you clarify what do you mean by "professional home care"? What you mean by saying: "For those cases where changes occurred in the use of services during the follow-up, the annual data consisted half of the services used at the baseline and half of the services used at the follow-up." Please change the number of tables so that table 3 will come after table 2 in a sequential order. Why costs of social services was categorized into 3 categories and not used as a continuous variable as you did for health services? The HRQoL measure you used – Is it the SF 36? If positive can you explain the reason for using the 15D score? Can you provide references for each of the measures you used and their reliabilities. Regarding the definition of "integration of health and social care sectors" (p. 9) – this is a too general definition and based on subjective assessments rather than on objective defined criteria and therefore the reliability and validity of this concept seems to be problematic. Integration of services can include various forms and levels.

4. Results – Please provide data on the extent to which the differences between the two groups (Table 1) were statistically significant. Calculation of costs (p.10) is unclear – if mean cost was 10300 Euro with 48% of it were for health services how comes that average cost for social services was 8654 euro. Can you clarify?

5. Discussion – In the results you do not relate at all to the impact of integration of services on their use and costs, whereas latter on in the discussion you conclude that improved health was connected with integrated care (p.12). Can you clarify? Furthermore, in your discussion you elaborate on the significance of integrated care but this is not at all reflected in the results' section.

Minor revisions

1. Abstract –Move the details of the research sample size to the methods. In the
results I would suggest to use the term "poor functional status" rather than "poor functional independence". The conclusions should be more succinct.

**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, and I have assessed the statistics in my report.