Reviewer’s report

Title: Stroke prevalence in Spanish elderly from screening surveys

Version: 3 Date: 1 July 2006

Reviewer: Mauricio Avendano

Reviewer’s report:

1. Although the discussion has very much improved, my main concern is still that an attempt to discuss the possible causes of the differential patterns between regions has not been made, as well as the differences among rural, suburban and urban areas. Such discussion could help making the message of the paper to an international audience much clearer. For instance, such discussion can be supplemented by simply contrasting the regional pattern of stroke prevalence in the present study, with the regional pattern of stroke risk factors such as hypertension and smoking as observed in previous surveys. For instance, have previous studies shown that hypertension levels are higher in El prat de Llobregat region as compared to other regions in Spain? Are there differences in hypertension, smoking or other factors between urban and suburban regions? By discussing these issues, the present paper can make a more important contribution to understanding the geographic distribution of stroke.

2. In page 10, paragraph 1, authors make an attempt to explain the age and sex patterns observed in their study. It is good that authors have attempted to do so. However, their explanation is confusing and does not seem to lead to any firm conclusion. Authors claim that the effect of differential incidence traits explain the three phenomena observed (fall of prevalence among men at late ages, rising trend among women, and higher percentage of women in the elderly). But what do authors mean exactly with differential incidence traits? Perhaps authors mean to say that the incidence of stroke is higher among women than in men. If so, this statement needs to be more explicit and supported with reference to previous studies on incidence in Spain or other regions. My impression is incidence alone cannot really explain the pattern: For instance, in the Netherlands, a similar pattern is observed as in this study: Prevalence of stroke in the population is higher among men than women up to age 89, after which women show a higher prevalence. In contrast, the incidence of stroke is higher in men than women at all ages, and remains so in all ages groups. The decline after age 89 is also observed among men but not among women in the Netherlands (please see: http://www.rivm.nl/vtv/object_document/o1027n17966.html for “beroerte™ (stroke)). Thus, incidence does not seem a plausible explanation. I suggest authors reconsider this and perhaps try to provide a more clear and plausible explanation.

3. Could authors comment on higher underreporting in the rural areas as a possible explanation of their lower prevalence?

Discretionary Revisions

4. Several tables and figures present exactly the same prevalence results. In particular, table 2 presents the same findings as figure 2, and table 4 the same findings as figure 3. Figures are important because they help the reader understand the pattern. However, tables present also absolute numbers. My suggestion would be that, if there are journal space limitations, authors considering presenting either tables or figures for the presentation of rates, as it is not common practice to have the same estimates in both.

5. Authors state that compared to European data, “Spain can be said medium™. Perhaps it would be best to replace the term “medium™ by average (e.g., the prevalence of stroke in Spain was average as compared to that in other European regions).

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published

Statistical review: No