Reviewer's report

Title: Regional differences in mortality in Greece (1984-2004): the case of Thrace

Version: 3 Date: 1 May 2008

Reviewer: Peter McCarron

Reviewer's report:

I think the paper has been strengthened by the inclusion of further analyses. However, there are still a number of issues, consideration of which could improve the paper.

Major revisions

The material relating to specific disease and vaccination coverage is useful. However, I think that it is important to comment on how these findings assist in understanding/explaining the regional mortality differences noted. This is currently not included in the discussion.

The inclusion of IQR is useful but these show that there is some overlap between Thrace and other regions in Greece. A formal statistical test of the hypothesis that mortality is higher in Thrace should be carried out.

The mean GDP of Thrace is very low compared to other regions - something clearly worth commenting on in the Discussion. However, I am a bit puzzled that the mean GDP of Greece is stated as €15411 (I presume the authors mean euro here, so they should state this) but this is much higher than that of other populous regions of Greece. If the figure is correct, then the GDP in Athens must be much higher than that in other regions. However, it is noted that the data for Athens are not available, but how is it possible to have a mean figure for the whole country if the Athens data are not known?

Irrespective of the mortality differentials, it would be interesting to know why Thrace has such a low hospital bed/patient ratio. Apart from Sterea (for which some data may be missing) this is very low compared to the rest of Greece. Is it correct and if so, what could explain this quite gross disparity?

Minor revisions

A short paragraph detailing the statistical analyses carried out should be added at the end of the Methods section.

Where associations are stated it is useful to give the direction of the association, e.g. on page 7, there are inverse associations between GDP and CDR and between doctor patient ratio and CDR.

On page 9, I do not know what a "bring-link" is.
Level of interest: An article of importance in its field

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

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.