Reviewer's report

Title: Measuring health inequalities in Albania: a focus on the distribution of general practitioners

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Reviewer: Mark Hann

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General

Measuring Health Inequalities in Albania: a focus on the distribution of General Practitioners

This brief but interesting paper, through the use of standard health-economic techniques, measures the extent of inequality in the geographical distribution of general practitioners (GPs) in Albania during 2000. The article is generally well written, and is methodologically and analytically sound as far as it goes.

However, my main concern is that it lacks a context, focussing as it does on just one snapshot in time (and five years ago at that). The upshot of this is that it is impossible to come to an informed conclusion about the observed level of inequality. The findings need to be discussed in relation to, for example, the (mal-)distribution of other health resources in Albania, inequality in general practitioner distribution in other European countries, or, preferably, inequality in general practitioner distribution in Albania in previous years.

Accordingly, I cannot reach a decision regarding the suitability of the article for publication, although I would lean towards rejection in its present state. However, I would strongly encourage the authors to revise the article as this is an area of research which provokes a great deal of interest: it is a persistent policy concern in many countries world-wide. I would blindly hypothesize that it is likely to be so in Albania also, given its recent history (which I have to say I know nothing about!).

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. The paper is not very up-to-date. As is the case in the UK, the picture of health care in Albania may have changed somewhat in the past five years: the small amount of information available may, therefore, be of limited use to policy makers. My feeling is that, in order to be of any credence, a time series must be considered essential, in order that the reader can obtain a much broader idea of how GP-inequality has varied over time. I do, of course, sympathize with the authors regarding data availability, but they seem to indirectly imply that data is available from 1991. This would lend itself to a much more substantial piece of work.

2. The paper is methodologically ‘incomplete’. By this I mean that only one measure of inequality (the Gini coefficient) has been considered, along with only one method of needs-adjustment (mortality). In relation to the former, why, for example, did the authors not calculate the decile ratio and the Atkinson index as well? In relation to the latter, mortality is less obviously related to chronic conditions that are important in general practice – I don’t think there is a debate on this issue, as the authors state in their Discussion and Conclusions. Is data available on the age/sex structure of the population, consultation rates or morbidity/long-term illness? These can then be used to need-adjust the population. Previous work has shown that the level of inequality is sensitive to the
method of need adjustment.

3. In the Methods – Setting sub-section, how were general practitioners ‘assigned’ to districts? Some detail should be given if known. I am also concerned about the discrepancy between the numbers of general practitioners identified by the two data sources. The number identified by the UNCF survey is almost 10% greater than the number used in the study. I would expect a high degree of relative association between these two sets of numbers; it’s the absolute differences that could prove crucial. How about repeating the analysis using the UNCF data?

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. The third paragraph of the Background should read:

In the present study we calculated the level of inequality (a similar phrase is also required in the first sentence of the Methods – Analyses sub-section) in the distribution of general practitioners and the number of general practitioners that needed to be re-located in order to achieve an equitable distribution …

In the Methods – Setting sub-section:

2. In the UK the phrase ‘general practitioner’ covers a number of different ‘types’ of primary care doctor. What does this definition cover in Albania?

3. Can the authors clarify the phrase ‘… permanent size of the population …’? For information purposes, how is population data collected in Albania? Does this phrase refer to the ‘resident’ population – those living within the boundaries of the district, or the ‘registered’ population – those on the register of a general practitioner working within the district?

4. The final sentence of the Methods – Variables sub-section should read:

The NAI was calculated by dividing the GPPR by the CMR.

Discretionary Revisions (which the author can choose to ignore)

1. A more detailed Background would benefit the reader: for example, a brief summary of the recent history of Albania, plus some information on the healthcare system, including recent major changes.

2. Maps of general practitioners per 10,000 population, by district, are useful for snapshot data. This will, of course, depend on how the authors decide to revise the paper.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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.

**Declaration of competing interests:**
I declare that I have no competing interests