Reviewer's report

Title: Comparison of primary health care services between urban and rural settings after the introduction of the first urban health centre

Version: 1 Date: 11 November 2007

Reviewer: Mark F Harris

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General
This paper compares patient data from an urban and rural primary health care centre in Greece over two years between 2004 and 2006. This is interesting because of the unique nature of the urban PHC centre in Greece.

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

The conclusion that the urban “experiment” should be implemented more widely through a network of urban health health centres is not really supported by the data. The latter conclusion would require comparison with data from other urban services such as the Social Insurance Institute or private medical practices. As it stands, the paper provides evidence for differences in presentation and management between the urban and rural services which may be at least partially explainable by differences in the population as well as some differences in the staff and services provided. The latter would be greatly strengthened by reference to a model of service use in primary care such as that proposed by Anderson (Anderson RM Revisiting the Behavioural Model and Access to Medical Care: Does it matter. J of health and Social Behaviour. 1995; 36(1): 1-10.).

The paper itself has numerous grammatical errors which need to be corrected.

Background
This section could be more clearly written and constructed. The opening statement that PHC is mainly provided by GPs worldwide is probably not correct. General Practice comprises the majority of primary medical services in developed countries. However many non GPs work in general practice and most PHC service providers in developing countries are not GPs. It goes on to state that health centres are “mostly (more than 50%) staffed by general practitioners”. Does this mean that more than 50% of Centres have GPs in them or that more than 50% of the Centres medical staff are GPs or that more than 50% of all their staff are GPs?

The third paragraph ends with a sweeping statement: “In the major cities, the Greek healthcare system follows the trend towards super-specialized and
inter-hospital medicine, made necessary by the explosion of new knowledge in the field of biomedical research and the attractiveness due to its better "market value". The reference for this is a letter in the Saudi Medical Journal. It would be helpful to provide a more precise description of the place of general practice in the Greek health system supported if possible by some evidence (e.g. proportion of graduates entering general practice).

Methods

It would be useful to have a detailed description of the staffing and services provided by the two centres (possibly in a table).

In the analysis section it is not clear how the adjusted analysis was performed (adjusting according to table 6 for gender, age, financial income, educational status, marital status and nationality. It would also be useful to have a table comparing the descriptive statistics for these variables between the two centres.

Results

The first sentence states that the age and gender distribution of the populations in the two areas of the health centres are shown in table 1. However this does not appear to be the case. The following statement in the third paragraph does not make sense:

"Even though the patients per population per year and contacts per population per year ratios were higher at the HCNM due to its smaller population, the contacts per patient per year ratio was 32.19% lower than this of the HCOV."

The univariate analysis for frequency of visits, referrals etc is presented in the demographic section and the adjusted analysis in the later section. These should be presented together.

The description of the adjusted analysis results is very brief. This is the most important section of the analysis.

Discussion

The discussion of the frequency of visits at the two centres (para 3) is very difficult to understand. Surely the impact of visitors/vacationers in the rural centre in summer could be adjusted for or at least explored. For example did the rate of contacts differ per 6 month period in the rural centre. Based on the questions of patients, it would appear that they found the urban centre more accessible (less waiting, closer to home). Rural patients stated that they attended most frequently because they had no choice – this is an important issue. In urban practices patients have some choice about where they can go for health care and this may affect satisfaction.

The issue of referrals is important. Is it possible that some urban patients were ‘self referring”? Another explanation was the greater number of specialist doctors in the rural centre (which may have facilitated referral to hospital).

The discussion of the high prevalence of chronic disease in the urban area warrants more analysis. Is it possible that rates of detection are lower in rural
areas? Are patients less likely to present for follow up visits in rural areas (with hypertension or diabetes)? How different are the rates of ischaemic heart disease and diabetes in urban and rural people? Do urban people attend doctors more frequently than rural people regardless of the service?

As mentioned previously the conclusions are not sufficiently closely related to the findings:

- How was “change in their behaviour when seeking for medical assistance” demonstrated in the results?
- How has the superiority of the urban health centre over existing urban health services been demonstrated?

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

Discretionary Revisions (which the author can choose to ignore)

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

**Level of interest:** An article of importance in its field

**Quality of written English:** Not suitable for publication unless extensively edited

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

**Declaration of competing interests:**

I declare that I have no competing interests