Reviewer's report

Title: Primary care physician supply and other key determinants of health care utilisation: The case of Switzerland

Version: 1 Date: 27 February 2007

Reviewer: Mark F Harris

Reviewer’s report:

General
This study is an interesting study examining insurance claims for primary consultations in order to determine factors related to consultation rates in Switzerland.

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

The background is very short and provides insufficient information about the Swiss health system which is critical for interpreting the findings. In particular there needs to be more detail on the coverage of the insurance schemes (in population terms), what proportion of primary care consultations are included in the analysis (this is referred to in the discussion), what the cost to consumers is and what the financial benefit to providers is.

There is little reference to research outside the US and no reference to theoretical models of access or utilization of health services such as that proposed by Anderson (J of health and Social Behaviour. 1995; 36(1): 1-10). The theoretical models are important in analyzing the multilevel regression models produced in this study and also in identifying other factors which were not examined which may account for some of the unexplained variance.

The classification typology for communities is very heterogeneous mixing a variety of economic, employment and geographic characteristics. This typology needs to be explained and there needs to be greater justification or evidence of validation of this.

The description of the unit of analysis is confusing. It needs to be clearly stated that the unit of analysis at level 1 was the 2761 communities and at level 2 the 1018 service areas. The explanation of the multi-level analysis is otherwise reasonably clear. However the description of the final model is premature and should perhaps be included in the results.

The model explains 36.4% of the variation. The authors state that the “other analysis indicates, from a national point of view, only 2.9% of the regional variation is explained by the regional density of physicians..” What is this other analysis?

In the discussion the authors refer to the relative influence of supply vs. demand factors. However the ability of this study to provide an answer to this question is constrained by the fact that it does not cover the full range of primary care reimbursements and that the lowest unit of analysis appears to be the community which may mean that individual level effects were diluted. The authors conclude that physician supply is an important factor but that this is strongly affected by the predominant language/cultural group of the community. However the reasons for this are not explored very well (eg that French speaking communities seek care directly from specialists) – again there are no references to cultural or behavioural theories which might explain it. There needs to be more discussion of interaction effect between the female to male ratio and non Swiss citizens especially in the German and French communities.

In the conclusion the authors caution about over reliance on physician supply as a factor affecting primary care utilization. However an alternative is not proposed and it is suggested (without any evidence) that providing physician with data may have more effect.

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

Table 5 will not be intelligible to many readers. It would also be useful to graph the significant interaction effects especially the female to male ratio*non Swiss interaction.
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:** Acceptable

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

**Declaration of competing interests:**

I declare that I have no competing interests.