Reviewer’s report

Title: Changes in health care utilisation following a reform involving choice and privatisation in Swedish primary care: A five-year follow-up of GP-visits.

Version: 1 Date: 12 May 2013

Reviewer: Bo Burstrom

Reviewer’s report:

The research question posed in the manuscript concerns equity aspects of a recent choice reform and privatisation in Swedish primary care, and whether changes patterns of utilisation following the reform differed between subgroups (age, gender, income). The authors have used multilevel logistic regression analysis for this purpose. Analyses are based on a large dataset consisting of administrative register data on health care utilization, individually linked to background data on income, regarding all inhabitants 25-84 years in Skåne region 2011. Visits to general practitioners in Skåne region among this population for the years 2007+2008 and 2010+2011 were analysed.

Variables
The analyses were stratified by age groups (25-44, 45-64 and 65-84 years). It is not clear exactly why these age groups were chosen – was there empirical grounds for this division? Income is considered as a proxy for health needs, which may be reasonable. However, no mention is made of other potential candidate measures (e.g. education). Furthermore, income has been used as a dichotomous variable (below/above median income) – why not use income quintiles to allow more variation, and to enable studying potential linear relations between income and utilisation? On what grounds was it decided to dichotomise income? The income measure is presented as family income, but no mention is made of whether it is equivalised for family size, the number of family members who live off this income. This should be specified.

Statistical method
The underlying outcome is number of visits, but the analyses report odds ratios for the likelihood of one or more visits. Were any analyses made of changes in the average number of visits per individual in different groups? As it stands now, the regression analyses present more of changes in the likelihood of making one or more visits, which would indicate that a greater proportion of persons in a particular category have made one or more visits – not counting those who already made one or more visits in 2007/2008 and also in 2010/2011. Analyses used multilevel logistic regression – in order to account for repeated measures in the same individual. Was this the only analytical method considered? Did the authors consider looking at the average number of visits in different groups?

Results
The increase in number of visits was twice as high among men as among
women, and highest among men aged 45-64 years. This is not further commented – was this expected? There are two table 1, the second one seems to be referred to as table 2. As the tables partly contain the same information, they could be combined. There seems to be an error in the calculation of visits to GP-all for men 65-84 years – the percentages do not seem correct in relation to the numbers, this should be checked. In table 3 one line describing variance (women 25-44) is empty, variance is missing. Figure 1 and figure 2 provide little information, as there is no interaction in table 3 for this age group. The interaction with age and income is little described, how do the authors interpret this finding?

Discussion

The authors state that individuals with high income are more likely to have made a visit to a GP after the choice reform, and the establishment of more private primary care providers in the region – were any analyses done of the impact of new private providers? Were any geographical analyses done relating the establishment of new providers to increases in the number/likelihood of visits? The authors also mention differences in health literacy between groups as one possible explanation for the results. Were there any analyses of differences in abstaining from seeking care between groups? The authors reiterate that income is a good indicator of health – again it is not evident why the analyses have not used more variation in the income measure.

Compulsory revisions

In summary, the topic and the study are interesting but the manuscript would need some revision in response to the comments given. It would be interesting to see sensitivity analyses using income quintiles rather than below/above median; and analyses of the average number of visits before and after the reform rather than only odds ratios. Tables and figures should be revised according to the comments.

Minor revisions

The authors could expand on the explanation of geographical differences in establishment of new practices – are there analyses to support that?

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