Reviewer’s report

Title: Household Out-of-Pocket Medical Expenditures and National Health Insurance in Taiwan: Income and Regional Inequality

Version: 1 Date: 6 March 2005

Reviewer: David Legge

Reviewer’s report:

General

This is a fascinating study. The data are taken from two household expenditure surveys before and after the introduction of National Health Insurance (NHI). There are basically two analyses, first, mean differences in out of pocket (OOP) expenditure, and second, a regression analysis, modelling the influence of a range of factors on OOP expenditure.

The data have been carefully collected and the analyses competently carried out.

The main issues that this paper raises for me concern the interpretation of the results and their policy implications.

Although the surveys apparently did collect data about household consumption of health care the focus of this paper is entirely on OOP costs. There are no references to changes in utilisation rates with the introduction of NHI and therefore total per capita health expenditure which makes the interpretation of decreased OOP difficult. The fact that the lower and middle income quintiles showed a relatively small decrement in OOP payments after NHI could suggest that the provision of NHI led to a significant increase in utilisation in the lower income groups so that the effect of greater insurance coverage was matched by increasing utilisation. In this context it would have been nice to know about differences in the prevalence of insurance coverage in 194 by different income quintiles and regions.

It is not clear whether these analyses have been done and are scheduled for publication in a separate paper or perhaps the data from the surveys are not sufficient. However, I think the issues should be canvassed and if utilisation data, total health expenditure estimates and estimates of elasticity of utilisation are scheduled for later publication, perhaps this could be mentioned.

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

N/A

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

N/A

Discretionary Revisions (which the author can choose to ignore)
I think that the paper would be improved if the utilisation issues (note above) were canvassed including implications for total per capita health expenditure in the different income quintiles and regions. If data are available to throw empirical light on these issues that would be preferable.

I have a number of textual revisions for the authors to consider:

On the top line of page 2 "The financial burden from out-of-pocket medical expenditures rely on regressive financing in developed countries" - I am not sure that 'rely on' is the best way of putting this; how about, "is regressive"?

Six lines from the bottom on page 3: "that NHI shortened the gap between the richer and the poor" - reduced perhaps rather than shortened?

Seven lines from the bottom on page 7: "Because the previous insurance schemes required no co-payment, moral hazard commonly occurred" - there are no references cited to support this claim; is it something that is widely believed to occur or has it been demonstrated? Does moral hazard 'occur'?

Second line from the bottom on page 7: "if a beneficiary suffers a major illness or injury and requires long-term, expensive treatment, he is exempted" - gender neutral or inclusive pronoun might be preferable, perhaps 'he/she'?

**What next?**: Accept after discretionary revisions

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

**Quality of written English**: Acceptable

**Statistical review**: No

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