Reviewer's report

Title: Effect of cigarette tax and synergistic effect on consumption of alcohol and betel nuts

Version: 1 Date: 3 April 2007

Reviewer: George Thomson

Reviewer's report:

General

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

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

This is a very interesting, generally well written article. The question of synergy between tobacco, alcohol and betel nuts appears to be new, and the research question is sufficiently defined. The methods appear appropriate, in particular, the demand model has been tested for comparative studies, and there is a long (30 year) time series of data. The results are generally well presented (except for some comments below). The discussion is reasonably supported by the data, although below I comment on the need to explain about the difference between a projected elasticity and an actual consumption drop. The recommendation about betel nut wholesalers is well argued.

Some general comments and suggestions (minor essential revisions):

Methods: The use of betel nut production figures appears to assume no import or export of betel nuts. If this is so, it should be stated. If not so, then imports and exports need to be allowed for.

The author may need to explain that price change produces both consumption and prevalence change, and why prevalence change was not reported.

Results: Table 1 is crucial for the understanding of the results. To help make clear the first two sentences of the results, it might help if the basic elasticities were in bold (eg, -0.6517) and the cross-elasticities were in italic (eg, -0.2503), so that the two types are clearly differentiated from each other, and from the other figures. The editors may have ideas on this.

Sentence three of the second para of the results is confusing - do you mean ‘..negative, though the cross price elasticities are not significant in the case of alcohol …’. Again, the last sentence of that para might be: …a change in the price of alcohol may cause over double the change in the consumption of cigarettes, compared to the same betel nut price change.’

The crucial sentence at the end of the first para of the ‘Effects of price changes ..’ section needs a reference to substantiate the assertion re 16.01% reduction in medical expenditure (reference 40?). Reference 40 needs a URL if this is available online. If it is not, then readers will not be readily able to obtain the evidence and arguments that support the assertion.

This is important, because the author is arguing that medical expenses directly relate to tobacco consumption, rather than a combination of consumption and prevalence.

Discussion: The first sentence appears to confuse a projected elasticity and an actual consumption drop. I presume the author meant ‘… tax on cigarettes in Taiwan would reduce cigarette consumption by 27.22%, if the elasticity found during 1972-2002 can be assumed to apply in 2006.’ The author could comment on the need for research to look at the actual consumption fall.

The second para of the discussion section (except for the last two sentences) appears more appropriate for the Background section.

In the third para of the discussion section, in the second sentence, the author could consider rephrasing the policy recommendation. Instead of using ‘should’, perhaps ‘…three products, government would achieve health gains by imposing health taxes on betel nuts and alcoholic beverages …’

The first sentence of the last para of the discussion section is confusing. First, ‘health contribution’ - I assume this should be ‘health tax’. Secondly, the phrase ‘will not necessarily reduce the consumption’ appears to contradict the results, which indicate that the extra tax would reduce consumption.

Conclusions: This appears to be too long, and much of it repeats the discussion section. The first two sentences appear unnecessary, or should be in the Background section.

Discretionary Revisions (which the author can choose to ignore)

Minor points:
- ROC and WTO need to be spelt out.
- First sentence of background - perhaps ‘world’s leading countries in tobacco control have ..’ The last sentence ‘The results ..’ would be more suitable in the discussion section.
- The references for the literature on cross price elasticities could include: Friend KB, Pagano ME. Changes in cigarette consumption and drinking outcomes: findings from Project MATCH. J Subst Abuse Treat. 2005 Oct;29(3):221-9.
- ‘Cigarettes’ is spelt ‘cigarette’ in a number of places.
- ‘Prior moral hazard’ needs to be explained.

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I have contracts for the NZ Ministry of Health and for tobacco control NGOs