Reviewer's report

Title: Health System Outcomes and Determinants Amenable to Public Health in Industrialized Countries: A Pooled, Cross-Sectional Time Series Analysis

Version: 1 Date: 21 February 2005

Reviewer: Niyi Awofeso

Reviewer's report:

General

I enjoyed reading Arah et al’s article, titled above. Studies that facilitate the determination of aspects of preventable mortality and morbidity in countries rich and poor, and suggest feasible strategies for addressing such findings, deserve high priority of academic journals and health care policy makers. The authors have analysed data from 18 OECD countries over a 30-year period, to arrive at variables responsible for a variance of 57% - 79% in both All-cause Mortality and Potential Years of Life Lost. The authors suggest a need for ‘integrated, intersectoral, and innovative solutions beyond the prevailing narrow policy approaches’.

However, I suggest that the manuscript be strengthened in a number of areas in order to qualify as a significant contribution to existing knowledge on this topic.

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

First, the use of aggregate data limits the significance of the authors' findings. It would be more appropriate to analyse the variables chosen from the perspective of low- and high socio-economic groups. Such alternative approach would better focus the public health intervention that might be appropriate vis-à-vis each amenable variable for most of the countries studied (e.g. see Ljung et al; socio-economic differences in the burden of disease in Sweden, Bull WHO, 2005, and Frank et al; investigating explanations of socio-economic inequalities in health, EJPH, 2004).

Second, I agree with the authors’ comments with regards to the limited validity of tobacco data in the OECD report. Similar limitations apply to some of the other variables used. For instance, a tobacco consumption of 11.62 litres per capita (table 1) corresponds to about 80 litres of wine per capita, or about 1 glass per day. This is in fact lower than the 2 glasses/day recommended by Ruut Veenhoven’s Happiness study (http://www.eur.nl/fsw/research/happiness/). I cannot see how a decline in this already low aggregate level would correspond to improved quality of life, at least if Veenhoven’s data are to be believed. This observation underscores the need for a stratified analysis based on socio-economic status, since especially with alcohol and tobacco, the socio-economic differentials are more informative than aggregate values (http://tc.bmjournals.com/cgi/reprint/12/suppl_2/ii671).

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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)

It would be valuable if the authors were able to propose specific strategies to address the factors that are amenable to public health interventions. Data exists on the progress (or lack of) made by many of the countries studied with regards to addressing the variables studied. A discussion of success stories and reasons for failure should further strengthen the discussion section of the manuscript.
Discretionary Revisions (which the author can choose to ignore)
Although on pages 3-4 the authors stated that they were "not interested in the extent to which public
health activities and investments yield value for money, and are more efficient and equitable than
medical care", yet the thrust of the discussion section of manuscript appears to be on this issue (e.g.
pages 11-12). Also, discussions of ‘proximal’ and ‘distal’ health determinants (page 4) do not appear
relevant to the main thrust of the article.

Furthermore, the variances attributable to all-cause mortality and PYLL determined by the authors
appear much higher than other studies have found. Given the validity limitations of the data used,
the authors may wish to re-examine their statistical methods, or explain why their analysis led to the
selected factors accounting for such a high variance.

**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

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