Reviewer’s report

Title: Council tax valuation bands, socio-economic status and population health: a cross-sectional analysis from the Caerphilly Health and Social Needs Study

Version: 1 Date: 31 March 2006

Reviewer: Emily Grundy

Reviewer’s report:

General
Could be shortened; aims need to be more explicit; needs more thought about what it is being measured; needs redrafting for international readership; some ethical points.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
The usefulness of CTVB for examining non-response bias is an important one (page 13). It did raise for me an ethical issue though. The sampling frame was drawn from the General Practice patient register, I wondered if patients had given permission for linkage of their addresses to the CTVB database? As the latter is a public access database, may be it was considered that such permission was not needed, but some mention of this ethical problem and the decision of the ethics committee is certainly needed in the paper.

Conclusions
Although the ready availability of CTVB data for all dwellings is potentially a big advantage, it is not much use unless you have some other source of information on the people in these dwellings, e.g. via linkage to a survey as here or some other administrative source. This makes some of the ethical considerations very important.

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

Background
The aim of the study needs to be made more explicit.
The background section gives some information about the CTVB and a very brief review of some other measures of SES used in UK studies. The opening sentence says that CTVB data is available for all households and can be searched for on a publicly accessible data base – probably should also make clear (probably in a later section) that actual street number or address is needed as well.

This is a short research note type paper, so a long theoretical introduction is not needed. However the authors should give some reference to the underlying theory behind derivation and measurement of SES and acknowledge that different domains of SES are recognised to have different implications for health which have different implications for health even if they are associated with each other, (e.g. education and income). There are lots of review and other articles which go through this and just a sentence or two with some references would be sufficient (e.g Liberatos 1988). Authors should also include reference to some of the work comparing ecological and individual measures and some studies which have compared different measures (e.g Grundy and Holt 2001). Not sure I would agree with the statement that no previous studies have looked at CTVB and health outcomes (p 4), indeed this statement follows a reference to a study of CTVB and health. Finally this section is likely to cause problems for non UK readers (and some UK readers) given the early leap into UK technical nomenclature (Jarman index, enumeration district, GP).

Methods
Details about the survey have been published elsewhere so could be given in a condensed form
(e.g. don’t need all the detail about the number of call backs etc). However do need some more information on some of the coding decisions relevant to this particular study. For example, was the classification by RG’s Social Class based on current job only or (as seems to be the case from the distributions) on current or most recent job? If the latter was their a time limit, e.g. most recent in past ten years? It might be worth mentioning here or a later point that the RG classification has now been replaced by the National Statistics Socio-Economic Classification (NS SEC). Not everyone will be familiar with the Townsend classification or what a ward is (or was), so a brief explanation might be helpful.

Outcome measures
Not sure why ex and current smokers have been grouped, as often they are rather different, but maybe the sample size was a limitation.

Results
I am not sure that showing unadjusted as well as adjusted odds ratios is necessary in Table 3, especially as they are very similar. (This made me wonder whether age in single years or age group had been used in the adjustment – this should be made clear and if age group, bands should be specified) . Dropping the unadjusted ORs would mean the table should fit on one page. The information in Table 4 could perhaps be presented in a graph (given that is not the actual values that are of interest, but the trend in scores by CTVB in comparison with trend by other indicators).

Discussion
I think the discussion section needs strengthening, more thought earlier about the aims of the study and measurement and meaning of SES will probably help this. The authors do include a quick review of strengths and weaknesses of the measures they have used. In fairness to the Social Class one, they should point out that although RG’s social class is not based on an underlying theory, NS-SEC is. It is true that occupation based measures cause problems in classifying those out of the labour market, but perhaps the authors should mention other approaches to this (housing tenure etc) and particularly education.

The discussion on page 12 about ‘misclassification’ highlights the fact that more thought could be put into thinking about CTVB measures, the discussion here seems to suggest the authors are regarding it as a proxy for income. As a matter of fact, it seems that it is closer to an indicator of wealth (which would be very useful as a growing number of studies suggest linkages between wealth and health that differ from income-health linkages). This made me wonder why the authors did not consider, and perhaps remedy, one of the weaknesses of the measure as used here, that for tenants (particularly local authority tenants) the value of the dwelling may have no or only a weak association with their own income and wealth. (Presumably the authors could undertake separate analyses by tenants and owner-occupiers which would allow them to look at this, even if they do not want to do this for this paper, they should recognise this weakness and the potential to look at it).

Discretionary Revisions (which the author can choose to ignore)
Comparison with previous studies
An association between council tax band and disability was also reported in analysis of the 1996/7 GB disability survey (Grundy et al 1997).

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: Acceptable

Statistical review: No
Declaration of competing interests:

I have no competing interests