Reviewer's report

Title: Body Mass Index, Sexual Behaviour, and Sexually Transmitted Infections: An Analysis using the NHANES 1999-2000 data

Version: 1 Date: 8 June 2006

Reviewer: Adrian Mindel

Reviewer's report:

General
This is an interesting study with a sound hypothesis tested on a robust and well-validated database.

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

Major compulsory revisions

1. Whilst sexual data were collected by NHANES, I am unaware of studies to evaluate the reliability of such data. Unlike the numerous sexual behaviour studies conducted in recent years where the validity, and reproducibility of sexual data has been validated. How were the sexual data validated?
2. The study is written from a statistical perspective. This in itself is not a problem, but it means that the some of the data, in particular the tables are dense and difficult for the non-specialist to understand. The tables require redrafting with the non-specialist in mind.
3. I believe that the oversimplification of marital status into just two variables is potentially misleading. The definition of ‘sex partner’ in the original NHANES study needs to be documented. Was this referring to penetrative sex only? It is evident from several recent studies and from the behaviour of an ex-President, that many Americans do not regard oral sex as sex.

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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)

1. A preferable term to homosexual relationships is ‘same sex relationships’
2. Some of the suggestions made in the discussion, to explain some of the observations are fanciful and illogical and require either further explanation or exclusion. These include:
   a. The suggestion that that individuals with a high BMI choose high risk partners
   b. Smoking and the number of sexual partners

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Discretionary Revisions (which the author can choose to ignore)

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