Reviewer's report

Title: Test-retest reproducibility of a food frequency questionnaire (FFQ) and estimated effects on disease risk in the Norwegian Women and Cancer Study (NOWAC)

Version: 1  Date: 21 September 2005

Reviewer: Shoichiro Tsugane

Reviewer's report:

General

The manuscript by Parr et al. may be a further informative contribution to the literature on the reproducibility of dietary assessment methodology. The study design, sample size, statistical analysis and reporting are sound for evaluating the reproducibility. However this reviewer feels that it is not appropriate to study the effect of measurement errors on disease risk in the present analysis.

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

1. The association between dietary intake and blood pressure was analyzed cross-sectionally. Presence of blood pressure has strong influences on his or her dietary habit. Most physicians advise patients with high blood pressure to reduce alcohol intake. Dietary intake is not likely disease risk but result of disease. Since the study is undertaken as part of prospective study, the association of dietary intake should be tested with subsequent disease risk. Alternatively the part of “estimated effects on disease risk” should be deleted.

2. Is the objective of this study to simply assess the test-retest reproducibility of a FFQ, or to compare different statistical measurements to assess reproducibility? Some information such as percentage of misclassification and symmetry of misclassification on the Table 2 is not discussed in the text. Authors should discuss the significance of each measurement in the table, how they differ, and explain why they were all necessary.

3. Readers may not be familiar with the estimation of intraclass correlation coefficients. Notation of ICC(1,1) and ICC(3,1) need be explained in detail.

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. On page 8, line 22, “Normally distributed,…” should start with lower case.
2. On page 11, line 1-2, it is not clear which food items correspond to “frequencies with no additional portion size question” here. Since this will be an important discussion point, they should be stated clearly within this paragraph.

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 whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests’ below.