Reviewer’s report

Title: Prevalence and Risk Factors of Diabetes and Impaired Fasting Glucose in Nauru

Version: 1 Date: 25 May 2011

Reviewer: Trevor Ferguson

Reviewer’s report:

The paper submitted reports prevalence estimates for diabetes and impaired fasting glucose in the Pacific island nation of Nauru. This report follows earlier studies in the 1970s and 1980s which showed extremely high prevalence of diabetes.

The study is a national survey using a stratified random sample of the population of Nauru and reports crude, sex-standardized and age-specific estimates.

Suggested revisions are given below:

Major Compulsory Revisions

1. The authors need provide justification for the use of sex-standardized estimates as opposed to age standardized estimates. It is unclear as to the extent to which the age and sex distribution of the sample differed from the general population and to what extent this might have biased the results.

2. Further details should be provided as to the factors included in the weighting of analyses.

3. Data were missing for 680 (approx. 30%) participants. The authors should report on whether the participants with missing data were significantly different from those included in the analysis. The discussion should include potential bias due to missing data.

4. In paragraph 4 of the results the authors refer to the prevalence of undiagnosed diabetes by age and BMI categories but report mean BMI and mean age in the comparisons. Similarly in Table 3, the title indicates age adjusted prevalence of CVD risk factors but report mean values in the table. Both these sections need to be corrected

Minor Essential Revisions

1. Figure 1 – the legend suggest that crude and age-standardized estimates are presented in Panels B and D but these appear to be age specific estimates. Panels A and C appear to be crude and age-standardized, sex-specific estimates

2. Table 1 – the authors should indicate whether the data are means and standards errors for all variables.

3. The method section of the abstract should include the number of persons studied and the approximate date (at least year) of the study
4. Include units for age in last sentence of the results in the abstract

Discretionary Revisions
1. I would suggest using ‘high cholesterol levels’ instead of ‘cholesterol levels’ and ‘elevated waist circumference’ instead to ‘waist circumference’ in reporting the odds ratios for multivariable models in the abstract.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

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