Reviewer's report

Title: Trends and risk factors of hyperglycemia and diabetes among Kuwaiti Adults: National Nutrition Surveillance Data from 2002 to 2009

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Reviewer: Zumin Shi

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The study aimed to determine the trend and risk factors of IFG and diabetes among adults in Kuwait. It is based on a consecutive convenient sample from adults attending mandatory health examinations for registration for government employment etc. The authors found that the prevalence of IFG and diabetes decreased between 2002/3 and 2008/9. This message is important for health planners. There are several methodological issues need to be addressed.

Major:
1. The main concern is the lack of diabetes medication use among the participants. It is not known whether the decrease of the prevalence of IFG and diabetes is due to the decrease of diabetic cases or the better control and management of the problem. If the latter is true, the finding from the study will be misleading.
2. There is a significant difference in the age distribution by study years. It is important to use age adjusted prevalence in order to show the trend.
3. There is no mention how similar the sample distribution is as compared with the general population (e.g. age, sex, education). I would imagine there is a big difference. If so, the significance of the study will be limited. It seems that the study under-sampled the old age group, which is the high risk population.

Minors
1. There are too many tables. It will be desirable if some of the data can be presented in graphs (especially the trend of prevalence).
2. When the prevalence is above 10%, odds ratio may not be a good association measurement (OR will over estimate the risk). Prevalence rate ratio would be more appropriate. The alternative will be the use of actual probability after adjusting for covariates (e.g. using margins in Stata 12).

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

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