**Author's response to reviews**

**Title:** High Prevalence of Chronic Kidney Disease in Iran: a Large Population-Based Study

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**Author's response to reviews:** see over
Dear editor of

Thank you very much for your email message of December, 4, 2008, about the outcome of the peer review of our above-mentioned manuscript and the opportunity to revise and resubmit the paper. We have taken each comment seriously, and herewith submit a revised version in response to the reviewers’ comments.

As instructed, this is a point-by-point response to the reviewers’ comments and a revised paper with the changes highlighted in pink.

I hereby attest that I have full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

Thank you for your consideration.

Sincerely yours

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Reviewer 2: Olafur Skuli Indridason

There still are a few issues, mostly regarding the discussion of the results and explanations for their high prevalence of CKD. Also, this is a period prevalence, it is stated that the study began in 1998, when was the cross-sectional part finished.
Our response: Agreed and corrected. This sentence added to the methods section:
The study began in December 1997 and the cross-sectional phase completed in 2000.

And this part added to discussion section:
Furthermore it is possible that definition of CKD based on calculation using MDRD formula is not reliable in Asian an Iranian populations because this formula has not been validated in these populations. This may lead to the prevalence of CKD being overestimated in our study.

The mean of the serum creatinine of the study subjects is high compared to the mean of the assay, yet there is no discussion/explanation of that or suing it to explain the high prevalence of CKD.

Our response: The reference range of creatinine assay is suggested by the manufacturing company, which is based on a small sample size and not on the characteristics of Iranian population. This may explain the observation of a little higher mean of the serum creatinine of the study subjects compared to the mean of the assay.

There is nowhere in the discussion any mention of the possibility of age and gender being to influential in the equations explaining the great increase in CKD with age and the fact that women are more likely to have CKD while men usually outnumber women en ESRD programs. The authors do not seem to have information on the male:female ratio among subjects with treated ESRD in Iran but this might be of interest to briefly mention in the discussion when discussing the gender difference which is similar to what has been seen in other studies.

Our response:
It has been shown in TLGS study that cardio metabolic risk factors in Iranian women is more prevalent than men. For example lower levels of physical activity in women than men, weight gains in pregnancy and not returning to the optimal weight, may be causes of the higher rate of obesity in women. The Tehran Lipids and Glucose Study showed that women consumed much more sweets and simple sugars [1]. This part added to the discussion section: Although age and gender were included in the MDRD equation, they were significant as independent associated risk factors for CKD in our analysis. The higher prevalence of CKD in female might be caused by lower physical activity, and higher prevalence of cardio metabolic risk factors in Iranian females. And the increasing prevalence of decreased kidney function in older individuals might result from an increase in age-related risk factors for the development of CKD.

Again we admit that we do not have information on the male:female ratio among subjects with treated ESRD in Iran.

I had also suggested that a separate analysis for men and women might be more informative, particularly because there is such a big gender difference not only in participation rate and the disease prevalence but also in risk factors, such as smoking and diabetes.

OUR RESPONSE: We have performed a separate analysis for men and women in our participants; with the exception of hypertension which was not a significant risk factor for CKD in women, the other parameters did not change in logistic regression model, so we do not think that it would be necessary to bring sex stratified analysis in the manuscript.