Reviewer’s report

Title: Intervening to reduce cardiovascular disease risk in an ethnic community: The South Asian Cardiovascular Health Assessment and Management Program (SA-CHAMP)

Version: 1 Date: 30 September 2012

Reviewer: Rajeev Gupta

Reviewer’s report:

Major compulsory revisions:

General comments:
1. This article is focused on cardiovascular risk assessment using trained non-medical volunteers at places of worship in North America using opportunistic screening. All these three components have not been addressed in the article.
2. I would suggest that the authors review previous studies among African-Americans in USA and elsewhere. Church-based interventions have been assessed in multiple studies with varying results. This should be discussed in introduction as well as discussion.
3. Use of non-physician volunteers to assess cardiovascular risk is a novel initiative, especially among South Asians, and needs to be addressed in introduction, methods and discussion.
4. Usefulness of opportunistic screening in cardiovascular risk factor assessment has not been well evaluated. This should be highlighted in introduction and discussion. Please mention usefulness of this method to identify community prevalence of risk factors.
5. The article is essentially a qualitative study. The focus on qualitative aspect of intervention is lacking in introduction and discussion.
6. I would suggest that the authors revise the whole article keeping all these four important facets of the study into consideration.

Specific comments:

Abstract:
7. The background statement is too long. This should be a single line statement (the last sentence of the existing abstract).
8. Methods section needs to be succinctly described. Follow-up of only 99 of 238 initially screened were followed-up. This should be highlighted in the abstract.
9. There are no data in the results section. Important data on risk factors before and after intervention should to be added here.
10. In conclusion section the importance of this study should be highlighted.

Introduction
11. The authors describe the factors associated with poor cardiovascular health in South Asian communities in Canada. Chinese, African Americans as well as Native Americans also have poor cardiovascular health compared to Caucasian Whites. Please highlight the factors associated with poor cardiovascular health in these communities and why these are more among the South Asians.

12. The authors need to briefly describe the uniqueness of this study- (i) opportunistic screening, (ii) at places of worship, (iii) using non-physician health workers in the introduction section.

13. Please also introduce the qualitative nature of the study.

Methods:

14. Please describe the total population of Calgary and populations of various ethnic groups in the region.

15. Method/s of training of volunteers should be provided.

16. Criteria for selection of places of worship should be mentioned. Were the places Hindu temples, Sikh gurudwaras or Muslim mosques or a combination of them?

17. Please specify the Dari language (it is essentially a dialect and not a language).

18. Why were the British risk charts used and why not the north American or Indian. I am not sure that multiplication of this score by 1.5 is validated in South Asians.

19. The intervention is loosely described. Please be succinct.

20. The follow-up methodology is vague. Please compare the responders with non-responders to assess any differences. It is likely that responders were younger and more health-conscious. This could bias the results. If there are systematic differences, the data could be adjusted for baseline variables, especially age, gender and socioeconomic risk factors.

21. Statistical methodology is incomplete.

Results:

22. The influence of training of the volunteers needs to be mentioned. This is the qualitative component of the study.

23. Table 1: There is no need to describe the data on the group with self reported diabetes.

24. Table 1: There is no need to provide data on “no”. Please mention only those with a particular variable.

25. Table 1: Values of total cholesterol are missing in column 1.

26. Table 1: The focus of the article is poor control of risk factors, why mention data from controlled TC/HDL. It should be for uncontrolled TC/HDL.

27. Table 2: Multiple subgroups for each variable are reported. Some of the numbers are very small and may not be relevant. Similarly some variables are repetitive, for example, men vs women, diabetics vs non-diabetics, high vs low
CVD risk. Instead of 7, we could have only 4 groups.

28. Table 2: Many p values are significant. For the whole group, control of TC/HDL improved significantly ($p=0.29$). This implies that there was a decline in uncontrolled TC/HDL. Total cholesterol values declined by 0.52 mmol, HDL cholesterol increased by 0.07 mmol, and the total/HDL declined by 1.04 (all significant). The results section does not highlight these findings.

29. The authors have discussed the qualitative component of the intervention here. This should be more succinct.

Discussion:

30. The first paragraph should focus on the three components mentioned above, viz., implementation of screening program at places of worship, opportunistic screening and use of community volunteers. This should also comment on the benefit of this intervention in modifying lipid levels.

31. As mentioned above all the four components of this study should be discussed in separate paragraphs. Results should be compared with in high income, middle income and low income countries, especially similar studies in South Asian countries. There are studies from India as well as Pakistan on hypertension management using non-physician health workers.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

I declare that I have no competing interests.