Reviewer's report

Title: Screening for type 2 diabetes in a high-risk population: study design and feasibility results of a population-based randomized controlled trial

Version: 5 Date: 28 May 2012

Reviewer: Justin Basile Echouffo-Tcheugui

Reviewer's report:

1- Major Compulsory Revisions

a- The authors have generally addressed the comments to my satisfaction.

b- My main comment is about diabetes-related mortality as an outcome. It is surprising that the authors did not include diabetes-related mortality as an outcome of this study.

Is this a trial of screening for diabetes or of screening for cardiovascular disease? Although cardiovascular events are the main cause of morbidity and mortality as rightly indicated by the authors, there will be diabetes-related deaths not due to cardiovascular events (macrovascular complications), and there will be cardiovascular-related deaths not due to diabetes. So, if this study is about screening for diabetes, diabetes-related mortality is more important than cardiovascular-related mortality, thus it should also be part of the outcomes, in addition to all-cause mortality. The target condition is diabetes not cardiovascular conditions.

Disease-specific mortality is a commonly accepted and key outcome in trials of screening. The authors might want to consult the literature on planning screening trials, especially that from the field of cancer (from which originated the vast majority of screening trials) to have a better idea on why it is important to assess disease-specific mortality. Here are a few examples of resources:


Screening trials are even more difficult than we thought they were. Juffs HG, Tannock IF. J Natl Cancer Inst. 2002 Feb 6;94(3):156-7.

C- The power of the study to detect a difference in diabetes-related mortality should also be indicated the section on the sample size calculation.

2- Minor Essential Revisions:

None

3- Discretionary Revisions:

None
**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