Author's response to reviews

Title: High prevalence of obesity, central obesity and abnormal glucose tolerance in the middle-aged Finnish population

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Author's response to reviews:

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“High prevalence of obesity, central obesity and abnormal glucose tolerance in the middle-aged Finnish population”

Tampere, the 7th of October 2008

Dear Editor,

Thank you very much for the opportunity to send you our revised manuscript. We have improved our manuscript according to the reviewers’ additional suggestions and advice.

We went carefully through the reviewers’ comments and have addressed them one by one. In this cover letter we give point-by-point response to the questions he has risen. Our revised manuscript conforms to the journal style (the changes in the manuscript are indicated here but not in bold letters in the text)

Please find enclosed our revised manuscript.
Please note, that the file “Saaristo_Tables_Revised071008.doc” containing tables 1-5 has been uploaded as additional file because the tables are too big to be displayed in portrait format. However, tables are referred to in the text and are intended to appear within the body of the article.

On behalf of the research group.

Thank you.

Yours sincerely,

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Response to reviewers

Response to reviewer 1

We thank reviewer 1 for his suggestions, advice and co-operation.

Response to reviewer 2

We thank reviewer 2 for his suggestions, advice and co-operation.

Minor Essential Revision 1

Although the English is pretty good the paper needs some linguistic improvements. For instance: "A high number" is in general singular and not plural (examples: "Conclusion" in the Abstract: "Prevalence of obesity, central obesity.. were" should be changed to Prevalences of.. were" and "A remarkably high number.. were detected" should be changed to "was" since "a number" is singular. The same appears in "Background", second paragraph, second sentence: "The study conducted in Finland.. observed that there were a large number.." should be changed to ".there was a large..".
We made the suggested linguistic improvements in the Conclusion part of the abstract:

“ In the population-based random sample of Finnish population, prevalences of obesity, central obesity and abnormal glucose tolerance were found to be high. A remarkably high number of previously undetected cases of type 2 diabetes was detected.”

We also corrected the sentence in the second paragraph of the Background section as following:

“The study conducted in Finland observed that there was a large number of clinically undiagnosed T2D cases [4].”

Additionally, we went carefully through the manuscript and conducted a language revision.

Minor Essential Revision 2

"Definitions", new paragraph: "and were treated with insulin from the beginning of their disease". Since type 2 diabetes in published papers is diagnosed 6-7 years after the start of the disease, I suggest that "beginning of" is changed to "diagnosis". I suppose the authors also would need a more defined "beginning", i.e. within a certain time period, since some people with type 1 might do without insulin for for some weeks or months, or for LADA even years.

We changed the word “beginning” to “diagnosis” in the Definition part of the Methods section as suggested. The whole sentence now appears in the text as following:

“Individuals who reported that they had diabetes onset at the age of younger than 35 years, and were treated with insulin from the diagnosis of their disease were classified as having type 1 diabetes”

Minor Essential Revision 3

"Definitions": "WHO Criteria". The authors of the reference publication do not present these as official general criteria, but present them as an example based on Dutch data, and use the given limits as "substantially increased" while the "IDF definition" corresponds to what the WHO publication present as "increased". I suppose the Dutch and the Finnish are not very different, so this is OK.

We thank reviewer for this adjustment and agree with him on this.

Minor Essential Revision 4

Tables 1, 3, 4 and 5. According to the definitions referred to in point 3 above,
the columns in the tables are still not quite in accordance. In table 4 the headings should be for waist: "<94, 94-101 and >=102" and "<80, 80-87 and >=88" to be in accordance with the WHO/IDF "definitions". This might mean that the calculations may have to be corrected, since the authors in the revised manuscript state that waist was measured to the nearest cm.

The same small problem concerns BMI in tables 1 and 3. The definition states obesity to be ">= 30", and not ">30", thus categories in table 1 and 3 should be "<25, 25-29 and >=30" as no decimals are given.

We corrected the headings in tables 4 and also 5 for waist to be in accordance with the WHO/IDF definition. We did not correct any calculations as apparent falling in two categories according the headings in the tables just was a regrettable misprint.

We also corrected the headings for BMI in tables 1, 3 and 5 as suggested.

Minor Essential Revision 5

"Discussion", first paragraph: I would suggest that ". based on proper cross-sectional .. surveys" should be changed to "..repeated (proper) cross-sectional surveys.." since you, of course, cannot detect changes in prevalence in single cross-sectional studies. The authors in several places state a causal relationship in this single cross-sectional study like in the "Results" section, second last paragraph: "Central obesity ... increased the risk of abnormal glucose tolerance by ...". I would recommend the expression in the abstract: "Central obesity was associated with abnormal glucose tolerance...".

We corrected the first sentence in the Discussion part and changed the word “proper” to “repeated” as suggested. Thus the sentence now appears in the text as following:

“In spite of raising concern about the global diabetes epidemic there are actually surprisingly few up to date reports published in various countries on the size of the current problem based on repeated cross-sectional population- based studies.”

We also chanced the second last paragraph in the Results section as recommended:

“Central obesity, measured by large waist circumference, was associated with abnormal glucose tolerance within each of the three BMI categories normal (<25 kg/m2), overweight, and obese (Table 4)”. 