Reviewer's report

Title: Dental Health, Cardiovascular Disease Risk Factors, and Systemic Inflammation in a Pediatric Rural Community Cohort

Version: 1 Date: 12 March 2009

Reviewer: Anders K Gustafsson

Reviewer's report:

Major Compulsory Revisions

Were the self reported dental health habits verified in any way? Did those who used dental floss have less gingival inflammation? Did those who visited a dentist more than 6 months ago have better or worse dental status? If it have been done it should be reported, if not it needs an explanation.

Table 3 a and b - I find it difficult to understand these tables. For example glucose levels in table 3a, 16% of those below 110mg/dL hadn’t seen a dentist in more than 6 months, 84% had seen a dentist. This was a significant difference. I don’t understand how it can be since these numbers are the same as in the entire material (Table 2).

In general, the tables are difficult to understand should be rewritten and simplified.

Alternative explanations to the findings must be discussed. For example, table 4 shows a relation between hypertension and rating of dental health. It is possible that dental health influences the blood pressure but other life style factors, not controlled for or at least not reported, such as diet, exercise and general health awareness could also contribute. This must be discussed.

The apparent lack of verification of the self reported data must be discussed more

Minor Essential Revisions

It is difficult to find reference 34. The use of the 85th percentile waist circumference should be explained. The choice of the other cut off values (LDL, total cholesterol, HDL, triglycerides BMI should also be explained.

There is an abundance of data presented. The manuscript would benefit from a reduction of numbers. For example, the responses from the children and parents regarding “Last dental visit” and “Overall dental health” were very similar (Table 1). Since this is the case, why present child and parent data in tables 3a and 3b?

Table 2 – The expression “Dental health care home” needs to be explained.

Discretionary Revisions
The number of participants should be specified also in the abstract.

The last sentence of the second paragraph on the second page of the discussion (Uncontrolled or overly ……) is too speculative and should be omitted.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

'I declare that I have no competing interests'