Reviewer's report

**Title:** Caries risk assessment in schoolchildren using a reduced Cariogram model

**Version:** 1  **Date:** 14 December 2009

**Reviewer:** Norman Tinanoff

**Reviewer's report:**

The manuscript, Caries risk assessment in school children using a reduced Cariogram model" is an important study for those individuals that are using caries risk assessment in their office, but are frustrated since this approach requires salivary variables which is not easily done in practitioners offices. The approach of this article is to stepwise eliminate the salivary variables and use sensitivity and specificity as well and ROC-curves to determine what is the effect of eliminating salivary variables. This is a well conducted study with few flaws.

I have only minor essential revisions:

Minor -- Can the authors further explain standardization of examiners, such as validity. Was the examiner(s) blinded?

Minor -- the authors explain that the results would be different for an elderly population; however, there are several studies that have show that mutans tests in very young children (under age 3) are very sensitive and specific. The discussion of very young children should be added to the Discussion.

Minor -- There are several error in the English, such as "school children" and "is a factor that not should be" that need to be corrected.

Minor -- Table 1 is confusing. I can not figure out how this table was derived and what it means.

Minor -- perhaps there should be an explanation of the clinical effect of tests with low values of sensitivity and specificity.

Minor -- Is there any value to Figure 1 since the values are so close together.

**Level of interest:** An article of importance 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 have no competing interests