Reviewer's report

Title: Early Childhood Caries Trends and Surveillance Shortcomings in the Czech Republic

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Reviewer: Andreas G Schulte

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Comments to the paper:
Early Childhood Caries Trends and Surveillance Shortcomings in the Czech Republic

General remark:
This is an interesting paper which uses primary data of other studies for a secondary analysis. It seems that the authors are not much used to do this technique because they do not present the information of their study under the right headings. This paper is ordered as follows: background, discussion, summary. It is advised to order the information and arguments presented here in the following paragraphs: background, material and methods, results, discussion, conclusions, summary.

The authors should change the following points:

Abstract:
Last sentence of paragraph “background”: It is more clearly to speak about “trend in dental caries prevalence…” than about “trend in dental caries…”.

Introduce a paragraph “Methods” which could comprise the sentences “After the political changes in 1989, …. and “Both studies used different methods of sample selection…”

The paragraph “Discussion” should include the sentences “Despite methodology differences both national surveys as well as smaller epidemiological…” followed by “By the end of the investigated period….” and should include most of the sentences which are presented in the paragraph “Summary”. After the paragraph “Discussion” the paragraph “Conclusions” should follow.

Main Text:

Paragraph Background
Page 4, line 14: The sentence “Even though cross-sectional …..” is difficult to understand because it is too long and the authors included too much different information. This sentence should be split up in several sentences.
The aim of the study is obviously not only to discuss trends in dental caries prevalence but to analyse epidemiological primary data from previous studies and to make a secondary analysis, comparison of mathematical trends with regard to caries prevalence, caries experience and untreated caries included.

Paragraph Discussion
This paragraph contains very different information which comprise reports regarding material and methods as well as regarding results.

The first part of this paragraph (from page 5 to page 6, line 18 ending with …”was set at p<0.05” should be presented in a paragraph called “Materials and Methods”.

In a new paragraph “Results” the results of the analysis of the data from other studies must be presented. Then the paragraph “Discussion” should follow.

Page 5, line 18: It is not correct to say “A conventional caries….was used, i.e. cavitated carious lesions” The threshold is to record only cavitated carious lesions!

Page 7, line 12 – until end of the page: The tempus in this whole paragraph has to be adjusted, i.e. “Over the recent years, there were no….”.

The sentence “The underlying environmental …..” is difficult to understand because it is too long and contains too much information. The expression “environmental factors” may be misleading in this context. It is recommended to replace “environmental” by a more clear term.

The data for Gross Domestic Product per capita and number of students in tertiary education should be presented for selected years in an additional table.

Page 8, line 14: The sentence “However, it is currently accepted…” contains two different ideas. It is better to present these ideas in 2 separate sentences, especially because at the moment it is not justified to say that recording carious defects also at a precavitation level is generally accepted.

The paragraph on page 8, beginning with “Several potential sources…” should be reworded. As it stands now, it appears as a general information about methodological problems in caries epidemiological studies. The authors should underline why it was justified to use data from studies which had been conducted according to very different protocols. They should also make a proposal what kind of study protocol should be used in future if there should be a chance to restart surveillance of oral health in Czech Republic. This could include to record carious defects at precavitation level allowing to assess data according to the definition of AAPD for ECC and S-ECC.

Page 10: the content presented here does not fit to the heading “summary” because it is a combination of discussion and conclusions.