Author's response to reviews

Title: Modern perspectives on the use of national oral health data recording in Scandinavian child and adolescent populations

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Version: 2 Date: 20 February 2014

Author's response to reviews: see over
Bergen, Monday 17, February 2014

Editorial Board, BMC Oral Health

We appreciate the referees’ comments after our first submission of this paper.

The title of the article has to some extent been changed, this due to a comment of one referee. We hereby submit the revised manuscript entitled "Modern perspectives on the quality and utility of national oral health data recording among Scandinavian children and adolescents". There has been given detailed responses to the reviewers (the following page). They have been highlighted in coloured (red) types.

All authors have read and approved the manuscript, and we have followed the instructions for authors. The manuscript has not been published elsewhere. We hereby confirm that there is no conflict of interests regarding this manuscript.

The English language has been checked by “Write to Publish” (Dr Paul Riordan, http://www.w-2-p.fr).

Yours sincerely,

Marit Slåttelid Skeie
(on behalf of the authors).
Referee 1
Thank you so much for your review and constructive suggestions.

Reviewer's report: Peter Robinson
1) I think the paper could be restructured. As the aim wishes to see the data in the light of modern concepts of disease management, those concepts should come early on in the paper rather than in the discussion.

Answer: This has been done.

> 2) What is the rationale for having matched systems across Scandinavia?

Answer: The oral health care system in Scandinavia has much in common. There are ongoing different Nordic projects in dentistry, in which the Scandinavian countries cooperate. The languages are to some extent similar (we can understand each other verbally), and the countries are not far from each other socio-economically. The school systems are also much the same.

3) The focus of the paper is largely on the indices, so some conceptual development is required. For example, the authors could stress at the outset that the data are recorded from patients attending services rather than from population based samples. This has implications for sampling bias.

Answer: This has now been clarified in the introduction and the term population in the title has been removed.
This Scandinavian system of proving free dental care for children and adolescents is manifested by law, meaning that all in these age groups will get the offer. A report (The Nordic Project of Quality Indicators for Oral Health Care) showed that in 2009 the proportion of population younger than 18/19/20-year-olds in Denmark and Norway who used the Oral Health Services within a year, were 77% and 70%, respectively. The patients are also at enrolled for dental check-ups.

In addition, dental health data (dmft) do not indicate Treatment need and yet the authors say they want national data in order to meet need. WHO advocates the direct assessment of treatment need in parallel with dental health data and yet the two are conflated in this study. There is complex literature on the meaning and assessment of need which is absent from this manuscript and needs to be considered.

Answer: We have decided to not include the term need in the manuscript. But we have to have detailed dmft-values to have an idea about the prevalence of disease as it is (both enamel and dentin lesions).

4) Allied to the above (and I am being devil’s advocate here) do we really need very precise data at a national level (eg d1 & d2) to plan services? First of all services are rarely planned and controlled so precisely and responsively.

Answer: In the discussion we have argued that caries registration in all key groups every year is not necessary. We think that a better idea is to examine in details randomly selected samples with calibrated examiners.
and secondly we can pretty much predict service need in terms of numbers of dentists and other workers based on crude measures of socio-economic status and other demographic factors. The authors need to present a stronger and more credible case for this use of epidemiology data.

Data: We agree that socio-economic status and other demographic factors can predict the need for service. In Scandinavia, where the ratio enamel/dentin caries is high and there exist well established free dental health services all over the countries, the platform for use of epidemiology data in another way should be there.

Do the authors have examples where services are planned so precisely and responsively? I can see that the data are useful for research, but they need to make a better case for services.

Answer: As we have suggested, randomly selected groups of children examined by calibrated examiners, could give us valuable information about how to plan PDS and canalize the resources better.

5) Also with regard to conceptualisation, the authors need to distinguish between health data and those on the availability and costs of services. Again, exactly how are such data really used for health planning?

Answer: When having information also about the enamel caries (d1/d2) it is important to plan for resources to prevent further development of the disease - adopting the modern treatment philosophy.

6) The suggestion on page 15 about using other indices than dmft for planning could consider simply disaggregating it, and using things like the care index.

Answer: The sentence has been deleted.

7) New ideas are put into the paper at the end such as the monitoring of disease and treatment in individuals longitudinally. These ideas need to be considered more carefully too as they require not only sensitive, precise and responsive indices but also effective recall systems.

Answer: The Scandinavian dental health services do provide recall systems. We agree that we cannot guarantee that all invited meet for dental check-ups. Anyhow, we have a well functioned recall system.

8) Finally, and I hate to say this whose English is clearly MUCH better than my Norwegian (I have no Norwegian), but the English in the manuscript probably needs revision by a natural English speaker as it hampers understanding of what is an informative paper.

Answer: The English language has been checked by “Write to Publish” (Dr Paul Riordan, http://www.w-2-p.fr).

Referee 2
Reviewer's report: Rebecca Harris
1. The title needs to be more specific to reflect the content of the paper for example – is it a narrative review, a systematic review or a description of the Scandinavian systems etc?

Answer: This article is not a review. We have also changed the title so it should be more specific.

2. Improving the clarity of the objectives of the paper
The objectives of the paper are listed in the abstract and in the last paragraph of the introduction. These however are not clearly explained, possibly because the English needs improving and the purpose of the paper more clearly identified. The paper seems to be doing a few different things and ends up not doing them well. It may be better to focus on one or two of the objectives. For example: it is not clear what ‘visualising the potential for using epidemiological data’ is all about, nor is it obvious to those not involved with the Scandinavian system what ‘alternative oral health registrations’ means. The applications need to be pertinent and able to be understood by an international audience.

I am not at all sure whether the stated objectives are what the authors actually have in mind for the paper. It seems to be more about a comparison of systems of collecting epidemiological data in various Scandinavian countries, but the comparison aspect isn’t mentioned in the title or objectives. There is some interesting information in the paper but it needs presenting in a different way so that readers can understand more about the Scandinavian context and what this reveals that could help other dental epidemiologists and policy makers working in different systems.

Answer: Comparisons aspect is to a certain extent dealt with, but is not the main aspect.

The aims of this study were:
• To outline different the Scandinavian systems of oral health reporting;
• To evaluate the quality and utility of the collected data in light of modern concepts of disease management and to suggest improvements.

Background section
3. The English and writing needs to be improved throughout the paper. Often there is a briefer way of writing what is said. Making it more concise would help the clarity.

Just one example to illustrate: ‘Second paragraph: …..interest for dental health…..is not of new date’: the authors actually mean ‘is not new’.

Often the text doesn’t have much content – in other words, there some fairly vague statements which don’t contribute very much in the introduction. The introduction should be rewritten to make all the text count in terms of contributing to the line of argument set out.

Answer: The introduction has been rewritten. The English language has been checked by “Write to Publish” (Dr Paul Riordan, http://www.w-2-p.fr).

4. The line of argument in the introduction needs to be revisited. It often isn’t clear what point is being made, and how this builds into outlining the purpose of
the argument – for example the section on the Lalonde report. It is not at all clear what is being said about the various types of data collected on a national basis – I gather that there is a mixture perhaps of data on risk of disease, as well as disease itself, but the reasoning appears mixed up together.

Answer: We have removed the section about Lalonde report, because we agree with the referee that made the content of the manuscript too mixed up.

Where does access to care fit in for example – this is about treating disease? Adding more text perhaps to explain the reasoning may help.

Answer: Care is introduced in the introduction and explained why it is included. Non-operative treatment has influenced the meaning of the word. We have to have an idea about the prevalence of disease as it is (both enamel and dentin lesions) to plan the services – i.e. how much resources shall we canalize for prevention and non-operative treatment.

5. The Scandinavian system needs some more explanation earlier in the background section. We aren’t given adequate contextual information throughout the paper.

Answer: This has been taken into account in the background section.

Methods
6. The methods of the paper again don’t really make clear what the study is about. It uses the word ‘systematic’, but we don’t know what this represents. It uses terminology that would be used for a systematic review such as ‘eligible’, but there isn’t a recognised methodology called ‘systematic mapping’, unless the authors can provide a reference for this. The authors need to make clearer exactly what their methodology is. This probably just means expanding the text to explain more about the principles and detail of what was done. because the purpose of the study isn’t clear, having an only brief methods section only adds to the confusion.

Answer: We have deleted the word systematic as this is not a systematic review in the genuine meaning of the word. What we did was to collect information as a basis for background information of the report systems.

Figures
7. The Figures and Tables in the paper of poor quality and need to be redrawn or abandoned. Currently the Figures do not have titles. There is not enough description in the text to understand what was done and what the Figures/Tables mean.

Answer: Figure 1 and Figure 2 are now presented as TIF files.

The titles and legends were included also last time (in the earlier submitted manuscript-p.23). We have also made a more in detail description of the figures in the text.
8. The discussion referring to modern concepts of managing disease is not well explained. It may be worth the authors really simplifying the paper and to take this line of argument out.

Answer: Agree it is important that these concepts are understood. We have now an own section in the background section, explaining this part.

9. The discussion should follow the objectives, and address these, but there are sub-sections in the discussion such as validity and data quality which are not referred to in the introduction, and this adds to the confusion about what the paper is really about.

Answer: We have included data quality in the title, the aims, results and discussion.

10. The discussion for example goes off on a tangent about recall intervals etc on page 12, and the reader is not sure how the paper connects together. Some of this content is more interesting than the pieces on concepts of managing disease.

Answer: We have tried after your guidance to connect the paper together.