



QUALITY ASSESSMENT WORKSHEET

CENTER FOR FLUORIDE RESEARCH ANALYSIS

Assessment of Relevance and Validity:

RELEVANCE QUESTIONS ¹		
Would implementing or discontinuing fluoridation based on this study result in improved outcomes for the patients/clients/population group in the US? (NA for some Epi studies)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Comments
Did the authors study an outcome (dependent variable) or topic that the patients/clients/population group in the US would care about?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is the topic of study a common issue of concern among policy makers to the practice of fluoridation in the US?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is the intervention or procedure feasible? (NA for some epidemiological studies)	Yes <input type="checkbox"/> No <input type="checkbox"/>	

VALIDITY CRITERIA ¹⁻³		
Research question / objective sufficiently described?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Comments
Study design evident and appropriate? Study class?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
<i>Was the study prospective?</i> <ul style="list-style-type: none"> <i>Was it planned and started prior to the outcome of interest occurring?</i> <i>Was the baseline survey at the point of initiation or discontinuation of water fluoridation?</i> <i>Was the final survey an adequate time after the initiation or discontinuation of water fluoridation to assess effects?</i> 	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Method of subject/comparison group selection or source of information/input variables described and appropriate?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Subject (and comparison group, if applicable) characteristics sufficiently described?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
If interventional and random allocation was possible, was it described?	Yes <input type="checkbox"/> No <input type="checkbox"/>	

If interventional and blinding of investigators was possible, was it reported?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Comments
If interventional and blinding of subjects was possible, was it reported?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Outcome and (if applicable) exposure measure(s) well defined and robust to measurement / misclassification bias? Means of assessment reported?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Was the fluoride level reliably measured?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Sample size appropriate?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Analytic methods described/justified and appropriate?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Some estimate of variance is reported for the main results?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Controlled for confounding factors? Was there adjustment for the possible effect of confounding factors in the analysis?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Results reported in sufficient detail?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Conclusions supported by the results?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Conflict of interest discussed?	Yes <input type="checkbox"/> No <input type="checkbox"/>	

Based on your answers above, please summarize the validity of this study and its relevance to fluoridation and fluoride use in the United States. Do not exceed 250 words.

Assessment of Strengths/Weaknesses:

Please summarize the study's major strengths and weaknesses below

Strengths	
Weaknesses	

Descriptive Summary

Summarize the major findings (what was discovered or proven? What were the main conclusions?) in context (relative to other research, acceptance by scientific community, level of rigor). Use complete sentences. Do not exceed 200 words.

Assessment of the Level of Rigor

Published in a peer reviewed journal?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Is the study of strong design for answering a clearly stated question and is free from design flaws, bias, and execution problems?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Is this purely opinion, not supported by science?	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p>Based on your answers above, rate the level of rigor:</p> <p>A. Strong methodology and unbiased, appeared in peer-reviewed in respected science journal</p> <p>B. Strong methodology and unbiased, not in peer-reviewed journal</p> <p>C. Weak methodology and/or biased</p> <p>D. Not a scientific finding</p>	<p>Your rating</p> <p>A <input type="checkbox"/></p> <p>B <input type="checkbox"/></p> <p>C <input type="checkbox"/></p> <p>D <input type="checkbox"/></p>

Assessment of the Level of Support from Other Studies

Has a significant amount of peer-reviewed research been done in this area?	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p>How much of the existing research supports the findings in this study?</p> <p>High: All the peer-reviewed research to date support these findings, and a significant amount of research has been done in this area.</p> <p>Medium: Most, but not all, peer-reviewed research to date support these findings, and a significant amount of research has been done in this area.</p> <p>Low: Not a lot of research has been done in this area, or some, but not most, other peer-reviewed research supports these findings</p> <p>Not supported: No other studies support this study's conclusions</p> <p>Contradicted: Most studies contradict this study's conclusions</p>	<p>Your rating</p> <p><input type="checkbox"/> High</p> <p><input type="checkbox"/> Medium</p> <p><input type="checkbox"/> Low</p> <p><input type="checkbox"/> Not supported</p> <p><input type="checkbox"/> Contradicted</p>

References

1. American Dietetic Association Scientific Affairs & Research. ADA Evidence Analysis Manual, Edition IV. 2005. Chicago IL. Available at http://www.adaevidencelibrary.com/files/ADA%20Evidence%20Analysis%20Manual_ed3c%20Nov%202005.pdf
2. NHS Center for Reviews and Dissemination. A Systematic Review of Water Fluoridation. Report 18. September 2000. University of York, York YO10 5DD. Available at http://www.york.ac.uk/inst/crd/CRD_Reports/crdreport18.pdf
3. Kmet LM, Lee RC, Cook LS. Standard quality assessment criteria for evaluating primary research papers from a variety of fields. Alberta Heritage Foundation for Medical Research, 2004. Available at <http://www.ihe.ca/documents/HTA-FR14.pdf>