

Operational Manual for Developing Fluoride Science Documents

Target Audience

Documents developed by Fluoride Science are intended for health professionals with some general background in science and biology, not necessarily researchers.

Topic Summaries

The objective of Fluoride Science (FS) Topic Summaries is to provide summaries of fluoridation related topics by taking into account the synthesis of relevant studies and reports. Topic Summaries should address 1) why this issue was looked at (background), 2) what scientific evidence is or is not currently available and says about the issue (summary of evidence), and 3) how the evidence should be integrated into clinical and/or community decision-making (FS conclusion). The writing style should be concise, easy to understand, and follow recommendations in the American Medical Association Manual of Style. While the terminology may be more scientific than appropriate for a lay audience, these summaries should be helpful to physicians, dentists, and scientists in conveying conclusions to community decision makers about the implications of research findings to policy and practice.

Authors of Topic Summaries should use a comprehensive and objective process of assessing the quality and quantity of existing scientific evidence using the FS Quality Assessment Worksheet (see more detail in the section of Critical Appraisals), combine findings from all reports to arrive at a concise summary and conclusion statements that are useful for decision makers. A full list of bibliographies as well as relevant systematic reviews should be listed. Topic Summaries should be usually around 500 words.

With identification of new and important scientific discoveries, Fluoride Science Topic Summaries will be revised as needed.

Critical Appraisals

The objective of FS Critical Appraisals is to provide a critical and objective assessment of individual studies' scientific quality and communicate it in the standardized rating system. FS Quality Assessment Worksheet (developed through a collaborative effort between University of Albany School of Public Health and the Center for Fluoride Research Analysis) guides authors to examine methodological rigor, appropriateness and validity of study designs, and support from other studies by prompting important questions to be answered in order to make a sound rating. Authors should provide comments to support his/her assessment for each question, if appropriate. The final document will have 1) the summary description of what the research

found, ratings for 2) level of rigor and 3) support level from other studies, and the summary descriptions of 4) strength and weakness and 5) relevance and validity.

Critical Review/Commentary

The objective of FS Critical Review/Commentary is to respond to new publications that may not meet the criteria for Critical Appraisal or the subject of controversies. Critical Review should have the following clearly defined sections: 1) Introduction to briefly describe the objectives of the study and why this article warrants in-depth review and critical evaluation, 2) Materials and Methods to summarize sufficient detail of study population, design, key risk and outcome measures studied, 3) Main Results, and 4) Discussion to critically explore the potential bias, strengths or flaws in study design, and validity of conclusions. Authors of Commentary may structure the document based on specific questions to be addressed.

Identification of Topics and Articles to Be Reviewed

Fluoride Science editorial management team looks at the database of literature monthly and identifies the list of new fluoridation-related publications. Fluoride Science management team and editorial board members meet quarterly and select priority topics and articles to be reviewed based on the levels of importance and interest.

Volunteer/Guest Reviewers

Fluoride Science invites dental public health residents and professionals with appropriate interest and experience to author Fluoride Science Critical Appraisals, Critical Review or Commentary articles. Documents developed by volunteer/guest reviewers will be reviewed by two editorial board members and/or external expert reviewers before Fluoride Science editor approves their publications in Fluoride Science website.

The Role of Editorial Board Members

Fluoride Science Editorial Board is an advisory and review committee of research experts. The editorial board has an advisory role to the management team and oversees the development and review of the Fluoride Science publications.