Publishing Guidelines for Reports Developed by Evidence-based Practice Centers

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Introduction

Reports developed by the Agency for Healthcare Research and Quality's (AHRQ's) Evidence-based Practice Centers (EPCs) are intended to help clinicians, employers, policymakers, and health care planners make informed decisions about the provision of health care services. These publishing guidelines provide standards and guidance for the EPCs to use in preparing these reports.

These publishing guidelines apply to the research reports developed by the EPCs, which include Systematic Reviews (SR), Technical Briefs, and Systematic Reviews for the Technology Assessment Program (TAP). They also apply to methods papers and methods guidance papers. They do not apply to the derivative summary guides developed from these research reports for consumers, clinicians, and policymakers.

These publishing guidelines are intended for use at all stages in the report's development, beginning with the writing of the first draft. It is hoped that they will help with the organization and presentation of the information, facilitate the writing of the report, and ensure consistency of reports within each series, with the goal of making it easy for the reader to access and understand the information.

These publishing guidelines are not intended to be comprehensive. They are basic editorial and formatting requirements, and do not include every possible refinement of publishing style. If an editorial or formatting issue is not mentioned, you likely have leeway to do what you think best with the agreement of your Task Order Officer (TOO) on larger questions. Just be sure you maintain consistency throughout your document. The editor will make needed adjustments as well. Contact AHRQ's Office of Communications (OC) managing editor if you have any questions. Please talk to your TOO and the OC managing editor about major formatting changes such as how pages are numbered and how references are organized. However, there is no leeway on Section 508 compliance.

Section 1 of these publishing guidelines outlines the requirements for the major elements of the report. Section 2 provides detailed formatting specifications, editorial suggestions, and advice about references. Section 3 provides details on Section 508 guidelines, including guidance on formatting Microsoft Word documents, creating tables, and creating alternate text descriptions. Section 4 gives examples of the standard required report elements described in section 1. Section 5 discusses clearance, branding, and copyright issues. And finally, Section 6 gives guidance on how to submit your report.

These publishing guidelines are available in electronic form on the Scientific Resource Center's (SRC) secure site at www.epc-src.org/epc (under Resources /EPC Process Resources /02. Publishing Guidelines and Templates). A Microsoft Word template is also available on the secure site at the same location. This template uses the Microsoft "Styles" function. You can insert the appropriate text into the template, ensuring that your document will be formatted appropriately. An AHRQ Modified Vancouver EndNote® output style is also available at the same location. This style facilitates the formatting of report references according to the reference

citation style described in section 2 of these publishing guidelines. The template and output style should be used, and the content guidance can be modified to meet your particular needs.

Content guidance for the evidence summary and the full report can be found on the SRC secure site (under Resources /EPC Process Resources /10. CER Content Guidance (Report and ES). These are intended to give guidance about content, and are not typeable templates.

The AHRQ Publishing and Communications Guidance can be found on the AHRQ Web site at https://www.ahrq.gov/research/publications/pubcomguide/index.html.

HHS Section 508 compliance information may be found on the HHS website at https://www.hhs.gov/web/section-508/index.html.

Contact Information

We welcome your questions about how to prepare and submit your reports. Please send your questions to Stephanie Chang (stephanie.chang@ahrq.hhs.gov), Director of AHRQ's EPC Program.

For questions pertaining to editorial style or the report template, contact Chris Heidenrich (christine.heidenrich@ahrq.hhs.gov) in AHRQ's Office of Communications.

For issues relating to uploading files via ScholarOne™ Manuscripts, contact the Scientific Resource Center at review@epc-src.org.

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Section 1: Requirements for Major Report Elements

This section of the publishing guidelines lists the major elements of a report and describes in general terms the content that needs to be in each element. It should be read in conjunction with examples of these elements provided in Section 4. If an editorial or formatting issue is not mentioned in either section, please assume that you have leeway to do what you think best, maintaining consistency throughout your document.

In general, all research reports from Evidence-based Practice Centers (EPCs) should not exceed 150 pages, not including appendixes.

Required components include front matter, a structured abstract, an evidence summary, the report, references, summary tables, and appendixes However, certain topics may require adjustments to these components. Requests to change a report's format will be handled on a case-by-case basis through Task Order Officers and the managing editors at AHRQ, and should be discussed before the report is submitted as final.

For Draft Reports, current practice for EPC Program reports is to remove information that may identify the EPC, report authors, and other individuals who have given input, such as Key Informants and Technical Expert Panel members.

Front Matter

Reports from Evidence-based Practice Centers have the following elements as front matter:

Front cover. AHRQ creates the front cover after the EPC submits a final version of the report. The front cover includes the following:

The report series and number, at the top of the page. For example:

Evidence Report/Technology Assessment

Number XXX

Or:

Comparative Effectiveness Review

Number XX

Or:

Technology Assessment

Project IDXXXX

The title of the report

The AHRQ logo, along with the series logo (e.g., “Evidence-based Practice” or “Effective Health Care” or “Technology Assessment Program”). The logo will be provided by AHRQ.

Title page. The title page includes the following elements:

- The name and number of the series, same as for the cover; for TA Program Reports, the project ID number.
- The title. The title should focus immediately on the topic, without generalities such as “Comparative effectiveness of.” A format such as “Treatment X compared with Treatment Y” is acceptable. Ten words is the suggested maximum. A subtitle, if any, should start a new line. Use a colon between title and subtitle.
- A statement that the report was prepared for AHRQ.
- For Peer Review Draft Reports, this disclaimer in a text box (also found in Section 4):
- This information is distributed solely for the purposes of predissemination peer review. It has not been formally disseminated by the Agency for Healthcare Research and Quality. The findings are subject to change based on the literature identified in the interim and peer-review/public comments and should not be referenced as definitive. It does not represent and should not be construed to represent an Agency for Healthcare Research and Quality or Department of Health and Human Services (AHRQ) determination or policy.
- The contract number. Please insert dashes as indicated in your contract paperwork.
- The name of the EPC responsible for the report.
- A list of the investigators (authors), separate from others who assisted in the development of the report. This is an essential criterion that the NLM staff looks for when indexing the report. Academic degrees must accompany the investigators’ names. Authorship is determined by the EPC and should be based on (1) having made substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; (2) having drafted the article or having revised it critically for important intellectual content; and (3) having the authority to give final approval of the version to be published. Authors should meet conditions 1, 2, and 3. Acknowledge others in the acknowledgements section as described below. The list of investigators should match the content and order of the suggested citation (see below).
- The publication number and month and year of publication, both of which will be inserted by AHRQ after the EPC submits a final version of the paper.

Key Messages. Key messages should be provided on their own page in the report after the title page. They should not be submitted as a separate document. Key messages quickly and concisely convey the purpose and important findings of the review to the reader. They may also be used to help AHRQ disseminate findings more quickly and accurately. The format has two headers - Purpose of Review (one sentence describing the purpose of the review), then Key Messages (3-4 bullets)

Criteria for Key Messages:

- <840 characters with spaces

- Should include most important findings, but not an exhaustive list. Do not need to cover all Key Questions. Do NOT have a bullet saying "We found x studies" (the Key Message is what these studies mean, not how many there are).
- Consider including one bullet for future research, if appropriate.
- Must be consistent with the conclusion paragraph of abstract.
- Plain language. A non-physician with some college education and an interest in the topic (such as a reporter) should be able to understand what you are trying to say.
    - No abbreviations.
    - No jargon (i.e., words we use when we could use an ordinary English word; you can use medical terms if there is no ordinary English word, such as "Glasgow Coma Scale").
    - One idea per bullet
    - Keep sentences short. Avoid multiple clauses.
    - Don't use passive sentences.
- Nothing on methods.
- No clinical recommendations.
- Balanced and unbiased.
- Use plain language to incorporate information on the strength of evidence in the key messages.

Page after key messages. The page following the key messages includes the following elements:

- **A funding statement.** Slightly different statements are provided in Section 4 for all reports and Technology Assessment Reports.
- **Financial disclosure statement.** All investigators should list any affiliations or financial involvement (e.g., employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties) that conflict with material presented in the report. An example follows of a statement claiming that no conflicts exist. In bold: None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.
- **A purpose statement.** Slightly different statements are provided in Section 4 for all reports and Future Research Needs Reports.
- **A dissemination rights notice.** After the purpose statement, insert three returns, followed by this notice, without a separate heading. It tells the reader whether the work is subject to copyright and states applicable restrictions and permissions. Use the following notice:

This report is made available to the public under the terms of a licensing agreement between the author and the Agency for Healthcare Research and Quality. This report may be used and reprinted without permission except those copyrighted materials that are clearly noted in the report. Further reproduction of those copyrighted materials is prohibited without the express permission of copyright holders.

- Statement regarding AHRQ and DHHS endorsement.

AHRQ or U.S. Department of Health and Human Services endorsement of any derivative products that may be developed from this report, such as clinical practice guidelines, other quality enhancement tools, or reimbursement or coverage policies, may not be stated or implied.

- For systematic reviews (Comparative Effectiveness Reviews and Evidence Reports), a reference to the Web site for any surveillance reports about the report. Insert three returns followed by this endorsement statement, without a separate heading. It tells the reader that there may be associated surveillance reports that assess the currency of conclusions and where to find that report. The notice should not be included in papers that are not systematic reviews (such as Methods Research Reports, White Papers, Technology Assessment Reports, and other sponsored reviews).

This report may periodically be assessed for the currency of conclusions. If an assessment is done, the resulting surveillance report describing the methodology and findings will be found on the Effective Health Care Program Web site at: www.effectivehealthcare.ahrq.gov. Search on the title of the report.

- **A statement on compliance with requirements for accessibility by persons with disabilities.** Add this statement immediately after the surveillance statement (if relevant), without a separate heading:

Persons using assistive technology may not be able to fully access information in this report. For assistance contact EPC@ahrq.hhs.gov.

- **Suggested citation.** The authors listed must match exactly the list of investigators on the title page, in adherence to National Library of Medicine (NLM) indexing requirements. Use AHRQ's modified Vancouver style. Enter all author names by last name and first and middle initial with no periods, e.g., Smith JD, Jones A. Include all investigators, no matter how many.
  Suggested citation: Wang Z, Whiteside S, Sim L, Farah W, Morrow A, Alsawas M, Barrionuevo Moreno P, Tello M, Asi N, Beuschel B, Daraz L, Almasri J, Zaiem F, Gunjal S, Larrea Mantilla L, Ponce Ponte O, LeBlanc A, Prokop LJ, Murad MH. Anxiety in Children. Comparative Effectiveness Review No. 192. (Prepared by the Mayo Clinic Evidence-based Practice Center under Contract No. 290-2015-00013-I.) AHRQ Publication No. 17-EHC023-EF. Rockville, MD: Agency for Healthcare Research and Quality; August 2017. www.effectivehealthcare.ahrq.gov/reports/final.cfm. DOI: https://doi.org/10.23970/AHRQEPCCER192. Posted final reports are located on the Effective Healthcare Program search page.

Technology Assessment (TAP) Reports do not have a review number or publication date so the AHRQ TAP Project ID should be used instead. Additionally, the Web address for TA reports should be: http://www.ahrq.gov/research/findings/ta/index.html

Preface. The preface provides background information on AHRQ's Effective Health Care program and its publications. This section also recognizes Federal partners involved with the report's creation. The wording is standardized for each type of report. Examples are available in Section 4 of these publishing guidelines. Technology Assessment Program (TAP) Reports do not have prefaces.

List of investigators with their affiliations (optional). This is the list from the title page. If used, this list should be formatted like the lists of Key Informants, Technical Expert Panel (TEP) members, and Peer Reviewers (below).

Acknowledgments. Specific acknowledgments are optional. This may be added in the final report. It would be appropriate to acknowledge the contributions of those individuals who did significant work on the report but not at the level of authors (e.g., a librarian who assisted with literature searches, or a student researcher). The EPC may consider acknowledging the contribution of the Associate Editor. The acknowledgments may recognize contractor affiliation, but no outside logo may be used.

Lists of Key Informants, Technical Expert Panel (TEP) members, and Peer Reviewers. All final reports, *except Technical Briefs*, should include the names and affiliations of relevant stakeholders in alphabetical order, including Key Informants, Technical Expert Panel (TEP) members, and Peer Reviewers.

Key Informants, Technical Expert Panel members and Peer Reviewers should not be identified in a draft report. Do not list Key Informants or Technical Expert Panel members who reviewed the draft report as Peer Reviewers. They may not have met the conflicts of interest threshold of a Peer Reviewer. You may acknowledge their service of reviewing the draft report. For example, you may place an asterisk next to their name, and note this. The lists should be introduced by the following descriptions of the functions of these experts:

Key Informants. In designing the study questions, the EPC consulted several Key Informants who represent the end-users of research. The EPC sought the Key Informant input on the priority areas for research and synthesis. Key Informants are not involved in the analysis of the evidence or the writing of the report. Therefore, in the end, study questions, design, methodological approaches, and/or conclusions do not necessarily represent the views of individual Key Informants.

Key Informants must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their role as end-users, individuals with potential conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any conflicts of interest.

The list of Key Informants who provided input to this report follows:

Technical Expert Panel. In designing the study questions and methodology at the outset of this report, the EPC consulted several technical and content experts. Broad expertise and perspectives were sought. Divergent and conflicting opinions are common and perceived as healthy scientific discourse that results in a thoughtful, relevant systematic review. Therefore, in the end, study questions, design, methodologic approaches, and/or conclusions do not necessarily represent the views of individual technical and content experts.

Technical Experts must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their unique clinical or content expertise, individuals with potential conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any potential conflicts of interest identified.

The list of Technical Experts who provided input to this report follows:

Peer Reviewers. Prior to publication of the final evidence report, EPCs sought input from independent Peer Reviewers without financial conflicts of interest. However, the conclusions and synthesis of the scientific literature presented in this report does not necessarily represent the views of individual reviewers.

Peer Reviewers must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their unique clinical or content expertise, individuals with potential non-financial conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any potential non-financial conflicts of interest identified.

The list of Peer Reviewers follows:

Include in the foregoing lists the names, academic degrees, and institutions with which the individuals are affiliated, and the city and State where the institution is located. (See section 2, Editorial Style, for advice about listing credentials after the names of authors and contributors.) EPC authors are responsible for obtaining permission from Technical Expert Panel members and Key Informants to be acknowledged and to notify them that there will be general disclosure of their conflicts of interest. Patients who participate as Key Informants may be de-identified for privacy reasons. Otherwise, these listings and disclosure of conflicts should appear in the front matter following the acknowledgments.

Lists of Key Informants and Peer Reviewers for Technical Briefs: Final Technical Briefs should include the names and affiliations of Key Informants and Peer Reviewers in alphabetical order.

Key Informants and Peer Reviewers should not be identified in a draft report. Do not list Key Informants who reviewed the draft report as Peer Reviewers. They may not have met the conflicts of interest threshold of a Peer Reviewer. You may acknowledge their service of reviewing the draft report. For example, you may place an asterisk next to their name, and note this.

The lists should be introduced by the following descriptions of the functions of these experts:

Key Informants. In designing the study questions, the EPC consulted a panel of Key Informants who represent subject experts and end-users of research. Key Informant input can inform key issues related to the topic of the technical brief. Key Informants are not involved in the analysis of the evidence or the writing of the report. Therefore, in the end, study questions, design, methodological approaches and/or conclusions do not necessarily represent the views of individual Key Informants.

Key Informants must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their role as end-users, individuals with potential conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any conflicts of interest.

The list of Key Informants who provided input to this report follows:

Peer Reviewers. Prior to publication of the final evidence report, EPCs sought input from independent Peer reviewers without financial conflicts of interest. However, the conclusions and synthesis of the scientific literature presented in this report does not necessarily represent the views of individual reviewers.

Peer Reviewers must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their unique clinical or content expertise, individuals with potential non-financial conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any potential non-financial conflicts of interest identified.

The list of Peer Reviewers follows:

Structured abstract. In addition to the items above, a structured abstract must be provided when reports are submitted. It should be 400 words or fewer and state the objectives, data sources, review methods, results, and conclusions. It should be placed after the lists of Key Informants, TEP members, and Peer Reviewers, and before the Table of Contents. See the example in Section 4. **Contents.** The table of contents lists the chapter name and two levels of subheadings, with page numbers. List the appendixes by name but without page numbers, and list the tables and figures that appear in the evidence summary and in the body of the report (but not in the appendixes). See the sample table of contents in Section 4.

Evidence Summary

This element of a report appears after the front matter and before the body of the report. An evidence summary should be a complete but concise summary of the essential information in the report. Details as to the content are outlined in the *Evidence Summary Content Guidance Document*. It is available on the SRC secure site at www.epc-src.org/epc. Evidence summaries for Systematic Reviews should be a maximum of 6,000 words.

The evidence summary should follow the format suggested in the *Evidence Summary Content Guidance Document*. It should include a short reference list limited to no more than 50 sources directly cited in the evidence summary itself. If the evidence summary is issued as a freestanding document, AHRQ will provide a note referring the reader to the full report. When referring to topics or report elements in the full report, include the phrase “in the full report” (e.g., “This topic is discussed in more detail in Appendix A in the full report”).

The evidence summary should have its own reference list. If authors plan to delink the report prior to submission (and submit the evidence summary and full report as a single file) prepare the evidence summary separately from the main body of the report, then delink the reference management tool, rename the file, and finally insert the delinked evidence summary file into the main report. Any subsequent changes in the evidence summary reference list will need to be made using the evidence summary file prior to delinking. The file will need to be reinserted into the report.

For Systematic Reviews, evidence summaries will appear within the full report, but may also be extracted from the full report and printed as freestanding documents.

Some reports do not have an Evidence Summary. Generally these are reports that are short and do not require a shortened summary. These may include methods reports, Technical Briefs, and other reports using an alternative format. Authors should discuss with their TOO whether a particular report requires an Evidence Summary.

Report Main Body

The main body of the report should be developed in a way that is similar to developing a journal manuscript. The details as to the content of the following sections of the main body of the report can be found in the *Report Content Guidance Document* found on the SRC secure site. The report should include the following sections:

- Introduction
- Methods
    - Results
    - Discussion
    - References. Reference for all cited articles described in the report and articles that were included must be included at the end of the report. Reference style is AHRQ's modification of the Vancouver style, described in Section 2.
    - Abbreviations and Acronyms. Include if applicable. Do not insert the information into a table.
    - Summary Evidence Tables. Prepare key tables that summarize the evidence described and reflect specific information discussed in the text. The summary tables may be embedded throughout the report or placed at the end of the chapters. Longer, more detailed tables should be provided in the appendix material.
    - Figures. "Figure 1. Analytic framework" and "Figure 2. Literature flow diagram" must be included. Additional figures are optional. They must be embedded within the body of the report as jpegs (please do not draw Word-created figures directly into the paper, as this causes difficulties when tagging with alternate text for 508 compliance). Please provide separate files for evidence summary figures. If created in Word, the analytic framework and the literature flow diagram can be provided as Word documents; figures created in Adobe Illustrator and saved as .eps are preferred for other figures.

Appendixes

The appendixes should be arranged in the order in which they are called out in the text, and listed alphabetically, as Appendix A, Appendix B, etc. The following is a typical list of appendixes.

Appendix A: Search Strategy. Exact search strings used for each database, if different terms were used. Do not insert the information into a table.

Appendix B: List of Excluded Studies. Include an alphabetized list of studies excluded at the full-text level. Use a reference citation format and provide the reason for exclusion at the end of

each citation. To avoid a lengthy list, a coding system may be used. Include a key to the coding system as a footnote to the reference list on the first page.

Appendix C: Evidence Tables. Provide detailed evidence tables that depict the criteria used to determine validity for each study. It is at the EPC's discretion which evidence tables to include in the body of the main report versus the appendixes as long as the body of the report complies with the 150-page page limit. Include an alphabetized reference list for all studies included in the table. The EPC may reference the Systematic Review Data Repository (SRDR) database instead of including evidence tables, provided the SRDR file has been marked as "published" and available for public access.

Optional Appendixes. Provide details of meta-analytic techniques used, if meta-analysis was performed.

Section 2: Editorial Specifications

This section of the publishing guidelines provides type and formatting specifications, guidance about editorial style, and specifications for references. For your convenience, the styles specified below are embedded in the electronic template found at the Scientific Resource Center's secure site at www.epc-src.org/epc.

Type and Formatting Specifications

Front Matter

- **Cover.** Inserted by AHRQ after the EPC submits the final paper.
- **Title page.** See the example in Section 4.
- **Table of Contents**.

Heading: The style in the electronic template for content headings is titled "Contents" and is 18 point Arial bold, centered.

Chapter titles: The style for chapter titles in the table of contents (TOC) is titled "ContentsSubhead" and is 12 point Times New Roman, bold. Up to two levels of headings in Times, indented.

Chapters are no longer to be numbered or indicated as Chapter 1, and so forth. They should be referred to simply as "Introduction," Methods," or "Results.")

List all figures and tables with page numbers, but list appendixes without page numbers.

Include evidence summary figures and tables in the TOC of the main report.

Sentence case capitalization is permissible for figure, table, and key question TOC entries, to permit automatic transcription of the captions.

Evidence Summary

- Insert the evidence summary immediately after the TOC.
- Format as for the main body of the report.

Report Body: Text

The style for report body text is titled "ParagraphIndent" and is 12 point Times New Roman, flush left, 1-inch margins for top, bottom, right, left. Paragraphs indented ¼ inch. Single spaced, no space between paragraphs.

Report Body: Headings

The logical order of your report is made clear by the headings, which provide essential signposts to your readers. Take care to develop a plan for the headings and maintain it throughout the document.

Groups of related headings should be parallel in grammatical construction. Headings should be short and clear. In general, do not use full sentences or questions as headings. (The Key Question headings are an obvious exception.)

Be sparing with headings, as too many levels of subordination will confuse the reader. However, because the complexity of some reports warrants deep subordination, a series of eight levels of headings is provided below, in descending order of prominence. Use judgment in choosing the headings. For example, if the deepest level of subordination consists of short paragraphs, but you need only 6 levels of subordination, it may be better to choose Levels 1, 2, 3, 4, 7, and 8 so that large headings are not used for short paragraphs. However, do not use a less prominent heading before a more prominent one. Please use only the styles below and do not alter them or create your own (for example, the only heading in italics is Level 8).

- **Chapter.** The style for chapter headings is "ChapterHeading" and is 18 point Arial, bold, centered, title case capitalization (main words capitalized). For reports that will be printed, all chapters begin on right (odd) pages. Spacing: 0 points before, 3 points after.
- **Level 1.** The style for level 1 headings is "Level1Heading" and is 16 point Arial, bold, flush left, title case capitalization. Spacing (in points): 12 before, 3 after.
- **Level 2.** The style for level 2 headings is "Level2Heading" and is 16 point Times New Roman, bold, flush left, title case capitalization. Spacing (in points): 12 before, 3 after.
- **Level 3.** The style for level 3 headings is "Level3Heading" and is 14 point Arial, bold, flush left, title case capitalization. Spacing (in points): 12 before, 0 after.
- **Level 4.** The style for level 4 headings is "Level4Heading" and is 14 point, Times New Roman, bold, flush left, title case capitalization. Spacing (in points): 12 before, 0 after.
- **Level 5.** The style for level 5 headings is "Level5Heading" and is 12 point Arial, bold, flush left, title case capitalization. Spacing (in points): 12 before, 0 after.
- **Level 6.** The style for level 6 headings is Level6Heading" and is 12 point Times New Roman, bold, title case capitalization. Spacing (in points): 12 before, 0 after.
- **Level 7.** The style for level 7 headings is "Level7Heading" and is 12 point Times New Roman, bold, run-in followed by a period, sentence case capitalization (initial cap first word only). Unindented heading followed by an indented paragraph. Spacing (in points): 12 before/NA after.
- **Level 8.** The style for level 8 headings is "Level8Heading" and is 12 point Times New Roman italic not bold, paragraph indent, run-in followed by a period, sentence case capitalization. Unindented heading followed by an indented paragraph. Spacing (in points): 12 before/NA after.
- **Key Questions.** The style for the key question headings is "KeyQuestion" and is 14 point Arial, regular, flush left, sentence case capitalization. If the question is very long, the type size can be reduced to 12 point. Spacing (in points): 12 before, 3 after.
- **References or Bibliography.** The style for references or bibliography headings is "References" and is 10 point Times New Roman regular, 2 columns, 6 points before and 6 after each entry, block indentation. The title, "References" or "Bibliography" should be in Chapter Heading format (Arial bold 18 centered).

Table Specifications

Tables should be constructed to take into account users' visual limitations. They should be manageable in size so that they are capable of being printed out on 8 ½ x 11 paper, and should use readable fonts. (Arial is preferred.) They must be capable of being read by assistive devices for the visually disabled. (See Section 3: Requirements for Section 508 Compliance).

- **Table Titles.** Do not rotate table titles; assume that the page will be printed out "as is" or displayed vertically (i.e., not rotated) on the Web.
- **Placement of Tables on the Page.** Tables must fit crosswise on standard 8 ½ x 11 paper; i.e., rows cannot extend beyond 10 inches, in order to allow for minimum ½ inch left and right margins.
- **Table and Figure Headings**. The style for table and figure headings is "TableTitle" and is 10 point Arial, bold, flush left, sentence case capitalization, no period at end.
- **Table Column Headings.** The style for table column headings is "TableColumnHead" and is 9 point Arial bold title caps.
- **Table Column Styles.** Styles are as follows: flush left bold for left most column, flush left regular for columns with text, centered regular for numbers. These styles are TableBoldText, TableLeftText, and TableCenteredText, respectively.
- **Table Text.** The style for table text is "TableText" and is 9 point Arial not bold, flush left. (Do not use fonts smaller than 9 point. Arial is preferred; do not use compressed fonts.)
- **Table Footnotes.** The style for table footnote text is "TableNote." Citations are superscript letters in 9 point Times New Roman.

Report Body: Bullets and Numbers

- **Bulleted Lists.** Level #1 bullet is a filled-in circle; level #2 is a hollow circle. Use ¼ indents between margin and bullet and between bullet and text. No space before or after, unless bulleted list consists of relatively lengthy paragraphs.

- **Lists of Numbers.** Use 1. 2. 3., etc. Use ¼ inch indent between the margin and the number and between number and text. No space before or after, unless numbered list consists of relatively lengthy paragraphs.
- **Page Numbers.** For front matter: bottom center, lower case Roman numerals, Times New Roman 12 not bold. For the Evidence Summary: bottom center, ES-1, etc., Times New Roman 12 not bold. For body of text: bottom center, Arabic numerals, Times new Roman 12 not bold. For Appendixes: A-1, B-1, etc., and no further numbering within an appendix for tables, such as G4-1, G4-2, G5-1, etc.

Appendixes: Formatting

If the appendix is author-produced text, it should follow the format of the body of the report. If it is a document imported from another source, it can keep its original format. Do not place labels for appendixes or tables within an appendix in the header, as they might get deleted during formatting. Place all labels in the body of the page.

Sample Headings

Examples of headings for each level heading follow each bulleted entry.

- The style "ChapterHeading" is 18 point Arial, bold, centered, initial caps. Line spacing: 0 before, 3 points after. See below.

Introduction

- The style "Level1Heading" is 16 point Arial, bold, flush left, title case capitalization. Line spacing: 12 points before, 3 points after. See below.

Burdens of Illness, Conditions, and the Digital Divide

The materials should be tested in the populations of interest for usefulness and usability.

- The style "Level2Heading" is 16 point Times New Roman, bold, flush left, title case capitalization. Line spacing: 12 points before, 3 points after. See below.

Usefulness and Usability Issues for Populations of Interest

The materials should be tested in the populations of interest for usefulness and usability.

1. The style "Level3Heading" is 14 point Arial, bold, flush left, title case capitalization. Line spacing: 12 points before, 0 points after. See below.

Usefulness and Usability Issues for Populations of Interest

The materials should be tested in the populations of interest for usefulness and usability.

- The style "Level4Heading" is 14 point Times New Roman, bold, flush left, title case capitalization. Line spacing 12 points before, 0 points after. See below.

Usefulness and Usability Issues for Populations of Interest

The materials should be tested in the populations of interest for usefulness and usability.

- The style "Level5Heading" is 12 point Arial, bold, flush left, title case capitalization. Line spacing 12 points before, 0 points after. See below.

Usefulness and Usability Issues for Populations of Interest

The materials should be tested in the populations of interest for usefulness and usability.

- The style "Level6Heading" is 12 point Times New Roman, bold, flush left, title case capitalization. Line spacing 12 points before, 0 points after. See below.

Usefulness and Usability Issues for Populations of Interest

The materials should be tested in the populations of interest for usefulness and usability.

- The style "Level7Heading" is 12 point Times New Roman bold, run-in followed by a period. See below.

Diabetes. In general, a driver of the use of interactive health IT interventions for patients with diabetes had to do with patients feeling empowered.

In general, these patients did better …

- The style "Level8Heading" is 12 point Times New Roman, italic, paragraph indent, run-in followed by a period, sentence case capitalization. See below.

HIV/AIDS. In a system for HIV/AIDS, the patients perceived that their health was better when using the system.

In general, these patients did better …

- The style "KeyQuestion" is 14 point Arial regular (not bold or italic), flush left, sentence case capitalization. If the question is very long, the type size can be reduced to 12 point. See below.

Key Question 2. What factors influence the use of colorectal cancer screening?

Bullets

The bullet character should come up when the user selects the bullet1 or bullet2 style, as follows:

- Level 1 bullet (bullet1): Solid circle 12.
    - Level 2 bullet (bullet2): Hollow circle ○ 12.

Numbers

1. For lists, use Arabic numbers followed by periods (1. 2. 3, etc.).
2. Within text, use (1) etc.

Styles and How to Apply Them

Please use the AHRQ template to format your document. The next two sections provide more details on how to use it.

Using the EPC Report Template

A template is a Word document distinguished by the suffix .dotx. If you place it on your desktop, its icon will be marked by an orange bar. Its purpose is to allow you to input information in a format that is embedded in the template, in the Styles function. You can then save the resulting document as an ordinary Word document with the suffix docx (2007 and 2010). The template remains unchanged for another use.

The *Template for Reports Developed by Evidence-based Practice Centers* contains the set of Styles to be used for the reports governed by these *Publishing Guidelines.* The *Template* and the *Publishing Guidelines* are located together on the Scientific Resource Center's Secure Site, at www.epc-src.org/epc under Resources /EPC Process Resources /02. Publishing Guidelines and Templates.

Ideally, EPC authors should use the template at the very beginning of the drafting process. This way, no irrelevant styles get in the way. Just open the template and begin typing. The text will appear in the correct font. Select the appropriate styles for headings, bullets, numbers, table columns, reference lists, and so forth. When finished, save the document as a .docx and the correct styles will be embedded in the document.

However, this ideal situation does not always present itself. If sections of a report have already been drafted, use either of the two following options:

Option 1. This option keeps the original formatting styles and adds AHRQ formatting styles. It may be better suited for reports that are late in the formatting process or have already been formatted but need to have some or all of the AHRQ formatting styles applied.

1. Open the document.

2. Open the template.

3. Copy/paste the template into the document. This procedure imports the set of EPC report styles into your document.

4. Proceed through the document manually, selecting text, and applying the correct styles to each heading, paragraph, and table.

Option 2. This option removes the original formatting styles and replaces them with AHRQ formatting styles. It may be better suited for reports that are early in the formatting process, as it strips out the original formatting from the document and adds the styles from the AHRQ template that will need to be applied.

1. Open the document.
2. Open the template.

3. From the template file, go to the Styles Window (from the Home Tab) and click on the "Manage Styles" box that appears at the bottom of the window.
4. Click on "Import/Export."
5. Select all of the styles from the template (i.e., those in the left column) and copy them over to the "In Normal" column (i.e., the right column). Close the template file.
6. From the document file, go to the Styles Window (from the Home Tab) and click on the "Manage Styles" box that appears at the bottom of the window.
7. Click on "Import/Export."
8. Select all of the styles from the document (i.e., those in the left column) and click "Delete." Then, select all of the styles in the right column (these are the styles from the AHRQ template) and click on "Copy." Proceed through the document manually, selecting text, and applying the correct styles to each heading, paragraph, and table.

Applying Styles to Text Using Word 2007 and 2010

To apply styles to a new or existing document, go to Styles on the Home tab. In that panel, click on the Styles panel at the bottom, in the diagonal downward arrow in the lower right corner of the panel. This will bring up a vertical list of styles. (See Table 1 for an alphabetical list of template styles with their functions.) Highlight the text, click on the item you want, following the names of headings and other report elements listed throughout the *Publishing Guidelines* near the relevant front matter or text elements, and the item will be enclosed in a box. Your text will change accordingly.

If you are working with a document that is full of irrelevant styles, you can create your own Quick Set of styles using only the styles in the template. To do so, click on each unwanted style. A drop-down memo appears, giving you the option to delete that style.

Table 1. Alphabetical list of styles in the template

Style	Function
Bullet1	First-level bullet
Bullet2	Second-level bullet
ChapterHeading	Title of a chapter
Contents	Title of Table of Contents (the word “Contents”)
ContentsSubhead	Table of Contents Subhead for “Tables,” “Figures,” etc.
ContractNumber	Title page element
FrontMatterHead	Headings within the front matter, such as “Preface” “Acknowledgments,” etc.
Investigators	The report investigators/authors
KeyQuestion	Key question heading
Level1Heading	Heading level within the body of the report.
Level2Heading	
Level3Heading	
Level4Heading	
Level5Heading	
Level6Heading	
Level7Heading	
Level8Heading	
NumberLine	The number of the report
PageNumber	Style for the page number of the report
ParagraphIndent	Basic text
ParagraphNoIndent	Text that should be flush left, such as information in the preface pages
PreparedByText	Title page element
PreparedForText	Title page element
PublicationNumberDate	Title page element
Reference	Text for references
ReportSubtitle	Subtitle for title page

ReportTitle	Title for title page
ReportType	Series: title page element, above report number
Studies1	An option for listing excluded studies
Studies2	An option for listing excluding studies, in a numbered list
SuggestedCitation	At bottom of disclaimers page
TableBoldText	Table text and table row headings
TableCenteredText	Table text
TableColumnHead	Table text
TableLeftText	Flush-left text for table column 1
TableNote	Text for table footnote
TableSubhead	Italic text for a table subheading
TableText	Basic table text
TableTitle	Title or caption above a table or figure

Editorial Style

The material below provides some general guidance on style. The overriding principle for editorial style is internal consistency. AHRQ follows the U.S. Government Printing Office (GPO) Style Manual, available electronically athttps://www.govinfo.gov/content/pkg/GPO-STYLEMANUAL-2016/pdf/GPO-STYLEMANUAL-2016.pdf. For issues of scientific and medical usage not addressed by GPO, refer to the American Medical Association Manual of Style.

For questions of standard English usage, refer to *Webster's Third New International Dictionary*. For standard medical usage, refer to the 32nd edition of *Dorland's Illustrated Medical Dictionary*.

The following rules combine elements of GPO style, AMA style, and AHRQ's own style requirements.

General Usage and Stylistic Considerations

- Always use a plural verb with the word "data." "Datum" is the singular form of data.
- Use "sex" when referring to male or female. Use "gender" when referring to masculine or feminine.

- Use “people”—not persons—as the plural of “person.” Exception: do not correct this in article or book titles in reference lists.
- Use “compared with” not “compared to.”
- Use “use” not “utilize.”
- Avoid beginning sentences with “it” or “this” when “it” or “this” has no referent.
- Use active voice unless there is a reason to avoid being explicit about the subject of the action.
- Use “at,” not “when used at.”
- Use “showed” or “included,” not “did show” or “did include.”

Statistical Usage

- p-values: We prefer lower case regular ($p<0.05$).
- Confidence intervals: Use 95% CI, 3.0 to 6.1. Use of “to” instead of a hyphen makes clear that the interval is a range and avoids confusion between negative signs and hyphens.
    - When comparing probabilities, be precise. Use “[however many times] as likely” rather than “more likely,” “less likely,” or “very likely.” (Example: Say the odds of getting cancer = 5.7/1000 for women and 17/1000 for men. This means that men are about 3 times as likely to get cancer as women.)
    - To achieve precision and enable the reader to imagine the importance of your results, report them in comparative terms to describe the magnitude of effect (units, relative risks, absolute terms), when applicable. For example, if the risk of cancer in men is 3/1000 and the risk in women is 6/1000, then the relative risk for women is 2 (twice the risk in men). Use all three terms to provide a full description.
- Ensure that terms such as “inconclusive,” “inadequate,” “insufficient,” “inconsistent,” and “significance” are used consistently and correctly. “Statistical significance has a precise meaning.
- Use the technical terms “equivalent,” “noninferior,” and “superior” appropriately.

Medical Usage

- Medical language should be precise. In this example—“as shown on mammography or other imaging”—the techniques are doing the showing and not the images produced by them. A more accurate description would be: “as shown on a mammogram or other radiographic image.”
- Cancer is a general term referring to both carcinomas and sarcomas.
- Taxonomic terms are always italicized (e.g., *Clostridium difficile* or *C. difficile*), and the term is spelled out at first usage.
- Patients and study subjects should be described with nonjudgmental language:
    - Diabetic patients or patients with diabetes, rather than diabetics.
    - The treatment failed to alleviate the patient’s symptoms, rather than the patient failed treatment.
    - The patient reported chest pain, rather than the patient complained of chest pain.

Titles of Reports

Titles of reports should be brief yet informative. The following tips should help achieve this goal:

- Keep to a maximum of 10 words. A short subtitle is optional.
- Do not start a title with the name of the series or a general term that refers to the series. (Doing so makes automated searching difficult.) Instead, try to allude to the underlying concept of the series in the title. For example, for an evidence report developed in the Effective Health Care program:
    - Do not say: "Comparative Effectiveness of These Two Drugs"
    - Instead say: "Drug A Compared to Drug B in the Treatment of X: A Comparative Effectiveness Review"
- In general, do not use acronyms in titles. However, if spelling out a term would make the title too long or incomprehensible; or if the acronym is so familiar to the audience that the spelled-out term would be awkward, use the acronym rather than the spelled-out term. Never use both spelled-out term and acronym in a title. (For the purposes of this rule, headings are treated like text, not like titles.)

Listing Credentials After the Names of Authors and Other Contributors

The professional credentials listed after an author's or informant's name in a publication serve one very important purpose: to establish credibility. They tell the reader what specific kinds of expertise have been utilized in developing the information in that publication. With this in mind, authors and informants should list the credentials that are important for the particular publication they are contributing to. The editor should be guided by the authors' preferences, within constraints of space and comparability to other contributors to the publication. Credentials come in several types:

- Academic and professional degrees: Ph.D., M.D., Sc.D., Pharm.D., B.S.N., M.S.W., M.P.H., M.B.A.
- Licenses and other State-issued designations: R.N., R.Ph., A.P.N., L.C.S.W.
- Certifications: CCRN (certification in critical care nursing)
- Honors and awards (including fellowships in honorary societies): FACP, FACS, FAAN

The choice of which credentials to list and the order in which to list them depends on many factors including the topic of the publication, the intended audience, and the particular contribution the author or informant has made to the publication. For example, if a report is directed to a clinical audience and intended to influence clinical practice, an author's clinical degree might be listed first—that is, if his or her contribution was related to the clinical aspect of the report. By contrast, the same author contributing to a research methods paper might list his or her research degree first.

Several rules of thumb are suggested:

- List academic or professional degrees first, since they are most permanent.

- When listing a terminal degree like a Ph.D., omit degrees obtained on the way to that degree (B.S., M.S.).
- List multiple academic degrees in order of rank, highest first (e.g., Ph.D. before M.B.A. or M.L.S.), or relevance (e.g., M.D., Sc.D. or Sc.D., M.D., depending on the publication).
- Omit degrees totally irrelevant to the enterprise at hand.
- List a license or other State designation in conformity with the laws of the State. List only current licenses.
- List certifications, fellowships, and other honors if they are important to the readers of the publication or if they demonstrate proficiency in a specialty.
- Keep the total number of credentials to three or four at most.

General Punctuation

- Use a single space after the period at the end of a sentence.
- Do not use line spaces after paragraphs.
- To demarcate elements in a series, use the serial comma before the conjunctions “and,” “or,” and “nor” (example: dog, cat, and bird).
- Use a period at the end of each item in a list, if the list is a set of actions, concepts, or instructions. Do not use periods in simple lists.
- Use a comma before “et al.” in the reference list (see below under References).
- Use an em dash (—), with no spaces before or after, to separate phrases or clauses from the rest of a sentence.
- Use an en dash (–) for compound terms when one element of a compound is itself a multi-word element (e.g., New York–New Jersey bridge), and for numeral ranges (e.g., 10–20 or 1999–2000) within the body of the text. (In the reference lists, however, use hyphens for ranges of pages.)

Bulleted Lists

For a simple list consisting only of words or phrases, do not use periods at the end of the items, for example:

The store has three locations:

- Silver Spring
- Wheaton
- Rockville

If the list contains full sentences, include periods at the end of each item, for example:

The man noticed three things in the waiting room:

- The clock was slow.
- The plants needed to be watered.
- The magazines were dated 1985.

If one item in a list requires a period, all items get periods, for example:

The researchers were very interested in three topics:

- Health care quality.
- Grants.
- The National Healthcare Disparities Report. The Agency for Healthcare Research and Quality publishes this report annually.

Use the colon appropriately. The colon functions similarly to a period, as in the examples above. If your bulleted list's introduction is not an independent clause, use the em dash to introduce the list, for example:

The conferees wanted—

- Grant money
- Fliers
- CDs

Hyphens

- Hyphenate descriptive words when they modify a noun (e.g., lipid-modifying treatment, patient-centered communication, core-needle biopsy).

- Hyphenate the following words only when they are used as modifiers (e.g., long-term care):

  In-depth analysis

  Long-term care

  Short-term memory

Up-to-date statistics

- Do not hyphenate adverbs when they are used descriptively with an adjective (e.g., developmentally based models, clinically relevant dose).

- Use hyphens for ranges of pages in reference lists.

Hyphenated Prefixes

- Prefixes that are not hyphenated in AHRQ style, unless the compound produces an unreadable or ambiguous word, or the original word is a proper noun, for example:

  Anti (e.g., anticoagulant; but anti-inflammatory, anti-AIDS)

  Co (e.g., codirector, but co-occurrence)

  Non (e.g., nonopioid, but non-Hispanic)

  Post (e.g., postsurgical, postmarketing; but post-test, post-Darwinian)

Pre (e.g., preterm)

Re (e.g., rebiopsy; but re-creation vs. recreation)

Compound Words

- The following appear as one word:

database

dataset

decisionmakers

decisionmaking

email

followup (two words as a verb, e.g., "the doctor will follow up with you in a few days")

online

policymakers

policymaking

- Use as compounds words beginning with "anti," "non," or "co," unless the compounding produces an unreadable or ambiguous word. (e.g.,anti-inflammatory is preferred. See above, under Hyphens.)
- Do not compound the following:
    - Use "health care" as two words. Exceptions are the Agency's name, official titles that use it as one word, and the term "healthcare-associated infections."
    - Quality of life, except when used as an adjective (quality-of-life outcomes).
    - Web site, Web conference.

Acronyms and Abbreviations

- Define all acronyms in the text at first mention in each chapter (that is, in the text or headings but not the title).
- At first usage, the full name should be followed by the acronym in parentheses—for example, angiotensin-converting enzyme inhibitors (ACEIs).
    - Exception: do not define HIV/AIDS.
- After first usage, use the acronym consistently.
- List all acronyms and abbreviations at the bottom of figures and tables.
- Use acronyms judiciously. If a term is used only a few times in a document, an acronym may not be necessary.
- Spell out standard medical abbreviations—such as SAMe (*S*-adenosyl methionine), HbA_{1c} (hemoglobin A_{1c}), MSRA (methicillin-resistant *Staphylococcus aureus*)—at first usage. In general, place the spelled-out version first, followed by the acronym in

parentheses. (There may be exceptions, when the acronym is the focal point of the sentence.)

- Spell out "United States" when used as a proper noun. Use the abbreviation "U.S." when used as an adjective.
- Spell out these standard abbreviations when they are in text and abbreviate them when they are within parentheses:

  et cetera (etc.)

  for example (e.g.)

  that is (i.e.)

  versus (vs.)

- Be careful to distinguish between e.g. (an example from a larger class) and i.e. (the term that has been described in the preceding phrase).
- Avoid using "the" before the acronyms AHRQ, FDA, and NIH.
- Spell out "percent" in text, but use % in tables, figures, charts, and graphs.

Numerals

- Use numerals for time, measurement, and money (e.g., 2-year followup, 4 weeks, 4 percent, 10 cm, $5 million).
- Use numerals for the number 10 and greater.
- For instances not related to time, measurement, or money, use numerals for numbers less than 10 when in a sentence with another number greater than nine.
- Write out everything else (six cats, nine oranges, three-ply, fivefold).
- Editors may make consecutive sentences similar for consistency, to avoid distracting the reader. This may result in a deviance from the style guidance above.
- Use numerals for ordinal numbers beginning with 10^{th} (in text and footnotes).
- Numerals are also preferred in charts and in parentheses; for example (n=3 studies).

Capitalization

- Avoid long strings of capitalization, bold, and italics in text.
- Capitalize the following in text as well as headings:
  - The titles and subtitles of the report.
  - The words Federal, State, Nation, and Federal Government. However, do not capitalize nationwide, statewide, local, or federally.
  - Capitalize the Web in "Web site" and "Web conference." Also capitalize Webcast, Weblog, and Webinar, as one word.
  - Capitalize offices and officers related to the EPC and Effective Health Care programs: Project Officer, Task Order Officer, Key Informants, Technical Expert Panel, Peer Reviewers.
- In titles and headings, capitalize the following:
  - Prepositions with four or more letters (With, From, Between).
  - All 4-letter demonstrative pronouns (This, That).

    - All 2- and 3-letter verbal forms (To [in an infinitive], Am, Be, Is, Was, Has, Have).
    - Each word in a hyphenated term with initial caps (Off-Label Use of Drugs).
        - Exception: Evidence-based Practice Centers
- Do not capitalize in text:
    - The words "syndrome" and "disease" (e.g., Prader-Willi syndrome, Paget disease)
    - Medical conditions (e.g., type 2 diabetes)

Trademarks and Trade Names

- A trademark symbol (e.g., ®, TM, or SM) should be used after a trade name at the first mention in a chapter and in major headings. After first mention, the symbol may be dropped. The symbol should be in superscript (e.g., "MEDLINE®").
- To avoid confusion and possible patient harm, brand names of drugs or products must be avoided. For a trademarked or a brand name of a drug, use the generic name whenever possible. Use the Physicians' Desk Reference® to determine the drug's generic name.

Reference and Citation Style

AHRQ uses its own modification of the Vancouver Style for bibliographic citations. Also known as the "uniform requirements for manuscripts submitted to biomedical journals," the Vancouver Style was developed by the International Committee of Medical Journal Editors. The National Library of Medicine has adopted this style for PubMed. A detailed explanation follows of how AHRQ asks you to cite sources.

A comprehensive source for NLM's reference style, useful for unusual document types, is available online:

> Patrias K, Wendling D. Citing Medicine: The NLM Style Guide for Authors, Editors, and Publishers. Bethesda, MD: National Library of Medicine (US); 2007-. (http://www.ncbi.nlm.nih.gov/books/NBK7274/).

If the Publishing Guidelines do not contain guidance on handling an unusual citation, and you cannot find guidance in *Citing Medicine*, please assume that you have leeway to do what you think best. Just be sure you maintain consistency, to the extent possible, throughout the reference list.

The use of reference management software, such as Procite®, EndNote®, or Reference Manager®, is required for all reports. A customized AHRQ Modified Vancouver output style has been developed for EndNote, and is available on the Scientific Resource Center Secure Site. It will enable automatic formatting of references in AHRQ style.

For the in-text citations:

- Use superscripted numerals.
- Assign each source a number, in the order in which it is referred to in the text. When the same source is cited a second time, it retains its number.

- Provide a source or attribution for all statements of fact. For example, "Only two studies[1,2] showed a positive outcome for this treatment approach."
- Commas, but no spaces, should be used to separate superscripted numerals. Superscripted numerals can be placed mid-sentence. However, more often they will be placed at the end. If so, they should appear after sentence punctuation (e.g., "Five studies indicated a significant effect.[1,2,3,4,5])

For the reference list:

- Format all references in AHRQ style; do not use the reference style of the source material.
- Cite in the reference list every reference used in the text.
- Ensure that every reference in the reference list is cited in the text.
- List only the first three authors, followed by a comma, then et al.
- Separate inclusive page numbers by a hyphen.
- To facilitate retrieval, add these document identifiers if they are available: a PMID number for journal articles indexed by PubMed, and a digital object identifier (DOI) for Web documents. An NTIS number for government reports can also be added if available.
- Contact Chris Heidenrich to obtain the DOI for EPC reports and Lisa Nicolella for USPSTF reports. OC will contact Crossref to obtain the DOI for AHRQ reports.

Footnotes:

- Footnotes should not be confused with references. The reference list at the end of a report is a list of sources cited in the report. Footnotes are used primarily to provide an explanation that, if included in the text, would interrupt its flow.
- Use footnotes sparingly.
- In text, use superscript lowercase letters rather than numbers, which are used for references. Insert a footnote explanation at the bottom of the page where the footnote appears. Use letters in alphabetical order throughout the report; do not start over with "a" on a new page.
- Tables and figures are likely to need footnotes, and may also include citations to the reference list. In general, choose an efficient method of citing the source of the information in the table. For footnotes, use superscript lowercase letters so as not to create confusion with technical symbols in the table or figure that are similar to asterisks and other footnote symbols. If symbols make more sense, use them in this order: asterisk, dagger, double dagger, section mark, then doubled symbols in that order. Use one method for all tables and figures in your report. List all abbreviations and define them in notes at the bottom of the table in alphabetical order. The style that tends to look best is ACRONYM(space)=(space)definition; ACRONYM(space)=(space)definition because the spacing prevents a jumbled look. But most important is to use a consistent style throughout the report. "Abbreviations:" before the list isn't necessary but isn't restricted.
- Do not use the Microsoft® Word footnote function for tables. Instead, simply list the footnotes at the bottom of each table.

Citing Journals

- Author name(s) followed by initials (no periods). List up to three authors and then add a comma followed by "et al." Period at the end of the author list.
- Full title of article, including subtitles, followed by a period. Sentence capitalization (i.e., only the first word and proper names capitalized, as for a sentence).
- Title of journal, abbreviated in Index Medicus style, followed by a period. Do not italicize the journal title. (This is a deviation from Index Medicus style.) For non-Index Medicus titles, follow journal title abbreviation rules from the National Library of Medicine, http://www.ncbi.nlm.nih.gov/books/NBK7282/box/A33351/?report=objectonly.
- Year (month optional), followed by a semicolon; no space after.
- Volume, issue (optional, in parentheses), and page numbers; no spaces. Use a hyphen for a range of numbers.
- Add the PubMed identification (PMID) number to the end of each reference found in PubMed. This unique identifier can be obtained simply by searching for the reference in PubMed. Having it makes future retrieval easier.
- Add the digital object identifier (DOI) for Web documents if available.
- Add the NTIS number for government reports if available.

Example of a standard journal citation:

Korthuis PT, McCarty D, Weimer M, et al. Primary Care–Based Models for the Treatment of Opioid Use Disorder: A Scoping Review. Ann Intern Med. [Epub ahead of print 6 December 2016] doi: 10.7326/M16-2149. PMID: 27919103.

Gregg J. Follow-up to Nonfatal Opioid Overdoses: More of the Same or an Opportunity for Change? Ann Intern Med. 2016;164:62-63. doi: 10.7326/M15-2687. PMID: 26720852.

Example of a translation:

Massone L, Borghi S, Pestarinno A. Localizations paimaires purpuriques de las dermatite herpetiforme [Purpuric paimar sites of dermatitis hepetiformis]. Ann Dermatol Venerol. 1987;114(12):1545-57. PMID: 3445985.

Citing Database Reviews and Other Public Health Publications

Use standard MEDLINE formats for the following kinds of documents, but do not italicize the journal titles:

- Cochrane Database Systematic Reviews
  Somaraju UR, Tadepalli K. Hematopoietic stem cell transplantation for Gaucher disease. Cochrane Database Syst Rev. 2008;(1):CD006974.
- MMWR Morbidity and Mortality Weekly Reports
  Centers for Disease Control and Prevention. Prevalence of disabilities and associated health conditions among adults: United States, 1999. MMWR Morb Mortal Wkly Rep. 2001;50:120-5. PMID: 11393491.

- MMWR Recommendations and Reports
  Grosse SD, Boyle CA, Botkin, et al. Newborn screening for cystic fibrosis: evaluation of benefits and risks and recommendations for state newborn screening programs. MMWR Recomm Rep. 2004;53(RR-13):1-36. PMID: 15483524.
- MMWR Surveillance Summaries
  Autism and Developmental Disabilities Monitoring Network Surveillance Year 2002 Principal Investigators for the Centers for Disease Control and Prevention. Prevalence of autism spectrum disorders—autism and developmental disabilities monitoring network, six sites, United States, 2000. MMWR Surveill Summ. 2007;56(SS-1):1-11. PMID: 17287714.
- National Vital Statistics Reports
  Heron MP, Hoyert DL, Xu J, et al. Deaths: preliminary data for 2006. Natl Vital Stat Rep. 2008;56(16):1-52. [not found in PubMed]
- Vital and Health Statistics Reports
  Kucamarski RJ, Ogden CL, Guo SS, et al. 2000. CDC growth charts for the United States: methods and development. Vital Health Stat. 11 2002;(246):1-190. PMID: 12043359.
- Clinicaltrials.gov
  Standard format:

    Author; Author. Title. In: ClinicalTrials.gov. Bethesda, MD: National Library of Medicine (US); 2000- [cited date in brackets]. URL of the record NLM Identifier: NCTXXXXXXXX. [Note: The authors are the sponsors of the study. The title is the name of the study. Dates are in the format YYYYMMMDD. The NLM Identifier is at the bottom of the record under "More Information."]

  Example:

National Institute of Mental Health; University of Virginia. Randomized study of the effects of glucose on cognition in healthy young and elderly people and Parkinson's disease patients. In: ClinicalTrials.gov. Bethesda, MD: National Library of Medicine (US); 2000- [cited 2002 Feb 27]. http://clinicaltrials.gov/show/NCT0000451. NLM Identifier: NCT000451.

Citing Books

- Author name(s) followed by initials (no periods). Comma between each author. After three authors, use a comma followed by "et al."
- Title. Use title capitalization for full-length books and volumes in a series; sentence capitalization for titles of parts—chapters, articles in a series, etc. (Title capitalization: Capitalize all nouns, verbs, adjectives, personal pronouns, and prepositions with four and more letters.)
- City of publication (followed by a colon), publisher (followed by a semicolon), and date. For the State, (used only when location of city is not clear), use the two-letter U.S. Postal Service abbreviation.
- Use a period to separate each of the major elements above (author, title, and publication information.)

Example of a book with an individual author:

Perrin PG, Smith GH. The Perrin-Smith Handbook of Current English. Chicago: Scott, Foresman; 1962.

Example of a book with an institutional author:

Beth Israel Hospital. Obstetrical Decision Making. Philadelphia: B.C. Decker; 1987.

Example: chapter in a book:

Cassidy JT, Pefty RE. Basic concepts of drug therapy. In: Textbook of Pediatric Rheumatology. 2nd ed., New York: Churchill-Livingston; 1990:chapter 3.

Examples: volume in a series:

Rombeau JL, Caldwell MD, eds. Parenteral Nutrition. In: Clinical Nutrition, vol. 2. Philadelphia: Saunders; 1986. [Note that the designation ed./eds. is abbreviated.]

Merritt CRB. Breast imaging techniques. In: Putnam CE and Ravin CE, eds. Textbook of Diagnostic Imaging, vol. 3. Philadelphia: Saunders; 1988:2118-20.

Citing Scientific and Technical Reports From Government Agencies

- Author name(s). Use “et al.” after three authors. Insert a comma before “et al.”
- Title of the article and/or individual publication within the series. Title capitalization for full-length reports; sentence capitalization for chapters or parts of a report.
- Name of the series.
- Publication or acquisition number.
- City of publication.
- Agency or organization responsible for the series.
- Date of publication.
- Statement of online availability, if applicable.

Examples: reports with individual or institutional authors:

Cohen S. Sample Design of the 1997 Medical Expenditure Panel Survey Household Component. MEPS Methodology Report No. 11. AHRQ Publication No. 01–0001. Rockville, MD: Agency for Healthcare Research and Quality; 2000.

> National High Blood Pressure Education Program Working Group. Working Group Report on High Blood Pressure in Pregnancy. NHBPEP Publication No. 00–3029. Washington, DC: National Heart, Lung, and Blood Institute; 2000.

Example: AHRQ compilation for which there is no author:

> Methods Guide for Effectiveness and Comparative Effectiveness Reviews. AHRQ Publication No. 10(14)-EHC063-EF. Rockville, MD: Agency for Healthcare Research and Quality. January 2014. Chapters available at www.effectivehealthcare.ahrq.gov.

Citing Grant or Contract Reports

- Author name(s).
- Full title of the report. Title capitalization.
- Status of the report, if given (final, draft, preliminary).
- Grantee or contractor.
- Grant or contract number.
- Publication or acquisition number.
- City of publication.
- Agency for which the report was prepared.
- Publication month and year.

Example: grant or contract report

Suggested citation: Wang Z, Whiteside S, Sim L, Farah W, Morrow A, Alsawas M, Barrionuevo Moreno P, Tello M, Asi N, Beuschel B, Daraz L, Almasri J, Zaiem F, Gunjal S, Larrea Mantilla L, Ponce Ponte O, LeBlanc A, Prokop LJ, Murad MH. Anxiety in Children. Comparative Effectiveness Review No. 192. (Prepared by the Mayo Clinic Evidence-based Practice Center under Contract No. 290-2015-00013-I.) AHRQ Publication No. 17-EHC023-EF. Rockville, MD: Agency for Healthcare Research and Quality; August 2017. www.effectivehealthcare.ahrq.gov/reports/final.cfm. DOI: https://doi.org/10.23970/AHRQEPCCER192. Posted final reports are located on the Effective Healthcare Program search page.

Citing Dissertations and Theses

- Author name.
- Full title of the report. Title capitalization.
- Publication type.
- Location and name of institution.
- Date of publication.

Example: Dissertation

Youssef NM. School Adjustment of Children with Congenital Heart Disease [dissertation]. Pittsburgh: University of Pittsburgh; 1988.

Example: Thesis

Devins GM. Helplessness, Depression, and Mood in End-Stage Renal Disease [master's thesis]. Montreal, Quebec: McGill University; 1981.

Citing Conference Proceedings

- Editor names(s).
- Title of publication. Title capitalization.
- Title of conference. Title capitalization.
- Dates and place of conference.
- City of publication, publisher, and date of publication.

Example: conference proceedings

Vivian VL, ed. Child Abuse and Neglect: A Medical Community Response. First AMA National Conference on Child Abuse and Neglect; 1984 Mar 30–31; Chicago. Chicago: American Medical Association; 1985.

Papers presented at meetings should begin with:

- Author name(s).
- Full title of paper. Sentence capitalization.

Example: conference paper

Harley NH. Comparing radon daughter dosimetric and risk models. In: Gammage RB, Kaye SV, editors. Indoor air and human health. Proceedings of the 7th Life Sciences Symposium; 1984 Oct 29–31; Knoxville, TN. Chelsea, MN: Lewis Publishers; 1985:69-78.

Example: conference abstract

Lunin LF. Organizing for information interaction in a radiology department [abstract]. In: Petrarca AE, ed. Information interaction. Proceedings of the 45th ASIS Annual Meeting; 1982 Oct 17–21; Columbus, OH. White Plains, NY: Knowledge Industry Publications, Inc.; 1982: 179-80.

Citing Nonprint Data, Including Web Citations

When nonprint data are used, give the following information as applicable and available:

- Author name(s) followed by initials (no periods). Comma between each author. After three authors, use a comma followed by "et al."
- Title. Title capitalization for the title of a work as a whole; sentence capitalization for titles of parts—chapters, articles in a series, etc.
- Type of medium (CD, DVD, etc.).
- Source of data.
- Availability information (for example, Web URL). Do not include "available at" before the Web URL.
- Date accessed, if Web product.

Example of a Web citation:

Hsiao C-J, Beatty PC, Hing ES, et al. Electronic Medical Record/Electronic Health Record Use by Office-based Physicians: United States, 2008 and Preliminary 2009. Centers for Disease Control and Prevention, National Center for Health Statistics. www.cdc.gov/nchs/data/hestat/emr_ehr/emr_ehr.pdf. Accessed January 7, 2010.

Use the following simplified format for availability and date accessed:

www.ahrq.gov/consumers. Accessed January 16, 2009.

Note: The “access date” is the last time the author looked at the Web site. It should be updated by the editor only as a result of a query to the author.

Citations When No Author Is Listed

When no author is listed, the title may be the first element in a reference. For government documents, the publishing agency will often be listed as the author. In a bibliography, list the reference alphabetically by the first element (excluding “A,” “An,” or “The” if it is the first word).

Citing a database in the Systematic Review Data Repository (SRDR)

When citing project data for an appendix, follow this format:

- Authors, with last name followed by first initial(s). Do not insert commas or periods within a name, but separate each name with a comma.
- Title of dataset or systematic review
- Date of publication
- Source (in this case Systematic Review Data Repository)
- Availability information (for example, Web URL). Do not include “available at” before the Web URL.
- Date of retrieval

Example: Chung M, Ma J, Patel K, Berger S, Lau J, Lichtenstein AH. Fructose Consumption and Non-alcoholic Fatty Liver Disease (NAFLD). July 2013. Systematic Review Data Repository. http://srdr.ahrq.gov/projects/64*. Accessed August 8, 2013.

Section 3: Report Requirements to Facilitate Section 508 Compliance

Section 508 of the Rehabilitation Act of 1973, which went into effect on June 21, 2001, ensures that individuals with disabilities have access to electronic and information technology provided by the Federal Government. Section 508 requires that when Federal agencies develop, procure, maintain, or use electronic and information technology, they ensure that it is accessible to individuals with disabilities, unless an undue burden would be imposed on the agency. For example, equivalent alternatives are required for auditory and visual information, such as providing alternative descriptive text for images for the blind and providing captions for video files for the deaf. Information about HHS Section 508 compliance may be found on the HHS website at https://www.hhs.gov/web/section-508/index.html.

Because reports from Evidence-based Practice Centers are posted as a PDF or HTML document on the AHRQ Web site, the National Library of Medicine's Health Services/Technology Assessment Text (HSTAT) library, or the Centers for Medicare & Medicaid Services (CMS) Web site and linked from there to the AHRQ Web site, their contents must comply with this law and its implementing regulations to ensure accessibility for users protected by the Americans With Disabilities Act and other applicable Federal laws. AHRQ and the Department of Health and Human Services take accessibility very seriously. AHRQ makes every effort to comply with Section 508 not only because it is a legal requirement but also because ensuring access to Government information for all Americans is the right thing to do. This section is provided to describe EPC report requirements to allow the Federal government to comply.

EPC reports are submitted as a Word document, and preparers need to incorporate Section 508 considerations into the design of the reports. The best way to create accessible PDF or HTML documents is by first making the files accessible in the authoring application, in this case Word. Following the report requirements outlined in this section will facilitate the creation of 508-compliant PDF and HTML documents that are posted on AHRQ or other Web sites as required by the 1973 Rehabilitation Act. These requirements pertain to—

- Text and Tables. Text and tables must be constructed so as to facilitate reading by assistive instruments for hearing- and vision-impaired individuals, and never be inserted as images. Anything inserted as an image becomes a figure.
- Figures. Alternate text descriptions must be provided in a separate file for all figures and other images (including those in appendixes), since these images are not generally machine-readable. When the document is prepared for posting as a PDF or HTML document (by the Web team, such as the AHRQ Web team) these descriptions will be "tagged" to the associated images as alternate ("alt") tags. The "alt" tags are read aloud by screen readers, permitting visually disabled users access to the information in the image. To view an alt tag for a tagged image, the reader simply holds the cursor over the image. As shown in the example below, a small box will appear that contains the alt tag.

Best Practices for Preparing Microsoft Word Files to Support Accessibility

This subsection provides guidance on how to use Microsoft Word's features to fulfill report requirements, and develop files that can be easily converted to accessible, 508-compliant documents and that comply with Web standards and Office of Management and Budget requirements.

Structuring Tables (See also "Table Structure Examples")

- Each table should be uniquely labeled with number and title.
- The title, above the table, should summarize the purpose of the table. The title is only necessary above the first page of the table.
- Color or shading may be used in tables, so long as the color does NOT convey meaning. It is insufficient to include a note below the table indicating what the colors mean because visually impaired users cannot see the colors to know which cells are referred to.
- Do not use patterned backgrounds on tables.
- Do not merge cells (i.e., do not let data span multiple cells), especially header cells, unless absolutely necessary. If header cells are merged, multilevel headers are created. This is to be avoided if possible. (Examples of correctly structured tables are provided in the following subsection.)
- Headings must be concise but descriptive enough so readers can understand what the data represent.
- Column headings should appear at the top of each column of data. A heading above the row headings is optional.
- Row headings should be positioned in the leftmost column of the table for each row.
- Data order must flow from left to right and top to bottom.
- Tables should never be inserted as an image. For examples, tables should never be inserted within figures, as this makes the data inaccessible.
- Table rows must fit onto a standard 8 ½" x 11" page; i.e., rows should never span multiple pages. Table columns, however, may span multiple pages. Left and right margins must not be smaller than ½ inch. (See instructions below under "Creating Tables in a Word Document.")
- When columns span multiple pages, column headers must be repeated on each page. (See instructions below under "Creating Tables in a Word Document.")
- Font size for table text should be no smaller than 9 point Arial. Do not use compressed fonts.
- To create a list within a table, use the bulleted and numbered list features in the Paragraph group within the Home tab. Do not tag the list as Bullet1 or Bullet 2 because they will change the text to 12 pt Times New Roman. Instead, use one of the table text tags and reapply the bullets or numbers as described.

Inserting an Excel Table into a Word Document

Complex tables are often much more easily created in Excel rather than Word. When inserting an Excel table into a Word document, insert it as an editable table (i.e., do not insert the table as an image). Use the copy and paste functions.

Creating Tables in a Word Document

Never use the Draw Table feature, as this produces a table unable to be read by assistive software used by visually impaired users.

Instead, to create a table in Word, follow these steps.

- Click the Insert tab, then Table
- Click Insert Table and select the number of columns and rows
- Do not check "Allow row to break across pages"
- For header row, check "Repeat as header row at top of page," even if the table only takes up one page.

You can create Styles for tables in Word as well.

Inserting Images

Ensure that images are inserted "In line with text," rather than as floating images:

- Right-click on image → Format Picture → Layout Property → In line with text.

Inserting Hyperlinks

Confirm the URL is for an active Web site. [FYI: At the very end of document preparation, the formatter will deactivate the links, but to facilitate this process please make sure there is no underlining, non-black type, or non-roman type in Web addresses. Links are reactivated during the PDF creation process, but will have regular type and no underlining.]

Creating Text Boxes

Text boxes with just text are acceptable.Text boxes with special text like bullets are not usable.

Creating Text Columns

Never use tables, spaces, or tabs to format columns on a page; instead, use the Word function to create columns. Insert a section break before and after columns.

Discontinuing Document Review Functions

- Accept or Reject all edits
- Turn off Track Changes.
- Remove All Comments (Do not simply hide comments)
- Turn off Formatting Marks.

Creating a Template

- Once you have saved your document as a .docx file, you may save it under a new name and use your newly formatted document as a template. To do this, follow these steps:
- File→ Save As → Save As Type → Document Template (*.dot or .dotx)

Additional Best Practices

- Do not use flashing, flickering, or animated text.
- Create the Table of Contents using the Word TOC function, rather than manually.
- Create headers and footers using Word's header and footer feature.
- Use Word's Insert Page Number feature to number pages within a document. Do not manually type page numbers at the bottom of pages.
- When needed, insert a hard page break to designate the end of a page by clicking the Insert tab and Page Break. Do not use the Enter key to move text to the next page.
- Use bullets with lists and key points. Use the Bullets style rather than typing in numbers, letters, and symbols individually.
- Group complex images. For example, when you click on a flowchart in the document, it should be one image, rather than a group of many images.
- Ensure the document is free of background images or watermarks that interfere with text elements.
- Review the document in Print Preview for a final visual check.
- Convert the document to PDF and troubleshoot conversion errors.

Examples of Table Structure Consistent with Report Requirements to Support Accessibility

Example of an Ideal Table Structure With Row and Column Headings and No Merged Cells

Table 2. An ideally structured table

Column Heading (optional)	Column Heading	Column Heading	Column Heading	Column Heading
Row heading*				
Row heading*				
Row heading*				

***Title or sentence case capitalization, optional, depending on the nature of the heading. (Sometimes this cell is filled with an entire phrase or a bibliographic citation.)**

Example of a Poorly Structured Table With Merged Cells and Multilevel Headers

Table 3a. Events reported in comparison studies of X devices used to treat Y conditions

Reference¤	Treatment¤	Adverse·Events¤				
		Pain¤	Bleeding¤	Infection/· Bacterial· Load¤	Mortality¤	Other· Complications¤
RANDOMIZED·CONTROLLED·TRIALS¤						
¤	¤	¤	¤	¤	¤	¤
	¤	¤	¤	¤	¤	¤
¤	¤	¤	¤	¤	¤	¤
	¤	¤	¤	¤	¤	¤
NONRANDOMIZED·CONTROLLED·TRIALS¤						
¤	¤	¤	¤	¤	¤	¤
	¤	¤	¤	¤	¤	¤
¤	¤	¤	¤	¤	¤	¤
	¤	¤	¤	¤	¤	¤

Examples of Potential Fixes for the Multilevel Column Headers

Merged column headers are not acceptable. To fix this, an extra column is added, and the table title is augmented (Table 3b). Please note that row cells still remain merged in the Study design and Reference columns. This is acceptable (as coding can more easily make this compliant). The end result should remain clear for visual readers also.

Table 3b. A potential fix for the multilevel column headers. Adverse events reported in comparison studies of x devices used to treat y conditions

Study Design	Reference	Treatment	Pain	Bleeding	Infection/ Bacterial Load	Mortality	Other Complications
Randomized Controlled Trials*							
Nonrandomized Controlled Trials*							

***Title or sentence case capitalization, optional, depending on the nature of the heading. (Sometimes this cell is filled with an entire phrase or a bibliographic citation.)**

Another way to fix the problem would be to name each trial in the "Study design and reference" column according to whether or not it is a randomized controlled trial (Table 3c). This is the simplest "fix" since neither merged columns nor rows remain.

Table 3c. Another potential fix for the multilevel column headers. Adverse events reported in comparison studies of y device used to treat z condition

Study design and reference	Treatment	Adverse Event—Pain	Adverse Event—Bleeding	Adverse Event—Infection/ Bacterial Load	Adverse Event—Mortality	Adverse Event—Other
RCT, Smith, 2006*						
RCT, Lane, 2007*						
RCT, Wong, 2006						
RCT, Wilson, 2005*						
Non-RCT, Rutherford, 2007*						
Non-RCT, Ali, 2008*						
Non-RCT, Wilson, 2005*						

RCT = randomized controlled trial.

***Title or sentence case capitalization, optional, depending on the nature of the heading. (Sometimes this cell is filled with an entire phrase or a bibliographic citation.)**

Another "fix" is to divide tables into smaller sub-tables: To eliminate multilevel row headers (such as "Randomized Controlled Trials" and "Non-Randomized Controlled Trials" in Table 3b), a table can be divided into separate sub-tables, if the subsections beneath the multi-level row headers contain several rows. For example, see Tables 3d and 3e below. Note that this is not a solution if the subsections are too small to justify dividing a table into multiple smaller tables.

Review the tables for visual clarity: the end result should remain clear for visual readers also.

Tables containing nested tables are not acceptable – they are not in a 508-compliant format, and thus cannot be correctly read aloud by assistive devices for the visually impaired. The

simplest fix for this scenario is to eliminate nested tables by dividing them into smaller subtables.

Table 3d. One of a pair of subtables. Adverse events reported in randomized controlled trials of X devices used to treat Y conditions

Reference	Treatment	Pain	Bleeding	Infection/ Bacterial Load	Mortality	Other Complications

Table 3e. The other subtable. Adverse events reported in nonrandomized controlled trials of X devices used to treat Y conditions

Reference	Treatment	Pain	Bleeding	Infection/ Bacterial Load	Mortality	Other Complications

Preparation of Alternate Text Descriptions for Figures and Other Images

Authors of reports must provide alternate text descriptions ("tags") for figures and other images. Figure 1 displays a sample figure and its accompanying Alternate Text Description tag. The description would not be visually present. Rather, it would be within a hidden tag that would be read aloud by an assistive device. Authors provide the alt text in an Excel or Word file clearly delineating which description goes with which image. OC formatters insert the alt text.

Composing Alternate Text for Figures

1. Describe each figure as if you were describing it to someone who could not see it. Be sure to capture the essence behind the reason for including the figure in the paper. What is the figure meant to convey? The description could be as brief as one sentence for simpler figures and as lengthy as a paragraph for more complex figures.

   "Figure ___ is a ___ type of diagram, depicting ___ *(a trend that ___, a positive correlation between___, etc.).*"

2. For complex figures, it may be useful to augment the description by inserting text from the body of the document that describes the figure. In these cases, simply write,

   "This figure is described further in Section ____ as follows: _____"

   Then, copy relevant text from the body of the document, and paste it directly after this introductory phrase. This step is only for complex figures.

3. Summarize the data. List a representative data sample in the alternate text description. Include up to 10 representative data items which best capture the essence of the figure.

   "___ (item 1) was ___ (value 1); ___ (item 2) was ___ (value 2); etc."

***Note*:** Occasionally, a meta-analysis and its corresponding data table are presented side by side within a single figure. Unless software prohibits, *do not list a data table within a figure*. Instead, list the table separately as a table (not as a figure) below or beside the associated figure. This allows the data within the table to be accessible by persons with visual impairments.

While a picture is worth a thousand words, an extensive description is not necessary and might actually confuse rather than clarify. A reasonable, best effort is sufficient.

Sample Alternate Text for Complex Figures

The following are examples of alternate text descriptions for complex figures. It is important to note that these examples are much lengthier than the norm. Try to keep your description as concise as possible.

Example 1: Alternate text for flow charts

1a. Example of alternate text for a flow chart that is not described within the body of the document:

Figure X is a flow chart that summarizes the search and selection of articles: There were 273 citations of randomized trials identified by searching Medline, Cochrane Clinical Registry, and CINAHL databases. Of these, 75 citations were excluded because they evaluated interventions that were not of interest to key questions. The remaining 198 citations were rescreened and, of these, 83 full-text articles were retrieved. Forty seven of these were excluded for the following reasons: no interventions of interest; no outcomes of interest; no relevant data; wrong population; reviews, letters, commentaries, and editorials; and duplicate publications. Ultimately, forty nine randomized trials were included in the final report.

1b. Example of alternate text for a flow chart that is not described within the body of the document:

Figure X is a flow chart that describes the process of preparing Compendia articles. The steps include: (1) Research papers and meeting abstracts; (2) Compendium Reviewer writes draft summary; (3) Draft manuscript is (4) reviewed by commentators; (5) comments are incorporated into the draft summary; (6) which leads to the final draft.

1c. Example of alternate text for a flow chart that is described within the body of the document:

Figure X is a flow chart that outlines study retrieval and selection process. It begins with the total number of citations retrieved from the literature searches and ends with the number of studies that satisfied the inclusion criteria of the report. This figure is described further in the Section entitled “Search Results” as follows: “The literature search (electronic and reference lists) resulted in the identification of 12,568 citations. After screening titles and abstracts (5,395 citations), the full-texts of 502 potentially relevant articles were retrieved and evaluated for inclusion. The application of the selection criteria to the 502 articles resulted in 390 articles being excluded, while 112 studies were relevant to the questions addressed in this review. The primary reasons for exclusion of studies were as follows: (1) the study did not report on any of the nine types of cancer (n=192), (2) the study did not evaluate the questions of interest (n=93), (3) the study reported on less than 12 participants (n=31), (4) the study did not use a matched design (n=28), (5) the study did not evaluate ^{18}FDG-PET or ^{18}FDG-PET/CT (n=12), (6) the study was not primary research (n=13), and (7) the study was published in a language other than English (n=21)”.

Example 2. Alternate text for a forest plot:

Figure X displays a forest plot of studies reporting the odds ratio of death, pulmonary artery catheter versus control. Data for Figure 1 are presented in Appendix E, Table 1. This figure is described further the section “Mortality” as follows: “The overall odds ratio of death was 1.03 (95% CI 0.9 to 1.2) comparing patients who received PAC monitoring

to control patients who did not receive PAC monitoring in critical care settings. There was no statistically significant heterogeneity across the 15 studies. In the nine studies comparing PAC to no PAC monitoring, the random effects combined odds ratio of death was 1.03 (95% CI 0.9 to 1.2). In the five studies comparing PAC to CVP monitoring, the random effects combined odds ratio of death was 0.96 (95% CI 0.5 to 2.0). There was no statistically significant heterogeneity within each subgroup, and there was no statistically significant difference between the combined ORs in the two subgroups."

Example 3. Alternate text for a meta-graph:

Figure X is a meta-graph depicting the negative likelihood ratio of 18FDG-PET versus histology/biopsy or clinical followup for detecting recurrences of cervical cancer based on retrospective studies. 18FDG-PET had a pooled negative likelihood ration of 0.11 (95% CI = 0.04 to 0.28) to accurately detect recurrences of cervical cancer. The negative likelihood ratio was statistically significant and therefore, 18FDG-PET/CT seems to be helpful to identify recurrences of the disease. However, the negative (p=0.12; I2=53 percent) likelihood ration was heterogeneous across the studies precluding firm conclusions based on these results.

Example 4. Alternate text for photographs

Figure X shows two adjacent photographs, which illustrate microdissection of two small tumor areas. The left photograph shows two minute pulmonary meningothelial-like nodules (small nodules in the lung) stained with hematoxylin and eosin (a "scout" section 3 to guide the microdissection of the unstained tissue on the right); the right photograph is an unstained adjacent tissue slide after the manual microdissection of the areas corresponding to the two nodules.

Example 5. Alternate text for an analytic framework:

Figure X is an analytic framework that depicts the events that individuals experience while undergoing treatment with negative pressure wound therapy. The framework includes 5 headers: Patient Population of Interest, Treatment, Intermediate Outcome Measures, Patient-oriented Outcomes and Adverse Effects of Treatment. Our patient population of interest is patients with acute or chronic wounds. The treatment is Negative Pressure Wound Therapy. The intermediate outcome measures are utilized to determine if the treatment is effective and include percent change in wound volume, improved wound condition, and time to 50 percent reduction of wound initial volume. The patient-oriented outcomes include time to complete wound closure, percent of wounds completely healed, rate of healing infected wounds, reduction in sepsis, edema, or amputation, duration of treatment, quality of life/satisfaction with treatment, survival, and facilitation of surgical closure. Adverse effects of treatment include pain, bleeding, infection or bacterial load, mortality, and other complications which may be as minor as discomfort or as major as amputation.

Submitting Alternate Text for Figures

List alternate text descriptions for all figures (including those is appendices) in a Word or Excel document that is separate from the report. (See Figure 2: Sample Spreadsheet for Alternate Text Descriptions.) Each Alternate Text Description tag must only be a single paragraph.

Compose the alternate text table:

a. You may compose the text directly in Microsoft Excel.

b. Or you may compose the text in Microsoft Word and then transfer the text into Excel.

   i. Copy (Ctrl-C) copy each alternate text figure tag in Word

   ii. Double-click in the appropriate cell in the Excel file

   iii. Paste (Ctrl-V) the alternate text figure tag into the Excel cell.

   iv. Repeat for all figures

Creating Alternate Text for Equations

If equations are inserted into a document as an image, they must be labeled with a title ("Equation 1. _____(*insert title*)."). They will require alternate text tags.

1. Describe the equation in a single sentence.

   "Equation ___ is a ___ type of equation for ___ (insert purpose)."

2. For simple equations, type out the equation in text after the description.

   "The equation is as follows: ___."

Submitting Alternate Text for Equations

List equation tags within the same document as the figure tags. List the equation tags below the figure tags, labeling each equation tag (i.e. "Equation 1," "Equation 2," etc.) in the first column

Statement When Requirements Cannot Be Met

This standard disclaimer is in the template after the title page and is sufficient to meet the Agency's 508 compliance obligation when the alternate text requirements above cannot be met. Please check your report to ensure it is submitted with this statement:

> Persons using assistive technology may not be able to fully access information in this report. For assistance contact EPC@ahrq.hhs.gov.

Figure 1. Sample spreadsheet for alternate text descriptions (for Microsoft® Word or Excel

Project Name:

Date:

For Draft or Final Report

Figure # or Equation #	Alternate Text Description
Figure 1	
Figure 2	
Figure 3	
Figure 4	
Equation 1	
Equation 2	
Equation 3	

Section 4: Samples of Standard Report Elements

This section describes standard required report elements, makes suggestions about what should be included in each element, and provides samples of text. These suggestions are provided to facilitate the writing of the reports and promote consistency within the series, thereby making it easier for readers to follow the development of your arguments. You are encouraged to adjust the standard language to correctly reflect your report's content and the circumstances of its development. When in doubt, seek advice from your OC managing editor.

The front cover is created by AHRQ, not by the EPC. For reports developed under the TAP, the EPC creates the front cover. The template can be found on the SRC secure site at Resources /Technology Assessment Program /TAPTemplates and Procedures.

Sample Title Page

Report Series

Number 183

Identifying, Categorizing, and Evaluating Health Care Efficiency Measures

Ten-word maximum;

Subtitle starts a new line.

Prepared for:

Agency for Healthcare Research and Quality
U.S. Department of Health and Human Services
5600 Fishers Lane
Rockville, MD 20857
www.ahrq.gov

Use two-letter postal abbreviations in all address lists.

[Insert for peer review drafts only]

This information is distributed solely for the purposes of predissemination peer review. It has not been formally disseminated by the Agency for Healthcare Research and Quality. The findings are subject to change based on the literature identified in the interim and peer-review/public comments and should not be referenced as definitive. It does not represent and should not be construed to represent an Agency for Healthcare Research and Quality or Department of Health and Human Services (AHRQ) determination or policy.

Contract No. 290-2012-12345-I

Prepared by:

EPC name

EPC city and state

Investigators:

List must match order and content of citation list on next page.

Jane Doe, Ph.D.
Mary Roe, M.D., Ph.D.
John Smith, M.D.
AHRQ Publication No. 14-EHC000

June 2014

Sample Key Messages

Key Messages

Examples.

Purpose of Review

To assess the effectiveness of tonsillectomy for treating children with obstructive sleep-disordered breathing or recurrent throat infections.

Key Messages

- Tonsillectomy can modestly improve sleep and reduce throat infections in the short term. This benefit must be weighed against a relatively low risk of postoperative bleeding.

- Different surgical techniques had little effect on either outcomes or bleeding risk.

- Use of dexamethasone and pre-emptive 5-HT receptor antagonist anti-emetics before or after surgery may improve pain and reduce vomiting immediately after surgery.

- Future research should address long-term outcomes and include enough detail to identify which children benefit most from surgery and which children benefit most from watchful waiting.

Sample Page Following the Key Messages Page

Use the following statement of funding for all reports except Technology Assessment Program reports.

This report is based on research conducted by the XXXXX Evidence-based Practice Center (EPC) under contract to the Agency for Healthcare Research and Quality (AHRQ), Rockville, MD (Contract No. XXX-20XX-XXXXX). The findings and conclusions in this document are those of the authors, who are responsible for its contents; the findings and conclusions do not necessarily represent the views of AHRQ. Therefore, no statement in this report should be construed as an official position of AHRQ or of the U.S. Department of Health and Human Services.

Use the following statement of funding for Technology Assessment Program (TAP) final reports.

Note: The disclaimer for draft TAP reports can be found on the SRC secure site at http://www.epc-src.org/src/ at Resources /Technology Assessment Program /TAPTemplates and Procedures.

This report is based on research conducted by the INSERT EPC NAME under contract to the Agency for Healthcare Research and Quality (AHRQ), Rockville, MD (Contract No. INSERT CONTRACT NUMBER). The findings and conclusions in this document are those of the author(s) who are responsible for its contents; the findings and conclusions do not necessarily represent the views of AHRQ. No statement in this article should be construed as an official position of the Agency for Healthcare Research and Quality or of the U.S. Department of Health and Human Services.

Add immediately a Financial Disclosure statement, in bold.

None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

Use immediately the following paragraph on purpose for all reports except Future Research Needs Reports.

The information in this report is intended to help health care decisionmakers—patients and clinicians, health system leaders, and policymakers, among others—make well-informed decisions and thereby improve the quality of health care services. This report is not intended to be a substitute for the application of clinical judgment. Anyone who makes decisions concerning the provision of clinical care should consider this report in the same way as any medical reference and in conjunction with all other pertinent information, i.e., in the context of available resources and circumstances presented by individual patients.

Use the following paragraph on purpose for Future Research Needs Reports:

information in this report is intended to help health care researchers and funders of research make well informed decisions in designing and funding research and thereby improve the quality of health care services. This report is not intended to be a substitute for the application of scientific judgment. Anyone who makes decisions concerning the provision of clinical care should consider this report in the same way as any medical research and in conjunction with all other pertinent information, i.e., in the context of available resources and circumstances.

[Insert Three Returns]

Add the following dissemination rights notice.

This report is made available to the public under the terms of a licensing agreement between the author and the Agency for Healthcare Research and Quality. This report may be used and reprinted without permission except those copyrighted materials that are clearly noted in the report. Further reproduction of those copyrighted materials is prohibited without the express permission of copyright holders.

Add immediately after the dissemination rights notice the AHRQ/DHHS disclaimer regarding endorsement for all reports except Future Research Needs Reports.

AHRQ or U.S. Department of Health and Human Services endorsement of any derivative products that may be developed from this report, such as clinical practice guidelines, other quality enhancement tools, or reimbursement or coverage policies may not be stated or implied .

[Insert Three Returns]

For systematic reviews (Comparative Effectiveness Reviews and Evidence Reports), add the following surveillance statement.

This report may periodically be assessed for the currency of conclusions. If an assessment is done, the resulting surveillance report describing the methodology and findings will be found on the Effective Health Care Program Web site at www.effectivehealthcare.ahrq.gov. Search on the title of the report.

Add immediately the following disclaimer regarding 508-compliance.

Persons using assistive technology may not be able to fully access information in this report. For assistance contact EPC@ahrq.hhs.gov.

Standard Suggested Citation of Your Report

Suggested citation: <Authors>. <Topic>. Evidence Report/Technology Assessment. No. <#>. (Prepared by <EPC Name> under Contract No. <##>.) AHRQ Publication No. 14-XXXXX>. Rockville, MD: Agency for Healthcare Research and Quality; <Month, Year>. doi: 0000. www.effectivehealthcare.ahrq.gov/reports/final/cfm.

Suggested citation: Wang Z, Whiteside S, Sim L, Farah W, Morrow A, Alsawas M, Barrionuevo Moreno P, Tello M, Asi N, Beuschel B, Daraz L, Almasri J, Zaiem F, Gunjal S, Larrea Mantilla L, Ponce Ponte O, LeBlanc A, Prokop LJ, Murad MH. Anxiety in Children. Comparative Effectiveness Review No. 192. (Prepared by the Mayo Clinic Evidence-based Practice Center under Contract No. 290-2015-00013-I.) AHRQ Publication No. 17-EHC023-EF. Rockville, MD: Agency for Healthcare Research and Quality; August 2017. DOI: https://doi.org/10.23970/AHRQEPCCER192. Posted final reports are located on the Effective Healthcare Program search page.

Sample Prefaces

The content of the preface will vary for each type of report. (Note that a preface is not used for a Technology Assessment Program Report.) The officials signing the prefaces may be listed in two columns. Most prefaces are signed by the following individuals; reports cosponsored with other Federal agencies may have additional signatures.

[Preface for a Systematic Review]

The Agency for Healthcare Research and Quality (AHRQ), through its Evidence-based Practice Centers (EPCs), sponsors the development of systematic reviews to assist public- and

private-sector organizations in their efforts to improve the quality of health care in the United States. These reviews provide comprehensive, science-based information on common, costly medical conditions, and new health care technologies and strategies.

Systematic reviews are the building blocks underlying evidence-based practice; they focus attention on the strength and limits of evidence from research studies about the effectiveness and safety of a clinical intervention. In the context of developing recommendations for practice, systematic reviews can help clarify whether assertions about the value of the intervention are based on strong evidence from clinical studies. For more information about AHRQ EPC systematic reviews, see www.effectivehealthcare.ahrq.gov/reference/purpose.cfm

AHRQ expects that these systematic reviews will be helpful to health plans, providers, purchasers, government programs, and the health care system as a whole. Transparency and stakeholder input are essential to the Effective Health Care Program. Please visit the Web site (www.effectivehealthcare.ahrq.gov) to see draft research questions and reports or to join an e-mail list to learn about new program products and opportunities for input.

If you have comments on this systematic review, they may be sent by mail to the Task Order Officer named below at: Agency for Healthcare Research and Quality, 5600 Fishers Lane, Rockville, MD 20857, or by email to epc@ahrq.hhs.gov.

[List signers in two columns]:

[Insert name]

Director

Agency for Healthcare Research and Quality

Arlene S. Bierman M.D., M.S.

Director

Center for Evidence and Practice Improvement

Agency for Healthcare Research and Quality

Stephanie Chang M.D., M.P.H.

Director

Evidence-based Practice Center Program

Center for Evidence and Practice Improvement

Agency for Healthcare Research and Quality

[Insert name]

Task Order Officer

Center for Evidence and Practice Improvement

Agency for Healthcare Research and Quality

[Preface for an EPC report sponsored by another Federal agency]

The Agency for Healthcare Research and Quality (AHRQ), through its Evidence-based Practice Centers (EPCs), sponsors the development of evidence reports and technology assessments to assist public- and private-sector organizations in their efforts to improve the quality of health care in the United States.

Include the following sentence if the report has a sponsoring partner: The (INSERT AGENCY SPONSOR) requested this report from the EPC Program at AHRQ. AHRQ assigned this report to the following EPC: (INSERT EPC NAME) Evidence-based Practice Center (Contract Number: (INSERT CONTRACT NUMBER).

Include the following sentence if the report is presented at a public meeting. The report was presented at the (INSERT AGENCY SPONSOR) public meeting – (INSERT MEETING NAME) on (INSERT MEETING DATE).

The reports and assessments provide organizations with comprehensive, evidence-based information on common medical conditions and new health care technologies and strategies. They also identify research gaps in the selected scientific area, identify methodological and scientific weaknesses, suggest research needs, and move the field forward through an unbiased, evidence-based assessment of the available literature. The EPCs systematically review the relevant scientific literature on topics assigned to them by AHRQ and conduct additional analyses when appropriate prior to developing their reports and assessments.

To bring the broadest range of experts into the development of evidence reports and health technology assessments, AHRQ encourages the EPCs to form partnerships and enter into collaborations with other medical and research organizations. The EPCs work with these partner organizations to ensure that the evidence reports and technology assessments they produce will become building blocks for health care quality improvement projects throughout the Nation. The reports undergo peer review and public comment prior to their release as a final report.

AHRQ expects that the EPC evidence reports and technology assessments, when appropriate, will inform individual health plans, providers, and purchasers as well as the health care system as a whole by providing important information to help improve health care quality.

If you have comments on this evidence report, they may be sent by mail to the Task Order Officer named below at: Agency for Healthcare Research and Quality, 5600 Fishers Lane, Rockville, MD 20857, or by email to epc@ahrq.hhs.gov.

[List signers in two columns]:

[Insert name]

Director

Agency for Healthcare Research and Quality

Arlene S. Bierman M.D., M.S.

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Stephanie Chang M.D., M.P.H.

Director

Evidence-based Practice Center Program

Center for Evidence and Practice Improvement

Agency for Healthcare Research and Quality

[Insert name]

Task Order Officer

Center for Evidence and Practice Improvement

Agency for Healthcare Research and Quality

[Insert name]

[Title]

[Center, Division, or Program]

[Federal Agency]

[Preface for a Technical Brief]

The Agency for Healthcare Research and Quality (AHRQ), through its Evidence-based Practice Centers (EPCs), sponsors the development of evidence reports and technology assessments to assist public- and private-sector organizations in their efforts to improve the

quality of health care in the United States. The reports and assessments provide organizations with comprehensive, science-based information on common, costly medical conditions and new health care technologies and strategies. The EPCs systematically review the relevant scientific literature on topics assigned to them by AHRQ and conduct additional analyses when appropriate prior to developing their reports and assessments.

This EPC evidence report is a Technical Brief. A Technical Brief is a rapid report, typically on an emerging medical technology, strategy or intervention. It provides an overview of key issues related to the intervention—for example, current indications, relevant patient populations and subgroups of interest, outcomes measured, and contextual factors that may affect decisions regarding the intervention. Although Technical Briefs generally focus on interventions for which there are limited published data and too few completed protocol-driven studies to support definitive conclusions, the decision to request a Technical Brief is not solely based on the availability of clinical studies. The goals of the Technical Brief are to provide an early objective description of the state of the science, a potential framework for assessing the applications and implications of the intervention, a summary of ongoing research, and information on future research needs. In particular, through the Technical Brief, AHRQ hopes to gain insight on the appropriate conceptual framework and critical issues that will inform future research.

AHRQ expects that the EPC evidence reports and technology assessments will inform individual health plans, providers, and purchasers as well as the health care system as a whole by providing important information to help improve health care quality.

If you have comments on this Technical Brief, they may be sent by mail to the Task Order Officer named below at: Agency for Healthcare Research and Quality, 5600 Fishers Lane, Rockville, MD 20857, or by email to epc@ahrq.hhs.gov.

[List signers in two columns]:

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Center for Evidence and Practice Improvement

Agency for Healthcare Research and Quality

[Preface for a Future Research Needs Paper]

The Agency for Healthcare Research and Quality (AHRQ), through its Evidence-based Practice Centers (EPCs), sponsors the development of evidence reports and technology assessments to assist public- and private-sector organizations in their efforts to improve the quality of health care in the United States. The reports and assessments provide organizations with comprehensive, science-based information on common, costly medical conditions and new health care technologies and strategies. The EPCs systematically review the relevant scientific literature on topics assigned to them by AHRQ and conduct additional analyses when appropriate prior to developing their reports and assessments.

An important part of evidence reports is to not only synthesize the evidence, but also to identify the gaps in evidence that limited the ability to answer the systematic review questions. AHRQ supports EPCs to work with various stakeholders to identify and prioritize the future research that is needed by decisionmakers. This information is provided for researchers and funders of research in these Future Research Needs papers. These papers are made available for public comment and use and may be revised.

AHRQ expects that the EPC evidence reports and technology assessments will inform individual health plans, providers, and purchasers as well as the health care system as a whole by providing important information to help improve health care quality. The evidence reports undergo public comment prior to their release as a final report.

If you have comments on this Future Research Needs document, they may be sent by mail to the Task Order Officer named below at: Agency for Healthcare Research and Quality, 5600 Fishers Lane, Rockville, MD 20857, or by email to epc@ahrq.hhs.gov.

[List signers in two columns]:

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Director

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[Insert name]

Task Order Officer

Center for Evidence and Practice Improvement

Agency for Healthcare Research and Quality

[Preface for a Methods Research Report and a White Paper]

The Agency for Healthcare Research and Quality (AHRQ), through its Evidence-based Practice Centers (EPCs), sponsors the development of evidence reports and technology assessments to assist public- and private-sector organizations in their efforts to improve the quality of health care in the United States. The reports and assessments provide organizations with comprehensive, science-based information on common, costly medical conditions and new health care technologies and strategies. The EPCs systematically review the relevant scientific literature on topics assigned to them by AHRQ and conduct additional analyses when appropriate prior to developing their reports and assessments.

To improve the scientific rigor of these evidence reports, AHRQ supports empiric research by the EPCs to help understand or improve complex methodologic issues in systematic reviews. These methods research projects are intended to contribute to the research base in and be used to improve the science of systematic reviews. They are not intended to be guidance to the EPC program, although may be considered by EPCs along with other scientific research when determining EPC program methods guidance.

AHRQ expects that the EPC evidence reports and technology assessments will inform individual health plans, providers, and purchasers as well as the health care system as a whole by providing important information to help improve health care quality. The reports undergo peer review prior to their release as a final report.

If you have comments on this Methods Research Project they may be sent by mail to the Task Order Officer named below at: Agency for Healthcare Research and Quality, 5600 Fishers Lane, Rockville, MD 20857, or by email to epc@ahrq.hhs.gov.

[List signers in two columns]:

[Insert name]

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Agency for Healthcare Research and Quality

Stephanie Chang M.D., M.P.H.
Director
Evidence-based Practice Center Program
Center for Evidence and Practice Improvement
Agency for Healthcare Research and Quality

[Insert name]
Task Order Officer
Center for Evidence and Practice Improvement
Agency for Healthcare Research and Quality

[Preface for a Methods Guide paper]

The Agency for Healthcare Research and Quality (AHRQ), through its Evidence-based Practice Centers (EPCs), sponsors the development of evidence reports and technology assessments to assist public- and private-sector organizations in their efforts to improve the quality of health care in the United States. The reports and assessments provide organizations with comprehensive, science-based information on common, costly medical conditions and new health care technologies and strategies. The EPCs systematically review the relevant scientific literature on topics assigned to them by AHRQ and conduct additional analyses when appropriate prior to developing their reports and assessments.

Strong methodological approaches to systematic review improve the transparency, consistency, and scientific rigor of these reports. Through a collaborative effort of the Effective Health Care (EHC) Program, the Agency for Healthcare Research and Quality (AHRQ), the EHC Program Scientific Resource Center, and the AHRQ Evidence-based Practice Centers have developed a Methods Guide for Comparative Effectiveness Reviews. This Guide presents issues key to the development of Systematic Reviews and describes recommended approaches for addressing difficult, frequently encountered methodological issues.

The Methods Guide for Comparative Effectiveness Reviews is a living document, and will be updated as further empiric evidence develops and our understanding of better methods improves.

If you have comments on this Methods Guide paper, they may be sent by mail to the Task Order Officer named below at: Agency for Healthcare Research and Quality, 5600 Fishers Lane, Rockville, MD 20857, or by email to epc@ahrq.hhs.gov.

[List signers in two columns]:

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Agency for Healthcare Research and Quality

[Insert name]
Task Order Officer
Center for Evidence and Practice Improvement
Agency for Healthcare Research and Quality

Investigator Affiliations (optional)

The list of investigators can be repeated here along with their institutional affiliations.

Acknowledgments

List the names of individuals who provided special help with the report. See suggested language on the SRC secure site at http://www.epc-src.org/src/.

Key Informants

Provide the following description and list: with names, degrees, institution affiliation, city, and State. This can be a one-or two column format. List individuals in alphabetical order.

[Sample Description and List of Key Informants, *for all reports, except Technical Briefs*]

In designing the study questions, the EPC consulted several Key Informants who represent the end-users of research. The EPC sought the Key Informant input on the priority areas for research and synthesis. Key Informants are not involved in the analysis of the evidence or the writing of the report. Therefore, in the end, study questions, design, methodological approaches, and/or conclusions do not necessarily represent the views of individual Key Informants.

Key Informants must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their role as end-users, individuals with potential conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any conflicts of interest.

The list of Key Informants who provided input to this report follows:

Dejana Braithwaite, Ph.D., M.Sc.
Carol Franck Buck Breast Care Center
University of California Comprehensive Cancer Center
San Francisco, CA

Gareth Evans, M.B., B.S., M.D., FRCP
Professor in Medical Genetics and Cancer Epidemiology
Department of Clinical Genetics
St. Mary's Hospital, Whitworth Park
Manchester, UK

Caryl J. Heaton, D.O.
Associate Professor and Vice-Chair of Family Medicine
New Jersey Medical School, University of Medicine & Dentistry of New Jersey
Newark, NJ
Patient/consumer 1
State
Name can be withheld for privacy protection

[Sample Description and List of Key Informants for Technical Briefs]

Technical Briefs should include the names and affiliations Key Informants and Peer Reviewers. The lists should be introduced by the following descriptions of the functions of these experts:

Key Informants

In designing the study questions, the EPC consulted a panel of Key Informants who represent subject experts and end-users of research. Key Informant input can inform key issues related to the topic of the technical brief. Key Informants are not involved in the analysis of the evidence or the writing of the report. Therefore, in the end, study questions, design, methodological approaches and/or conclusions do not necessarily represent the views of individual Key Informants.

Key Informants must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their role as end-users, individuals with potential conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any conflicts of interest.

The list of Key Informants who provided input to this report follows:

Technical Expert Panel

Provide the following description and list: with names, degrees, institution affiliation, city, and State. This can be in a one- or two-column format. List individuals in alphabetical order.

[Sample Technical Expert Panel (TEP) Description and List. *Note: Technical Briefs do not have TEPs.*]

In designing the study questions and methodology at the outset of this report, the EPC consulted several technical and content experts. Broad expertise and perspectives were sought. Divergent and conflicted opinions are common and perceived as healthy scientific discourse that results in a thoughtful, relevant systematic review. Therefore, in the end, study questions, design, methodologic approaches, and/or conclusions do not necessarily represent the views of individual technical and content experts.

Technical Experts must disclose any financial conflicts of interest greater than $5,000and any other relevant business or professional conflicts of interest. Because of their unique clinical or content expertise, individuals with potential conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any potential conflicts of interest identified.

The list of Technical Experts who provided input to this report follows:

Dejana Braithwaite, Ph.D., M.Sc.*
Carol Franck Buck Breast Care Center
University of California Comprehensive Cancer Center
San Francisco, CA
Gareth Evans, M.B., B.S., M.D., FRCP
Professor in Medical Genetics and Cancer Epidemiology
Department of Clinical Genetics

St. Mary's Hospital, Whitworth Park
Manchester, UK
Caryl J. Heaton, D.O.
Associate Professor and Vice-Chair of Family Medicine
New Jersey Medical School, University of Medicine & Dentistry of New Jersey
Newark, NJ
*Provided input on Draft Report

Peer Reviewers

Provide following description and list: with peer reviewers' names, degrees, institution affiliation, city, and State. The list can be one or two columns. List individuals in alphabetical order.

[Sample Description and List of Peer Reviewers]

Prior to publication of the final evidence report, EPCs sought input from independent Peer Reviewers without financial conflicts of interest. However, the conclusions and synthesis of the scientific literature presented in this report does not necessarily represent the views of individual reviewers.

Peer Reviewers must disclose any financial conflicts of interest greater than $5,000 and any other relevant business or professional conflicts of interest. Because of their unique clinical or content expertise, individuals with potential non-financial conflicts may be retained. The TOO and the EPC work to balance, manage, or mitigate any potential non-financial conflicts of interest identified.

The list of Peer Reviewers follows:

Louise Acheson, M.D., M.S.
Professor of Family Medicine, Oncology, and Reproductive Biology
Case Western Reserve University
Cleveland, OH
Joann A. Boughman, Ph.D.
Executive Vice President
American Society of Human Genetics
Bethesda, MD

Sample Structured Abstract

Alzheimer's Disease and Cognitive Decline

Structured Abstract

Objectives. To assess whether previous research on purported risk or protective factors for Alzheimer's disease (AD) and cognitive decline is of sufficient strength to warrant specific recommendations for behavioral, lifestyle, or pharmaceutical interventions/modifications targeted to these endpoints.

Data sources. MEDLINE® and the Cochrane Database of Systematic Reviews. Additional studies were identified from reference lists and technical experts.

Review methods. A group of experts in the field developed the list of factors to be evaluated in preparation for an upcoming National Institutes of Health (NIH) Office of Medical Applications of Research (OMAR) State-of-the-Science Conference addressing the prevention of AD and cognitive decline. We grouped the factors into the following categories: nutritional factors, medical conditions and prescription and nonprescription medications, social/economic/behavioral factors, toxic environmental factors, and genetics. Outcomes of interest were a diagnosis of AD or cognitive decline. Both observational and intervention studies were evaluated. Studies were evaluated for eligibility and quality, and data were abstracted on study design, demographics, intervention or predictor factor, and cognitive outcomes.

Results. A total of 25 systematic reviews and 250 primary research studies were included. Only a few factors showed a consistent association with AD or cognitive decline across multiple studies, including both observational studies and randomized controlled trials (when available). Such factors associated with increased risk of AD and cognitive decline were: diabetes, epsilon 4 allele of the apolipoprotein E gene (APOE e4), smoking, and depression. Factors showing a fairly consistent association with decreased risk of AD and cognitive decline were: cognitive engagement and physical activities. A consistent association does not imply that findings were robust, as the data were often limited, and the quality of evidence was typically low. In addition, the risk modification effect of reported associations was typically small to moderate for AD, and small for cognitive decline. Some of the factors that did not show an association with AD or cognitive decline in this review may still play an influential role in late-life cognition, but there was not sufficient evidence to draw this conclusion. Many of the factors evaluated are not amenable to randomization, so rigorous observational studies are required to assess their effect on AD and cognitive decline.

Conclusions. The current research on the list of putative risk or protective factors is largely inadequate to confidently assess their association with AD or cognitive decline. Further research that addresses the limitations of existing studies is needed prior to be able to make recommendations on interventions.

Sample Table of Contents

Contents

[Continue with results using the format above. The table of contents includes the chapter heading and two levels of subheads.]

Section 5: Additional Considerations

In this section we discuss several issues peculiar to the publication of Federal Government documents.

Use of AHRQ Logos

AHRQ branding design elements must be included on all reports. The AHRQ managing editor will be responsible for including the HHS/AHRQ logos and branding design as required.

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Contract project officers may, in certain situations, elect to allow contractors to share rights to the materials by negotiating a licensing agreement after AHRQ receives the deliverable. For further information, contact your AHRQ managing editor.

Reprinting Copyrighted Materials. At times, report authors at Evidence-based Practice Centers may wish to incorporate copyrighted materials in their reports. Authors should work with their AHRQ managing editor to help determine what permissions they need to obtain before submitting their report to AHRQ. A copy of the permission must accompany any report delivered to AHRQ. See the AHRQ Publishing and Communications Guidelines, Appendix 1-A for forms and guidance related to use of copyrighted materials.

Fair Use Doctrine. A common issue for AHRQ employees, grantees, and contractors is the use of material from copyrighted publications in reports or documents to be published by AHRQ. The ability to directly quote short passages of text relevant to a particular point is protected under the Fair Use doctrine. Short passages (typically several paragraphs or less) can be quoted without permission, but the copyrighted sources must be indicated in the text or by a footnote or EndNote®. The ideas from a copyrighted publication can be summarized in your own words, but the author(s) of the original idea should be referenced.

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Tables, Graphs, Figures, and Charts. If you create a diagram, graph, or a new table using only part of the data from a copyrighted source, you may be able to cite the item without asking for permission to reprint. If changes are minor and you are using most of the original content, request permission from the source to adapt the material. The changes have to be significant so that the item is sufficiently different than its source to be considered a distinct product. Once permission to adapt the material is received, the item would appear with a statement along the line of, "Adapted from A. Donabedian. Explorations in quality assessment and monitoring: the definition of quality and approaches to its assessment, Volume I. Ann Arbor, MI: Health Administration Press, 1980."

Reprinting from the Internet. There are several problems with reprinting materials taken from Web sites (other than a publisher's) or from Internet newsgroups or other discussion forums (such as Weblogs). In the case of discussion groups, current copyright law suggests that posted material is considered as under copyright by the author (even if the author's name is clearly a pseudonym); otherwise, cite the newsgroup and date of posting. Material posted on a Web site may be under copyright by the author of the site or, as often occurs on Weblogs, it may have been posted in violation of copyright. Do not assume that such material is in the public domain. For text and graphics, the original source should be consulted to ensure the accuracy of quoted or copied material found on a Web site other than that of the original writer or publisher. Text can be misquoted, and even photographs can be altered using graphics-editing software.

Citing copyrighted works. Authors must provide credit to the copyrighted source in a footnote. Example: "Source: World Health Organization, 1990. Used with permission." Include the complete citation for the source of the copyrighted material in the report's reference list. If a table or figure is compiled from data from a number of sources, list each of the sources in a footnote and provide the complete citation in the reference list. Indicate whether you have adapted a table or figure.

Additional information on copyright and the use of copyrighted materials can be obtained from the U.S. Copyright Office (www.copyright.gov), which has links to copyright management organizations, such as the Copyright Clearance Center (www.copyright.com). The Clearance Center helps businesses and academic institutions pay fees for uses of copyright material that do not fall under the Fair Use protections. The AHRQ Information Resource Center participates in the Copyright Clearance Center. Work through your AHRQ managing editor to obtain assistance from the AHRQ Information Resource Center.

Section 6: Report Submission Requirements

This section provides guidance on how to submit your report to AHRQ. Generally all reports should be submitted via ScholarOne™ Manuscripts. TA Program reports should be submitted via ScholarOne and emailed to the TOO. Future Research Needs reports and some methods reports are only emailed to the TOO. Contact the relevant project officer if you are uncertain whether or not a report should be submitted via ScholarOne.

Additional elements for submission may be required for the EPC Program (such as the PRISMA checklist). Consult ScholarOne Resources for additional information. This can be found on the in the AE training materials folder on Scientific Resource Center secure site at Resources /ScholarOne (formerly Manuscript Central).

The final report will be posted as downloadable PDF files on AHRQ's Effective Health Care Program Web site (www.effectivehealthcare.AHRQ.gov). A link will be provided on the main AHRQ Web site (www.ahrq.gov) taking readers to the Effective Health Care Program Web site. AHRQ will also arrange to have the final files SGML-coded and sent to the National Library of Medicine (NLM) for incorporation into its Health Services/Technology Assessment Text (HSTAT) electronic library. A link will be provided from AHRQ's Web site, and from the Effective Health Care Program Web site to the HSTAT site.

The exception is final Technology Assessment Program (TAP) reports, which are posted on the Centers for Medicare & Medicaid Services Web site and linked to the AHRQ Web site. Currently, these reports are not listed in the HSTAT library. TAP reports do not undergo editing by OC.

Important: As the preparer of a report, you are the guarantor of its completeness and accuracy. An AHRQ OC editor will direct editorial queries regarding report content to you for resolution.

Following is a list of parameters for file submission:

- The following major report elements are required:
    - The front matter. (See Section 1 for a list of front matter elements.)
    - The evidence summary, single spaced, with references (Technical Briefs or other short reports are exceptions).
    - The body of the report, single spaced, with figures and tables embedded in it.
    - References.
    - The Appendixes. Full evidence tables should be submitted separately as appendixes. Authors may refer to the SRDR file instead if the files have been marked as public in SRDR.

- Other required elements:
    - Alternate text descriptions for all graphics, figures, images, and Web page screenshots in the report in a separate electronic document, for the draft and final report. Refer to Section 3 for a sample template.
    - Separate original files for figures in documents that may be printed or desktop published, such as the evidence summary. This allows the AHRQ editor to edit the figures without re-creating them. Figures created in Word should be provided as separate Word documents. Please create other figures in Adobe Illustrator and save as .eps. Minimum resolution is 300 dpi. Microsoft Visio and PDF are not acceptable formats for figures.
    - Disposition of comments table (for final reports)
- The major report elements of the draft or final report can be submitted in two Microsoft® Word files: file 1— the body of the report, including front matter, the evidence summary, and all tables and figures embedded in their locations in the body; and file 2— the appendixes. The reference management database (such as EndNote) should be "delinked" from the electronic file.
    - Be sure the file is really final, or that you have a backup next-to-last version, before you do so. If in doubt when to delink, consult with the Task Order Officer or AHRQ managing editor. Ensure that any data that would be pulled from a database are included in the final submission. EndNote® can generate a final stand-alone reference list.
    - The draft report must be submitted in these two files, to facilitate upload to the EHC Web site.
- The major report elements of the final report can be submitted as three files: file 1-the front matter, table of contents and evidence summary; file 2-the main report; and file 3-the appendixes. This option does not require delinking of the reference management database.
    - For final reports uploaded with internal links: The OC managing editor will review the linked final report for problems with references and figure and table callouts and return it to the EPC authors to fix. The EPC authors will address these problems, delink the report, and return it to OC. The OC editor will proceed with other edits in tracked changes and return the paper to the author to review as usual.
    - For the TA Program, reports must be delinked at the time of submission. OC does not edit these reports.
- The ScholarOne system has a limit of 100 embedded images for Word documents. If your document has more than 100 embedded images, we recommend splitting your

document into two or more separate files and uploading those in place of a single file. Please note that although an embedded image may be one image, if it is large, such as a table, it will be considered to be more than a single image by the system. Contact the Scientific Resource Center if you need help uploading your files.

- Name files clearly to indicate what they are.
- Upload or submit all files simultaneously.
- Figures and summary tables can be placed either within the chapter after their callouts or at the end of each chapter (there is no need to put callouts in bold type or insert "below"; "Figure X" in parentheses is sufficient). Provide the table or figure number in the title.
- The report should be checked for copyrighted materials. Include with the final report a copy of any permissions you received to use copyrighted material. Be sure that all copyrighted material includes attribution to source. See the AHRQ Publishing and Communications Guidelines, Appendix 1-A for forms and guidance related to use of copyrighted materials.

Table 4. Placement and pagination for reports

Report Component	Page Numbering	Notes
Front and Back Covers (printed reports traditionally numbered covers 1, 3, and 4)	N/A	AHRQ will prepare the front cover for all reports, and covers 1, 3, and 4 for printed reports.
Title Page		This page begins the small roman numbering of the report. It is counted as "i." However, the page number is not shown. AHRQ will provide report and publication number.
Key Messages page	II	This page will contain the Key Messages section with two headers - "Purpose of Review" and "Key Messages".
Statements page	iii	This will contain the funding statement/disclaimer, distribution rights notice, statement about accessibility, financial disclosure statement, and suggested citation.
Preface	iv	This appears on a right, odd-numbered page. (This old practice is retained for convenience in printing.)
Acknowledgments Key Informants Technical Expert Panel (if relevant) Peer Reviewers	v-vi	Place in front matter, in the sequence listed.

Report Component	Page Numbering	Notes
Structured Abstract	vii	Keep to a single page.
Contents	viii	The contents page(s) must be numbered with a small roman numeral. NOTE: List only the chapter titles plus two levels of headings in the Contents. List Figures and Tables under their own heading after the chapter listing.
Evidence Summary	ES-1, ES-2	A maximum of 6,000 words for full reports; about 4,000 words for Technical Briefs. Includes its own reference list.
Introduction Methods Results Discussion	Begins with page 1. Consecutive numbering from this point on.	Page numbering of each section follows that of preceding text.
References		Must begin on a new page. Format 2-column in 9 pt. type
Acronyms		Optional
Glossary		Optional
Tables and Figures		Number text tables and figures consecutively throughout the document, in the order in which they are called out in the text, regardless of their placement in the document.
Summary Tables		Summary tables should be included within the body of the report. Longer, more detailed tables should be placed in an Appendix. Contents must list all Table titles.
Appendixes: Search Strategy; List of Excluded Studies; Evidence Tables:	Number appendix pages consecutively within each appendix. Use the Appendix letter and a hyphen before the page number (e.g., A-1, A-2; B-1, B-2, etc.)	Appendixes should be labeled and placed in the order in which they are called out in the text. Use a page to provide the name of the report and any other information to identify and link this online submission with the print report. Each section of the Appendix labeled at the top, Appendix A, Appendix B, and so on. Only the first page of each Appendix should be labeled in this way. These documents may be in landscape orientation.
Appendix A*: Search Strategy	Number pages consecutively.	Use a page to provide the name of the report and any other information to identify and link this online submission with the print report.
Appendix B*	Number pages consecutively.	Use a page to provide the name of the report and any other information to identify and link this online submission with the print report.

Report Component	Page Numbering	Notes
List of Excluded Studies		
Appendix C*: Evidence Tables	Number pages consecutively.	Use a page to provide the name of the report and any other information to identify and link this online submission with the print report.

*The order of the Appendixes may vary, according to the order in which they are called out in the text of the report.