

## **Appendix 1 (as supplied by the authors): Detailed methods**

### Task Force Methods

For every topic selected by the Task Force, a topic working group is formed. This working group consists of two to five Task Force members who volunteer to join the working group (one of whom is selected as chair), a scientific research manager from the Public Health Agency of Canada and members from the Evidence Review and Synthesis Centre, as well as from partner organizations, if any such organizations are involved for the particular topic. The topic working group develops the analytic framework and key questions, which define the scope and focus of the review and influence the associated workload. The Task Force as a whole and partner organizations (if applicable) review and approve these documents. The chair or co-chair of the working group then sends the analytical framework and key questions to the Evidence Review and Synthesis Centre and they begin the review.

The Evidence Review and Synthesis Centre and its clinical experts develop a protocol based on information received from the working group. The protocol contains information about the literature search, the analytic framework, the research questions (key and contextual), and the project schedule. The working group reviews and discusses the protocol and revises it if necessary.

The protocol is also sent to all members of the Task Force for approval and comment. The protocol is then peer reviewed by experts in the topic area. If a partner organization is involved, that organization also reviews the protocol. Comments received from task force members, peer reviewers and partners (if applicable) are incorporated into the protocol. The final protocol is then approved first by the working group and then by the broader Task Force.

The Evidence Review and Synthesis Centre conducts a systematic review of the available evidence according to the final, approved protocol.

The draft systematic review is peer reviewed and comments are incorporated. The systematic review is finalized once the members of the working group and the Task Force have reviewed and approved the revisions. Subsequently, the chair of the working group and the scientific research manager discuss potential recommendations and clinical considerations arising from the evidence. They then draft the recommendations and share them with the topic working group. Once the topic working group has approved the recommendations, they are then shared with the entire Task Force.

During a meeting of the Task Force, the Evidence Review and Synthesis Centre presents the findings of the systematic review, and the working group presents the draft recommendations. Members of the Task Force discuss the systematic review and recommendations and may propose changes to the wording of the recommendations. The Task Force votes on the draft recommendations. The timeline from approval of the protocol to presentation of the draft recommendations to the Task Force is usually 9 to 15 months.

Following the discussion and voting during a meeting of the Task Force, the chair of the topic working group revises the recommendations and shares the revised version with all members for the Task Force for approval. The approved statement of recommendations is then sent to external peer reviewers for comment.

Comments provided by peer reviewers are shared with the topic working group who decide whether any changes are required. If substantial revisions are required or if the recommendations are controversial, the entire Task Force may be asked to review and discuss the comments. If no substantial revisions are required, the Task Force approves the final recommendations at its next meeting or by email if no meeting is scheduled. If substantial revisions are deemed necessary, the working group makes the changes and brings the recommendations back to the entire Task Force for approval. The Canadian Task Force Procedures Manual provides more details on Task Force methods.<sup>1</sup>

### Breast Cancer Systematic Review

The United States Preventive Services Task Force's review searched The Cochrane Central Register of Controlled Trials and Cochrane Database of Systematic Reviews (through the fourth quarter of 2008), Medline (January 2001 to December 1, 2008), reference lists, and Web of Science for published studies, and the Breast Cancer Surveillance Consortium for screening mammography data. For this update, the same search terms and databases were used, and all searches were updated to October 15, 2010. One search strategy was altered: the limits on study methods were removed in Medline, allowing randomized controlled trials, meta-analyses, and systematic reviews to be left in the search. Reference lists of key articles were reviewed.

The EMBASE database was not searched, as it was not searched in the original review. An additional search was conducted to discover patient preferences and values; the Cumulative Index to Nursing and Allied Health Literature and Medline were searched from 2000 to March 10, 2010. Also, a search was done for particular subgroups including rural and remote populations, Aboriginal populations, and ethnic subgroups. Medline was searched for reviews (in English) back to 1950. Medline was searched for screening frequency. A specific search of the grey literature was also done in order to find relevant Canadian statistics.

Eligible studies included women aged 40 and older, without pre-existing breast cancer and not considered to be at high risk for breast cancer on the basis of family history of breast or ovarian cancer or other personal risk factors, such as abnormal breast pathology or deleterious genetic mutations.

Study designs for effectiveness of screening (mammography, clinical breast exam, or breast self exam) included randomized controlled trials or meta-analyses with breast cancer mortality or all cause mortality as outcomes. For harms, studies of various designs and multiple data sources were included. Harms included radiation exposure, pain during procedures, patient anxiety and other psychological responses, consequences of false-positive and false-negative test results, and overdiagnosis.

The titles and abstracts were reviewed in duplicate by members of the synthesis team; any article marked for inclusion by either team member went on to full text rating. Full text inclusion, quality assessment, and data abstraction were done by two people. All disagreements were resolved through discussions. Data were abstracted by two people using a standard format. The exception to this process was studies related to the contextual questions of costs, patient preferences, subpopulations, and grey literature, for which abstraction was done by one person. More details on the methods used for the breast cancer review can be found elsewhere.<sup>2</sup>

## References

1. Canadian Task Force on Preventive Health Care. Procedure Manual. Available: <http://canadiantaskforce.ca/methods-manual-2011.html> (accessed 2011 Oct. 17).
2. Fitzpatrick-Lewis D, Hodgson N, Ciliska D, et al. Breast Cancer Screening. Available: [http://canadiantaskforce.ca/recommendations/2011\\_01\\_eng.html](http://canadiantaskforce.ca/recommendations/2011_01_eng.html) (accessed 2011 Oct. 17).