Asking the Right Questions: The Refinement of Topics for Systematic Reviews

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Objectives

- Why topic refinement?
- What is refinement?
- What makes a good question?
- Description of guiding principles
Major Stages in Producing a Systematic Review

**Topic Nomination and Development**
- Identify topic
- Feasibility scan
- Apply Effective Health Care Topic Selection Criteria
- Determine appropriateness for systematic review development

**Topic Refinement**
- See next figure for details of Topic Refinement

**Systematic Review**
- Develop protocol
- Select studies
- Abstract, analyze and synthesize data
- Apply Effective Health Care Methods Guidance for Effectiveness Reviews
- Report conclusions and implications for decisionmaking
The Process of Topic Refinement in AHRQ’s EPC Program

Original Nominated Topic
- Topic nomination/development team sends the EPC a stakeholder-nominated topic that has met program selection criteria for topic refinement.
- Topic refinement begins with documents that include the following:
  1) Description of the proposed topic question and the needs of the nominator.
  2) Summary of a preliminary literature scan for topic feasibility.
  3) Possible preliminary PICOTS.

Initial Topic Refinement
- Review preliminary literature scan, and supplement as needed, to: 1) Understand the topic and decisional dilemmas; 2) Become familiar with extent of literature.
- Informal interviews with local topical experts to understand technical aspects.
- Develop provisional PICOTS, key questions, and analytic framework.
- Identify key issues for discussion with stakeholders, related to technical issues, controversies, stakeholder values and priorities.

Key Informant Interviews
- Identify and recruit key informants to represent relevant stakeholder groups.
- Schedule interviews with deliberate composition of each interview group.
- Conduct key informant interviews.
- Integrate and synthesize key informant input to make indicated changes in PICOTS, key questions, and/or analytic framework.

Synthesis and Reporting
- Consider relevant input (literature review, topical experts, Key Informants) that might indicate need for refinement in PICOTS, key questions, or analytic framework.
- For specific unsettled questions, consider technical issues, stakeholder perspectives, and/or guiding principles to make balanced decisions.
- Provisional summary report that transparently documents the evolution of the topic and clearly explains the rationale behind refinement decisions.

Public Posting
- The refined topic is posted on the AHRQ website for public comment.
- The topic refinement team, the systematic review team, or both review all public comments and make further (usually minor) revisions.
- The topic moves to the systematic review team for development of the systematic review protocol.

AHRQ=Agency for Healthcare Research and Quality; EPC=Evidence-based Practice Center; PICOTS=Population, Intervention, Comparator, Outcome, Timing, Setting.
Why topic refinement?
“A prudent question is one-half of wisdom.” - Francis Bacon
Nominated Topics

May not be ideally formulated:

- To be most relevant for the public health or clinical issue of interest
- To be feasibly researchable
- To reflect state of the science or technical aspects of the topic
- Imprecise or overly inclusive
- Overly narrow
What is Refinement?

Refinement implies making changes to attain a better fit with:

- The health care question or dilemma of interest
- Priorities or values of stakeholders and users of the systematic review
- State of the science and technical aspects of the topic
- Systematic review methods
What is Refinement?

- May involve narrowing the focus of some elements of the PICOTS*
- May involve expanding some elements
- May involve both
- Means formulating good key questions and analytic framework

* PICOTS: Population; Intervention; Comparator; Outcome; Timing; Setting
Key Questions

- Guide the systematic review
- Reflect clinical logic and decisional dilemmas
- Precise, detailed, and clearly focused
- At a minimum, include PICO: population(s), intervention(s), comparator(s), outcomes(s)
- PICO elements and relationships specifically and unambiguously described
- Formulated without judgment about extant literature
Question

How effective is risk assessment for pressure ulcers?
Key Questions

KQ 1:
For adults in various patient settings\textsuperscript{a}, is use of any risk assessment tool\textsuperscript{b} effective in reducing the incidence of pressure ulcers compared with other risk assessment tools, clinical judgment, and/or usual care?

\textsuperscript{a} Including acute care hospital, long-term care facility, and rehabilitation facility.

\textsuperscript{b} Such as the Braden Scale, Norton Scale, Waterlow Scale, or others.
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For **adults** in various patient settings\(^a\), is use of any risk assessment tool\(^b\) effective in reducing the incidence of pressure ulcers compared with other risk assessment tools, clinical judgment, and/or usual care?

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Guiding Principles
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- Fidelity to Original Nomination
- Relevance
- Research Feasibility
- Responsiveness to Stakeholder Input
- Reduction of Investigator Bias
- Transparency
- Suitable Scope
Applying the Principles

- Frequent need to balance principles against each other
- Relative importance of principles may vary
- Recommendations not meant to prescribe how principles are applied or balanced…only that they are considered
- Investigators must use judgment and discretion
Guideline Groups as Partners in Topic Refinement

- Start with well-formulated PICOTS, Key Questions, and Analytic Framework
- Understand the principles of topic refinement
- Participate as Key Informants in interviews with other stakeholders
- Possible role as observer and/or participant in all Key Informant interviews
For More Information:


Available at: www.effectivehealthcare.ahrq.gov/reports/final.cfm.
Questions & Discussion