



# Evidence map of studies evaluating methods for conducting, interpreting, and reporting overviews of systematic reviews – Stage I

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We have no actual or potential conflicts of interest in relation to this presentation.

# Background

- Overviews of systematic reviews attempt to retrieve and summarise the results of reviews
- Steps for undertaking an overview mirror those of a systematic review, but with unique considerations
- Methods for conducting, interpreting, and reporting overviews of reviews are in their infancy
- To date, there has been no review mapping the evidence underpinning the methods used in overviews

# Why do we need to evaluate methods?

- Conclusions of overviews rest on the methods used
- The choice of methods has implications in terms of bias, efficiency, usability, and resource use
- Evaluation of methods allow us to make informed choices about the most appropriate methods

# Objectives

- Develop and populate a framework of methods that have, or may be used in conducting, interpreting, and reporting overviews (Stage I)
- Create an evidence map of studies that have evaluated these methods (Stage II)
- Identify and describe unique methodological challenges of overviews

# Stages of the research: Stage I

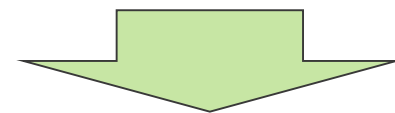
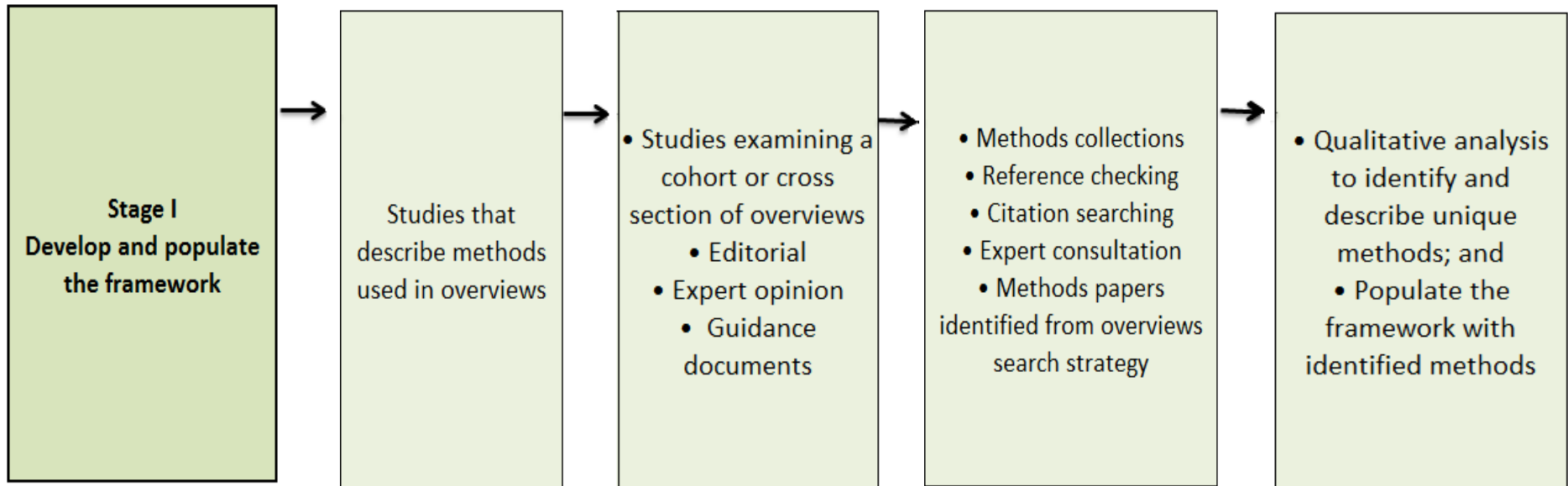
Stages in the  
development of the  
Evidence Map

Eligibility criteria

Sources

Search Methods

Analysis and Output



**Stage II**

# Stages of the research: Stage II

Stages in the  
development of the  
Evidence Map

Eligibility criteria

Sources

Search methods

Analysis and Output

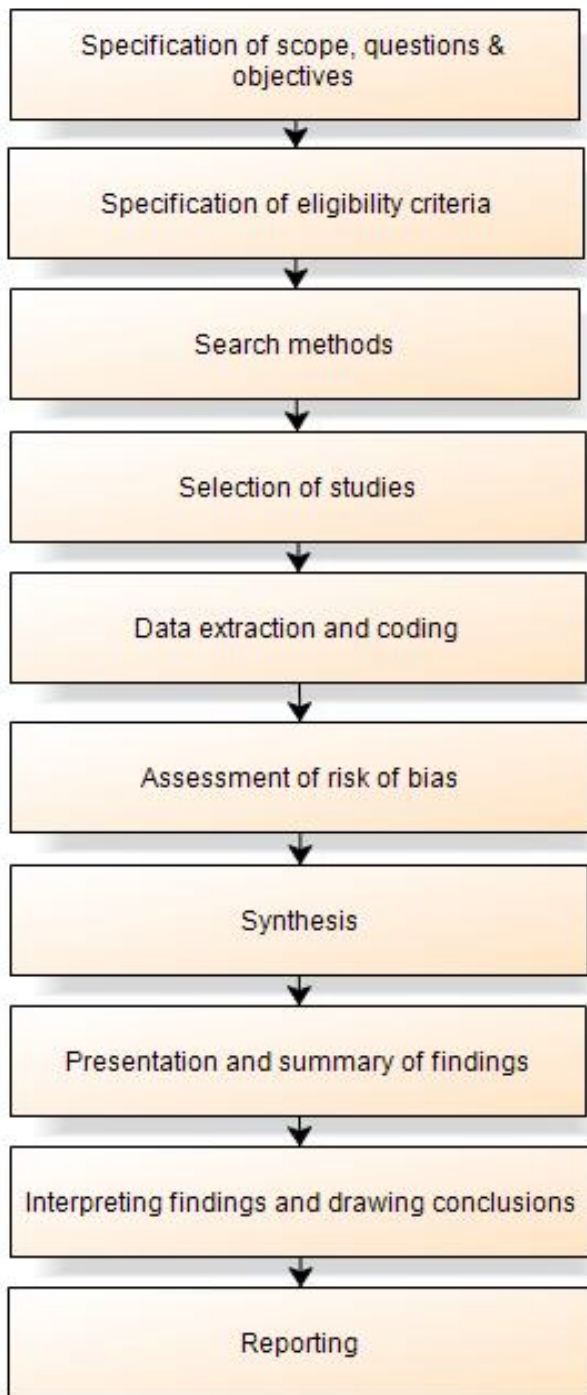
**Stage II**  
**Populate the evidence  
map**

Studies  
evaluating  
methods used  
in overviews

- Systematic reviews of studies evaluating methods
- Methods studies evaluating methods

- Methods collections
- Reference checking
- Citation searching
- Expert consultation
- Methods papers identified from overviews
- search strategy

Populate the evidence  
map with evaluations  
of methods and  
identify gaps



# Framework Stage I

A framework was piloted

The coding framework comprised codes that represent the steps in conducting an overview

- Methods
- Description, rationale and considerations

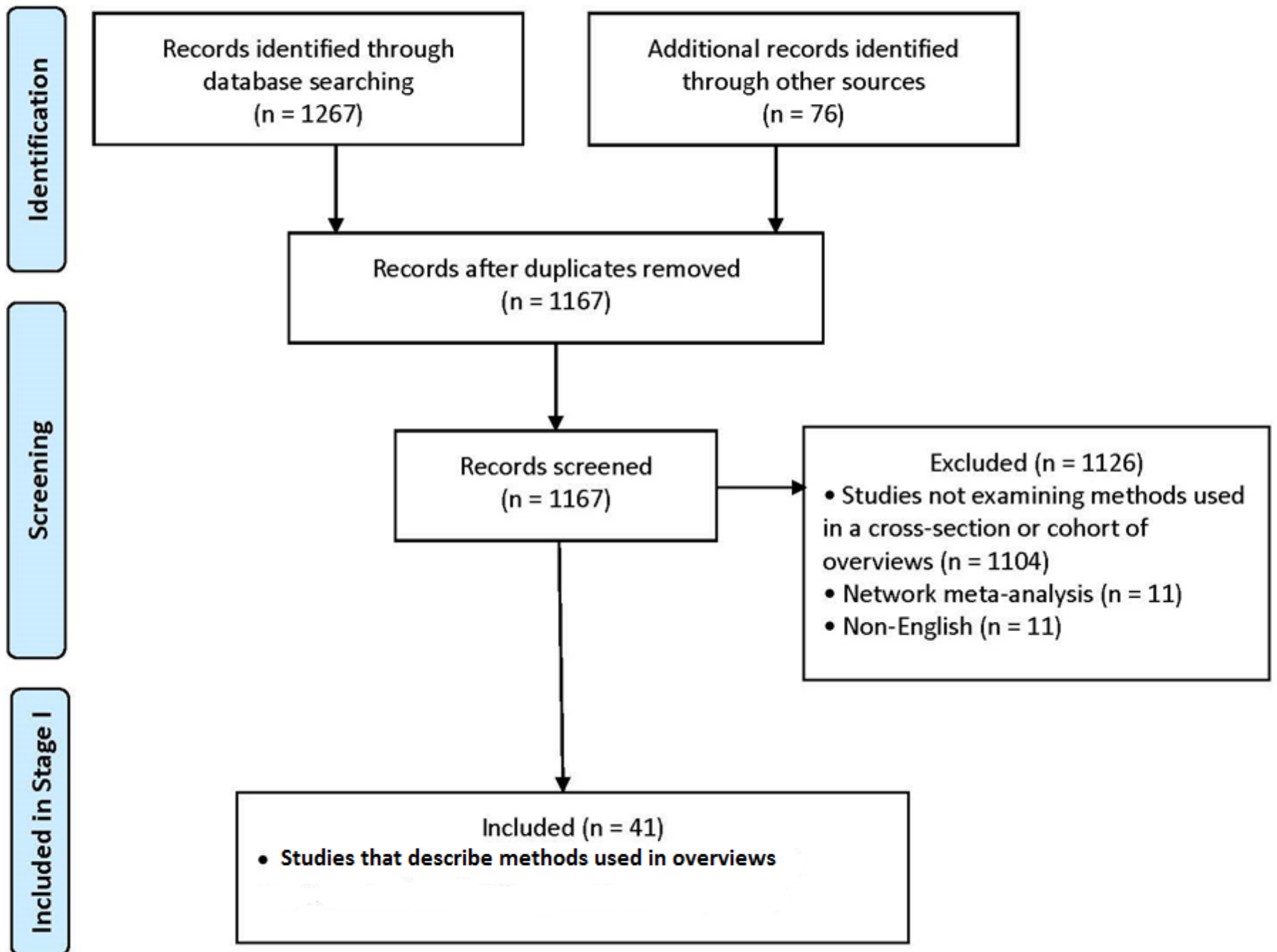
Additional codes were generated inductively from three articles

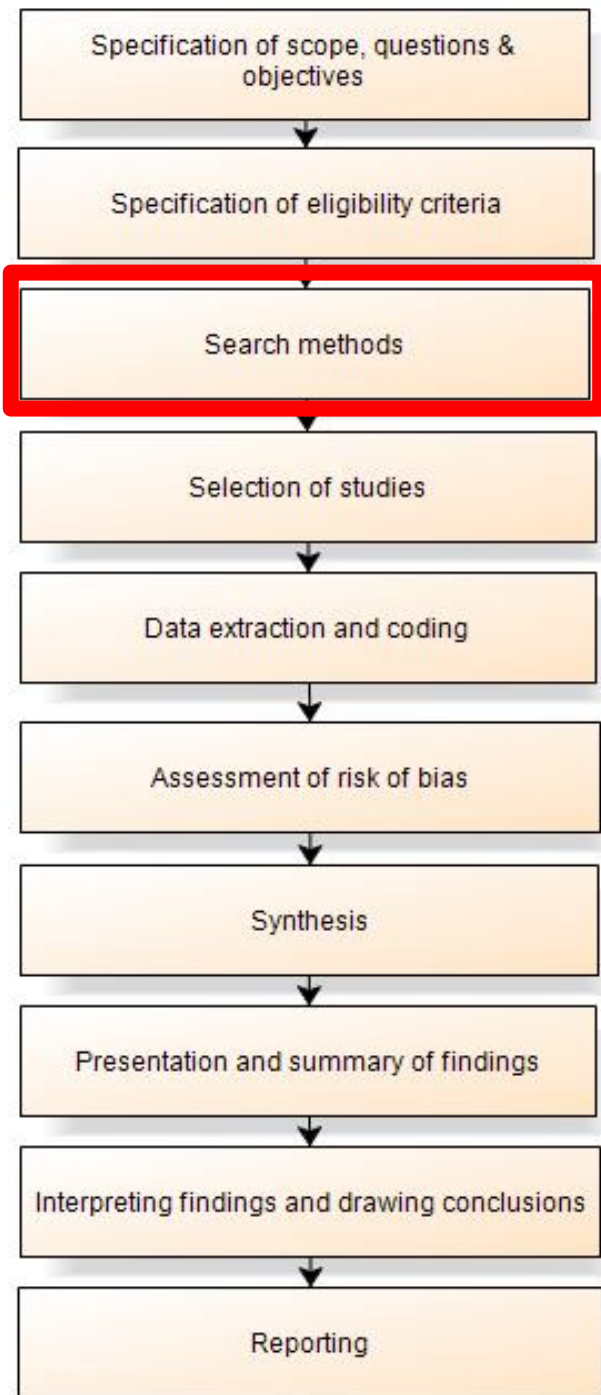
## Results - Stage I

- Preliminary results for stage I presented here









## Search methods for overviews

- Methods for identifying studies to be included in the overview
- The approach to searching may largely be the same as in systematic reviews
- However, there may be additional considerations specific to overviews

## Methods

## Options

Select sources to search

Limit to systematic review-specific sources

Limit to general bibliographic sources

Use both systematic review-specific sources and general bibliographic sources

Bibliographic review databases (e.g. Epistemonikos, DARE, Cochrane, Campbell, EPPI Evi...

Prospective SR registers (e.g. PROSPERO)

General bibliographic databases (e.g. EMBASE, PubMed, CINAHL)

Search strategies for systematic reviews

Use a systematic review filter

Use text mining

Use an ad hoc approach

Limit based on date

Cochrane filter, EMBASE filter, MEDLINE filter, PubMed filter

Used to create search strategies that are more objective based on a representative set of citations

Used to create a strategy by using selected keywords and their synonyms and combining the identified terms iteratively

Apply a date limit based on a pre-specified rationale related to PICO or other criteria (e.g. restrict from 1990 onward)

Search methods for additional primary evidence

Rerun strategies of included systematic reviews

Rerun a strategy specifically tailored to the overview question

Use pragmatic/ selective approaches

Limit to reviews that are assessed as being out-of-date

Rerun strategies of all included reviews regardless of date

Run the overview strategy to retrieve recent primary studies

Limit to circumstances where the body of evidence is weak

Limit search to aspects of the overview question not covered by existing reviews

Expert consultation, citation screening, etc.

Reporting

Report a PRISMA flow diagram

Report a strategy in full

Report reasons for not updating the strategies of the included systematic reviews

# Search Methods → Select sources

Methods

Options

Limit to systematic review-specific sources

Bibliographic systematic review databases

(e.g. Cochrane, Campbell, Epistemonikos, DARE, ...)

Prospective systematic review registers

(e.g. PROSPERO)

Limit to general bibliographic sources

(e.g. EMBASE, PubMed, CINAHL, PsycINFO, ...)

Use both systematic review-specific sources and general bibliographic sources

# Search Methods → Select sources → Limit to systematic review-specific

## Options

**Bibliographic  
systematic  
review  
databases**

(e.g.  
Epistemonikos,  
DARE, Cochrane,  
Campbell, EPPI  
Evidence  
Library,...)

**Prospective  
systematic  
review registers**

(e.g. PROSPERO)

## Description, rationale and considerations

**Description: Inclusion of  
sources specific to  
systematic reviews, such as  
bibliographic databases, or  
prospective review registers**

**Rationale and  
considerations: May  
increase the efficiency of  
production of the overview,  
and the coverage**

# Search Methods → Select sources

## Methods

## Options

Limit to systematic review-specific sources

Bibliographic systematic review databases

(e.g. Cochrane, Campbell, Epistemonikos, DARE, ...)

Prospective systematic review registers

(e.g. PROSPERO)

Limit to general bibliographic sources

(e.g. EMBASE, PubMed, CINAHL, PsycINFO, ...)

Use both systematic review-specific sources and general bibliographic sources

# Search Methods → Select sources → Limit to general bibliographic sources

Options

Description, rationale and considerations

General  
bibliographic  
databases

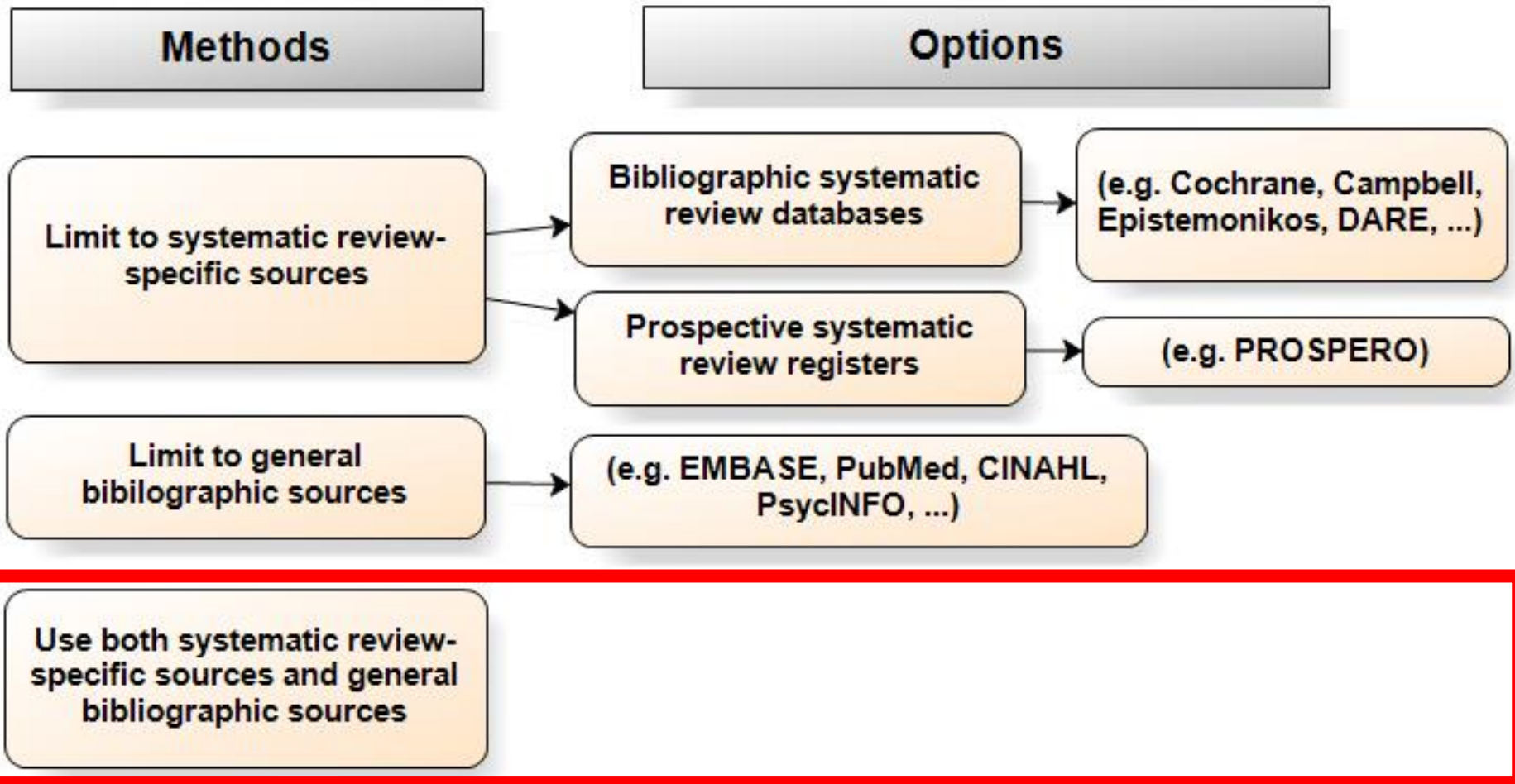


(e.g. EMBASE,  
PubMed, CINAHL,  
PsycINFO, ...)

Description: Selection of sources that are broad, such as general bibliographic databases

Rationale and considerations: Using general sources may increase coverage. Authors may have limited access to bibliographic databases or search interfaces

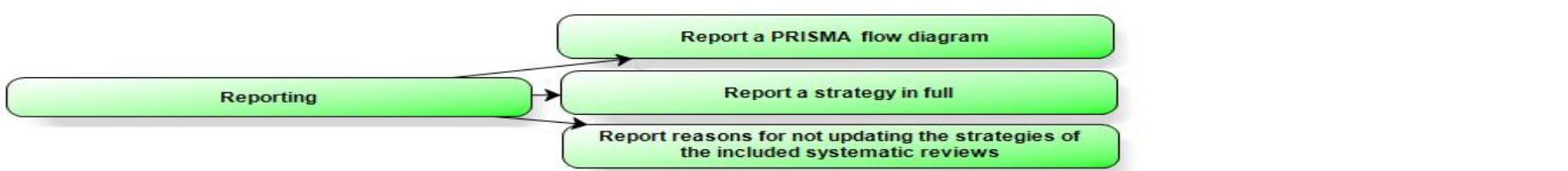
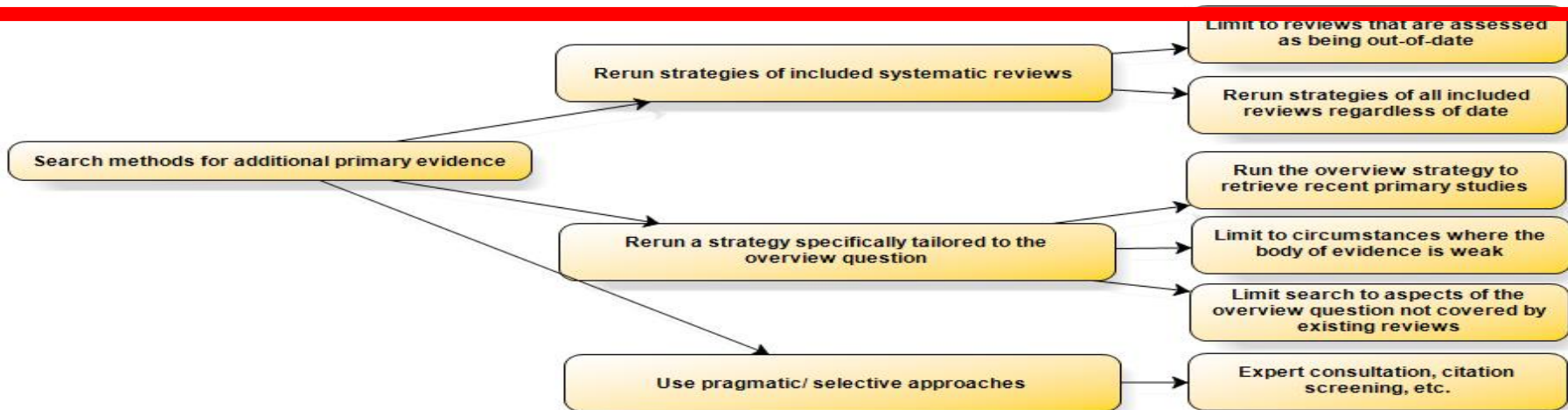
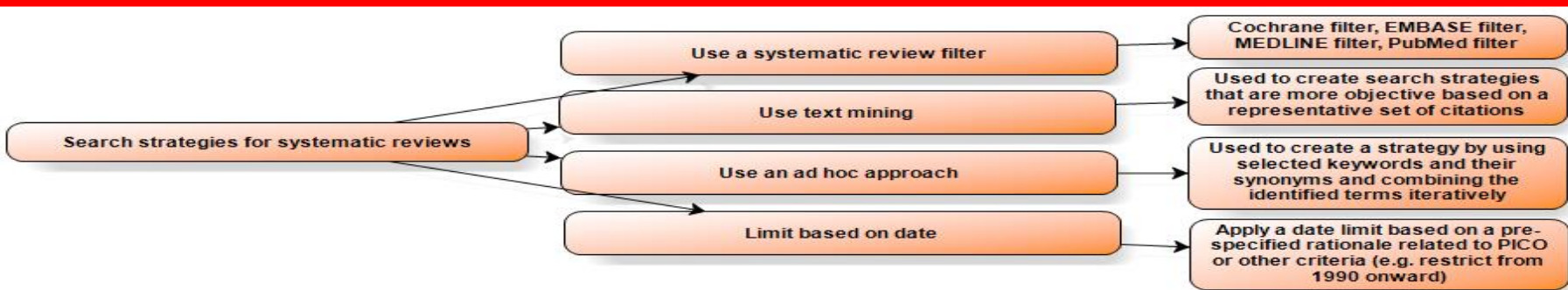
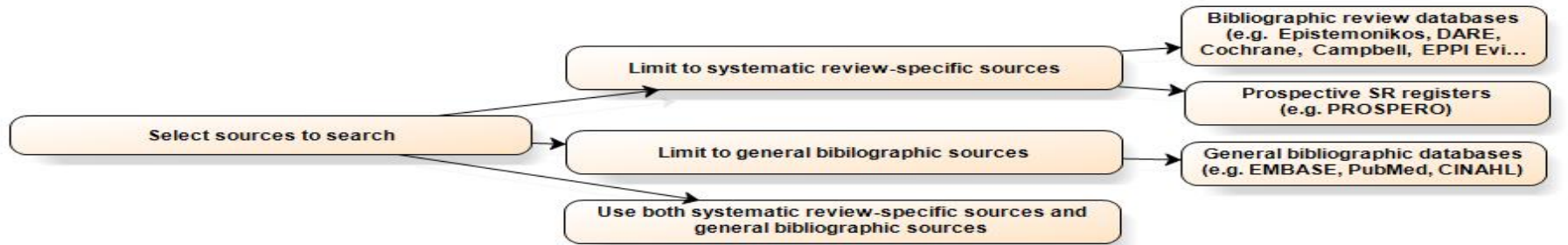
# Search Methods → Select sources





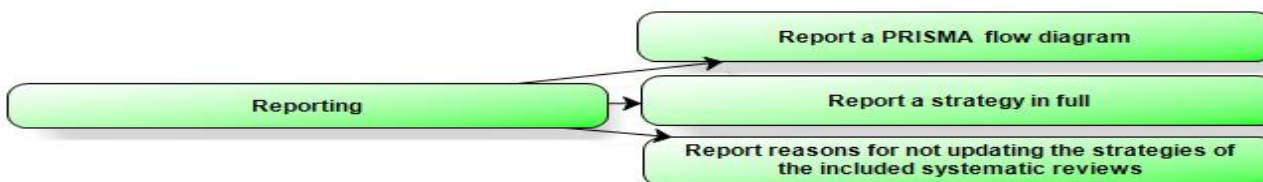
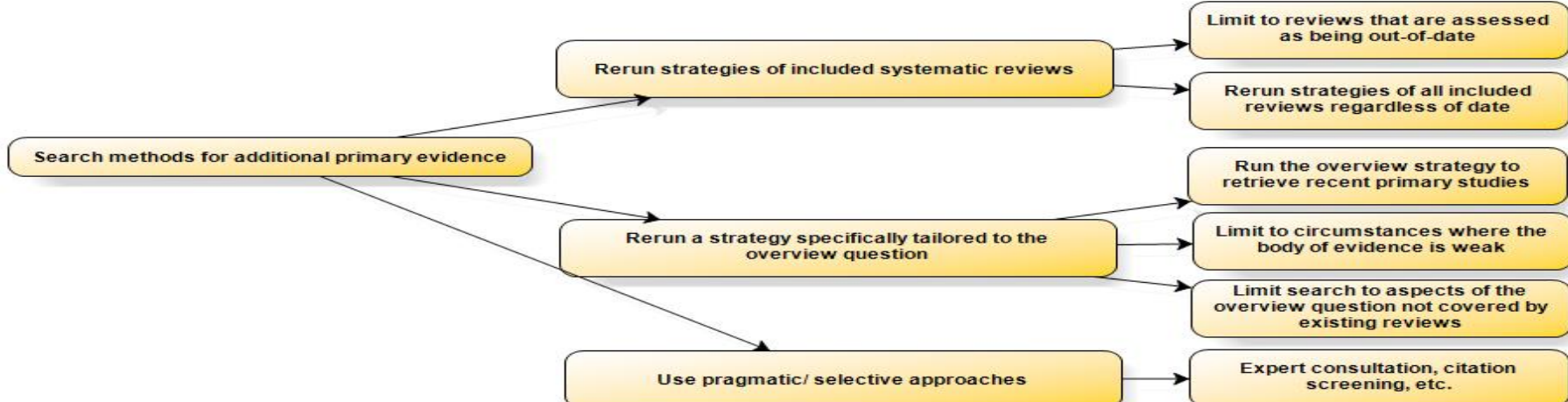
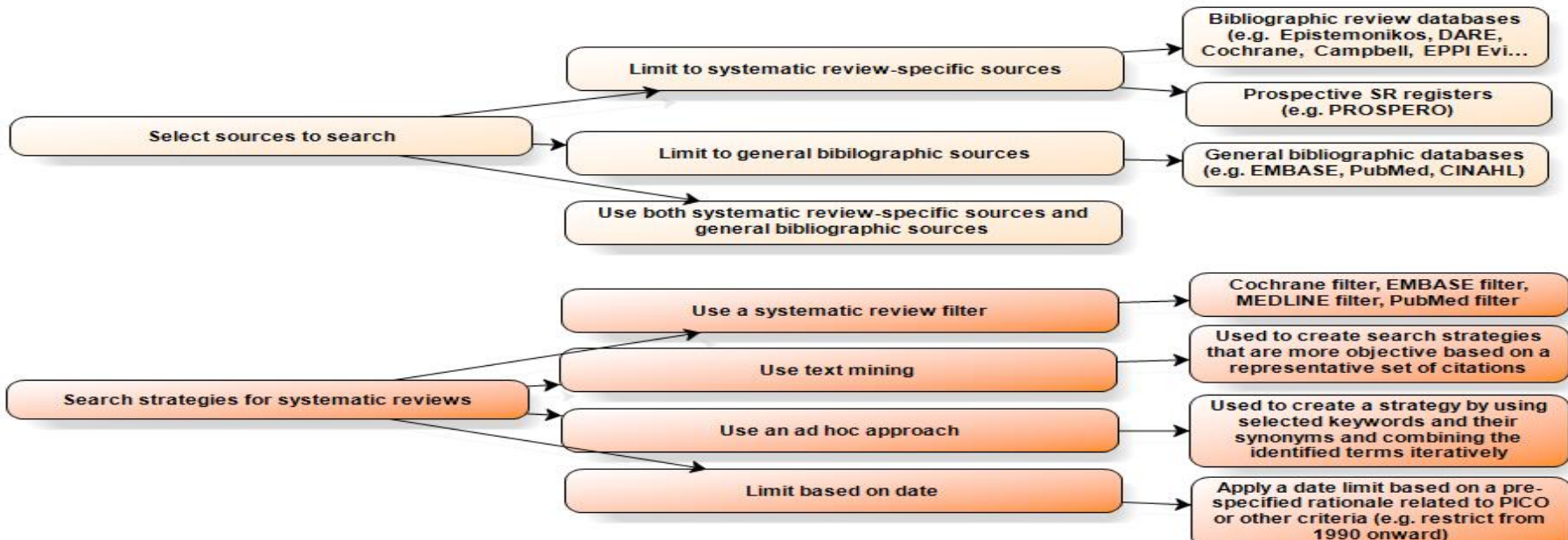
## Methods

## Options



## Methods

## Options



# Search methods for additional primary studies

## Methods

## Options

Rerun strategies of included systematic reviews

Limit to systematic reviews that are assessed as being out-of-date

Rerun strategies of all included systematic reviews regardless of date

Rerun a strategy specifically tailored to the overview question

Run the overview strategy to retrieve recent primary studies

Limit to circumstances where the body of evidence is weak

Limit search to aspects of the overview question not covered by existing reviews

Use pragmatic/ selective approaches

Expert consultation, citation screening, etc...

# Searching for additional primary studies →

## Rerunning strategies of included reviews

### Options

Limit to systematic reviews that are assessed as being out-of-date

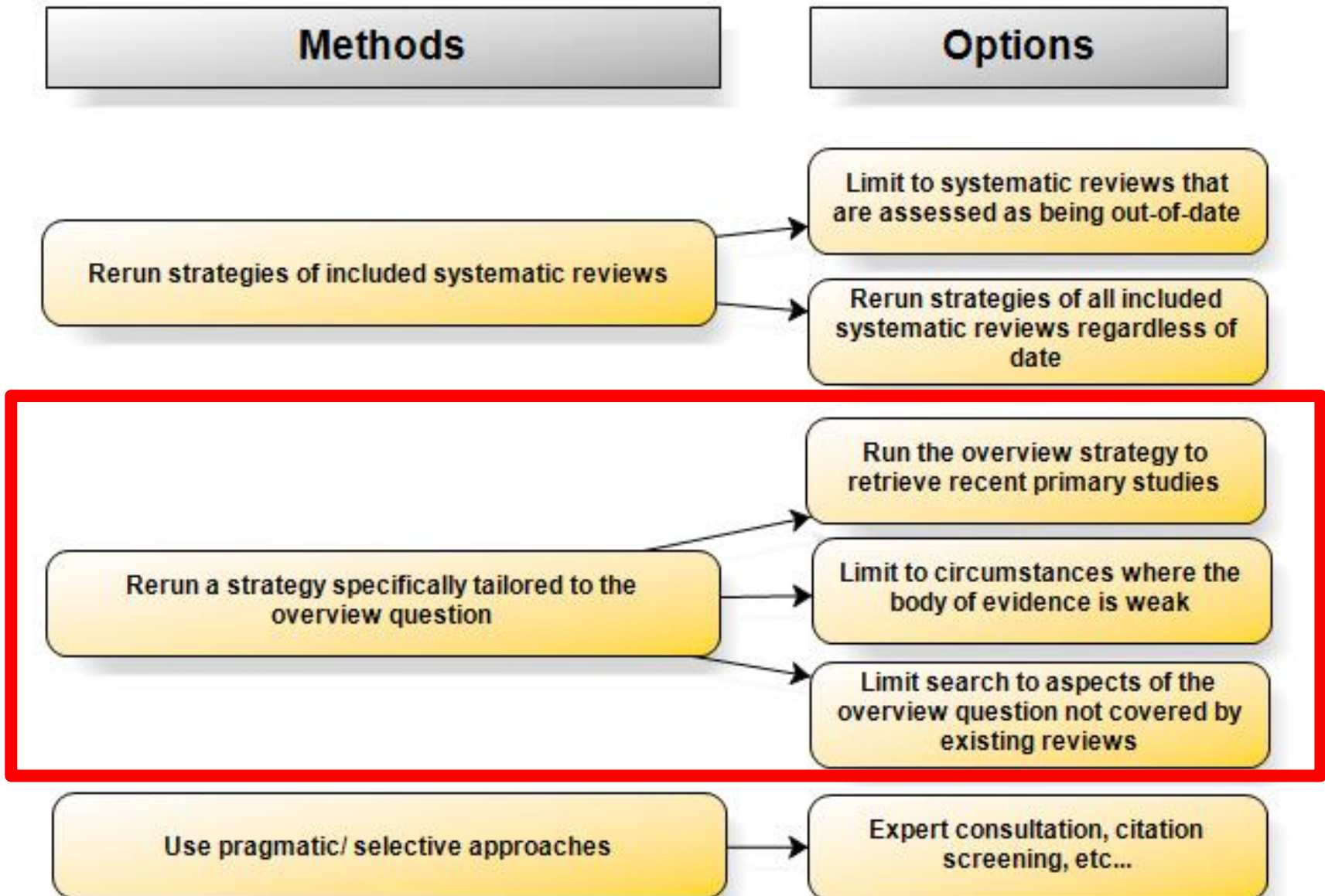
Rerun strategies of all included systematic reviews regardless of date

### Description, rationale and considerations

Description: Rerun strategies of included reviews to retrieve recent primary studies

Rationale and considerations: Could increase the currency of the overview, and comprehensiveness. However, it may decrease efficiency of production, and search strategies of the included reviews would need to have been reported

# Search methods for additional primary studies



# Searching for additional primary studies →

## Rerun a strategy specifically tailored to the overview question

### Options

Run the overview strategy to retrieve recent primary studies

Limit to circumstances where the body of evidence is weak

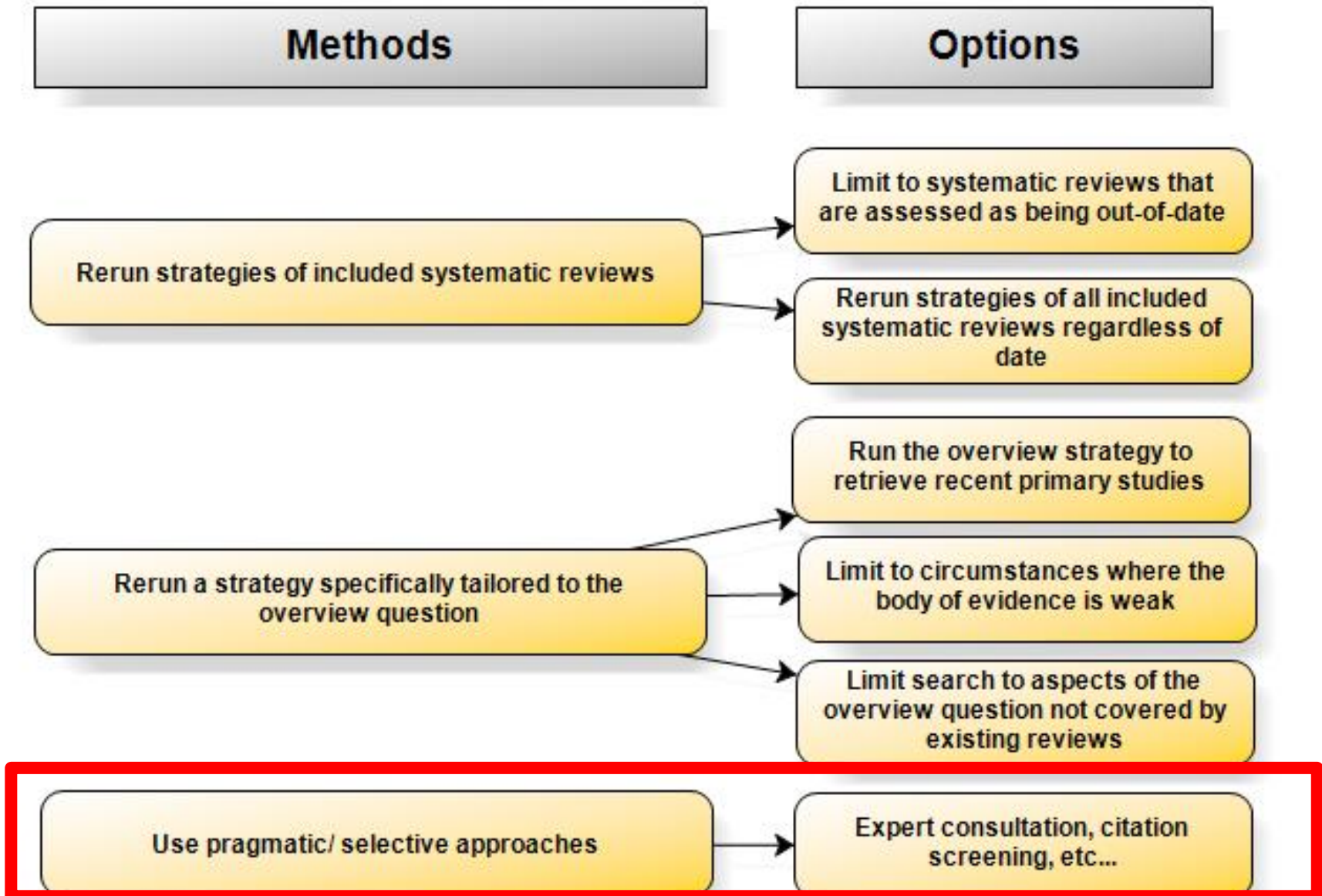
Limit search to aspects of the overview question not covered by existing reviews

### Description, rationale and considerations

**Description:** Run a strategy specifically tailored to identify primary studies related to the overview question

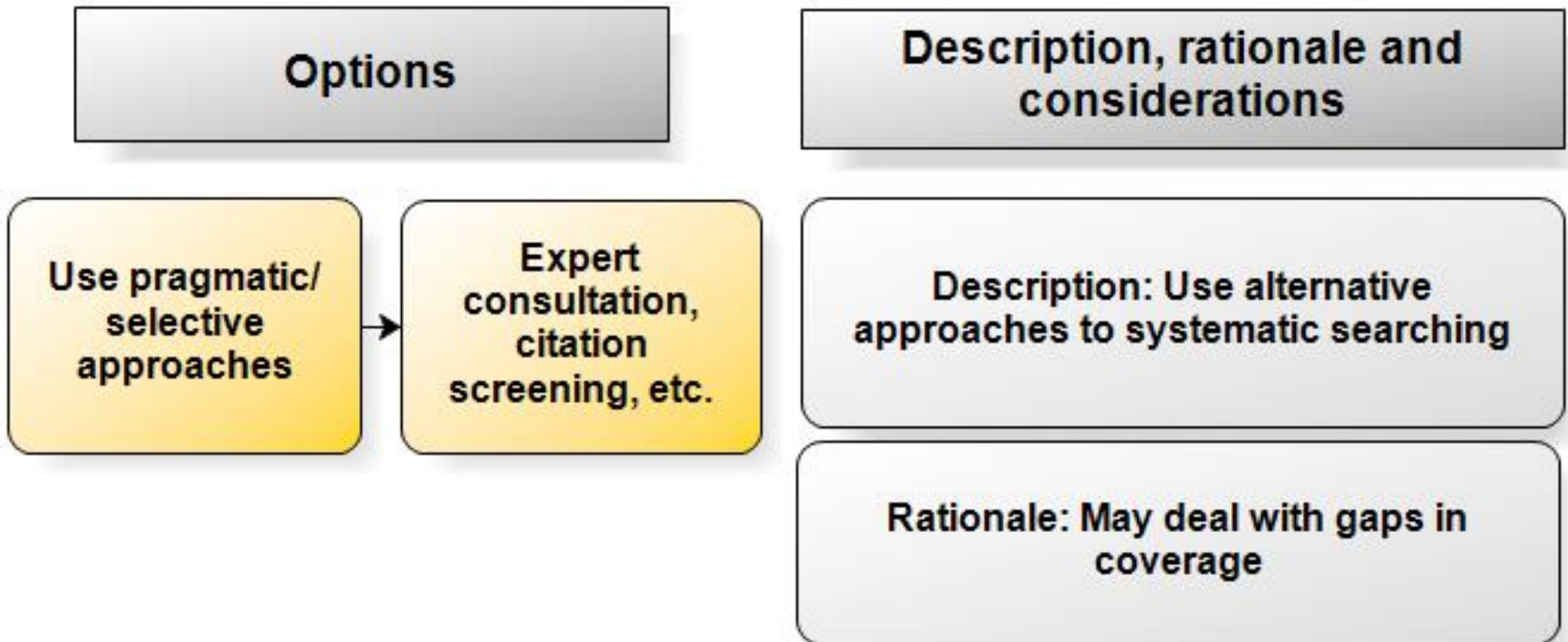
**Rationale and considerations:** Could increase the currency of the overview, and increase comprehensiveness

# Search methods for additional primary studies



# Searching for additional primary studies →

## Use pragmatic or selective approaches to searching for primary evidence





## Next steps

- Complete Stage I by populating the framework with all identified methods for conducting an overview
- Map empirical evaluations of methods to the framework (Stage II)

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# Stages of the research

- **DESIGN:** Two stage methodological evidence mapping study of reports of overviews of reviews
  - Stage I identifies the methods from studies
  - Stage II that evaluate those methods
- **DATA SOURCES:** Cochrane Methodology Register, Meth4ReSyn library, the Scientific Resource Center Methods library of the AHRQ Effective Health Care Program, Cochrane Colloquium abstracts, and Medline. Expert opinion and reference checking and citation searching were also conducted
- **STUDY SELECTION:** All descriptive methods studies and studies evaluating methods, with overviews of reviews as the main unity of analysis were included, excluding network meta-analyses and non-English language