

PRISMA-S:

an extension to the
PRISMA Statement for
reporting literature
searches in systematic
reviews



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Agenda

- Introduction to PRISMA-S
 - Why
 - How
- How to use PRISMA-S
- Differences between PRISMA 2009 and PRISMA-S
- Q&A



Introduction to PRISMA-S



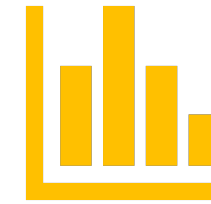
Why PRISMA-S?



PRISMA-S was created to help librarians, information specialists, and systematic reviewers transparently report searches

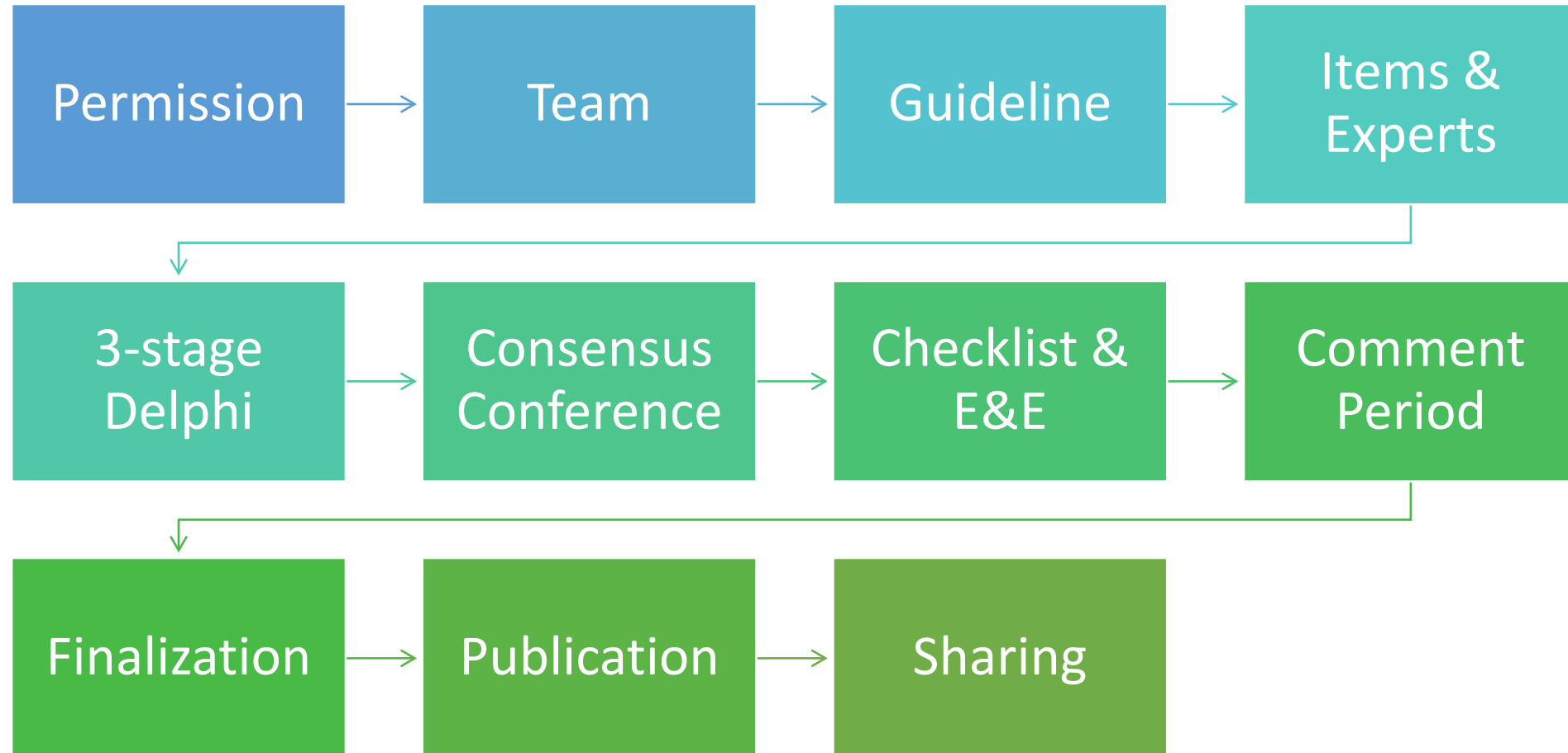


Estimates of search “reproducibility” of a search range from .004% to 14% of published systematic reviews



Builds on the PRISMA reporting guideline

Developing PRISMA-S



What is PRISMA-S?



Checklist with 16 items



Explanation and Elaboration

Examples of good reporting

Explanations of why it's important

Suggestions for where and how to report



How to use
PRISMA-S

Where can I find

PRISMA-S?

EQUATOR Network page:

<https://www.equator-network.org/reporting-guidelines/prisma-s/>



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Systematic Reviews
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Journal of the Medical
Library Association (April
2021 issue delayed)

PRISMA-S Checklist

SECTION/TOPIC	ITEM #	CHECKLIST ITEM
INFORMATION SOURCES AND METHODS		
Database name	1	Name each individual database searched, stating the platform for each.
Multi-database searching	2	If databases were searched simultaneously on a single platform, state the name of the platform, listing all of the databases searched.
Study registries	3	List any study registries searched.
Online resources and browsing	4	Describe any online or print source purposefully searched or browsed (e.g., tables of contents, print conference proceedings, web sites), and how this was done.
Citation searching	5	Indicate whether cited references or citing references were examined, and describe any methods used for locating cited/citing references (e.g., browsing reference lists, using a citation index, setting up email alerts for references citing included studies).
Contacts	6	Indicate whether additional studies or data were sought by contacting authors, experts, manufacturers, or others.
Other methods	7	Describe any additional information sources or search methods used.
SEARCH STRATEGIES		
Full search strategies	8	Include the search strategies for each database and information source, copied and pasted exactly as run.
Limits and restrictions	9	Specify that no limits were used, or describe any limits or restrictions applied to a search (e.g., date or time period, language, study design) and provide justification for their use.
Search filters	10	Indicate whether published search filters were used (as originally designed or modified), and if so, cite the filter(s) used.
Prior work	11	Indicate when search strategies from other literature reviews were adapted or reused for a substantive part or all of the search, citing the previous review(s).
Updates	12	Report the methods used to update the search(es) (e.g., rerunning searches, email alerts).
Dates of searches	13	For each search strategy, provide the date when the last search occurred.
PEER REVIEW		
Peer review	14	Describe any search peer review process.
MANAGING RECORDS		
Total records	15	Document the total number of records identified from each database and other information sources.
Deduplication	16	Describe the processes and any software used to deduplicate records from multiple database searches and other information sources.

Item 2. Multi-database searching

If databases were searched simultaneously on a single platform, state the name of the platform, listing all of the databases searched.

Examples

“The MEDLINE and Embase strategies were run simultaneously as a multi-file search in Ovid and the results de-duplicated using the Ovid de-duplication tool.” [51]

“A systematic literature search was performed in Web of Knowledge™ (including KCI Korean Journal Database, MEDLINE, Russian Science Citation Index, and SciELO Citation Index)....” [52]

Explanation

Authors may choose to search multiple databases at once through a single search platform to increase efficiency. Along with the name of the platform, it is necessary to list the names of each of the individual databases included as part of the search. Including information about using this approach in the text of the manuscript helps readers immediately understand how the search was constructed and executed. This helps readers determine how effective the *search strategy* (Table 2) will be for each database [1].

Suggested location for reporting

Report any *multi-database search* (Table 2) in the methods section and any supplementary materials. If space permits, report key individual database names in the abstract, even if run through a multi-database search.

Other Features

Glossary

Database: Within PRISMA-S, this refers to a literature database designed to search journal literature. Databases may be multidisciplinary or specialized. Many include specialized search features, subject headings, and structured data designed to facilitate easy and comprehensive searching. Examples include MEDLINE, EconLit, and PsycINFO.

Supplementary Materials

- Where
- What

"Due to the instability of supplementary materials published as part of a journal article, uploading complete documentation to a secure and permanent archive is recommended."



Getting started

Read Explanation & Elaboration

Plan out documentation



Documenting and reporting

Which PRISMA-S checklist items apply?

Refer to Explanation & Elaboration for what, how, why, and where



Familiar with PRISMA-S

Use the checklist

Refer to the Explanation & Elaboration for unfamiliar or lesser used items

Comparing PRISMA 2009 and PRISMA-S



PRISMA 2009 Items Relating to the Search

Item 7

Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.

Item 8

Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.

Item 17

Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.

Item 7:
Information
Sources

7 Information
Sources and
Methods items

1 Search
Strategies item

Item 8:
Search

2 Search
Strategies
items

Item 17:
Records

1 Managing
Records item

New

1 Peer Review
item

3 Search
Strategies
items

1 Managing
Records item

Information Sources and Methods

PRISMA 2009

- Databases
 - Dates of coverage
 - Platform or provider (E&E only)
- Contact with authors
- Date last searched
- All information sources
- Use of (E&E only)
 - Hand searching journals
 - Registries
 - Reference lists
 - Regulatory agency web sites
- Who developed and conducted the search (E&E only)

PRISMA-S

- Database names
 - Platform for each
- Multi-database searching
- Study registries
- Online or print sources for browsing/searching
 - Web sites, web searching
 - Conference proceedings
 - General
- Citation searching
- Contacts
- Other methods



Citation searching

- **PRISMA 2009 – Item 7 Explanation & Elaboration**
 - "In addition to searching databases, authors should report the use of supplementary approaches to identify studies, such as... checking reference lists"
- **PRISMA-S – Item 5**
 - Indicate whether cited references or citing references were examined, and describe any methods used for locating cited/citing references (e.g., browsing reference lists, using a citation index, setting up email alerts for references citing included studies).

What's gone?



Dates of coverage

Search Strategies

PRISMA 2009

- Full electronic search strategy for **at least one database**
- Any limits used
- "Could indicate how the search took into account other databases searched" (E&E only)
- Peer review (E&E only)

PRISMA-S

- Search strategies for **each database and information source**
- Limits and restrictions
 - No limits
 - Justification
- Search filters*
- Prior work*
- Updates*
- Dates of searches

For each
database and
information
source



Databases



Multi-database searches



Study registries



Online or print sources for
browsing/searching

Web sites, web searching
Conference proceedings
General



Citation searching



Contacts



Other methods

Using database-provided limit features should not be confused with using filters or inclusion criteria for the systematic review. For example, systematic review teams may choose to only include English-language randomized controlled trials. This can be done using limits, a combination of a filter and screening, or screening alone.

It should be clear to the reader which approach is used.





Limits and restrictions

*Specify that **no limits** were used, or describe **any limits or restrictions applied to a search** (e.g., date or time period, language, study design) and **provide justification** for their use.*

Report any limits or restrictions used or that no limits were used in the abstract, methods section, and in any supplementary materials, including the full search strategies (Item 8). Report the justification for any limits used within the methods section and/or in the limitations section.

Filters (Item 10) and Prior Work (Item 11)



Giving credit



Transparency of
sources



Assessment of
quality, validity



Acknowledgement
of modifications

Other New
Items

Updates

Dates of Search

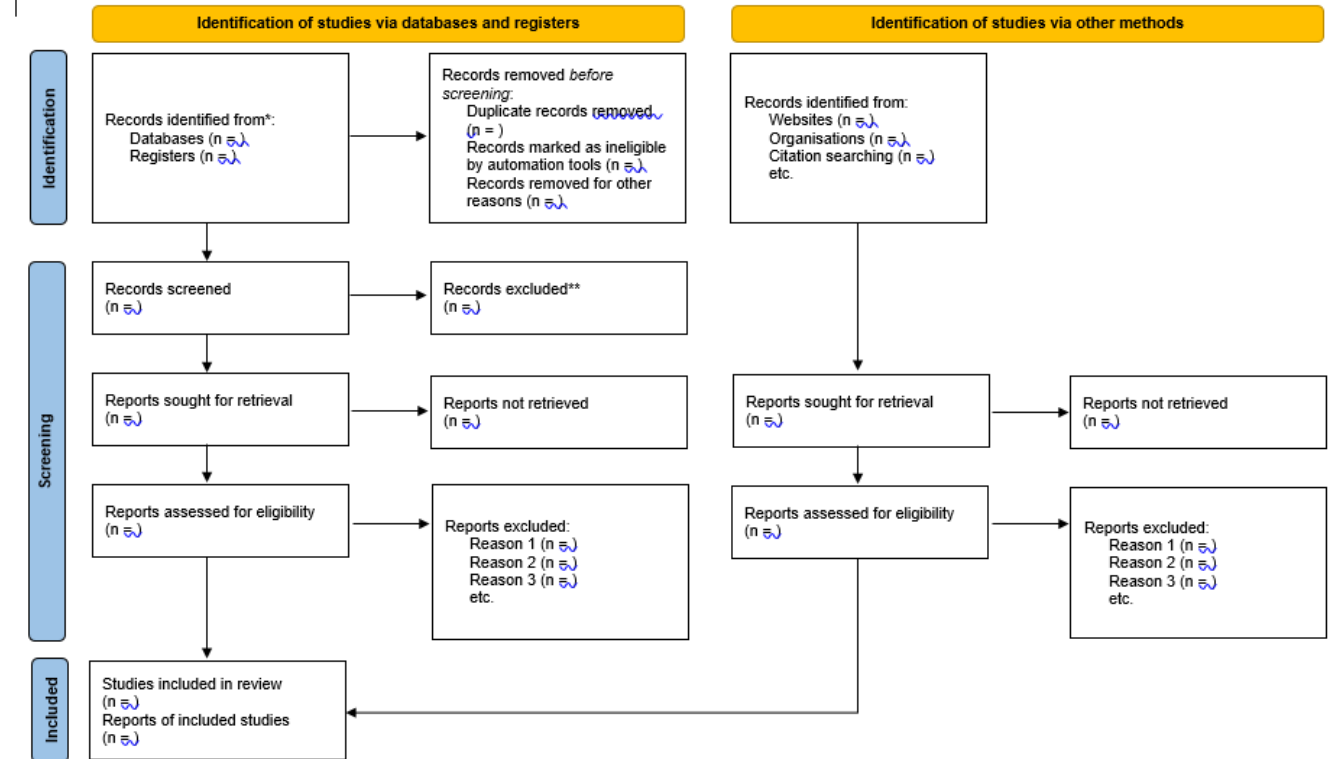
Peer Review

Deduplication

Total Records

Document the total number of records identified from each database and other information sources.

PRISMA 2020 flow diagram for new systematic reviews which included searches of databases, registers and other sources



*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers).

**If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools.

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: <http://www.prisma-statement.org/>

Supplementary Materials

- Do NOT rely on journals for documentation
 - Use a repository
 - Get a DOI for your work
 - Record **all** information in supplementary materials and duplicate as necessary for manuscript and abstract

Remember

PRISMA-S are minimal standards

PRISMA-S is designed to be flexible

PRISMA-S was designed for compatibility with PRISMA 2020

Not all items will be needed for every project

Use with PRISMA or other standards

Use for any literature review

New methods? That's why Item 7 is there. Just describe them!

Thank You, PRISMA-S Team!

- Melissa Rethlefsen*
- Jonathan Koffel*
- Shona Kirtley*
- Siw Waffenschmidt
- Patricia Ayala
- David Moher
- Matthew Page
- Consensus Conference Attendees
- Experts: Delphi Survey and Feedback





Thank you!
Questions?

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@PRISMAsearch