REPORTING

The PRISMA 2020 flow diagram: counting every box

For anyone filling in the diagram for a thesis or a journal.

By the end you will have every box counted, and the sums that show it holds.

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The flow diagram shows how the records your searches found became the studies in your review. It is mostly counting, and the counting goes easily once three words are kept apart: records, reports and studies.

This guide takes the diagram box by box, in the template's own words, and gives the sums that tie it together. It ends with a worked example and a tally sheet to print and write on.

Before you start

None of these needs to be final before you begin.

- The number of records each database gave you, with its platform.
- Any registers you searched, with their counts.
- Anything you found another way: websites, organisations, reference lists, citation searching.
- How many duplicates you removed, and how.
- Your title and abstract totals: records screened and records excluded.
- Your full-text totals: reports sought, not retrieved, assessed and excluded, each exclusion with its reason.
- Which of your included reports belong to the same study.

Choose your template

The PRISMA group publishes four Word templates, and two questions choose yours. Is this a new review, or an update of an earlier one? Did you search only databases and registers, or other sources as well?

Table 1. The four official templates, by their titles on the PRISMA site (checked 29 Sep 2026)

	Databases and registers only	Databases, registers and other sources
New review	“for new systematic reviews which included searches of databases and registers only”	“for new systematic reviews which included searches of databases, registers and other sources”
Updated review	“for updated systematic reviews which included searches of databases and registers only”	“for updated systematic reviews which included searches of databases, registers and other sources”

Rethlefsen and Page (2022) expect that “most systematic review teams will use” the template for new reviews with other sources. The templates are published under CC BY 4.0, which lets you use and adapt them “provided the original work is properly cited”, and you do not need permission to put the diagram in your review (Rethlefsen and Page 2022). The same page links a Shiny app that draws the diagram from your numbers (Haddaway et al. 2022).

Keep the box labels word for word

Keep every label as the template has it, and a reader who knows the template finds each number at once. The box after screening says “Records excluded”, for instance, and its footnote does the explaining.

Table 2. The box labels, word for word (PRISMA 2020 template for new reviews with other sources; Page et al. 2021, CC BY 4.0)

Where	Label
Column 1, first box	Records identified from*: Databases (n =) · Registers (n =)
Beside it	Records removed before screening: Duplicate records removed (n =) · Records marked as ineligible by automation tools (n =) · Records removed for other reasons (n =)
Column 1, second box	Records screened (n =)
Beside it	Records excluded** (n =)
Both columns	Reports sought for retrieval (n =)
Beside it	Reports not retrieved (n =)
Both columns	Reports assessed for eligibility (n =)
Beside it	Reports excluded: Reason 1 (n =) · Reason 2 (n =) · Reason 3 (n =) · etc.
Column 2, first box	Records identified from: Websites (n =) · Organisations (n =) · Citation searching (n =) · etc.
Last box	Studies included in review (n =) · Reports of included studies (n =)

The column headings are “Identification of studies via databases and registers” and “Identification of studies via other methods”. The bars down the left read “Identification”, “Screening” and “Included”. The two footnotes read:

- * “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.”

Tell records, reports and studies apart

PRISMA 2020 defines the three units in its glossary (Box 1 of the statement):

- **Record:** “The title or abstract (or both) of a report indexed in a database or website”.
- **Report:** “A document (paper or electronic) supplying information about a particular study”. It can be a journal article, a preprint, a conference abstract, a register entry, a dissertation and more.
- **Study:** the investigation itself. “A ‘study’ might have multiple reports.”

The diagram changes unit as it goes down. It counts records until screening ends, reports from retrieval on, and both studies and reports in the last box. One study published in two papers is one study and two reports (Rethlefsen and Page 2022). Cochrane asks for the same when it says to collate multiple reports “so that each study, rather than each report, is the unit of interest in the review” (MECIR C42).

Count what you identified

Give the number from each database, and from each register if you searched any, as footnote * suggests. You can keep the template’s “Databases (n =)” line for the total and list each database under it, as in Figure 1; the Word templates can be modified to add these numbers (Rethlefsen and Page 2022).

- **Name the platform with the database.** PRISMA-S item 1 reads: “Name each individual database searched, stating the platform for each.” So write “APA PsycInfo (Ovid)”, not “PsycInfo”.
- **Give one number per database for the whole review.** If you ran a search again before publishing, add its results to the first run’s in the diagram; your supplement can give each run’s count

(Rethlefsen and Page 2022).

- **Put registers in column 1.** Column 2 is for sources outside databases and registers.
- **Treat a citation index as a database.** Its records can go in column 1, "particularly if the records are assessed as part of the primary screening process". Otherwise, citation searching can go in column 2 (Rethlefsen and Page 2022).

Count what left before screening

This box has three lines, and any of them can be 0.

- **Duplicate records removed.** PRISMA-S item 16 asks you to "describe the processes and any software used to deduplicate records", so note both as you go.
- **Records marked as ineligible by automation tools.** The explanation and elaboration puts records that a classifier eliminated before screening here (item 8). If no tool removed records, the line is 0.
- **Records removed for other reasons.** If you use this line, say in a footnote what went in.

Count the screening

Records screened is what remained after the box above. **Records excluded** is how many you set aside at title and abstract.

A number is enough here. In the rationale for its standard C41, Cochrane says that "numbers of records are sufficient for exclusions based on initial screening of titles and abstracts", and reasons come in at full text. If automation tools excluded some of these records, footnote ** asks you to say how many were excluded by a person and how many by the tools.

Count the reports you sought

Reports sought for retrieval are the full texts you went looking for. **Reports not retrieved** are the ones you could not obtain, "regardless of reason": a journal your library cannot reach, an author who did not reply, a broken link (Rethlefsen and Page 2022).

This is where the unit changes from records to reports. Usually one record leads to one report, and the number carries straight across. If it does not (one record led you to two papers, say), keep the true counts and explain the difference in a footnote.

Give each excluded report one reason

Reports assessed for eligibility is the reports sought minus those not retrieved. **Reports excluded** lists your reasons, each with its count.

The explanation and elaboration asks for "the primary reasons for exclusion" (item 16a), so give each report one primary reason, and the reasons add up to the total. The Cochrane Handbook shows how to choose it: assess the criteria "in order of importance, so that the first 'no' response can be used as the primary reason for exclusion of the study" (section 4.6.4). Put your criteria in that order before you start, and each report's reason follows from them.

Count what you included

The last box has two lines, **Studies included in review** and **Reports of included studies**. The reports come from both columns together. Count the studies by grouping those reports, so the number of studies is never larger than the number of reports.

If you found ongoing studies, the explanation and elaboration asks you to report their number and their reports too.

Fill in the other-methods column

Websites, organisations and citation searching have a column of their own. It starts with "Records identified from:", goes straight to "Reports sought for retrieval", and then uses the same labels as column 1 down to "Reports excluded". Its reports join column 1's in the last box.

Count every record each source gave you, not only the ones you kept, as Rethlefsen and Page (2022) advise. They add: "If it is not possible or feasible to count all records, report what is feasible." The column has no screening boxes, so if you sought fewer reports than the records you found, say in a footnote how you chose them.

Some boxes in the template are grey. The statement's figure note says: "The boxes in grey should only be completed if applicable; otherwise they should be removed from the flow diagram." If nothing came from other methods, choose a template without this column.

Add the boxes for an updated review

The update templates add boxes for the earlier version of the review: "Previous studies", "Studies included in previous version of review" and "Reports of studies included in previous version of

review". The new searches sit under "Identification of new studies via databases and registers" and, in the template with other sources, "Identification of new studies via other methods". The last boxes give "New studies included in review", "Reports of new included studies", "Total studies included in review" and "Reports of total included studies".

Adapt it for a scoping review

JBI asks scoping reviewers to report with PRISMA-ScR, the PRISMA extension for scoping reviews (Tricco et al. 2018), and to note the number of duplicates found, which "must be presented in alignment with the PRISMA-ScR reporting guidance" (JBI Manual, sections 10.3 and 10.2.7). The boxes and sums in this guide carry across. Keep the labels as they are, and if some of what you included is not a study (a policy or a website, say), add a note under the diagram.

PRISMA-ScR is being updated. The JBI Manual says a new version "is due for release in 2026", and the PRISMA extensions page lists the update as under development (both checked 29 Sep 2026). Look again before you submit.

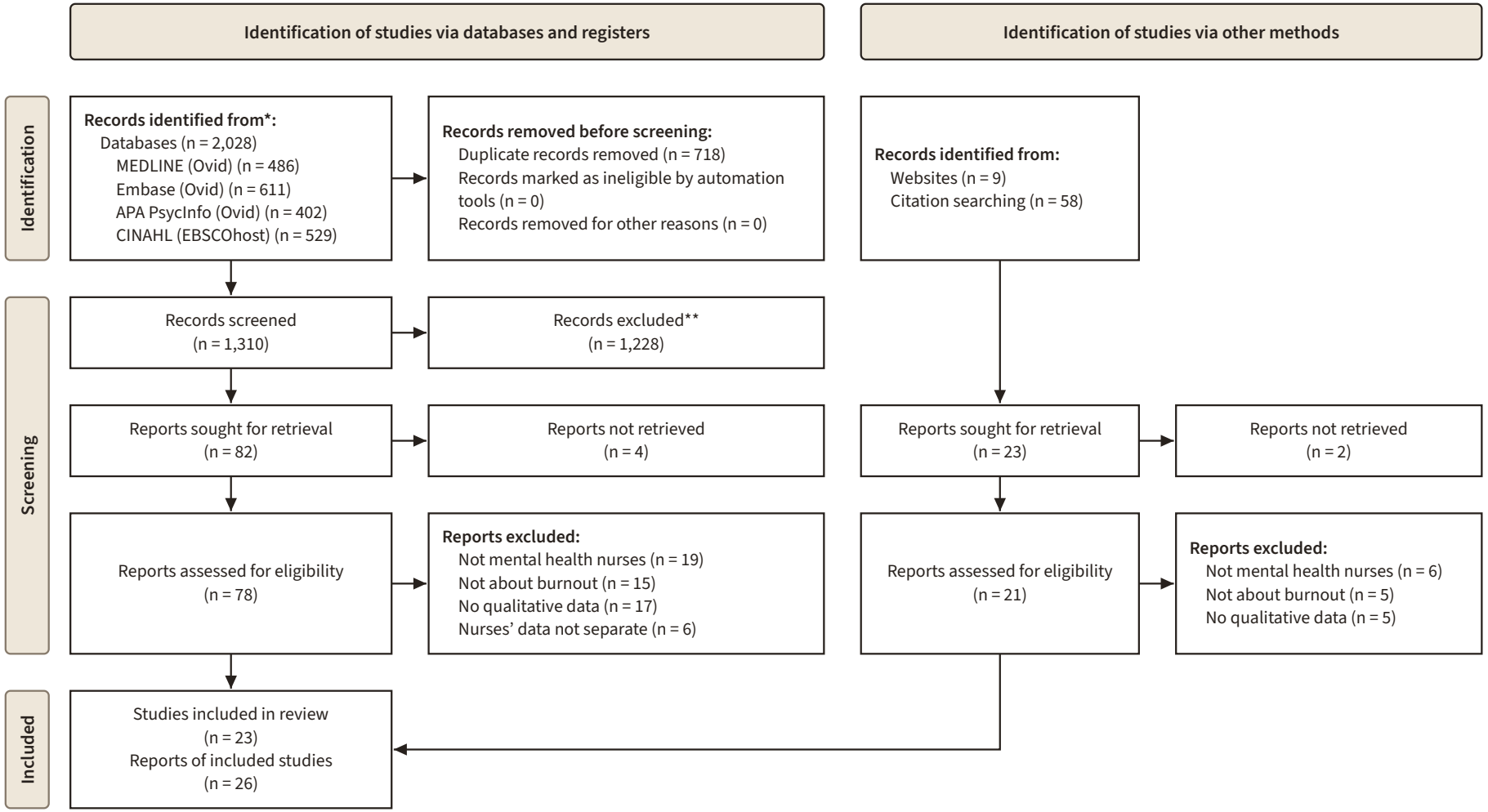
Check your work

Each sum below should hold. When one does not, look for a number taken from another box, or a change of unit that needs a footnote. The worked example is an illustrative qualitative review of mental health nurses' experiences of burnout, with four databases, a website search and citation searching.

Table 3. The sums, with the worked example (illustrative numbers)

Check	Sum	Worked example
A. Records identified, column 1	the sources added together	486 + 611 + 402 + 529 = 2,028
B. Records screened	A − duplicates − automation − other reasons	2,028 − 718 − 0 − 0 = 1,310
C. Reports sought, column 1	B − records excluded (one report per record)	1,310 − 1,228 = 82
D. Reports assessed, column 1	C − reports not retrieved	82 − 4 = 78
E. Reports excluded, column 1	the reasons added together	19 + 15 + 17 + 6 = 57
F. Column 1 reports in the last box	D − E	78 − 57 = 21
G. Records identified, column 2	the sources added together	9 + 58 = 67
H. Reports sought, column 2	none: a footnote says how they were chosen	23
I. Reports assessed, column 2	H − reports not retrieved	23 − 2 = 21
J. Reports excluded, column 2	the reasons added together	6 + 5 + 5 = 16
K. Column 2 reports in the last box	I − J	21 − 16 = 5

Check	Sum	Worked example
L. Reports of included studies	F + K	21 + 5 = 26
M. Studies included in review	L's reports grouped by study	23 (three studies have two reports each)



* 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.

Figure 1. Illustrative numbers, invented for teaching. The worked example's diagram, redrawn from the PRISMA 2020 template for new reviews with other sources (Page MJ et al. BMJ 2021;372:n71; CC BY 4.0). Changes: databases listed under the Databases line; the Registers and Organisations lines removed, as neither was searched; counts and reasons added. Of the 67 records from other methods, 23 were sought after their titles and abstracts were read.

Evensift guides · Worksheet

The tally sheet

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evensift.com/guides/prisma-flow-diagram/

Table 4. The tally sheet (the last column is the sum each number should match)

Box	n	It should equal
Database 1:		
Database 2:		
Database 3:		
Database 4:		
Database 5:		
Registers:		
A. Records identified, column 1		the lines above added together
Duplicate records removed		
Records marked as ineligible by automation tools		
Records removed for other reasons		
B. Records screened		A − the three lines above
Records excluded		
C. Reports sought for retrieval		B − records excluded, unless a footnote explains
Reports not retrieved		
D. Reports assessed for eligibility		C − reports not retrieved
Reason 1:		
Reason 2:		
Reason 3:		
Reason 4:		
E. Reports excluded		the reasons added together
F. Column 1 reports in the last box		D − E
Other methods, source 1:		
Other methods, source 2:		
G. Records identified, column 2		the sources added together

Box	n	It should equal
H. Reports sought for retrieval, column 2		footnote: how they were chosen
Reports not retrieved, column 2		
I. Reports assessed for eligibility, column 2		H − reports not retrieved
J. Reports excluded, column 2		its reasons added together
K. Column 2 reports in the last box		I − J
L. Reports of included studies		F + K
M. Studies included in review		L grouped by study; never more than L

Writing it up

The diagram carries the numbers, and your text says how you got them. A paragraph to adapt:

> The flow of records is shown in Figure [n], drawn with the PRISMA 2020 flow diagram template (Page et al., 2021). Searches of [n] databases identified [n] records, and [other methods] identified [n] more. After [n] duplicates were removed, [n] titles and abstracts were screened and [n] full-text reports were assessed for eligibility. [n] reports of [n] studies were included. Studies that might appear to meet the inclusion criteria but were excluded are cited, with the reasons, in Supplement [n].

Cite the template's source as: Page MJ, McKenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. The official template carries its credit under the diagram: "Source: Page MJ, et al. BMJ 2021;372:n71. doi: 10.1136/bmj.n71." and a line saying it is licensed under CC BY 4.0. Keep both under your figure as the template has them, or credit the template in your caption instead, as Figure 1 does.

Reading on

- The PRISMA 2020 flow diagram page, with the four templates and the Shiny app (prisma-statement.org/prisma-2020-flow-diagram)
- Rethlefsen and Page: common questions on tracking records and the flow diagram (2022) (doi.org/10.5195/jmla.2022.1449)
- PRISMA 2020 explanation and elaboration (2021) (doi.org/10.1136/bmj.n160)
- PRISMA 2020 flow diagrams that survive Word

Sources

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Evensift draws this diagram from your own decisions as you go (counting each included report as a study), marks it Draft until everything is decided and the numbers add up, and saves it for Word at its real size. It is free and needs no account.