



SYSTEMATIC REVIEWS AND META-ANALYSES

Shelley Facente, PhD, MPH
Sara Durán, MPH

In-Person Session 3 of 5

A decorative graphic on the left side of the slide. It consists of a vertical rectangle divided into four horizontal sections: a grey top section, a red second section, a blue third section containing a white concentric circle pattern, and a grey hatched bottom section. To the left of this rectangle is a black triangle pointing downwards, and below it is a grey triangle pointing downwards, separated by a white diagonal line. A white circle is at the bottom right corner of the grey hatched section.

COURSE WEBSITE

- Slides and all other resources you'll need for the course are available at:

<https://facenteconsulting.com/srmacourse/>

CURRICULUM

Monday

Sensitivity analyses & stratified analyses

Understanding SRMA limitations

Interpreting and reporting results

Tuesday

Review and practice defining the review question and PICOS criteria to be used

Work time

Wednesday

Tips and Tricks with Covidence

Work time

Thursday

Deeper dive into evaluating bias

Publishing your review

Work time

Friday

Reviewing special types of SRs and MAs

Final chance for Q&A from the course

Virtual in October

Overview of SRs and MAs

PROSPERO and PRISMA

Defining the review question

Searching for records and studies

Extracting and organizing data

Summarizing data and meta-analysis

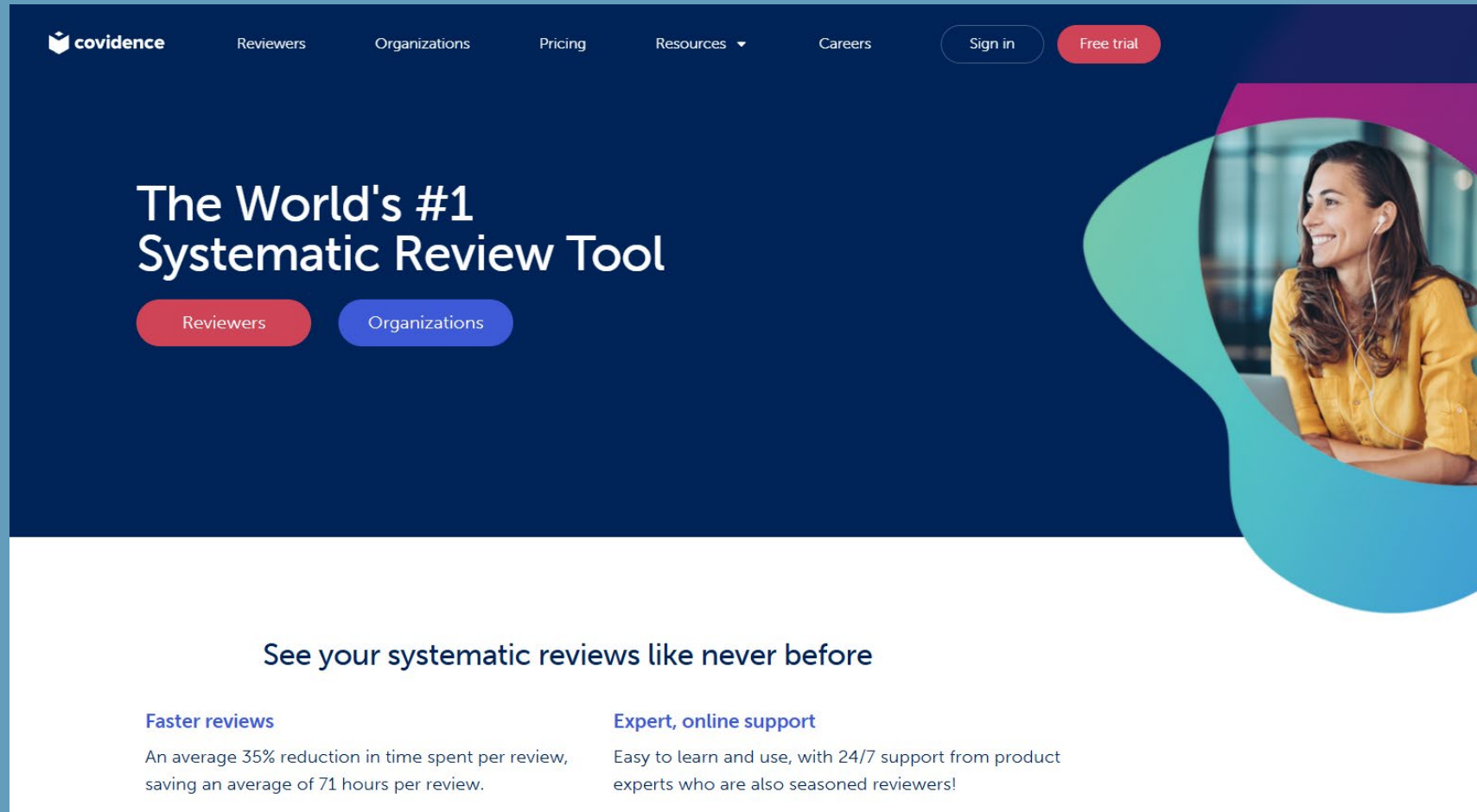
Evaluating Bias



COVIDENCE INTRODUCTION

- Web-based platform
- Designed by researchers so it was developed to be streamlined and manageable
- Can do all of the screening and data extraction steps in Covidence (and helps to track the different steps!)
- Removes duplicates simply
- Allows for blinded review by two reviewers and flags discrepancies
- Can be used in conjunction with citation managers, such as Zotero (which can make full text uploads much easier)
- Free trial can be used to screen up to 500 references while full access allows for up to 10,000 references

COVIDENCE INTRODUCTION



The screenshot shows the Covidence website homepage. The header features the Covidence logo and navigation links for Reviewers, Organizations, Pricing, Resources, and Careers. There are also buttons for 'Sign in' and 'Free trial'. The main content area has a dark blue background with the headline 'The World's #1 Systematic Review Tool'. Below this are two buttons: 'Reviewers' (red) and 'Organizations' (blue). To the right is a circular image of a smiling woman with long brown hair wearing a yellow shirt and white earbuds. Below the main content area is a white section with the heading 'See your systematic reviews like never before'. This section contains two columns of text: 'Faster reviews' (An average 35% reduction in time spent per review, saving an average of 71 hours per review.) and 'Expert, online support' (Easy to learn and use, with 24/7 support from product experts who are also seasoned reviewers!).

covidence Reviewers Organizations Pricing Resources Careers Sign in Free trial

The World's #1 Systematic Review Tool

Reviewers Organizations

See your systematic reviews like never before

Faster reviews
An average 35% reduction in time spent per review, saving an average of 71 hours per review.

Expert, online support
Easy to learn and use, with 24/7 support from product experts who are also seasoned reviewers!

START A NEW REVIEW IN COVIDENCE

To start a new review you will click on the "Start a new review" button that will be at the head of any current reviews you may have.



Your reviews

Current reviews

Archived reviews

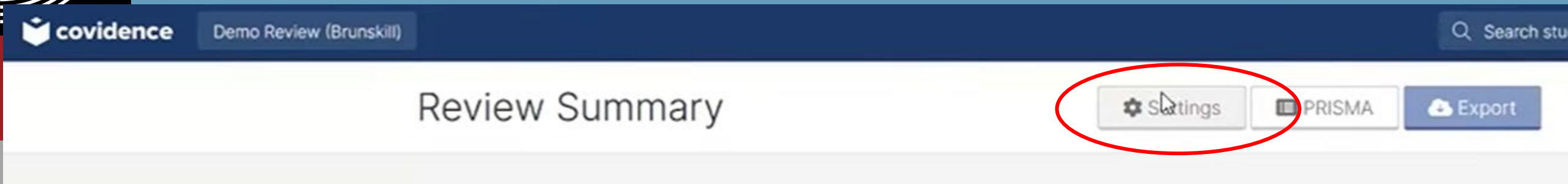
Start a new review

Sort by
Newest ▾

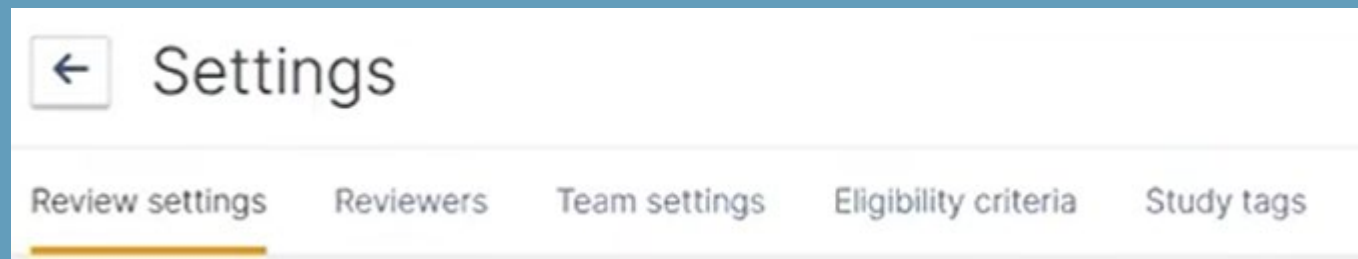
Your reviews

17/04/2020 Students who are non-users of academic lib

SETTINGS



- Setting options are available for the review itself, reviewers, team, eligibility of studies, and study tags.
- Other reviewers can be added here under "Reviewers"





REQUIRED REVIEWERS AND DATA EXTRACTION

Reviewers required for screen

2

Reviewers required for full text review

2

Reviewers required for data extraction

2

Select your preferred data extraction tool

☐ Extraction 1

- Standardised PICO structure to support intervention reviews and is recommended by Cochrane
- Supports dual reviewer extractions
- Exports to csv, xls, RevMan 5, RevMan Web

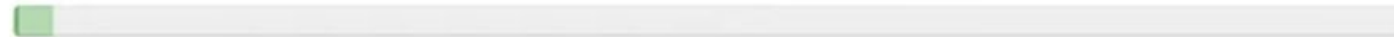
☐ Extraction 2

- Customisable structure to support all review types
- Supports dual reviewer and single reviewer extractions
- Exports to csv

TEAM SETTINGS

Title and abstract screening

Team Progress



4 ● DONE

30 ● ONE VOTE

1 ● CONFLICTS

1192 ● NO VOTES

REVIEWER	CONTRIBUTION
Amelia Brunskill	34
Rosie Hanneke	6

Rules

☐ Everyone can do anything ☒ Manage rules

ALL STUDIES MUST BE SCREENED BY EITHER

Anyone

Select a reviewer ▾

Add

CONFLICTS CAN BE RESOLVED BY

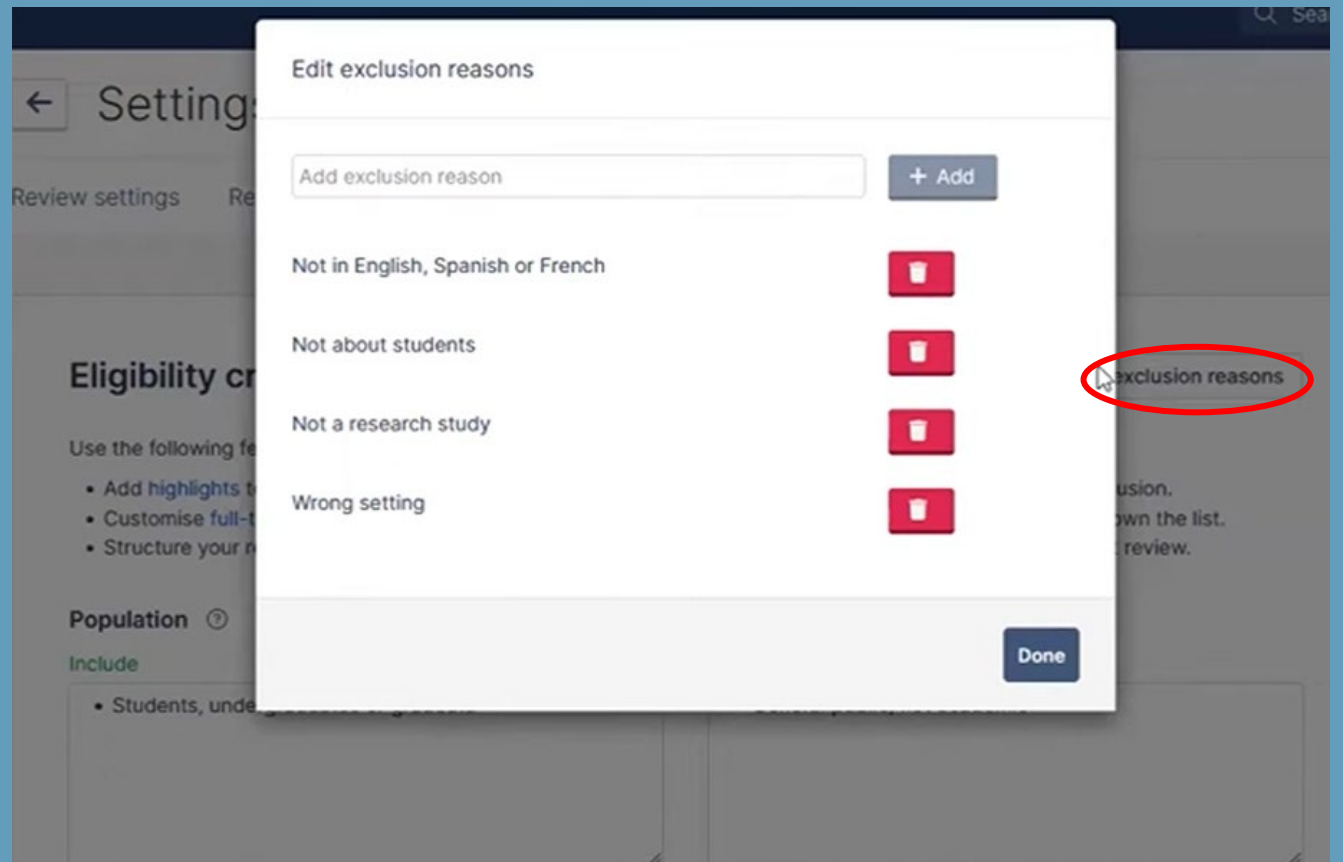
Anyone

Select a reviewer ▾

Add

ELIGIBILITY CRITERIA

- Full text exclusion reasons are required for supporting the development of the PRISMA flowchart. You can manage these from the Settings Menu
- Settings>Eligibility Criteria>Full text exclusion reasons



Review Summary

[Settings](#)[PRISMA](#)[Export](#)

Import references

[2479 total duplicates removed](#)
[0 auto-marked as ineligible](#)

[Import](#)

Title and abstract screening

[5270 irrelevant](#) [2 studies to screen](#)



Team progress



6126 ● Done

1 ● Conflicts

2 ● One Vote

0 ● No Votes

[Team settings](#)

Sara, you can still

resolve conflicts

screen studies

1

2

Continue

Continue

You've screened **764** studies so far

Full text review

[348 excluded](#) [5 studies to screen](#)



USING FILTERS

- Filters can come in handy in a variety of ways
- Can filter those that have the title and the abstract already in Covidence
- Or perhaps filtering out those that have full text for the full text screening (especially useful if there is a reviewer that doesn't have access to academic journals)
- Or filtering out those that need the full text (so that those with access can add those texts for the team!)

Filter ×

Tags

Keyword search


Within

- ☒ Title and abstract
- ☐ Authors (Exact match)
- ☐ Authors (Fuzzy search) i
- ☐ All of the above

Full-text

- ☐ Has full-text
- ☐ Needs full-text


VIEW ELIGIBILITY CRITERIA WHILE YOU SCREEN

 **Title and abstract screening**

[Screen references 2](#) [Resolve conflicts 1](#) [Awaiting other reviewer 0](#) [Irrelevant references 5270](#)

☐ All ☐ Tag

↕ Sort: Most recent

 Filter

Show criteria ▼

More options

VIEW ELIGIBILITY CRITERIA WHILE YOU SCREEN



Title and abstract screening

Screen references 2

Resolve conflicts 1

Awaiting other reviewer 0

Irrelevant references 5270



All



Tag

↓↑ Sort: Most recent

Filter

Hide criteria ^

More options

Study Characteristics


Include

- Randomized, observational (case-control, cohort, cross-sectional) and modelling studies assessing any of the outcomes described in this protocol.
- Include a relevant population group.
- Measured one or more of the outcomes listed above.
- Published in a peer-reviewed journal, grey literature or conference abstract.

Exclude

- Studies using only non-clinical samples to derive diagnostic accuracy outcomes

USE HIGHLIGHTS TO IDENTIFY INCLUSION AND EXCLUSION CRITERIA

 **Title and abstract screening**

[Screen references 2](#) [Resolve conflicts 1](#) [Awaiting other reviewer 0](#) [Irrelevant references 5270](#)

☐ All ☐ Tag ↓↑ Sort: Most recent Filter Show criteria ▾ More options

☐ #1912 - Songok 1994
Low prevalence of human T-lymphotrophic virus type I (HTLV-I) in HIV-positive patier
Songok, E M; Tukei, P M; Libondo, D; Gichogo, A; Oogo, S A
Journal of acquired immune deficiency syndromes / 1994;7(8):876-7
United States 1994 /
Ref ID: 8021826

More options

×

Show

☒ Abstracts

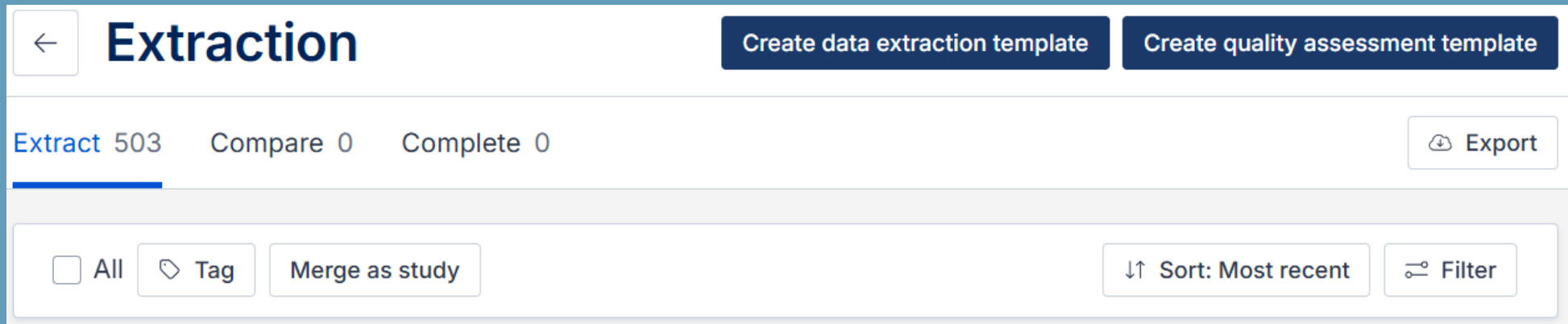
☒ Highlights

Inclusion

Exclusion

EXTRACTION

When you are ready to start data extraction, Covidence does have a data extraction template that you can use, or you can use your own template you have created.



The screenshot shows the 'Extraction' section of the Covidence interface. At the top, there is a navigation bar with a back arrow, the title 'Extraction', and two buttons: 'Create data extraction template' and 'Create quality assessment template'. Below this, a summary bar shows 'Extract 503', 'Compare 0', and 'Complete 0', with an 'Export' button on the right. The main content area has a toolbar with 'All', 'Tag', and 'Merge as study' buttons, and a 'Sort: Most recent' dropdown menu. A 'Filter' button is also visible on the right.

← **Extraction** [Create data extraction template](#) [Create quality assessment template](#)

[Extract 503](#) [Compare 0](#) [Complete 0](#) [Export](#)

☐ All ☐ Tag [Merge as study](#) [Sort: Most recent](#) [Filter](#)

Review Summary

⚙ Settings

📄 PRISMA

📄 Export

Import references

[2479 total duplicates removed](#)
[0 auto-marked as ineligible](#)

📄 Import



Title and abstract screening

[5270 irrelevant](#) [2 studies to screen](#)



Full text review

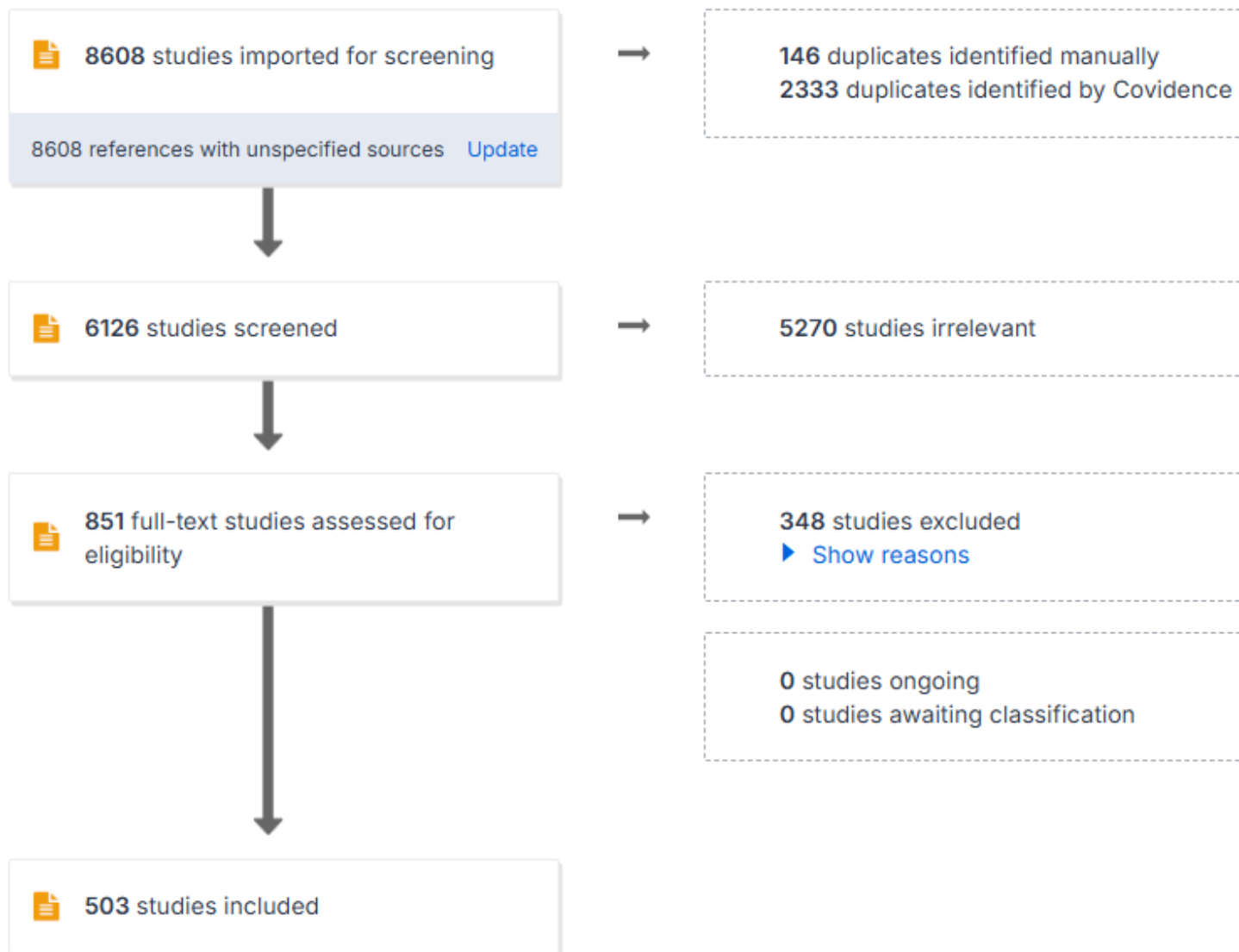
[348 excluded](#) [5 studies to screen](#)



Extraction

[0 extracted](#) [503 studies to extract](#)



[View as text](#)[Download DOCX](#)

Join by Web

PollEv.com/shelleyf800

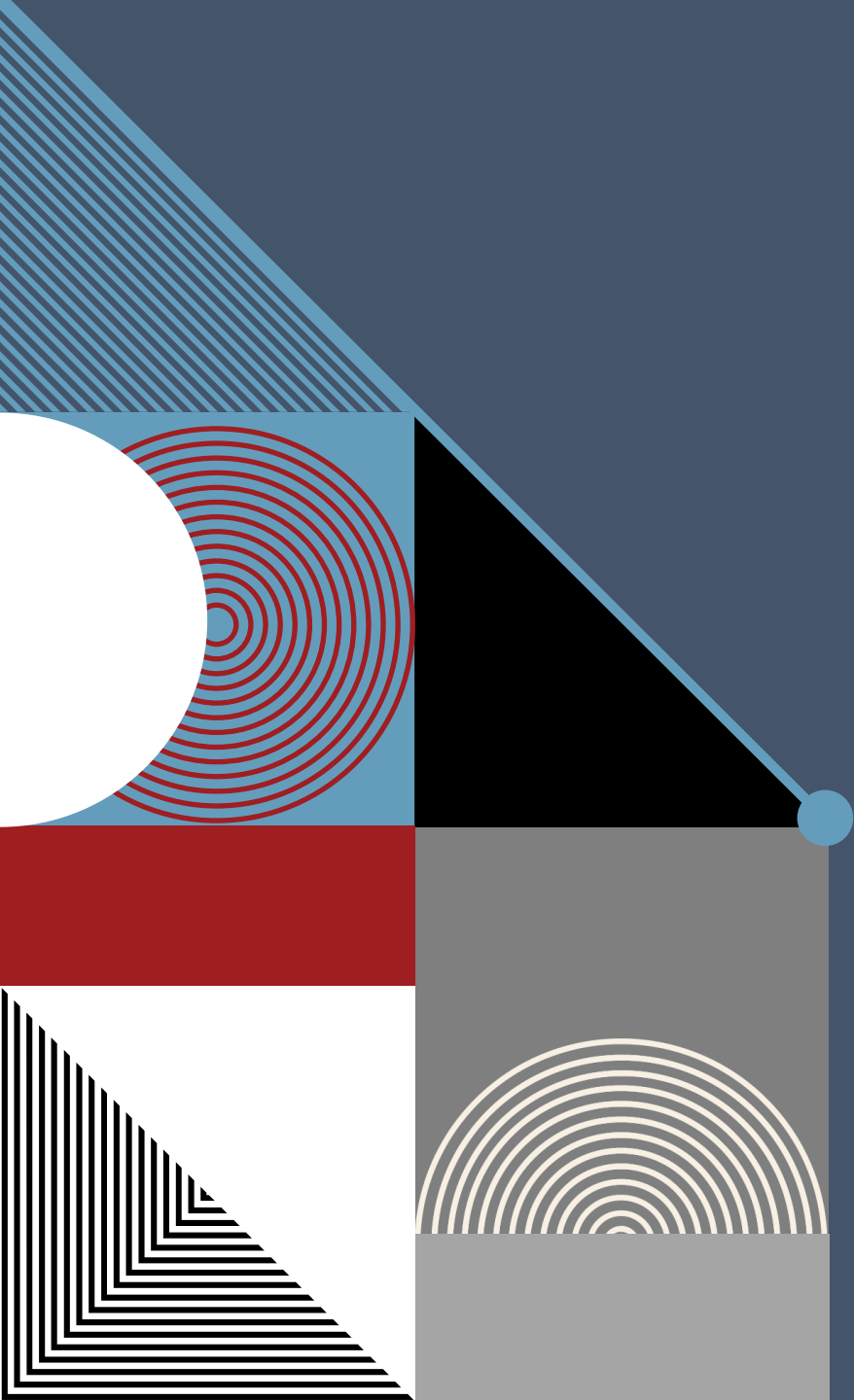
Join by Text

Send **shelleyf800** and your message to **22333**

Join by QR code

Scan with your camera app





WORK TIME TOGETHER

Keep working with our support, or if you're ready, create those group presentations.