Understanding PRISMA

PRISMA is a set of standards for complete and transparent reporting of systematic-style reviews. By following these standards, authors will clearly describe what was done, what was found or in the case of a review protocol: what the researchers are planning to do.

While there are other reporting standards used for systematic-style reviews and protocols, PRISMA is by far the most common and it is often the standard required for publication. Authors undertaking a systematic-style review that uses PRISMA will need to develop a strong working knowledge of PRISMA fundamentals. Keep in mind that when you are undertaking a systematic-style review, you are developing expertise not only on your topic, but also on the type of review that you are undertaking. Developing this level of knowledge takes time.

Let's begin by looking at the PRISMA statement web page. There are four key documents that you will need to become familiar with:

• the PRISMA 2020 checklist,

• the PRISMA 2020 flow diagram; the flow diagram is perhaps the most recognizable component of PRISMA reporting requirements,

• the PRISMA 2020 statement and

• the PRISMA 2020 explanation and elaboration paper.

The statement and explanation and elaboration papers are important reading with key definitions and exemplars. Be aware that there are PRISMA extensions for different review types or different aspects of reviews that may be relevant to your project.

We mentioned previously that the flow diagram is probably the most recognisable component of PRISMA. The flow diagram is a record of your literature screening. It records where you found your information, duplicate removal, title and abstract screening, retrieval of full text, screening of full text, and recording the studies and reports that are included in your final analysis.

Your literature screening is informed by your inclusion and exclusion criteria. Note: at the full text screening level, the reason for exclusion is recorded in the flow diagram. You can think of

the PRISMA flow diagram as a numbers game; everything must add up. Every record that you located from your finalised search is accounted for, your readers and reviewers should be able to follow and understand the logic behind your screening decisions.

There are four versions of the flow diagram. We will take a closer look at the first two. Select the most appropriate diagram for your review. The first flow diagram is the most straightforward and is for searches conducted in databases and trial registers. Trial registers are searched mainly in health intervention reviews. Examples include the Australian New Zealand Clinical Trials Registry and ClinicalTrials.gov. The second diagram is extended to include additional sources and methods of searching, including citation searching and searching on an organisation website, if you are including grey literature in your review. For demonstration purposes this tutorial uses the first version of the PRISMA flow diagram.

The flow diagram is designed to be used with PRISMA checklists and the explanation and elaboration paper. The elaboration paper has important definitions and exemplars there will assist in writing your review and in recording your flow diagram accurately. The explanation and elaboration paper separates out the different types of documents or information that you will be working with and screening in your review.

This video has been a short introduction to PRISMA reporting standards. Researchers will need to invest in reading and reviewing the resources on the PRISMA statement web page to develop a strong understanding of PRISMA reporting requirements for their individual review.