How to use the map for evidence synthesis

The goal of the Live map of COVID-19 evidence is to enable well informed decision-making, and to speed up the process of evidence synthesis. The map already includes numerous systematic reviews.

Choosing the right questions
Before embarking on a systematic review, researchers need to assess how useful the review will be. Usually this means scoping work to get an idea of what has been published on a particular subject. On the live map, researchers can see this very quickly without having to do any extra work. We advocate that reviewers check PROSPERO, the International prospective register of systematic reviews, to be sure that nobody else is synthesizing evidence for the same question.

Number needed to screen
One of the most time-consuming tasks when preparing a systematic review, is the screening of potentially relevant research papers.

- We were surprised by the number of publications on COVID-19 not containing any primary data. We have now screened more than 17,000 papers and included 2201 studies on the map, says Stijn Van de Velde who contributes to the team with his previous experience of managing a guideline and evidence database. About 80% of articles are composed of opinion papers, narrative reviews or consensus-based guidelines. This high level of “noise” is obviously a burden to everyone synthesizing evidence.

Quality of the map
- We believe that an evidence map that meets our high standards needs to provide an 80% chance or more of finding the relevant studies for a given systematic review, says Stijn. Furthermore, the number of studies that evidence synthesizers would have to screen needs to be less when using the map than for a usual search in databases such as PubMed.

- We quality-control the map by comparing the evidence included in published systematic COVID-19 reviews, with the content and categorization of the map. About 80% of the studies are covered in our map. The remaining studies are coming from preprint databases that contain preliminary reports of work that have not been certified by peer review. Because a lot of COVID-19 research has been conducted very quickly, we decided not to cover such preprints in the map.

In addition, we evaluate if our categorization for these studies matches the research question of sampled reviews. We have found that our approach to categorization is robust and of high quality.

Use of the map in living systematic reviews
The map is currently being used in various reviews. The University of Birmingham and their international partners are supporting the World Health Organization with a living review on tests for the detection of COVID-19. The review team relies on several sources, including the Live map of COVID-19 evidence. The first version of the review will be published within the next two weeks and will be kept up to date thereafter.

An ongoing review from the Norwegian Institute of Public Health about mental health of healthcare workers also started from the live map. In record time, the authors retrieved the required studies from the categories “healthcare workers” and “experiences” and “perceptions”.

The Centre for Evidence Based Practice at the Belgian Red Cross is a partner in this project. They develop systematic reviews, evidence-based guidelines and primary field research, relevant to the international aid sector. Initially, they screened daily the influx of COVID-19 papers for relevance to their activities. As a result of the collaboration, they now receive a weekly batch of pre-screened references which saves a day of work each week.

Organizations that collaborate with us on the map, can request for exports of references from specific categories in the map. A complete call for collaboration is available.
Systematic reviews on the map

Currently the Live map of COVID-19 evidence includes 322 systematic reviews out of a total of 2201 publications.

We have screened all 17,000 references retrieved in our searches so far, says Stijn Van de Velde. The map includes all systematic reviews, RCTs, non-randomised studies with control groups and methodology papers retrieved up to 18 May 2020. All other study designs published before 8 April are on the map.

Systematic reviews make up about 15% of the total amount of COVID-19 publications on the map and this proportion has been increasing over the past weeks.

The first living systematic reviews have now made their way into the map. This is a new approach to evidence synthesis, where systematic reviews are continually updated as new evidence becomes available.

Which criteria are used to define a publication as a systematic review?
– In this phase of the pandemic, the number of systematic reviews is still limited, says Stijn. Therefore, we have opted for an inclusive approach, where we broadly define systematic reviews as any review that describes the databases that have been searched, as well as the search terms. As more systematic reviews enter the map, we will probably narrow this criterion.

What are the most popular topics for systematic reviews?
About one third of the reviews cover prognostic questions, with diagnosis and intervention a close second and third place. It would be interesting to evaluate if there is a match between the information needs of clinicians and decision-makers and the focus of evidence synthesizers, says Stijn. While our user statistics might not be representative for various stakeholders’ profiles, we observe that our visitors most often consult these same three topic maps.

How can users identify the systematic reviews on the map?
– You may want to start searching from the main map or from a specific topic map, explains Stijn. This affects the level of detail to which you can filter for your topic of choice. In the main map, you can filter for example to diagnosis, while in the diagnostic topic map you could also filter to PCR testing, diagnostic serological tests or any other topic of interest.

When you click the filter button in the left upper corner of the map, a pop-up appears where you can select systematic reviews as publication type. Now you just need to click on update, and you will see the map turning into green bubbles that represent systematic reviews. The larger the bubble, the more systematic reviews are available for the chosen topic.

Clicking on the bubbles leads you to the list of references for the field that you selected.

RECENT RAPID REVIEW UPDATE
1. COVID-19 and risk factors for severe disease – a rapid review, 2nd update