

One-stop-shop Epistemonikos already contains more than 90% of the systematic reviews that would be identified with a formal overview of reviews

In over one-half of the overviews analyzed, it contained 100%

Background

Systematic reviews are widely considered as the best available evidence to inform health decisions. Because of their increasing recognition but also for other reasons, **their number is growing fast** (see figure 1), and so the effort needed to identify all of the existing reviews relevant for a specific question.

Epistemonikos Database compiles evidence from different sources and is now the world's largest systematic review database. However, it is not clear how comprehensive it is in comparison with more exhaustive approaches.

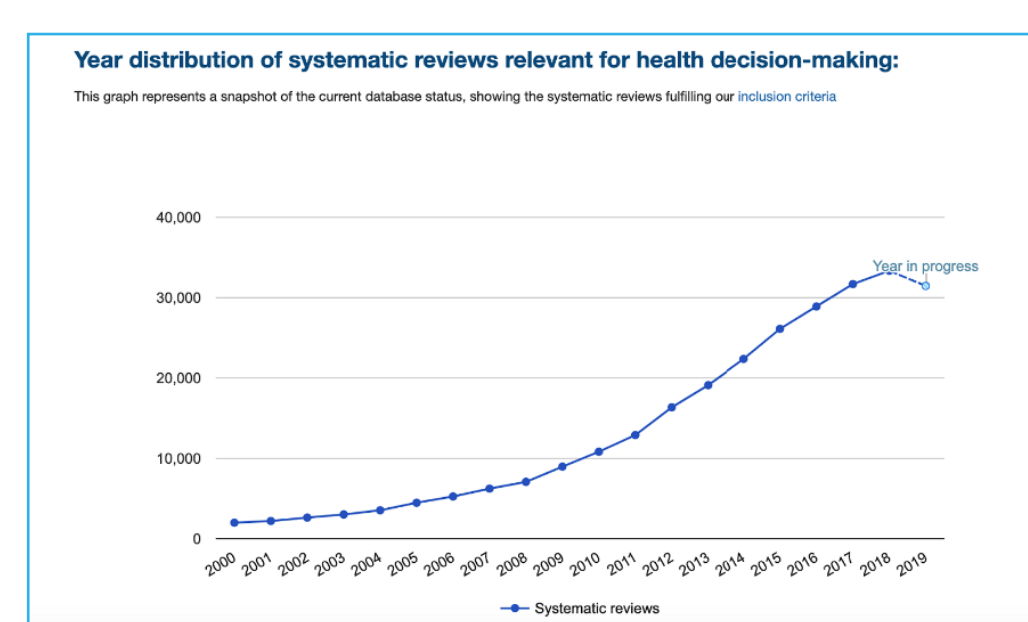


Fig.1

Objectives

To estimate the recall (sensitivity) of Epistemonikos to identify systematic reviews in comparison with a more exhaustive approach, such as a formal overview of systematic reviews.

Methods

In order to estimate the recall of Epistemonikos, we used a sample of overviews of systematic reviews indexed in PubMed during the first trimester of 2019, that provided a list of their included systematic reviews. We used all of the reviews included in these overviews as our gold standard.

We classified the reasons for a review not being included in Epistemonikos Database in the following categories:

- 1- The review is not indexed in any of the databases regularly screened by Epistemonikos (See Table 1)
- 2- The review is indexed, but it was not captured by the search strategy used by Epistemonikos to retrieve potentially eligible systematic reviews.
- 3- The review was captured by the search strategy, but it was not classified as a systematic review by the algorithm (machine learning classifier) or the collaborators of Epistemonikos.

Databases regularly screened by Epistemonikos

1. Cochrane Database of Systematic Reviews (CDSR)
2. Pubmed/MEDLINE
3. EMBASE
4. CINAHL
5. PsycINFO
6. LILACS (Literatura Latinoamericana y del Caribe en Ciencias de la Salud)
7. Database of Abstracts of Reviews of Effects (DARE)
8. The Campbell Collaboration online library
9. JBI Database of Systematic Reviews and Implementation Reports
10. EPPI-Centre Evidence Library

Table 1.

Results

Our search strategy retrieved 2311 records, of which 73 fulfilled our definition of overview.

The total number of systematic reviews included in the overviews was 1393 (average 19). Epistemonikos Database contained 1267 (91%) of these reviews.

The reasons why some reviews were not identified were the following: 52 reviews (3.7%) were not indexed in any of the databases regularly screened by Epistemonikos. The vast majority corresponded to Chinese articles indexed only in Chinese databases, and secondly to reports by specific organizations that are probably not indexed in any database; 19 reviews (1.4%) were not captured by the strategy used by Epistemonikos to retrieve potentially eligible systematic reviews; and 55 reviews (3.9%) were not correctly classified by the algorithm (see figure 2).

The recall for each review was not normally distributed; while in 39/73 (53%) of the overviews Epistemonikos already had the totality of their included systematic reviews, a small proportion concentrated a substantive proportion of the missing reviews (see figure 3).

Reasons why some reviews were not identified

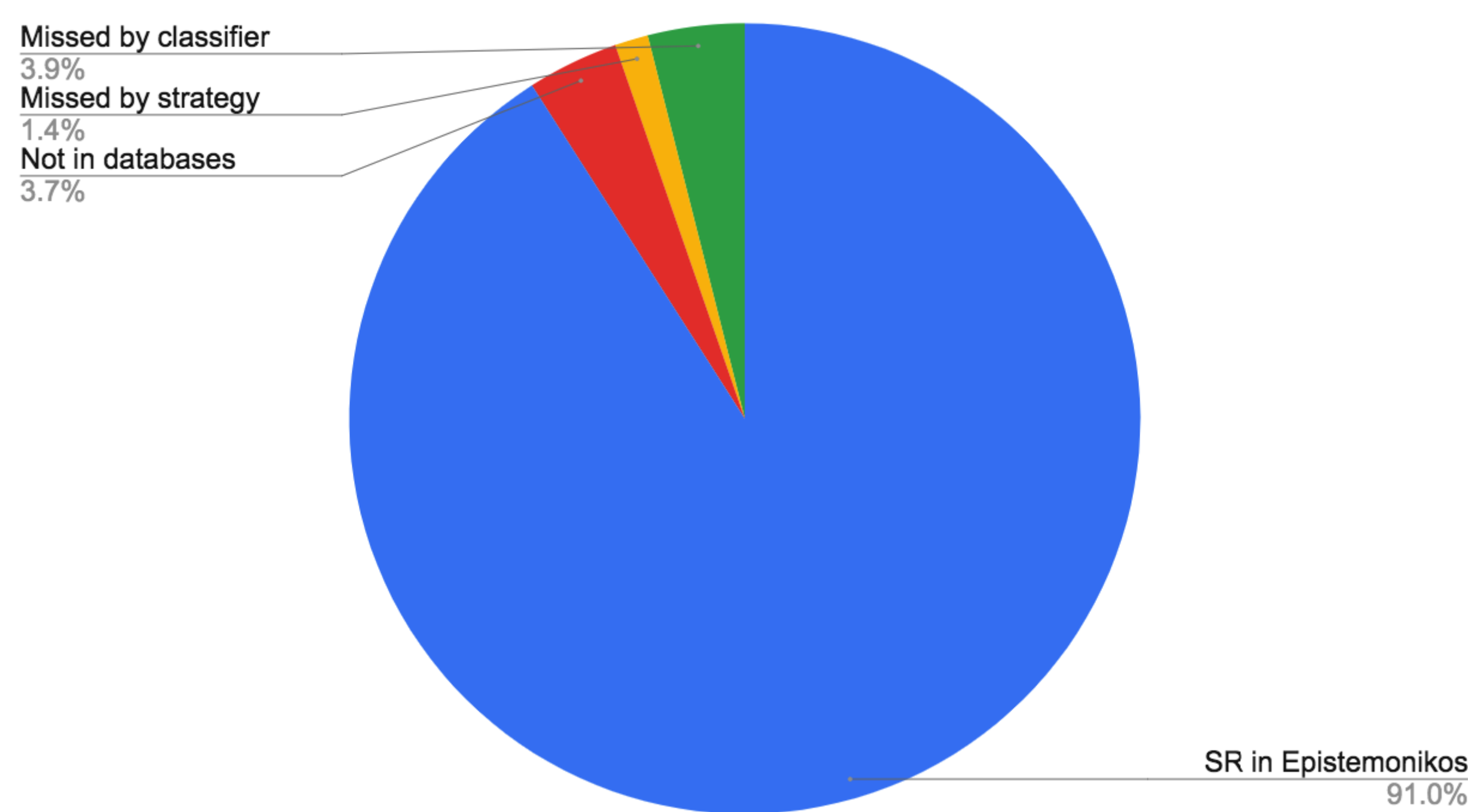


Fig.2

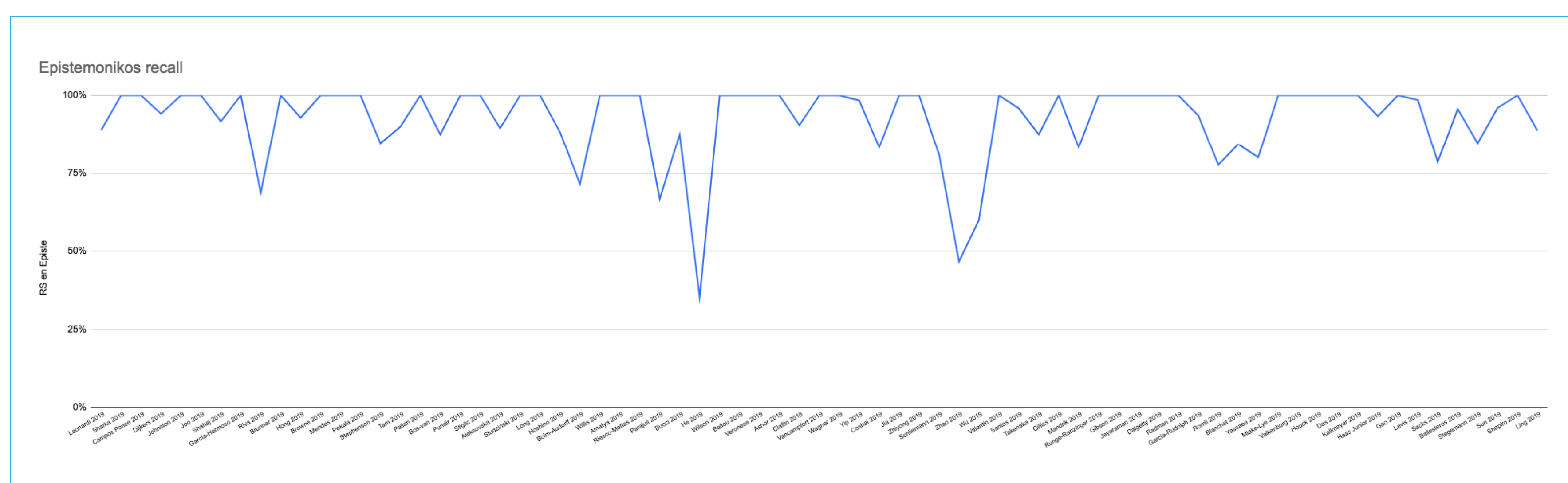


Fig.3

Epistemonikos

Epistemonikos Database is the largest database of systematic reviews. We work to bring evidence closer to people making health decisions, through innovative technology and collaboration.

Conclusions

In most cases, Epistemonikos included all or most of the systematic reviews that would be identified with a formal overview of reviews.

We were able to quantify the likelihood of missing relevant reviews, so users can balance the pros and cons of searching only in Epistemonikos versus a more exhaustive approach.

Additionally, we recognized some potential areas, such as Chinese medicine, where complementing with searches in databases not regularly screened by Epistemonikos seems reasonable. More research in this area might be useful to decide when a more exhaustive approach is worth the effort.

Title

How comprehensive is Epistemonikos Database to identify systematic reviews in health: a methodological study.

Authors

Bravo-Soto GA¹, Schulze CE², Morel-Marambio M³, Lobos-Urbina D⁴, Vergara C⁵, Verdugo-Paiva F³, Bravo-Jeria R³, Ortiz-Muñoz L³, Rada G¹

¹ Centro Evidencia UC Epistemonikos Foundation Chile
² Pontificia Universidad Católica de Chile Epistemonikos Foundation Chile
³ Centro Evidencia UC Chile
⁴ Universidad de Chile Epistemonikos Foundation Chile
⁵ Epistemonikos Foundation Chile



Download this poster

