

Retrospective evaluation of the impact of including HEED in literature searches for economic evaluations and economic models



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Context

There is increased importance placed on cost implications and cost effectiveness analyses within health research.

As embedded Information Specialists we support a range of projects including Health Technology Assessments (HTAs), economic evaluations and economic models.

HEED (Health Economic Evaluations Database) is a subscription based, international database containing records of studies of economic evaluations. Its coverage overlaps to some extent with NHSEED, MEDLINE and EMBASE plus other sources.



HEED is recommended for economic commentaries in Cochrane reviews (1) but there has been limited research of its value for economic evaluations (2)

We find HEED's search interface (via Wiley) less intuitive than others e.g. Ovid Medline particularly for constructing complex search strategies. We develop simpler strategies in HEED with fewer but more sensitive terms which produce more sensitive results than our searches of other databases.

Key Questions

Do HEED searches identify unique, relevant references when compared with MEDLINE, EMBASE and NHSEED?

What proportion of HEED results are duplicates of other database search results?

In what circumstances are searches of HEED particularly useful?

References

- Shemilt I., et al...Searching NHS EED and HEED to inform development of economic commentary for Cochrane intervention review; study report 2011. http://www.york.ac.uk/inst/crd/CCEMG/Brief Economic Commentaries Study_Final Draft Report_March 2011.pdf accessed 23-06-14
- Glanville, J., Paisley, S. Searching for evidence for cost-effectiveness decisions. In: Shemilt I., Mugford M., Vale L., Marsh K., Donaldson C., eds. Evidence-based decisions and economics. Wiley-Blackwell; Oxford: 2010

What we did

We retrospectively looked at the database sources of references used in final reports.

Substantial literature searches (mean yield 1123 references per project) were run across databases including HEED (Wiley), Medline(Ovid), Embase (Ovid), NHSEED (CRD) & others as appropriate.

EndNote Libraries used to store references, identify duplicates and trace references to their source.

Identified % HEED search results that were duplicates of references found in other database searches.

Identified relevant references from final project reports in either included studies lists or bibliographies. 7 projects had available data (3 economic evaluations, 3 reviews of economic evaluation methods, 1 review of economic models).

Cross-checked relevant references to determine which references were found from our HEED search but not from our searches of other databases.

Checked if relevant references found only by HEED searches were available in other databases. Determined why we had not identified them in searches of other databases.

Conclusions

Using, simple, sensitive searching HEED (Wiley) can complement more complex, precise searches run in other databases.

In this evaluation HEED retrieved relevant references for most projects. Its unique content and impact was low with on average 1 further reference found from HEED to 30 included references retrieved from other databases in the 5 projects. It had no impact on 2 projects.

If HEED is not available to you we recommend:

- using more sensitive search strategies in other databases, particularly NHSEED
- checking bibliographies of included studies
- searching institution web pages and RePEC for working papers

Limitations

- HEED hosted by Ebsco was not evaluated
- Small number of projects evaluated
- Impact of individual references on research findings was not assessed

Results



Duplicates

23 – 75% of HEED search results were duplicates of references found in other databases (mean 51%).

Unique to HEED ?

2 project reports had no references found only from our HEED searches.

5 project reports each contained 1 reference found only from our HEED searches. The 5 projects had an average of 31 included references (range 6-51).



Of these 5 'HEED only' references, 4 were present in other databases but our searches had not retrieved them.

Reasons why 'HEED only' references were not found in other database searches

- 1 reference was a working paper only accessible on an institution web page
- 1 reference had no economic or cost terms in its record so was removed from other searches by our economic filters. The full text had cost data but HEED was the only database to identify this and indexed the record as 'cost-effectiveness'.
- 3 references were missed due to using more specific search terms and adjacency operators in other databases than in than HEED.

E.g. A relevant paper in a cancer terminal illness report has the terms death and cancer in the abstract approx. 20 words apart. It was retrieved with a simple 'death and cancer' search in HEED but not retrieved with the more precise 'death adj3 cancer' in other databases.