Thesaurus mapping in healthcare databases

How can a thesaurus help my literature searching?

Many bibliographic databases use what is known as a 'controlled vocabulary' to index articles. Each common medical concept is given a single subject heading which covers all the words and phrases used to describe that concept. For example, "Cerebral vascular accident" is a subject heading which covers all the words and phrases used for the concept of "stroke".

Each record in a database may have several subject headings given to describe the various concepts covered in the article. If you search using a database's thesaurus, only articles that have been labelled as being about the subject heading you choose will be selected. Your results will be more relevant, as articles where your search terms are not a significant topic will not be included in the results.

Using a thesaurus also helps overcome problems of inconsistent terminology and alternative terms or spellings. If you type in the word 'paediatric' as a keyword in a search you should also carry out a search for 'pediatric' as well, as records in databases can use both spellings. The thesaurus will include articles with either spelling under one subject heading – so you would only need to do one search rather than two.

Each database uses a different list of subject headings i.e. the BNI thesaurus will have different subject headings to the Medline thesaurus. For this reason, **you can only use a thesaurus if you are searching in one database only**. If you need to use several databases, search them separately, and compare results when you have finished searching.

Not every search term will correspond with a suitable thesaurus term (e.g. a very new topic or a topic that is UK specific). You should also be aware that new articles are often added to the database before being assigned subject headings. Therefore, to ensure you capture newly published articles you should also employ some free text searching and should not rely solely on the thesaurus.

How are subject headings arranged?

Subject headings are normally arranged in a hierarchy or tree structure, where broad subjects are subdivided into more specific topics. This picture shows part of the Medical Subject Headings (MeSH) hierarchy in Medline. Narrower, more specific terms (e.g. ear) are indented under broader terms (e.g. head).
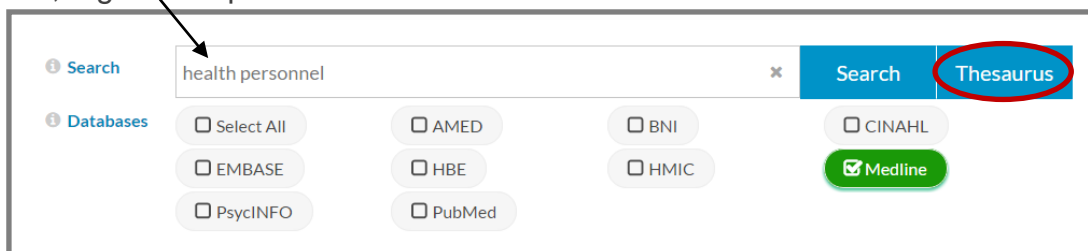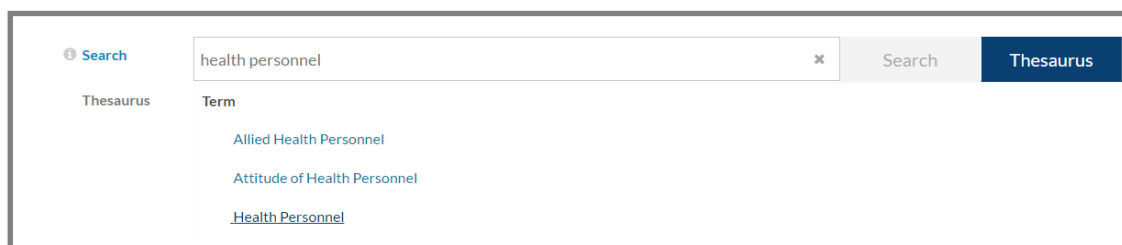
Using Thesaurus Mapping

You will need to log into the databases with your NHS Athens password. The databases can be accessed at: https://hdas.nice.org.uk/
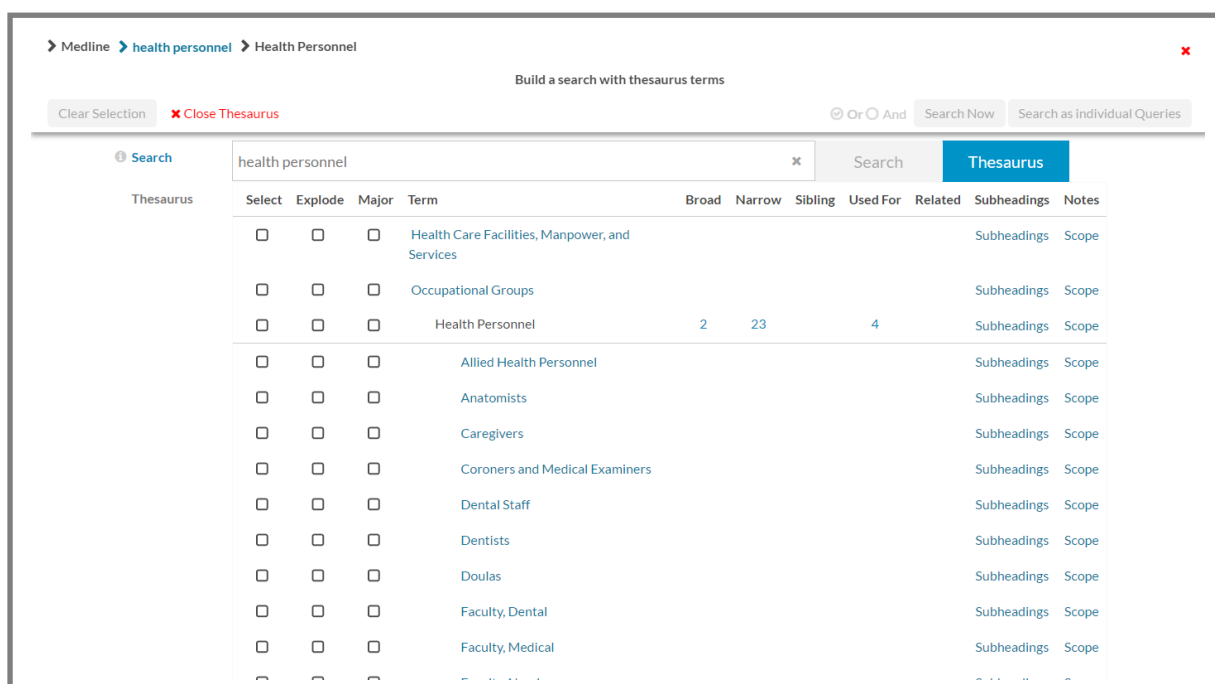
Once logged in select the database you want to search (e.g. Medline) and enter your search term or search phrase, e.g. health personnel into the search box. Then click the thesaurus button.

Terms which the database thinks may be relevant to your search will then be displayed. Select the most appropriate sounding term from the list.

The selected section of the thesaurus 'tree' will then load. Your chosen term is visible in black. Available broader terms are listed above your selected term and narrower terms are listed below. If any other related terms are available they will be listed underneath the narrower terms. In some databases such as Medline scope notes (which offer a definition of the selected term) are available.

Incorporate any of these terms into your search by checking the appropriate select, explode or major options.

- **Select** will retrieve articles where the selected subject heading/thesaurus term has been used as an index term

- **Explode** will expand your search by retrieving articles that are indexed with your search term plus any narrower terms (if available). In the above example explode would search for health personnel and the 23 narrower terms.

  Top tip: if only some of the narrower terms are relevant to you search select them individually by ticking their select option rather than using the explode option of your main thesaurus term.

- **Major** will retrieve only articles where the subject matter is predominantly that of your chosen thesaurus term.

Subheadings

It is possible to break down some Subject Headings into subheadings. Subheadings are specific characteristics of a main thesaurus term e.g. ethics or history. They are not narrower terms, so specific professions, e.g. physiotherapy would not appear as subheadings for the term healthcare staff.

Subheadings enable you to focus your search even further. To view the subheadings attached to a thesaurus term, click on the subheadings link to the right of the page.

Then click on the subheading(s) you want to search for (they will go green when selected).
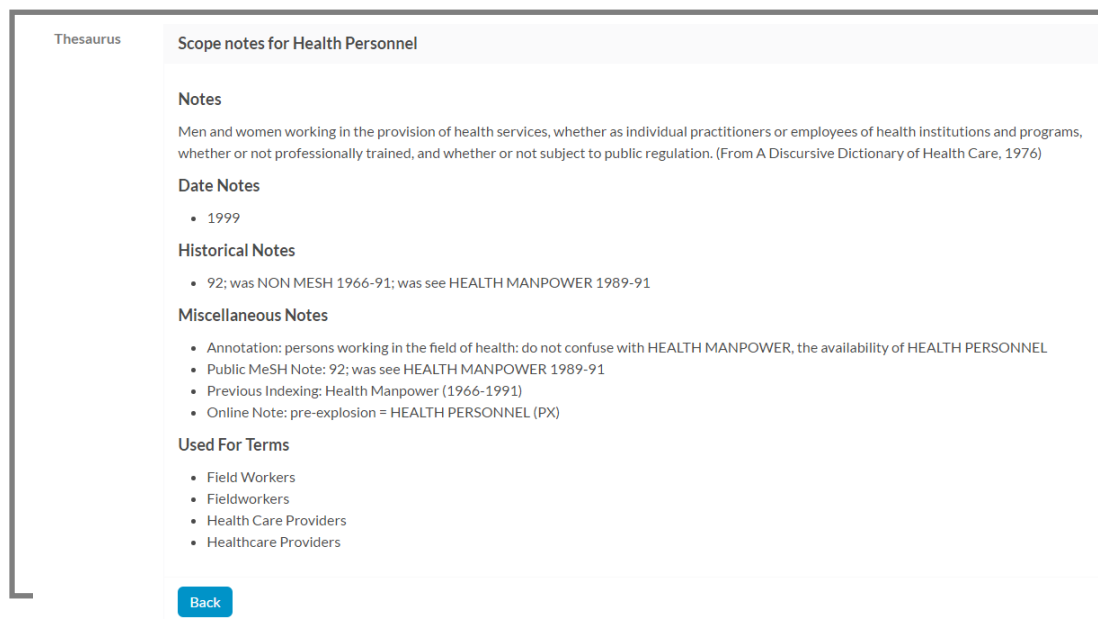

Running the thesaurus search

Once you have made your selection(s) choose the search now or search as individual queries button (right corner).

Search now will search all of your selected terms together (combining with an OR).

Search as individual queries will search for each of your selected thesaurus terms separately (so they will appear as separate search rows in your search strategy).

What are scope notes and why should I read them?

Scope notes are thesaurus definitions. These can be helpful for checking that you have selected the correct term. To see the scope note, click on the word **scope** next to the thesaurus term (scope notes are not available in all databases).
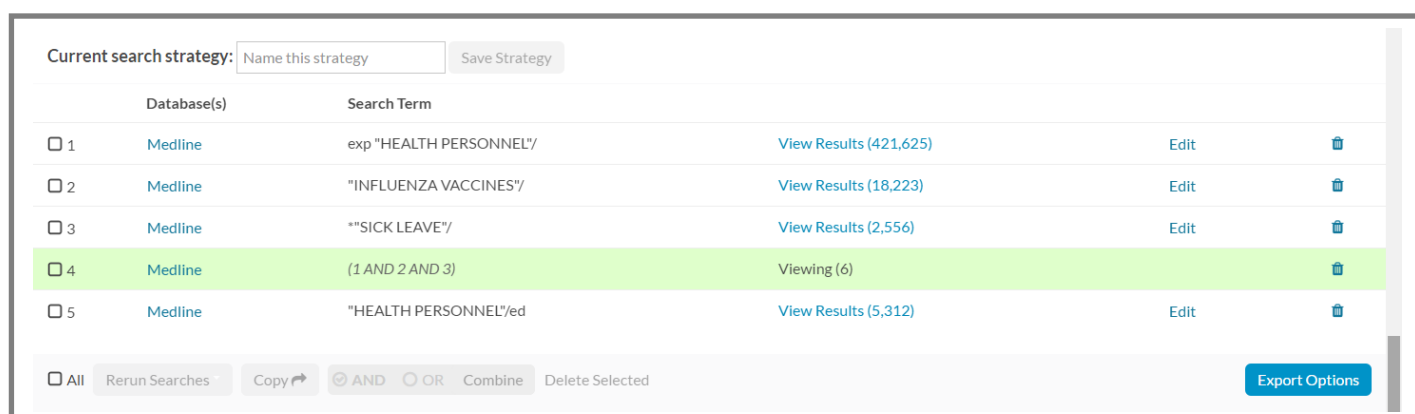

Along with a definition the scope note usually also tells you the year the MeSH heading was added to the thesaurus. It may give any previous terms that were used which you might need to search with. If in doubt about using a thesaurus term – read the scope note.

To return to the thesaurus options click the blue back button.

How do I know if I have searched the thesaurus?

A search strategy using the thesaurus is displayed below. If **/** appears after the search term, it shows the thesaurus was used. **Exp** before the search term shows an exploded search was used. ***** before the search term shows the **major descriptor** option was used. Subheadings appear after the search term, as shown in search 5 below where the subheading **education** appears after the term **health personnel**.

Exiting the thesaurus

To exit the thesaurus and return to the main search screen scroll to the top of the page and select the red 'close thesaurus' option (located on the left of the page).