PubMed

Contents

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UNIVERSITY OF LEEDS

Introduction

PubMed is a free service provided by the United States' (US) National Library of Medicine. The bibliographic database includes details of over 16 million articles from Medline and from additional life science journals back to the 1950s.

Bibliographic databases contain records of information about journal articles. You can search inside them to find articles on your topic of interest. PubMed is a major database covering medicine, dentistry and some nursing material published since 1966. It contains bibliographic details (author, title, journal title, date, volume number) and author abstracts (summaries) from more than 4,600 biomedical journals published in the United States and 70 other countries.

As well as references taken from Medline, PubMed includes links to full text articles and other related resources which publishers have submitted and which are not available via Medline. PubMed services also give free access to nucleotide, protein, genome and molecular structure databases which are not covered in this workbook.

Learning outcomes

By the end of this workbook, you should be able to:

- Access PubMed via the Library website

- Search the database

- Display the results of your search

- Locate the full text of useful articles

- Save your results for future use

- Be aware of other features of PubMed

About this workbook

Things that you need to type are displayed in bold font. You can use any web browser.

1. Getting Started

You do not need a password to enter PubMed - it is a free database available on the internet.

Exercise 1 – Getting into PubMed

From the library homepage click on 'Subject databases', under the section 'Student essentials'. Now enter the name of your subject into the search box at the top of the page, or scroll down the alphabetical list to find your subject and click on the name.
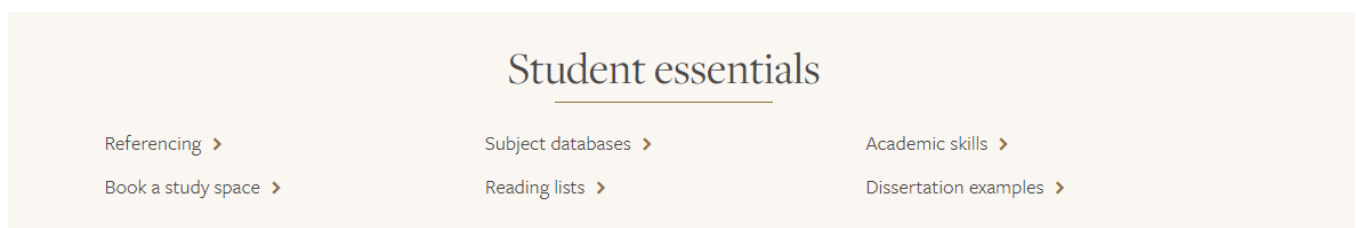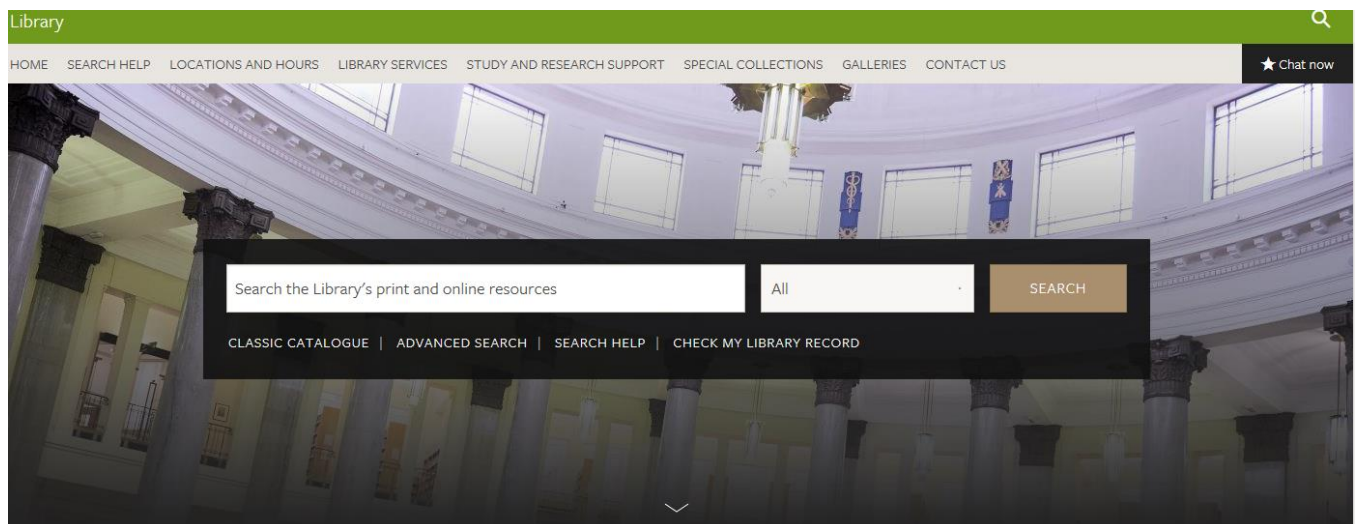
Scroll down the next page to the 'Key databases' section.

Note: Pubmed is not listed on the key databases page for every subject. If PubMed is not on your own subject's key databases page, you can find it on the list of key databases on the Medicine subject resources page.

Your key databases page provides you with a list of databases which have been chosen as the most likely to be relevant for your subject. It's a good idea to browse through them and read their descriptions to decide which ones are relevant for your studies.

As this workbook looks at Pubmed, select Pubmed from the list of databases. The entry will look like this:

PubMed

A service of the US National Library of Medicine that includes over 16 million citations from the journals in the Medline database as well as biomedical articles from further life-science journals. This version of Medline also includes PreMedline, references to articles that have been published but not yet included in the full version of Medline. The search interface is less easy to use than our normal Medline service, and many of the records in PreMedline don't have abstracts, but this is one of the most up to date biomedical databases available. Also includes some links from references to full-text journals. A current awareness service provides links for newly added content.

Guide to using PubMed ▸

Click the green link to Pubmed on the key databases page (see circled above in screenshot).

Next, on the PubMed Catalogue page, click on PubMed Central under 'Full text availability'

DATABASE
PubMed Central
🔗 Available Online ›

Available online

Full text availability

PubMed Central

Then you will see the NCBI homepage. Select PubMed from the drop down list at the top left:
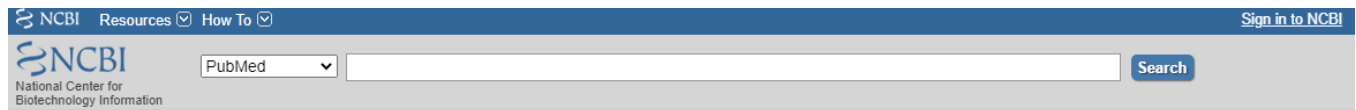

2. Searching for articles on a topic

For the purposes of this workbook, we will search for articles on the topic of:

The role of private practitioners in tuberculosis control

It is possible to do a very simple search in PubMed and still get useful results, but better results are usually obtained by doing a more advanced search. Both types of searches will be shown in the exercises in this section.

The following search box should be visible at the top of the screen.

Exercise 2a - Simple search

In the search box, type:

> **The role of private practitioners in tuberculosis control**

Click on the Search button

The next screen will show you the number of articles found and will give you each article's title and which journal it has been published in (see part 3 for more on this).

How many articles did you find?   _____

In this simple search the database only looked for the search words exactly as you typed them. This means that you may have missed many relevant articles. For example, your search found the word "practitioners" but missed equally important words/spellings e.g. "practice".

A much more efficient way of searching is to:

1. Break the search topic into its main parts, in this case:

    - private practitioners

    - tuberculosis control

2. Use truncation to find different variations of words. The truncation symbol in PubMed is * so if you type nurs* the database will find words that start with those letters regardless of how the words end i.e. it will find nurse but also nurses, nursing etc. This can be a useful way of finding relevant articles. Searching for private practi* will look for private practitioner, private practitioners, private practice…etc.

3. Search for each word/phrase separately

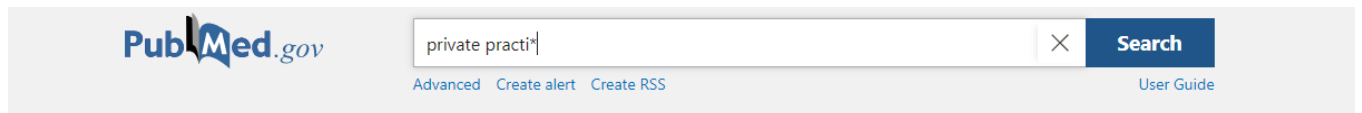4. Finally combine the searches together appropriately (see page 5)

Exercise 2b - More advanced techniques - using truncation

Clear the search box by clicking on the x
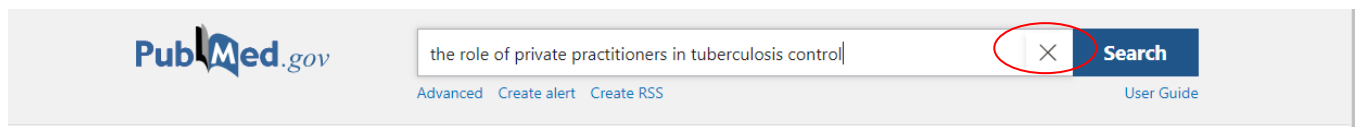
Then type:

```
private practi*
```


Click on Search. You will see a list of articles that contain your search terms.

Clear the search box again and type:

```
tuberculosis control
```

Click on Search. Again, you will see a list of articles.

You now have 2 new searches (3 searches altogether). To see all these, click on the link 'Advanced' (below the search box). Each of your searches will be preceded by a number (#1, #2 etc) and in the righthand Results column, you will see how many articles were found for each search word/phrase.

Note: The numbers allocated to your searches may not be the same as the examples shown in this workbook, especially if you've been trying out some of your own extra searches. It is therefore very important to look at each search number carefully.

Combining your search results

You now need to combine the 2 new searches together, using the word **and**. This narrows the search down and makes it more specific so that the database only leaves you with articles that contain both of your search words/phrases at the same time.

Exercise 2c - Combining searches using 'and'

In the search box, you must type the appropriate numbers for the search words/phrases you want to combine together (private practi*, tuberculosis control)

- You must use the hash [#] symbol before each number

- Combine them by using the word **and** (you can type the word **and** using lower or upper case letters).

Let's see how this looks in practice. You should already be on the Advanced screen. Type the numbers (including the #) that relate to your searches – for example #1 **and** #2 into this box and click on Search.

This will result in a set of articles on your subject.

How many did you find?   _____

This should be more than in the first search.

Combining selected search terms with **or** can be useful as it enables you to search for and incorporate synonyms - words/phrases which have a similar meaning, e.g. vaccination **or** immunisation.

This is a good habit to get into if you want to make sure your search is comprehensive or if you haven't yet found enough articles on which to base your research. For example, the search above produced a reasonable number of articles. But you might want to include private sector as well as private practice/practitioner(s) to make sure you are not missing relevant articles.

To do this follow the instructions below:

Exercise 2d - Combining searches with OR

Clear the search box.
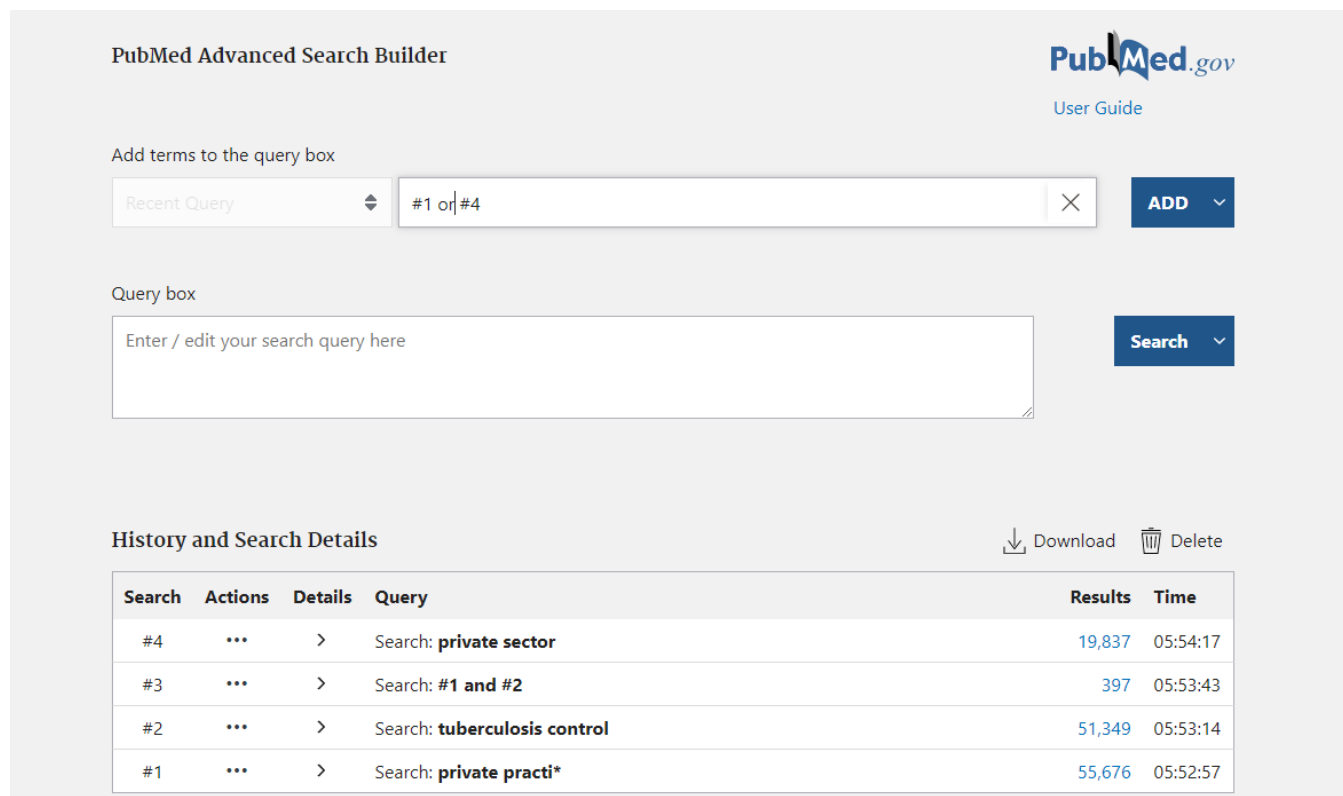
Type `private sector` and click on the Search button

Now click on the Advanced link to see the list of searches you've carried out.

Next you are going to instruct PubMed to find all the articles on the subject of private practitioners/practice **or** the private sector. To do this:

Note the numbers for these 2 search phrases and type them in to the search box, this time separating them with the word **or** e.g.

#1 or #4

Then click on Search

Don't forget your set numbers may be different.

Note: This workbook just gives you one example of thinking of alternative words/phrases you could combine with OR. For example, you might also want to look for articles which use the abbreviation TB as well as those which use tuberculosis (tuberculosis **or** TB). And in a "real life" search of your own, it is good practice to think of as many alternative words/phrases as possible and to combine them with **or**.

Exercise 2e - Final combination of search results

You now need to combine this set of results on private practitioner(s)/practice or private sector with the previous results on tuberculosis control using **and** in order to obtain a final list of articles that mention **both** your topics.

Click on the **Advanced** link to see your previous searches

Note the numbers for the search words/phrases you want to combine and type them in to the search box, this time separating them with the word **and.**

Based on this example search history, we will use sets #7 (the private sector **or** private practi* search) and #2 (tuberculosis control).

Click Search to see your final results.

Make sure you use the right search sets from your own searches

For information, it is possible to go back and view the results from any of your searches from the Advanced screen by clicking on the number under **Results**.

3. Displaying your results

Your PubMed search results are normally shown 10 at a time (unless you change this by clicking on Display options at the top right).

Click on the title of any of your results to see more detail.

A typical result will look like this:

Name of the journal the article is published in. Put your cursor over to see the name in full.

Comparative Study > Trans R Soc Trop Med Hyg. 2019 Dec 1;113(12):740-748.
doi: 10.1093/trstmh/trz062.

The year, volume, issue, page numbers

Tuberculosis control activities in the private and public health sectors of Kenya from 2013 to 2017: how do they compare?

Article title

Eunice W Mailu [1], Philip Owiti [1][2], Serge Ade [2][3], Anthony D Harries [2][4], Marcel Manzi [5], Eunice Omesa [1], Polly Kiende [1][6], Stephen Macharia [1], Irene Mbithi [7], Maureen Kamene [1]

Affiliations + expand

PMID: 31334760   PMCID: PMC6907001   DOI: 10.1093/trstmh/trz062

Free PMC article

Authors

Abstract

Abstract or summary

Background: Large numbers of tuberculosis (TB) patients seek care from private for-profit providers. This study aimed to assess and compare TB control activities in the private for-profit and public sectors in Kenya between 2013 and 2017.

Methods: We conducted a retrospective cross-sectional study using routinely collected data from the National Tuberculosis, Leprosy and Lung Disease Program.

Results: Of 421 409 patients registered and treated between 2013 and 2017, 86 894 (21%) were from the private sector. Data collection was less complete in the private sector for nutritional assessment and follow-up sputum smear examinations (p<0.001). The private sector notified less bacteriologically confirmed TB (43.1% vs 52.6%; p<0.001) and had less malnutrition (body mass index <18.5 kg/m2; 36.4% vs 43.3%; p<0.001) than the public sector. Rates of human immunodeficiency virus (HIV) testing

FULL TEXT LINKS

OXFORD ACADEMIC

PMC Full text FREE

ACTIONS

❝ Cite

☆ Favorites

SHARE

PAGE NAVIGATION

‹ Title & authors

Abstract

Figures

Similar articles

References

4. Checking for full text availability

Exercise 4 – Checking for full text availability

Notice on the right hand side you can see whether the article is available to you in full text.

If you see a button like this you can click on it to download the full article.

ive Study > Trans R Soc Trop Med Hyg. 2019 Dec 1;113(12):740-748.

/trstmh/trz062.

FULL TEXT LINKS

OXFORD
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:ulosis control activities in the private and
health sectors of Kenya from 2013 to 2017: how
y compare?

ACTIONS

" Cite

☆ Favorites

ailu ¹, Philip Owiti ¹ ², Serge Ade ² ³, Anthony D Harries ² ⁴, Marcel Manzi ⁵,
sa ¹, Polly Kiende ¹ ⁶, Stephen Macharia ¹, Irene Mbithi ⁷, Maureen Kamene ¹

+ expand

If there is no button, full text may not be available to you but it is always worth checking the Library catalogue for the journal name (not article name) in case this link is not working for some reason (may not work from off campus).

It is also possible that the Library only has the journal in paper copy so electronic full text cannot be found under those circumstances.

5. Using limits

You may want to limit your results by full text articles only, publication date, species, article type, language etc.

To do this in Pubmed you can use the limits on the left hand side of your search screen:

6. Saving, emailing or importing your results

You can select the results you want to keep and save them, or email them to yourself. It is also possible to import your results into reference management software such as EndNote (available on the University computer clusters).
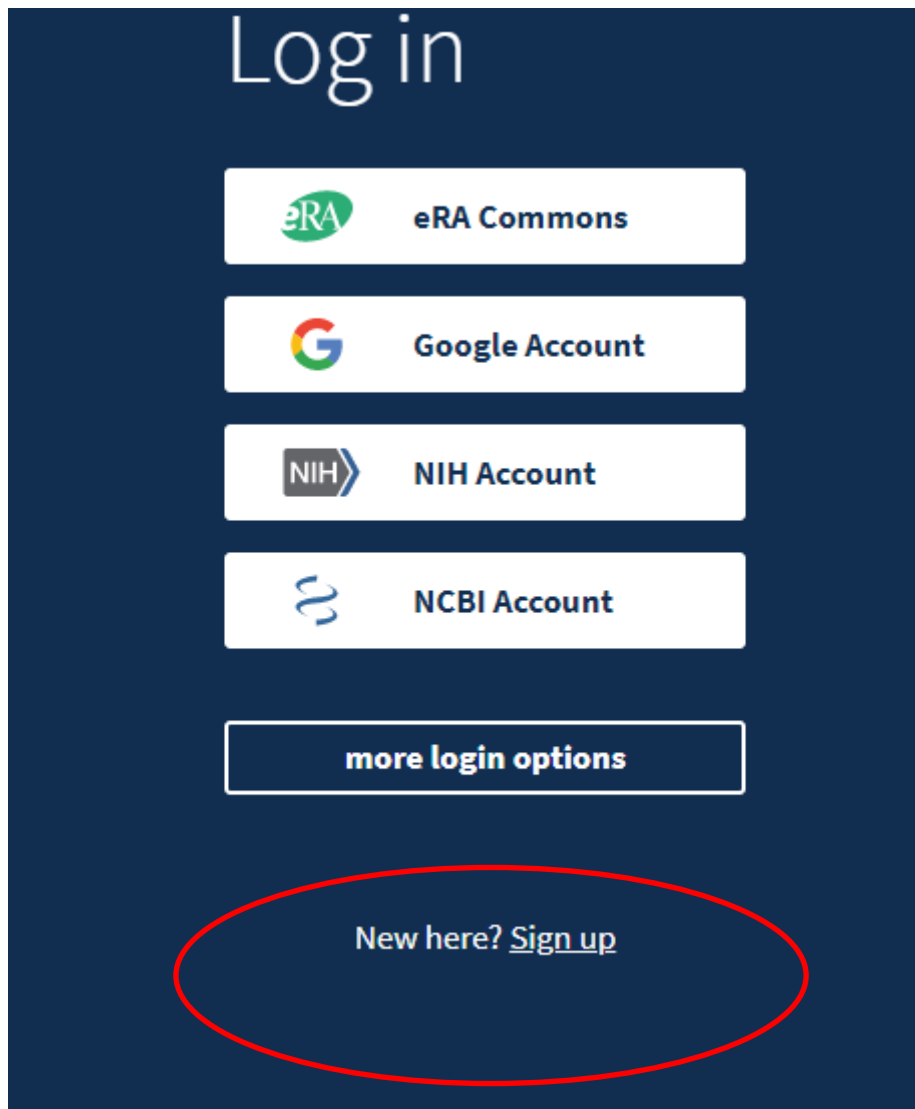
Whichever of these you do, you will be using the three menus highlighted in red below:

Exercise 6a - Saving

To save items permanently you will need a NCBI account. Go to Login then the Sign up link

Search results can be saved in My NCBI using the Collections feature. There is no limit to the number of collections you can store.

To save results to a new collection:

Sign into My NCBI. Run a search in PubMed.

Use the check boxes to select items from your search results. To save all results (up to a maximum of 1,000), do not tick any check boxes.

Use the **Send to** button and choose **Collections**.

Selected items will be added to a Collection.

If no items were selected, a drop-down menu of options will display where you may add selected items, all results on the page, or all results (up to a maximum limit of 1,000 citations) to a Collection.

Exercise 6b – Emailing

To select references for emailing, tick the box to the left of the results you want to keep. If you do not do this, all the references in the set will automatically be selected for you.

To email, click on the **Email** button which will open up this window where you can type in your preferred email address. Click **Send email**.

Exercise 6c: Exporting to reference management software (e.g., EndNote)

Note: This exercise assumes you are already an EndNote user – if you're not, look at our support pages **http://library.leeds.ac.uk/researcher-endnote** to find out more.

To select references for exporting, tick the box to the left of the results.

From Send to: choose **Citation manager**.

Then click on **Create File**. Click on the file and it will be added to your EndNote library.

7. Further information

PubMed contains a wealth of further features, including access to specialist databases of interest to biomedical sciences researchers. For more information, including saving searches and re-running saved searches, view PubMed's own help pages here
http://www.ncbi.nlm.nih.gov/books/NBK3827/

There are also some PubMed tutorials on YouTube
http://www.youtube.com/playlist?list=PLBD13A2628C7A9965