1. Go to the Bioscience, Natural Resources & Public Health Library home page, lib.berkeley.edu/bios
2. Scroll down and click the PubMed link (under Key databases)
3. In the search box type: “climate change”[tiab] AND food security (making sure you use the “quotation marks”), and click Search – you should get over 1000 citations
   - What you did:
     - The “quotation marks” forces PubMed to search for these words as an exact phrase
     - The [tiab] tells PubMed to look for this phrase only in the title or abstract of articles (TIP: using [ti] instead of [tiab] would search for the term(s) in article titles only; it should thus bring back a smaller search result)
4. At the top of the page, just under the search box, click Sort by [whatever] and change the sort to whatever you wish. Note that changing the sort to “Best Match” (aka relevance) may change the search result number due to the way PubMed’s search algorithm interprets relevance.
5. Click Summary near the top and change to Abstract
6. Scroll through the results:
   - Citations tagged [indexed for MEDLINE] (look for this near the bottom of each citation) have had MeSH terms applied to them; you should also see the “MeSH terms” link (it may read “Publication types, MeSH terms ...”)
   - MeSH (Medical Subject Headings) is PubMed’s subject term list. More on that in class
7. Find a citation tagged [indexed for MEDLINE] (you may need to scroll way down or go to the second page...), and click the MeSH Terms link (remember, it may read Publication Types, MeSH terms, ...)
8. You will now see the MeSH terms applied to this citation:
   - Any MeSH with an * asterisk is a major MeSH term: one of this article’s major concepts
   - Some MeSH terms have a / (slash) and a word or phrase following the slash. The word(s) following the slash are called subheadings (or qualifiers) and they focus the search to a particular aspect of the MeSH term.
   - Note that the following are all categories of MeSH terms:
     - age groups (adult, adolescent, etc.)
     - places (states, countries, etc.)
     - epidemiologic methods (analysis of variance, cohort studies, focus groups, etc.)
     - behaviors and attitudes (cooperative behavior, food preferences, paternalism, etc.)
   - and so on
9. Click on one of the MeSH terms and notice (don’t click any yet) the 3 options:
Search in PubMed runs a new search on this term only
Search in MeSH searches for this term in the MeSH Database
Add to Search puts this term into the search box at the top of the screen
10. Click Search in MeSH; you should see your term (possibly a list of terms) in the MeSH Database
   ➢ If you see a list of terms, click on one of the terms
11. You should see a definition, a list of subheadings appropriate for this term, and the option to search PubMed for this term as a Major Topic, as well as to search without including narrower MeSH terms
   ➢ Scroll down, and you can see where your term sits in the MeSH hierarchy/hierarchies, and if there indeed are narrower terms.
12. Check (any) one of the Subheadings, check Restrict to MeSH Major Topic, then click Add to search builder (on right side), then click Search PubMed to run a new search on this term only

EMBASE

1. Go to the Bioscience, Natural Resources & Public Health Library home page, lib.berkeley.edu/bios
2. Scroll down and click the Embase link (under Key databases)
3. Near the middle of the top of the page, above the search boxes, click Disease
4. In the search box, type diabetes mellitus
5. Click the Disease subheadings (just under the search box) and select Epidemiology
6. Click Search – you should get over 29,000 citations
7. On the left-side menu:
   a. Open the Age menu and select Adolescent;
   b. Open the Diseases menu, scroll down, and select Depression (you will need to scroll down to see it);
   c. Click Apply > at the top of the left-side menu; you should get about 66 citations
      ➢ A few of these citations are not in PubMed. What does this tell you about limiting your literature search to only PubMed?
8. Scroll down till you see this citation: Risk of developing multimorbidity across all ages in an historical cohort study: Differences by sex and ethnicity
9. Click the drop-down menu labeled Index Terms
   ➢ Embase’s index terms are called Emtree and there are way more Emtree terms than there are MeSH terms. Some terms you see here are unique to Emtree (ie, not in MeSH), i.e. comorbidity assessment and ethnic difference
10. Click the diagonally trending symbol: 🎧 just to the right of ethnic difference – this will execute a search in the Emtree database
11. Scroll down (if needed) and click the **33,165 Records** link (NOTE: This number may have increased); this executes an Embase search for (only) this term
12. Mouse over where you see ‘**ethnic difference’**/exp, above the citation list and click **Edit** (on the far right).
13. Type **AND ‘diabetes mellitus’** (use the ‘quotes’) in the search box, click **Test**, then **Accept and update**
14. Here you can choose any **Filters** on the left side menu to further refine this search, if desired

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**WEB OF SCIENCE**

1. Go to the Bioscience, Natural Resources & Public Health Library home page, [lib.berkeley.edu/bios](http://lib.berkeley.edu/bios)
2. Scroll down and click the **Web of Science** link (under **Key databases**)
3. Enter this article title in the search box: *Strategies for reducing inequalities and improving developmental outcomes*, then change the drop-down menu to the right to **Title**; click **Search**
4. At the far right you will see **Times Cited: 232** (this number may have increased). Click the number to see the citations of articles that cite *this* article
5. Click **Analyze results** near the top right
6. On the left side, click **Authors**
7. You will see a graphic of the top 10 authors with articles that cite this article
   - This is an excellent way to see who the top authors are on a topic
8. Scroll down to the list of authors below the graphic and check the boxes to the left of the top 2 listed authors, scroll to the bottom of the page, then click the **View Selected button**
   - Several of these citing articles are not in PubMed ... Good thing you are not doing your entire literature search only in PubMed!
9. You can start over and analyze by other options such as source (ie, journal), if desired. **TIP**: looking where to publish your article? Do a Web of Science search on your topic, limit the result to the last few years (3-5, more or less), and analyze the results to see the journals that publish the most articles on your topic

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**SOCIOLOGICAL ABSTRACTS**

1. Go to the Bioscience, Natural Resources & Public Health Library home page, [lib.berkeley.edu/bios](http://lib.berkeley.edu/bios)
2. Under **Key databases**, click **More databases...**
3. Scroll (way) down and click **Sociological Abstracts** link
2. Click the Thesaurus link above the search box
3. Keep the default selection **Contains word(s)** and type *adolescents* into the **Search terms**: box
4. Click **Find**
5. Click the small square icon just to the right of the term *Adolescents*
   - Notice the **definition** and the **Related terms** (you may need to scroll down a bit to see these)
6. Place a check mark in the boxes to the left of the 2 terms *Adolescent Parents* and *Adolescent Pregnancy*
   - You should see **2 terms selected** in a box at the bottom left
7. At the bottom right of the thesaurus window, make sure that **Combine using: OR** is selected, and click the **Add to search** button. You should be taken back to the main search screen, with your terms in the search box
8. Click **Search**
   - How many results did you get? (Should be about 577)
9. Click the **Modify search** link, located just under the search box
10. Type *risk* in the second search box and click **Search**
    - Look at your results: many of these citations are not in PubMed. If your topic is at all within the social sciences, it would behoove you to try databases like Sociological Abstracts or other social science databases.
11. You can see all the searches you’ve done in a session by clicking the **Recent searches** link just under the search box