Research4Life Programmes/ Searching Skills (Users Course: Module 1)



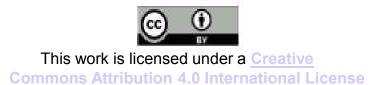


Table of Contents

- Brainstorming Questions
- Background Research4Life Programmes (HINARI, AGORA, OARE, ARDI)
- Research4Life Do's and Don't's
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- Google vs. (Google) Scholar vs. PubMed
- Boolean & Advanced searching
- Evaluating Web Sites

Pre-Workshop Questions

 What information/data do you need to do your work more efficiently/effectively?

Where do you look for the above information?

 Are you satisfied with the quality/quantity of information available?







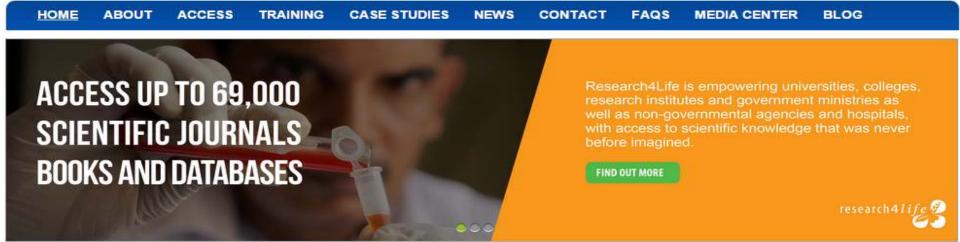








Access to Research in the Developing World









Goals of Research4Life Programmes (R4L)

- To connect developing world researchers with the international scientific community
- To reduce the 'publishing gap' and improve the quality of locally produced articles and journals
- Ultimately improve health, food security environment, and development in relation to U.N.'s 2015 – 2030 Sustainability Development Goals
- Available in 115 countries, areas & territories

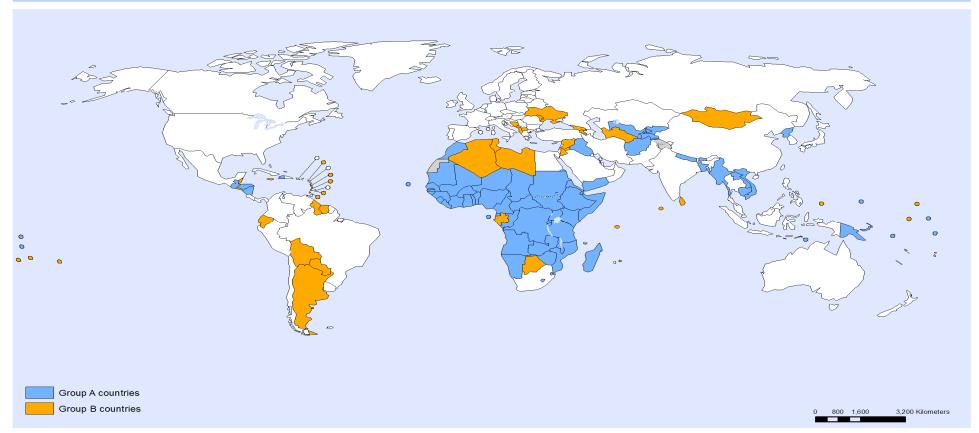
Primary Target Audiences

- Eligible categories of institutions are:
 - national universities
 - professional schools (medicine, nursing, pharmacy, public health, dentistry)
 - research institutes
 - teaching hospitals
 - government: ministries and agencies
 - national medical libraries
 - locally based non-governmental organizations (NGOs)

All permanent and visiting faculty, staff members and students are entitled to access and can obtain the institutional User Name and Password.

Who is eligible for R4L Programmes: 116 - total number of countries/areas/territories

Countries, areas and territories eligible for Research4Life



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever in the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: Information Evidence and Research (IER)
World Health Organization



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Partners

Key Publishers

- Elsevier
- Springer
- Wiley
- Sage
- Taylor & Francis
- Lippincott/Williams & Wilkins
- BioOne
- Oxford University Press
- Nature Publishing
- Other science/technical/ medical publishers

Programme Partners

- World Health Organization
- Food and Agriculture Organization of the United Nations
- United Nations Environment Programme
- World Intellectual Property Organization
- International Association of Scientific, Technical and Medical Publishers
- Yale University Library
- Cornell University Mann Library
- National Library of Medicine
- Information Training and Outreach Centre for Africa
- Librarians Without Borders®/MLA

http://extranet.who.int/hinari/en/partners.php



Log in

Search

Hinari About Hinari Access the content Eligibility Partners Training materials Promoting Hinari Contributions

Hinari Access to Research for Health programme

Hinari Programme set up by WHO together with major publishers, enables low- and middle- income countries to gain access to one of the world's largest collections of biomedical and health literature. Up to 15,000 journals (in 30 different languages), up to 47,000 e-books, up to 100 other information resources are now available to health institutions in more than 100 countries, areas and territories benefiting many thousands of health workers and researchers, and in turn, contributing to improve world health.

- → Map of country breakdown 2016
 ¬ png, 121kb
- Eligible Countries 2016

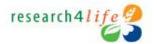
Give to Hinari

You can make a difference

Portuguese Hinari website

Hinari site in portuguese

Other Sister Programmes with



Access to Research4life C



Access to Global Online Research in Agriculture ☑

Brief video about AGORA



Research4Life/INASP Advocacy Competition



Competition 🖸

Flyer png, 84kb

The Hinari Team would like to invite you to participate in the Research4Life/INASP Advocacy Competition. This is a global case study competition to spotlight how users in the developing world have successfully advocated for a sustainable research culture. The competition is open to all researchers, librarians, policymakers, doctors and other professionals.

Research4Life/INASP Advocacy

Hinari

- Online portal to access information on health and related social sciences
- Coordinated by WHO and Yale University
- Currently, more than 6200 registered institutions
- Offering up to 13,000 journals / 56,000 books / 120 other information resources / 165 publishers' content included [July 2017]

http://www.who.int/hinari





English

Français Português Русский

Q

AGORA

ACCESS TO GLOBAL ONLINE RESEARCH IN AGRICULTURE



AGORA: What's in a name?

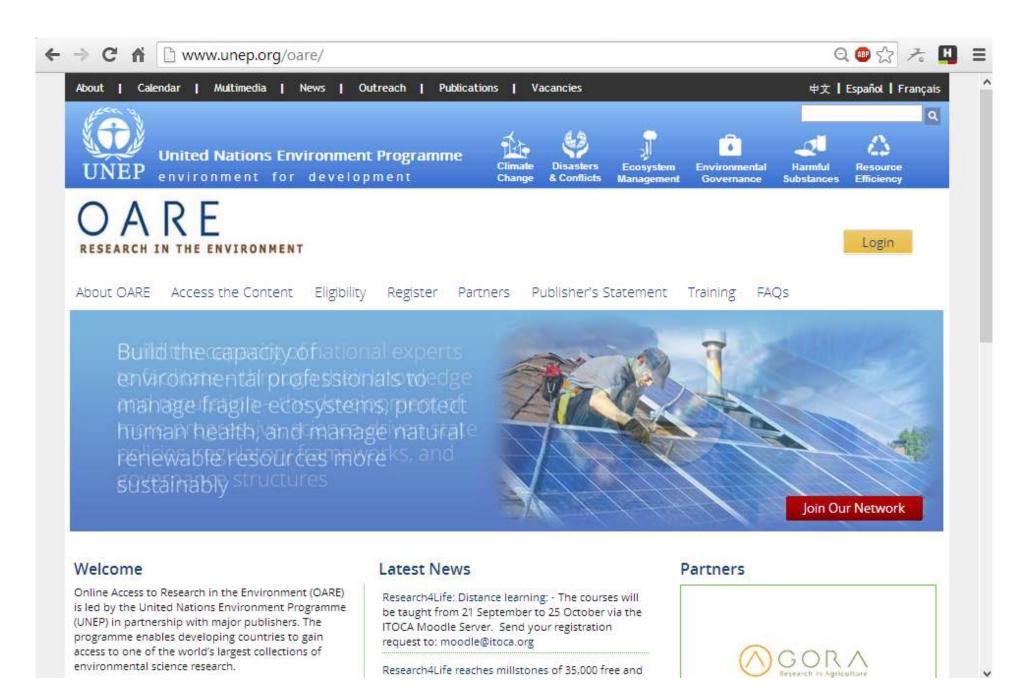
04 July 2017

AGORA

(Access to Global Online Research in Agriculture)

- Online portal to access information on agriculture and related sciences
- Coordinated by FAO/Cornell University, USA
- More than 3100 registered institutions
- Up to 8,200 journals / 22,000 books / 40 other information resources / 85 publishers' content included [July 2017]

http://web.unep.org/oare/



OARE

(Online Access to Research in the Environment)

- Online portal to access environmental information
- Coordinated by UNEP/Yale University
- More than 3000 registered institutions
- Over 10,000 journals / 22,000 books / 55 other information resources / 80 publishers' content included [July 2017]

http://www.unep.org/oare



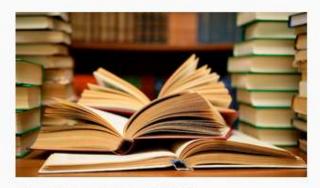
ARDI - Research for Innovation

The Access to Research for Development and Innovation (ARDI) program is coordinated by WIPO together with its partners in the publishing industry with the aim to increase the availability of scientific and technical information in developing countries.

By improving access to scholarly literature from diverse fields of science and technology, ARDI seeks to:

- reinforce the capacity of developing countries to participate in the global knowledge economy; and
- support researchers in developing countries in creating and developing new solutions to technical challenges faced on a local and global level.

Currently, 31 publishers provide access to around 28,000 journals, books, and reference works for 117 developing countries and territories through ARDI.



(PHOTO: ISTOCKPHOTO.COM/VIORIKA)

ARDI

(Access to Research for Development and Innovation)

- Online portal to access development and innovation research; ARDI was launched by the World Intellectual Property Organization in 2009 and joined R4L in 2011
- Supports researchers in developing countries in creating and developing new solutions to technical challenges faced on a local and global level
- More than 1000 registered institutions. Up to 7,800 journals; 21,000 books; 25 other resources; 40 publishers' content [July 2017]

http://www.wipo.int/ardi

R4L Resources Usage: Do Share

Institution's R4L usernames and passwords with:

- Authorized Users: an institution's employee, permanent or visiting faculty or student
- Walk-in Users: anyone who comes to the institution's premises and is permitted by the institution to access services there

Note: Access from remote access is permissible but limited to computers owned personally by employees or by institution

Copyright and Fair Use

- Is the same as typical copyright and fair use principles; it is OK to:
- Download or print up to 15% of a journal issue or book
- Use material for educational purposes (course packs or reserves)
- Make copies for institution members or students

Note: Always credit sources

Abuse of Privileges: Do Not

- Share usernames and passwords with those from outside the institution
- Supply documents to individuals or organizations outside the registered institution
- Charge a fee for supplying documents except to recover cost of printing
- Use R4L programmes when outside the country

Do Not (continued)

- Upload or post the material to a publicly available website or elsewhere
- Post usernames and passwords to websites or blogs that are publically accessible

Note: Violations result in the institution or possibly entire country denied access until the problem is resolved. If your institution's password does not work for several days, it may have been compromised. DO NOT REGISTER AGAIN. Report this to r4l@research4life.org and always including your UserID.

Gateway – subject specific

- Library gateways are collections of databases and informational sites, arranged by subject, that have been assembled, reviewed and recommended by specialists
- Gateway collections support research and reference needs by identifying and pointing to recommended, academically-oriented pages on the Web. Examples:
 - WHO A-Z health topics list
 - Yale University Forestry and Environmental Studies Alumni Research Guide

University of South Carolina, Beuford Library, 15 June 2015 www.sc.edu/beaufort/library/pages/bones/lesson4.shtml

Web Search Engine

- A software system that is designed to search for information on the WWW. Results are presented in a line of results often referred to as search engine results pages (SERPs).
- Information may be a mix of web pages images, and other types of files. Some search engines also mine data available in databases.
- Also maintain real-time information by running an algorithm on a web crawler. Examples:
 - Google
 - Google Scholar (more academic)
 - Yahoo

en.wikipedia.org/wiki/Web_search_engine 15 June 2015





Web

Images

Books

Videos

This is how Google presents the results of your HINARI search. The most relevant cite is organized into sections.

About 1,690,000 results (0.30 seconds)

WHO | **HINARI** Access to Research in Health Programme <



www.who.int/hinari/en/ World Health Organization *

HINARI Programme set up by WHO together with major publishers, enables lowand middle- income countries to gain access to one of the world's largest ...

HINARI Access to Research

HINARI - Enabling the developing world to access health research ...

About HINARI

About HINARI, HINARI Access to Research in Health Programme ...

HINARI - List of Journals

Full access to this content for everyone. You must log in to ...

More results from who.int »

Eliaibility

Eligibility, HINARI Core Offer includes two groups of countries ..

Training Materials

Training Materials, Distance learning courses. The HINARI ...

Journals by Title

Find by: Subject - Language -Publisher, Journals by Title ...



www.healthinternetwork.org/ *

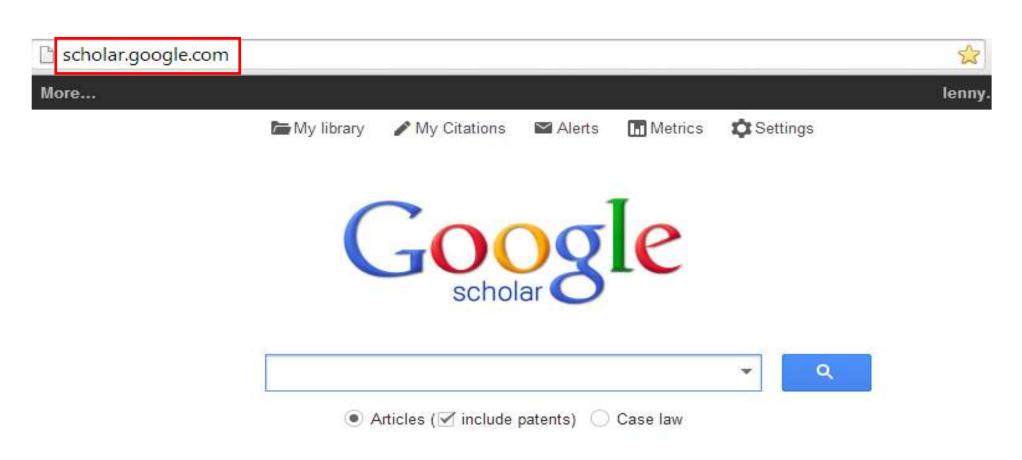
By Hinari on July 2, 2014 Leave a Comment · how to seduce him. Do you wish your love was just like in the movies? The man who cares about you, commits to ...

HINARI - Wikipedia, the free encyclopedia 💙

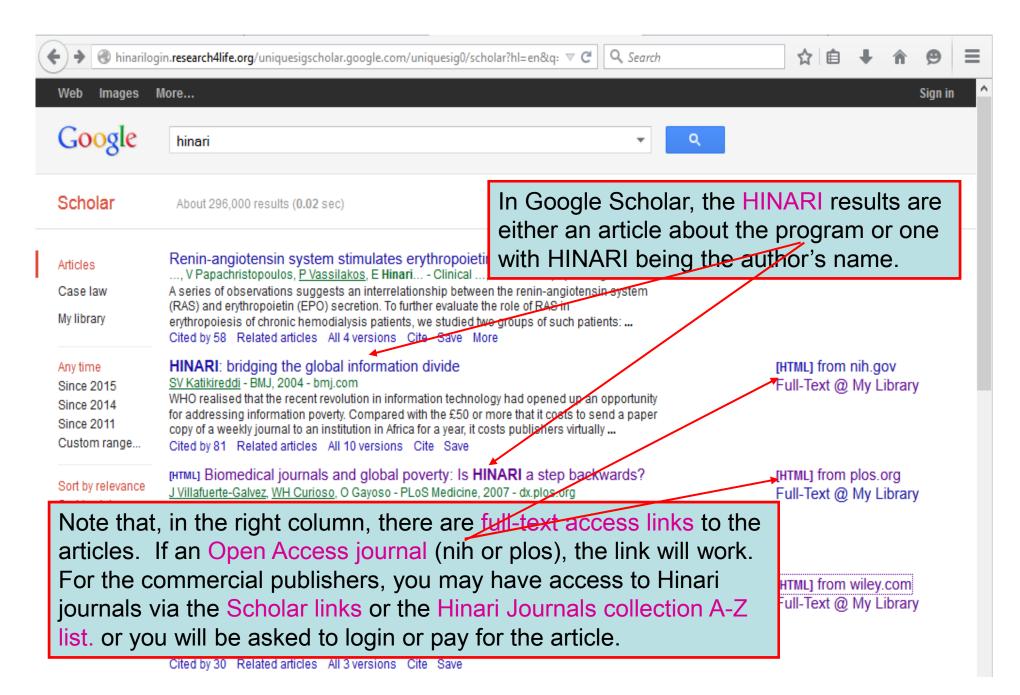


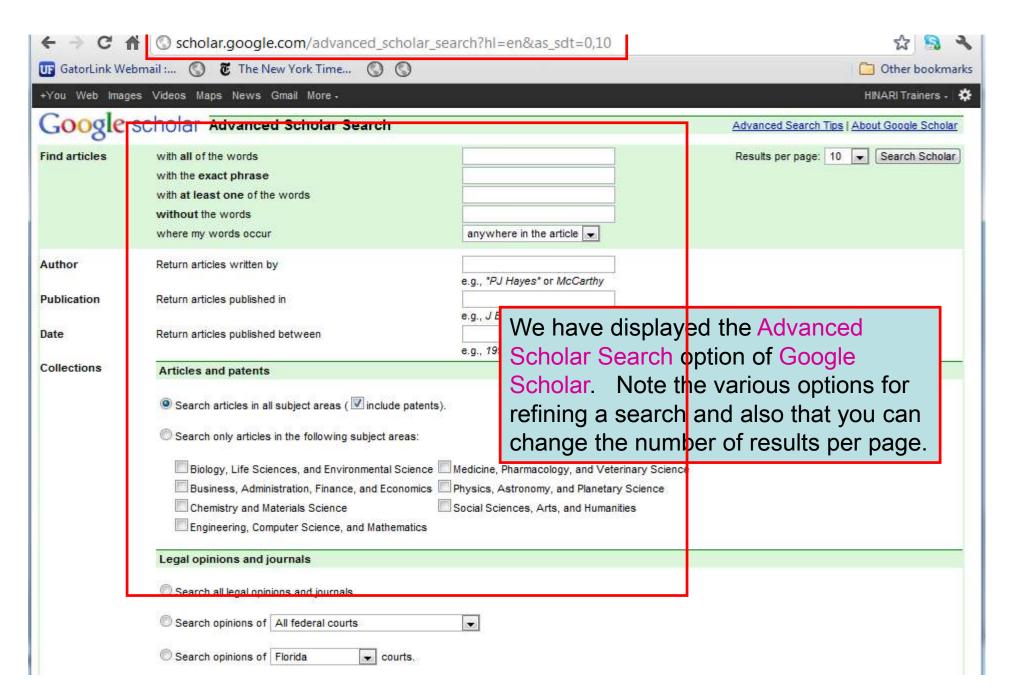
en.wikipedia.org/wiki/HINARI * Wikipedia *

HINARI, as it is commonly abbreviated stands for Health InterNetwork Access to Research Initiative. It was set up by the World Health Organization and major ...



Google Scholar provides a simple way to broadly search for scholarly literature. You can search across many disciplines and sources: peer-reviewed papers, theses, books, abstracts and articles, from academic publishers, professional societies, preprint repositories, universities and other scholarly organizations.





Databases – subject specific

 Devoted to a single subject; created by researchers, experts, governmental agencies and other subject specialists who have professional knowledge of a particular field and have accumulated information and data about it.

University of South Carolina, Beuford Library, 15 June 2015 www.sc.edu/beaufort/library/pages/bones/lesson4.shtml

- A collection of information organized in such a way that a computer can quickly select desired pieces of data/an electronic filing system with search tools
- Organized by fields, records and files
- Examples:

PubMed - a free search tool to over 27 million citations SCOPUS – Elsevier's abstract and citation database of peer-reviewed literature



PubMed

PubMed comprises more than 26 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites.

Using Publied
PubMed Quick Start Guide
Full Text Articles
PubMed FAQs
PubMed Tutorials
New and Noteworthy

PubMed Tools	More Resources
PubMed Mobile	MeSH Database
Single Citation Matcher	Journals in NCBI Databases
Batch Citation Matcher	Clinical Trials
Clinical Queries	E-Utilities (API)
Topic-Specific Queries	<u>LinkOut</u>

LinkOut			
PubMed will be discussed at length			
in Module 3. There are 27 million			
citations in this (USA) National			
Library of Medicine database.			

b reviews rats.

New articles from highly accessed journals Cancer Res (1) Circulation (33) Cochrane Database Syst Rev (3) J Biol Chem (4) J Clin Endocrinol Metab (9)

Reconstitution in vitro of the entire cycle of the mouse female germ line.

Nature. 2016.

Trending Articles

PubMed records with recen

Strength, body composition

squat versus leg press exerc

J Sports Med Phys Fitness. 20

Single-cell RNA-seq identifies a PD-1hi ILC progenitor and defines its developmental pathway. Nature. 2016.

Little Dayceiane or little Einsteine? Probability and evaluations

.@CSI_KCL Journal Club discusses evidence gaps in managing breathlessness at end of life. bit.ly/2cSCbts

Evaluating systematic review of LDL & mortality: D Nunan (@dnunan79) shares group's summary of methodological flaws. bit.ly/2cAelSY

16 June 2017

JAMA (36)

Lancet (42)

Heing PubMed

Latest Literature

Google (search engine)

Advantages

- Searches articles, books and webpages
- Has advanced search options
- Can limit search by dates, document types, language, domain and more

Disadvantages

- No indexing terms
- Huge retrieval of almost any topic
- No ability to select citations for downloading or printing
- Built in relevancy ranking based on times cited
- Cannot limit to journal articles

Google Scholar (search engine)

Advantages

- Searches journals, books and more academic sources
- Can download individual citations into bibliographic managers
- Contains citing information with links to sources citing a specific term

Disadvantages

- No indexing terms
- Huge retrieval of almost any topic
- No ability to select citations for downloading or printing
- Built in relevancy ranking based on times cited that...
- May result in bias toward older literature

PubMed (database)

Advantages

- Well indexed using Medical Subject Headings (MeSH)
- Can 'explode' terms
- Contains 5,609 current journals in health sciences
- Includes citations of ejournals prior to publication
- Can download info to bibliographic managers
- Can select citations to download or print

Disadvantages

- Access limited almost exclusively to basic and health sciences journals that are indexed in the database
- Does not search full-text of articles

Search: hospital infections developing countries

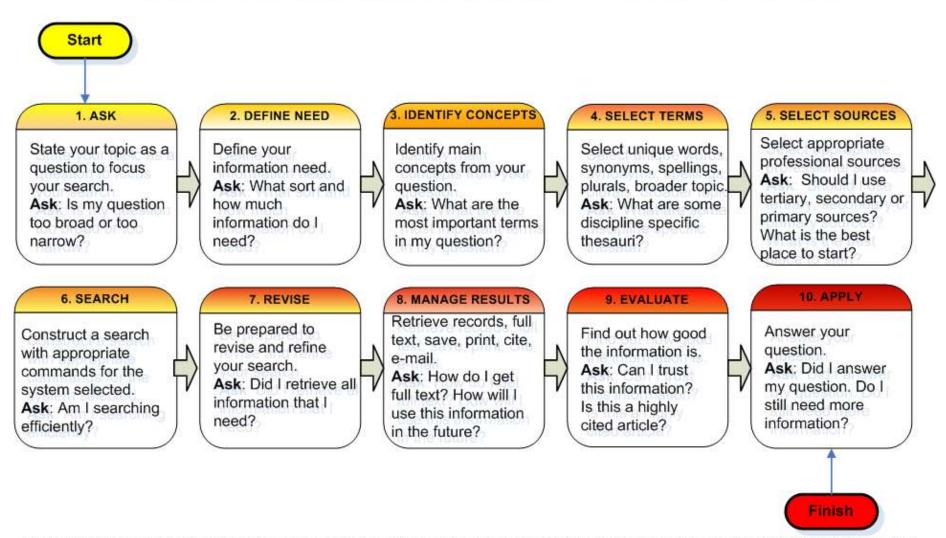
(performed 20 October 2016)

- Google: 2,390,000 citations; first citation July 2011; World Health Organization in 1st 50 articles, no 2016 citations listed
- Google Scholar: 1,110,000 citations; first citation March 2005; The Lancet
 # in 1st 50 articles, no 2016 citations listed
- PubMed: 5426; first citation October 2016; American Journal of Infection control
 - articles 'sorted by recently added' date (not 'sorted by relevance' although this is an option)

Why Search Strategy is Important?

- Health care includes the provision of information to consumers or professionals (reliable, accurate, up-todate)
- Information explosion- billions of documents in the WWW; hard to find the 'needle in the hay stack' and know which source is best for a specific situation;
- Evidence-Based Medicine clinicians are not using enough evidence in practice
- Systematic search strategy should be adopted when dealing with clinical questions to avoid 'information malpractice'

Developing a Search Strategy: Process Overview



Remember: Your question drives the search strategy. There is no one best way to search. Avoid one stop searching to prevent bias.

Example (Steps 1-4)

- 1. Ask: What health problems are associated with water pollution?
- 2. Need: scholarly primary research
- Main Concepts: health, water, pollution
- 4. Select terms:
 - Broader terms: 'health', environmental degradation', 'agricultural management',
 - Synonyms:
 health, illness, disease, etc.
 water, rivers, lakes, sea, domestic water, etc.
 pollution, 'oil spills', chemical, biological, toxicity, etc
 - Alternative spellings: none
 - Plurals: river(s), lake(s), disease(s)
 - Capitals: e.g. name of a specific lake, disease, region

Select a Source (Step 5)

Tertiary Sources

ADVANTAGES	DISADVANTAGES
Easy access	Lag Time
Ease of use	Outdated
Concise	Incomplete information
Relatively inexpensive	Incorrect interpretation

Secondary Sources

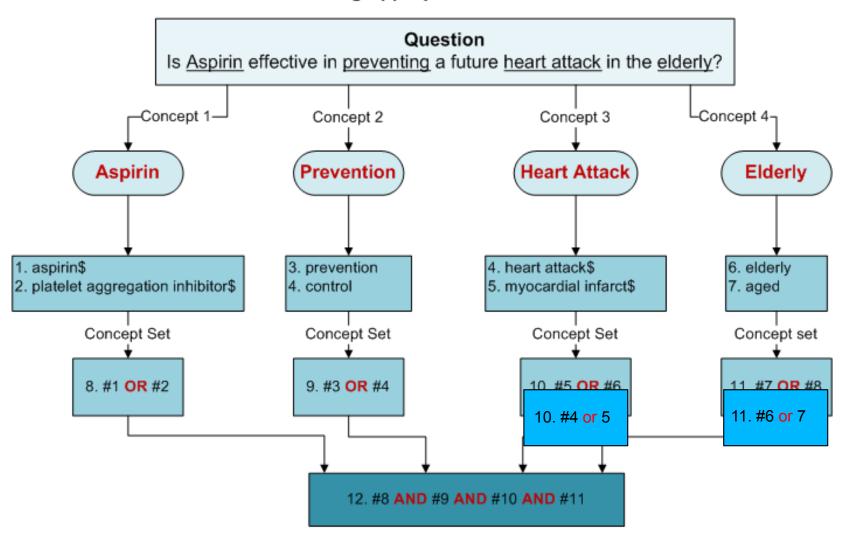
ADVANTAGES	DISADVANTAGES
Rapid access to the primary literature	Lag time
Generally high standard journals	Command language varies
Ability to perform complex searches	Proficient search skills are needed
Routine updates on selected topics (alerts)	Can be expensive

Primary Sources

ADVANTAGES	DISADVANTAGES
Original data	Large volume data
Unbiased information	Time consuming

Search Construction

Construct a Search using Appropriate Commands and Best Practices

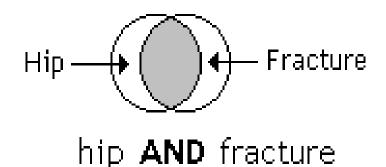


When searching enter one term/phrase at a time; keep terms in separate concept sets; combine search terms with OR first; then with AND.

Boolean (Search) Operators

- connect terms and locate records containing matching terms
- inserted in a search box AND, OR, NOT
- AND, NOT operators are processed in a left- to right sequence. These are processed first before the OR operators
- OR operators are also processed from leftto-right

AND Operator (to combine two concepts and narrow a search)



the **AND** operator is used to combine two concepts e.g. hip **AND** fracture – in the shaded area; retrieves items containing all the search terms



Bone density, osteoarthrosis of the hip, and fracture of the upper end of the femur.

bmj.com [PDF]

MV Foss, PD Byers - Annals of the rheumatic diseases, 1972 - ard.bmj.com
Surgeons have often noticed the general absence of osteoarthrosis in the head of the femur
excised in the treatment of **fracture** of the femoral neck. Ball (1966) confirmed this impression
from his personal experience in the laboratory; this stimulated Byers, Contepomi, and ...
Cited by 243 Related articles All 9 versions Cite

Impact near the hip dominates fracture risk in elderly nursing home residents who fall

WC Hayes, ER Myers, JN Morris, TN Gerhart... - Calcified Tissue ..., 1993 - Springer Summary **Hip** fractures among the elderly are a significant and rapidly growing public health problem. The prevailing view is that most **hip** fractures are the consequence of age-related bone loss or osteoporosis. However, because over 90% of **hip** fractures are the result of ... Cited by 282 Related articles BL Direct All 4 versions Cite

Total **hip** arthroplasty after **fracture** of the acetabulum. Long-term results

boneandjoint.org.uk [PDF]

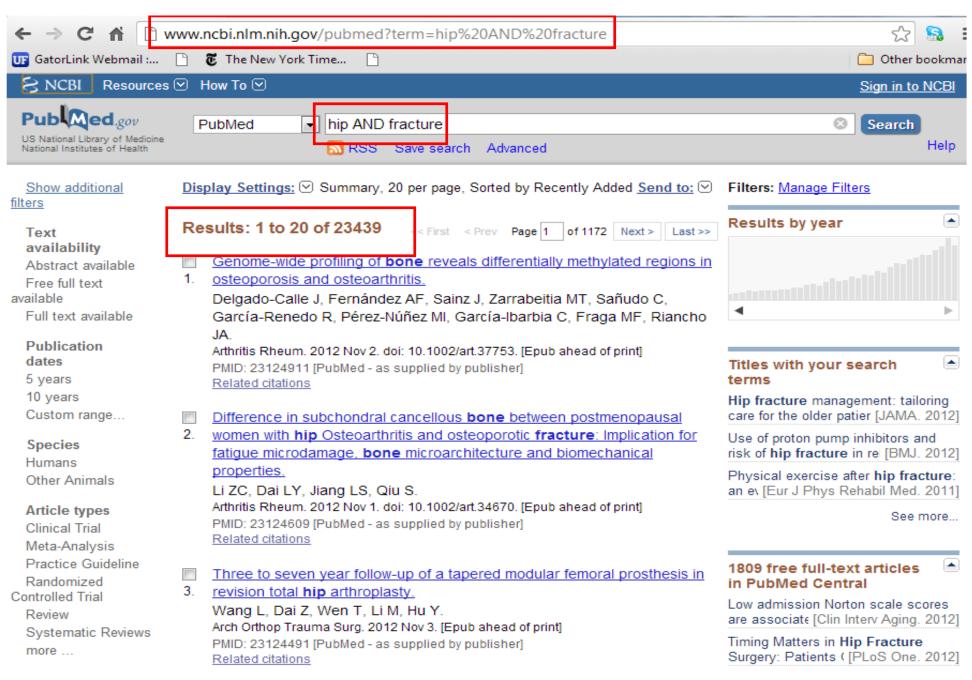
DW Romness, DG Lewallen - Journal of Bone & Joint ..., 1990 - bjj.boneandjoint.org.uk
Abstract We made a retrospective study of 55 primary total **hip** arthroplasties in 53 patients
with a history of previous acetabular **fracture**. The mean follow-up was 7.5 years and the
average age at **fracture** was 48.7 years. The incidence of radiographic femoral loosening (...
Cited by 119 Related articles All 8 versions Cite

[СІТАТІОN] Traumatic posterior **fracture**-dislocation of the **hip** with **fracture** of the femoral head or jbjs.org [PDF] neck. or both

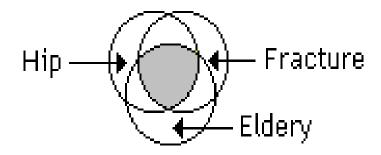
K Hougaard, PB Thomsen - J Bone Joint Surg Am, 1988 Cited by 83 Related articles All 5 versions Cite

Primary vitallium-mold arthroplasty for posterior dislocation of the **hip** with **fracture** of the femoral jbjs.org [PDF] head

PJ Kelly, PR Lipscomb - The Journal of Bone & Joint Surgery, 1958 - jbjs.org
Abstract **Fracture** of the femoral head associated with posterior dislocation is rare. Although
our experience is small, we present these cases because in them treatment carried out soon
after the injury was more active than in most cases recorded in the literature.
Cited by 38 Related articles All 6 versions Cite

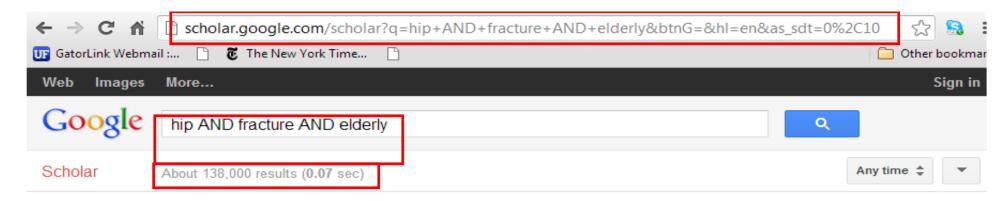


AND Operator (to combine three concepts)



hip **AND** fracture **AND** elderly

the **AND** operator is used to combine three concepts e.g. hip **AND** fracture **AND** elderly – in the shaded area.



<u>Ultrasonographic heel measurements to predict **hip fracture** in **elderly** women: the EPIDOS prospective study</u>

D Hans, P Dargent-Molina, AM Schott, JL Sebert... - The Lancet, 1996 - Elsevier BACKGROUND: The ability of ultrasonographic measurements to discriminate between patients with **hip fracture** and age-matched controls has until now been tested mainly through cross-sectional studies. We report the results of a prospective study to assess the ... Cited by 973 Related articles BL Direct All 10 versions Cite

Markers of bone resorption predict **hip fracture** in **elderly** women: the EPIDOS Prospective Study

P Garnero, E Hausherr, MC Chapuy... - Journal of Bone and ..., 2009 - Wiley Online Library Abstract Increased bone turnover has been suggested as a potential risk factor for osteoporotic fractures. We investigated this hypothesis in a prospective cohort study performed on 7598 healthy women more than 75 years of age. One hundred and twenty- ... Cited by 812 Related articles BL Direct All 8 versions Cite

Effect of risedronate on the risk of hip fracture in elderly women

MR McClung, P Geusens, PD Miller... - New England journal ..., 2001 - Mass Medical Soc We studied 5445 women 70 to 79 years old who had osteoporosis (indicated by a T score for bone mineral density at the femoral neck that was more than 4 SD below the mean peak value in young adults [-4] or lower than -3 plus a nonskeletal risk factor for **hip fracture**, such as ... Cited by 1589 Related articles BL Direct All 25 versions Cite

Prevention of **hip fracture** in **elderly** people with use of a **hip** protector

P Kannus, J Parkkari, S Niemi... - New England journal ..., 2000 - Mass Medical Soc We randomly assigned 1801 ambulatory but frail **elderly** adults (1409 women and 392 men; mean age, 82 years), in a 1:2 ratio, either to a group that wore a **hip** protector or to a control group. Fractures of the **hip** and all other fractures were recorded until the end of the first ... Cited by 533 Related articles BL Direct All 13 versions Cite

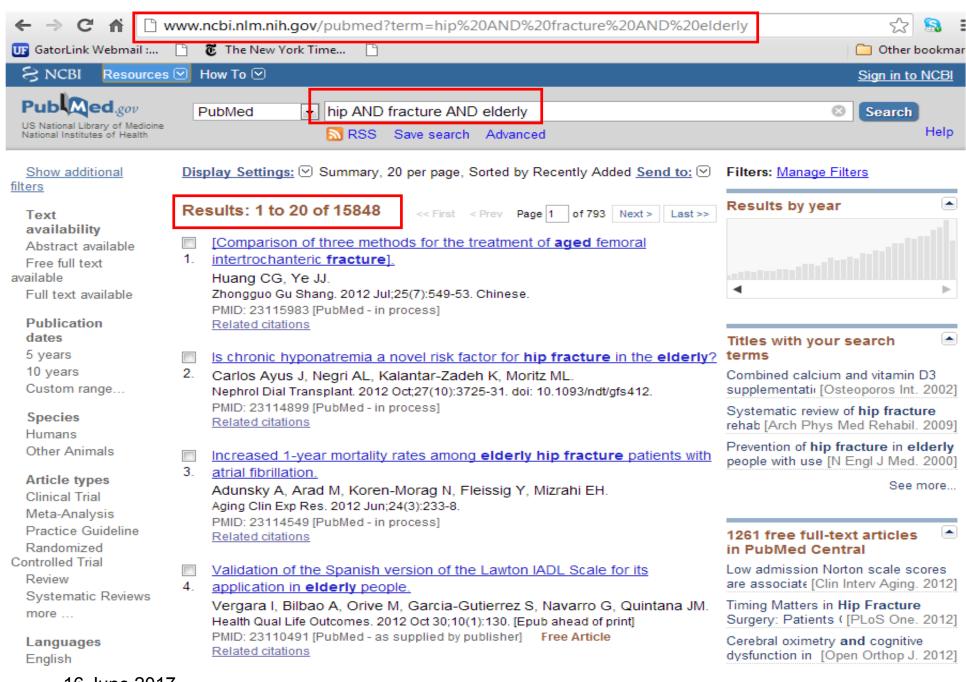
thelancet.com [HTML]

progeninc.co.kr [PDF]

vademecum.es [PDF]

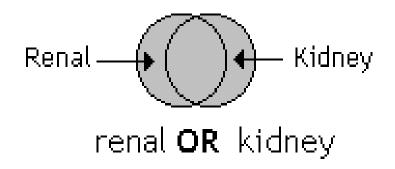
hospitalitaliano.org.ar [PDF]

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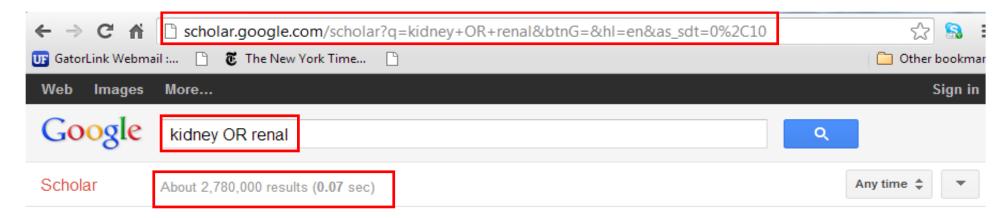


16 June 2017

OR Operator (info containing one or other term; will broaden a search)



renal **OR** kidney – in the shaded area with the overlap in the middle having both search terms; retrieves items containing either search term or both search terms



[СІТАТІОN] The polycystic **kidney** disease 1 gene encodes a 14 kb transcript and lies within a duplicated region on chromosome 16

EPKDC The - Cell, 1994 - Elsevier Science Cited by 445 Related articles Cite

Genome-wide atlas of gene expression in the adult mouse brain

..., DP Jeung, RA Johnson, PT Karr, R Kawal, JM **Kidney**... - Nature, 2006 - nature.com Abstract Molecular approaches to understanding the functional circuitry of the nervous system promise new insights into the relationship between genes, brain and behaviour. The cellular diversity of the brain necessitates a cellular resolution approach towards ... Cited by 1069 Related articles BL Direct All 14 versions Cite

[PDF] ACC/AHA Practice Guidelines

M Renal - Circulation, 2006 - gidiv.ucsf.edu

It is important that the medical professions play a significant role in critically evaluating the use of diagnostic procedures and therapies in the detection, management, and prevention of disease states. Rigorous and expert analysis of the available data documenting absolute ... Cited by 671 Related articles All 34 versions Cite More •

[сітатіон] Clinical practice guidelines for vascular access

National Kidney Foundation - 1997 - the Foundation

Cited by 220 Related articles Cite More ▼

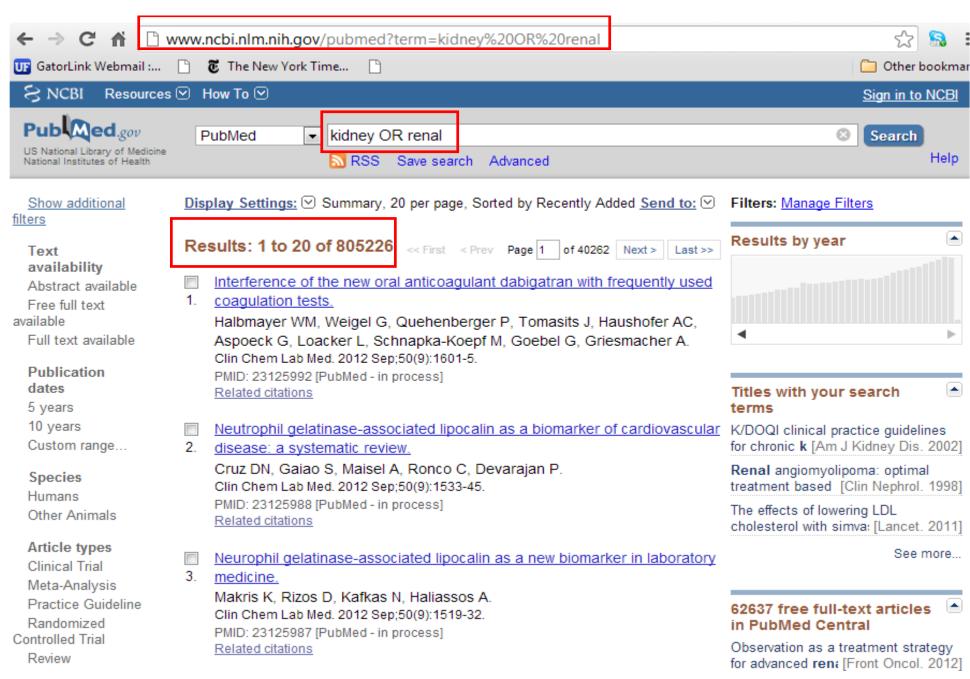
[сітатіон] Diabetes in America

..., Digestive, Kidney Diseases (US) - 1995 - ... Diabetes and Digestive and Kidney ... Cited by 323 Related articles All 2 versions Cite

16 June 2017

sinica.edu.tw [PDF]

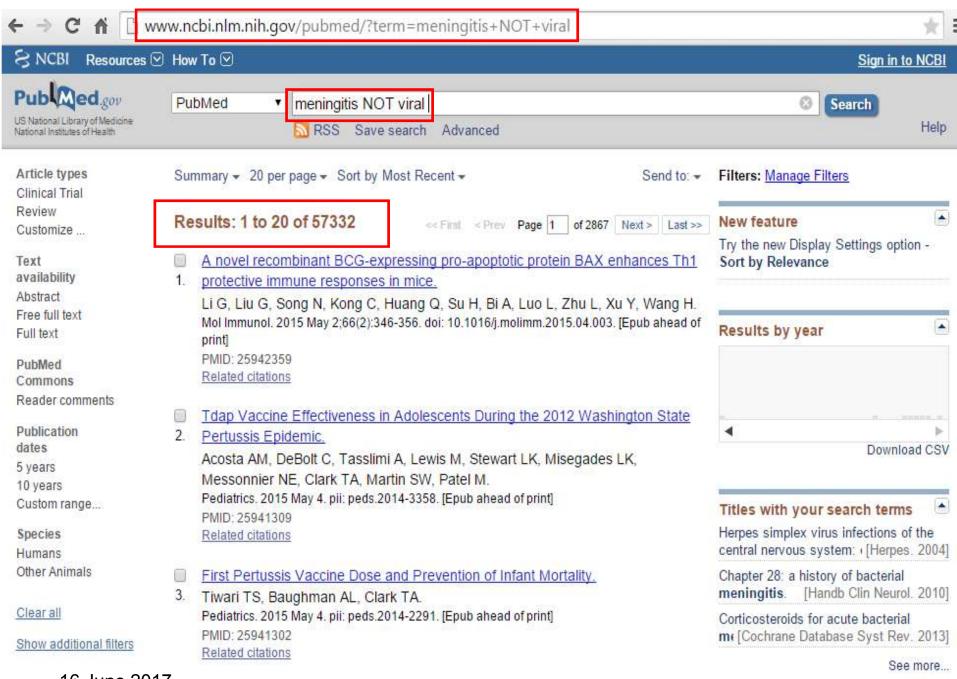
ucsf.edu [PDF] Free from Publisher



NOT Operator (in one term or the other - will narrow a search)

meningitis **NOT** viral – in the shaded area; eliminates items in 2nd term (viral) or both terms; search results will contain bacterial meningitis

Note: **NOT** does not work in Scholar and possible would eliminate some useful references; use judiciously



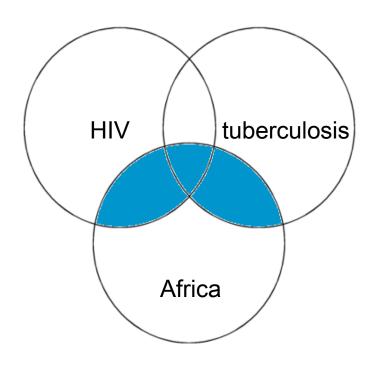
Other search engine functions

- Phrase or Proximity Searching: "..." or (...)
 - allows you to search for an exact phrase
 - "information literacy" or (malaria parasite)
- Truncation: * or \$
 - allow you to search for singular and plural spellings child* for child OR childs OR children parasite* for parasite OR parasites
- Wildcard or Alternate Spellings: ?
 - can be used to substitute for characters anywhere in a word

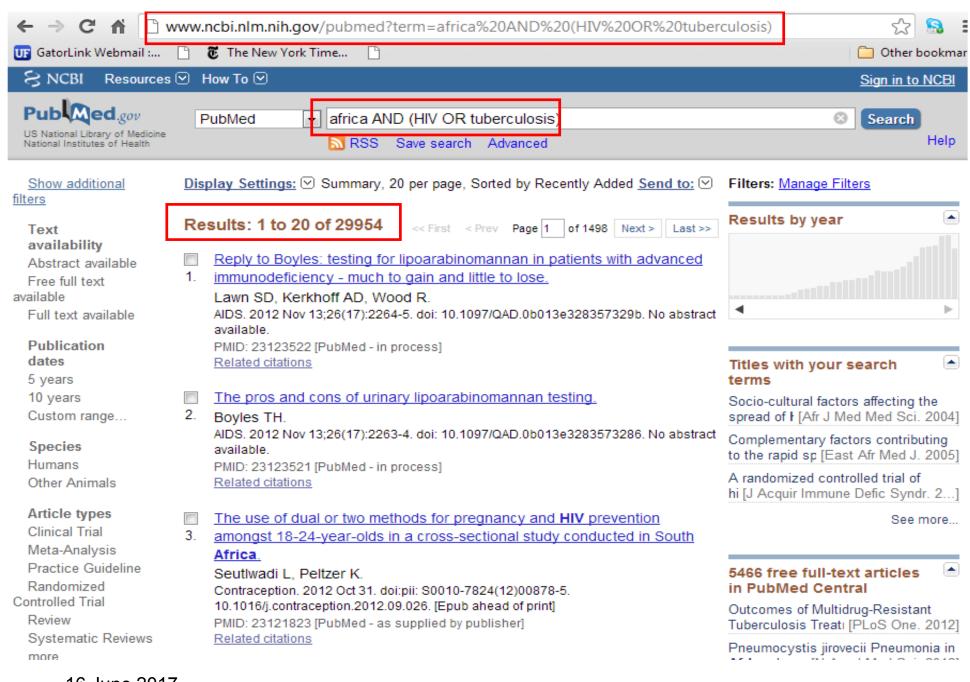
wom?n would search for "woman" and "women"

For more detail and examples for Hinari resources, see Hinari_Users_Course_Module_1_Appendix

Africa AND (HIV OR tuberculosis)



Africa AND (HIV or tuberculosis) – in the shaded area The **(OR)** operator retains items in each term and the **AND** operator is used to combine two concepts



More Search Techniques

- Field Specific Searching
 - author, title, journal, date, url, etc.
- Language Restrictions, Humans or Animals, Gender and other limits

(discussed in Hinari Users Course – PubMed Filters)

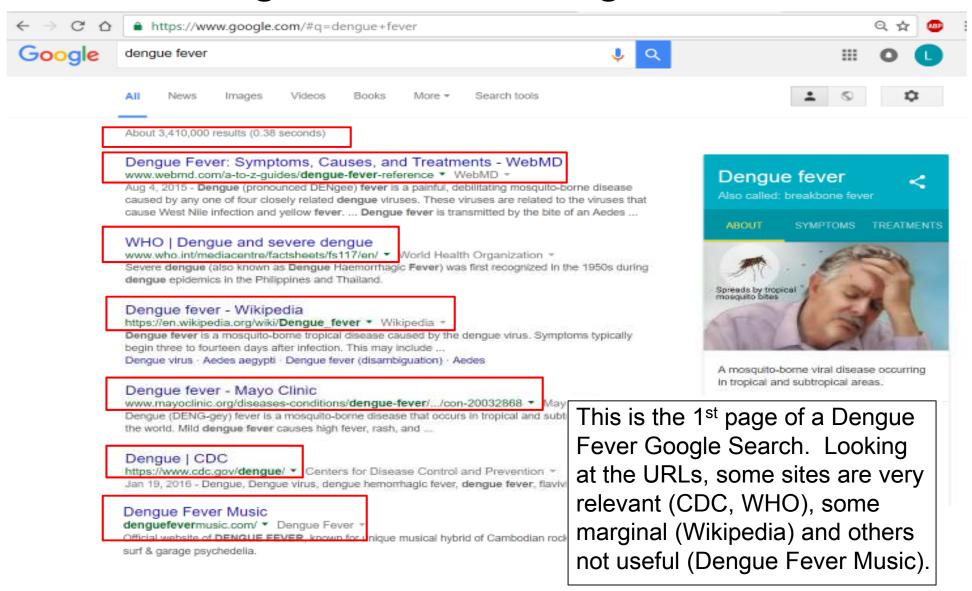
- Relevancy Ranking
 - a grading that gives extra weight to a document when the search terms appear in the headline or are capitalized
 - every found document is calculated as 100% multiply by the angle formed by weights vector for request and weights vector for document found

Evaluating Web Information

- Criteria for Evaluation
 - Accuracy
 - Authority
 - Currency
 - Coverage
 - Objectivity
 - Design/Navigation
- Evaluating Web Pages resources
 - guides.library.cornell.edu/evaluating_Web_pages
 - usm.maine.edu/library/checklist-evaluating-web-resources

16Qun Www.sc.edu/beaufort/library/pages/bones/lesson5.shtml

Google Search: Dengue Fever





Search Strategy material developed by: Irena Bond, Library Manager Associate Professor of Library and Learning Resources Massachusetts College of Pharmacy and Health Sciences

> There is a Work Book to accompany this part of the module. The workbook will take you through a live session covering the topics included in this demonstration with working examples.

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