

PubMed – the Einstein method

Tomas Allen

Geneva Workshop 2016



Simple search PubMed interface

NCBI Resources ▾ How To ▾ TomasTomasTomas

PubMed.gov
U.S. National Library of Medicine
National Institutes of Health

Search: PubMed ▾ [Advanced search](#) [Help](#) [Feedback](#)



Welcome to PubMed

The PubMed database comprises more than 19 million citations for biomedical articles from MEDLINE and life science journals. Citations may include links to full-text articles from PubMed Central or publisher web sites.



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- [Journals Database](#)
- [Clinical Trials](#)

Two types of searching

- Keyword
- Subject heading*
 - what I call the Einstein Method.

*Subject headings = standardized phrases describing main ideas.



Keyword searches can give bad results because they...

1. Ignore negating expressions (but, except, never...).
2. Treat all words as equally important.
3. Don't include synonyms and varieties of a search term (infant, infants, infantile, infancy, neonate, newborn, baby...).
4. Ignore ambiguities (*right* to life, *right* vs. left).

Examples →



Citations by keywords - HIV infection prevention

Results: 1 to 20 of 11226

<< First < Prev Page 1 Next > Last >>

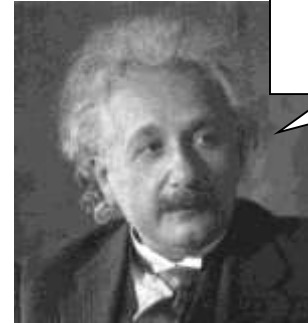
- [H1N1 vaccine, treatment updates for HIV/AIDS pts. Needle shot, pneumo vaccination, treatment options.](#)
 1. [options.](#)

[No authors listed]
AIDS Alert. 2009 Dec;24(12):140-1. No abstract available.
PMID: 20063477 [PubMed - indexed for MEDLINE]
[Related articles](#)
- [Treatment for hepatitis B.](#)
 2. Cooke GS, Main J, Thursz MR.
BMJ. 2010 Jan 5;340:b5429. doi: 10.1136/bmj.b5429. Review. No abstract available.
PMID: 20051467 [PubMed - indexed for MEDLINE]
[Related articles](#)
- [Intimate partner violence.](#)
 3. [No authors listed]
HRSA Careaction. 2009 Sep:1-12. No abstract available.
PMID: 20050220 [PubMed - indexed for MEDLINE]
[Related articles](#)
- [Vaccines. Group launches first H1N1 trial for HIV-infected pregnant women.](#)
 4. [No authors listed]



Keyword search results

- Too many to read through
- Lots of false hits
- Results that barely mention your terms
- Headaches and time drains.



1 512 275
results ?!?



What is MeSH?

Medical Subject Headings

- Standardized phrases describing topics specific to the health sciences.

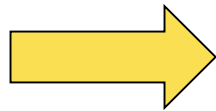


Why use subject headings?

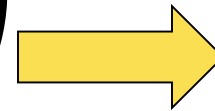
- Humans apply subject headings. In doing so, they
 - Consider negating words like *but*, *not*, *except* so your results won't include citations in which your search terms are specifically **excluded**.
 - Weigh the relative importance of the search term to the whole article.



Author



Indexer



Not all citations in PubMed have MeSH terms

Citations without MeSH terms:

- PMID:21534234[PubMed - as supplied by publisher]
- PMID:21534266[PubMed - in process]
- PMID:20895172[PubMed] Free PMC Article]
- PMID:14801968[PubMed - OLDMEDLINE]





[PubMed - indexed for MEDLINE]

[PubMed] Free PMC Article

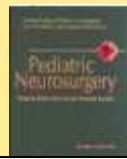
[PubMed - indexed for MEDLINE]

MEDLINE

(indexed with MeSH)

[PubMed - OLDMEDLINE]

[PubMed - as supplied by publisher]



[PubMed - indexed for MEDLINE]



[PubMed] Free PMC Article

[PubMed - in process]



Article in PubMed – not MEDLINE

NCBI Resources How To My NCBI Sign In

PubMed.gov
US National Library of Medicine
National Institutes of Health

PubMed 19340327[uid] Search

RSS Save search Advanced Help

Display Settings: Abstract

Send to:

FREE full text article
in PubMed Central

Int J Integr Care. 2009;9:e03. Epub 2009 Feb 26.

Evaluating intersectoral collaboration: a model for assessment by service users.

Ahgren B, Axelsson SB, Axelsson R.

Nordic School of Public Health, P.O. Box 12133, SE-402 42 Göteborg, Sweden.

Abstract

INTRODUCTION: DELTA was launched as a project in 1997 to improve intersectoral collaboration in the rehabilitation field. In 2005 DELTA was transformed into a local association for financial co-ordination between the institutions involved. Based on a study of the DELTA service users, the purpose of this article is to develop and to validate a model that can be used to assess the integration of welfare services from the perspective of the service users.

THEORY: The foundation of integration is a well functioning structure of integration. Without such structural conditions, it is difficult to develop a process of integration that combines the resources and competences of the collaborating organisations to create services advantageous for the service users. In this way, both the structure and the process will contribute to the outcome of integration.

METHOD: The study was carried out as a retrospective cross-sectional survey during two weeks, including all the current service users of DELTA. The questionnaire contained 32 questions, which were derived from the theoretical framework and research on service users, capturing perceptions of integration structure, process and outcome. Ordinal scales and open questions were used for the assessment.

RESULTS: The survey had a response rate of 82% and no serious biases of the results were detected. The study shows that the users of the rehabilitation services perceived the services as well integrated, relevant and adapted to their needs. The assessment model was tested for reliability and validity and a few modifications were suggested. Some key measurement themes were derived from the study.

CONCLUSION: The model developed in this study is an important step towards an assessment of service integration from the perspective of the service users. It needs to be further refined, however, before it can be used in other evaluations of collaboration in the provision of integrated welfare services.

PMD: 19340327 [PubMed - in process] PMC: PMC2663704 [Free PMC Article](#)

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Related citations in PubMed

How has the impact of 'care pathway technologies' on [Int J Evid Based Healthc. 2008]

[A proposal for reforming psychologists' training in France and in the European [Encephale. 2009]

Users' reports and evaluations of out-of-hours health care and the UK na [Br J Gen Pract. 2009]

[Review](#) Measuring integrated care. [Dan Med Bull. 2011]

[Review](#) Service integration and co-ordination: a framework of appro; [Child Care Health Dev. 2006]

See reviews...

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Related Citations

References for this PMC Article

How PubMed's MeSH database helps

- Enables you to search precisely yet comprehensively on a subject.
- Suggests terms if you've typed in a non-MeSH term or mistyped/misspelled a MeSH term.
- Retrieves citations published between 1966 and last week.*

*Citations published before 1966 or in the previous weeks don't have Medical Subject Headings, so you'll need to keyword search to retrieve them.

1 meaning: 1 term

- Subject headings represent unique meanings for homonyms.
 - Example: Instead of the multi-meaning keyword *delivery*, you would use :
 - *Drug Delivery Systems* or
 - Home *Childbirth* or
 - *Delivery* of Health Care.

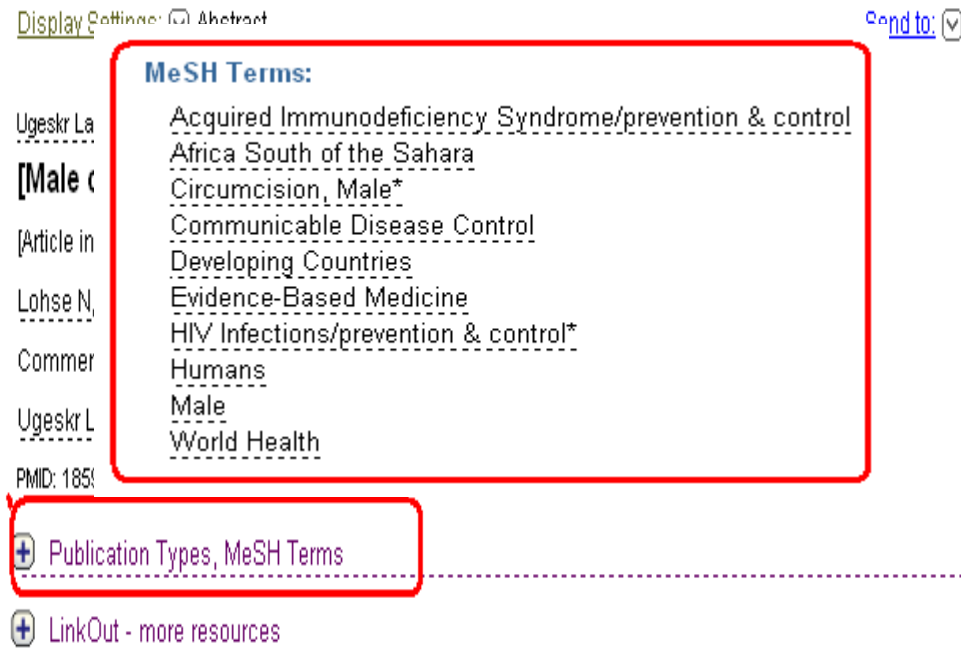
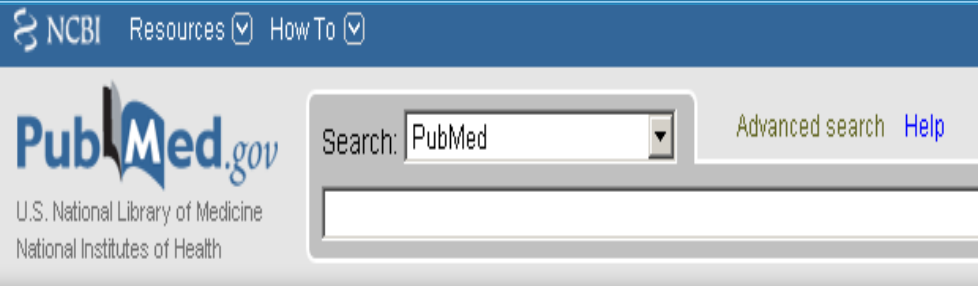


Where can I find MeSH terms?

1. Use the links on them in a relevant result from a keyword search.
2. Look them up in the MeSH database.



Stealing MeSH



1. Perform a keyword search on your topic.
2. Find a relevant result.
3. Click on a relevant term from the MeSH terms list to search on it.

Where is the MeSH database?

The screenshot shows the NCBI PubMed website interface. At the top, there is a navigation bar with "NCBI", "Resources", and "How To" menus, along with a "Sign in to NCBI" link. The main content area features a search bar and a "Search" button. A dropdown menu is open, listing various databases and resources. The "MeSH" option is circled in red. Below the dropdown, there are sections for "Using PubMed", "PubMed Tools", and "More Resources". The "MeSH Database" link is visible under the "More Resources" section.

NCBI Resources How To Sign in to NCBI

PubMed.gov
US National Library of Medicine
National Institutes of Health

All
All Databases
Assembly
BioProject
BioSample
BioSystems
Books
ClinVar
Clone
Conserved Domains
dbGaP
dbVar
Epigenomics
EST
Gene
Genome
GEO DataSets
GEO Profiles
GSS
GTR
HomoloGene
MeSH
NCBI Web Site
NLM Catalog
Nucleotide
OMIM
PMC
PopSet
Probe

Search

Help

PubMed COMMONS

Featured comment - Nov 10
Enhancing Toxoplasma invasion: Author G Ward (@GEWard14) points to followup studies on role of calcium flux.
1.usa.gov/140kdfn

Using PubMed

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Clinical Trials

E-Utilities (API)

LinkOut

MeSH

MeSH

malaria



Search

[Save search](#) [Limits](#) [Advanced](#)

[Help](#)

[Display Settings:](#) Summary, 20 per page

[Send to:](#)

Results: 9

[Malaria](#)

1. A protozoan disease caused in humans by four species of the PLASMODIUM genus: PLASMODIUM FALCIPARUM; PLASMODIUM VIVAX; PLASMODIUM OVALE; and PLASMODIUM MALARIAE. **Malaria** is endemic in parts of Asia. **Malaria** is characterized by extreme exhaustion associated with fever. **Malaria** in ANIMALS is caused by other species of plasmodium. Year introduced: **MALARIA CONTROL** was heading 1963-1966

Click Add to search builder.
Click Search PubMed.

PubMed Search Builder

Add to search builder AND

Search PubMed

[YouTube](#) [Tutorial](#)

Find related data

Database:

Find items

Search details

```
"malaria"[MeSH Terms] OR malaria[Text Word]
```

[Malaria Vaccines](#)

2. Vaccines made from antigens arising from any of the four strains of Plasmodium which cause **malaria** in humans, or from P. berghei which causes **malaria** in rodents. Year introduced: 1994

[Malaria, Vivax](#)

3. **Malaria** caused by PLASMODIUM VIVAX. This form of **malaria** is less severe than **MALARIA**, FALCIPARUM, but there is a higher probability for relapses to occur. Febrile paroxysms often occur every other day. Year introduced: 1992

[Malaria, Cerebral](#)

4. A condition characterized by somnolence or coma in the presence of an acute infection with PLASMODIUM FALCIPARUM (and rarely



To search for specific aspect(s) of a topic

NCBI Resources How To Sign in to NCBI

MeSH MeSH HIV Search

Save search Limits Advanced Help

Display Settings: Summary, 20 per page Send to:

Results: 21 to 40 of 208 << First < Prev Page 2 of 11 Next > Last >>

[HIV Envelope Protein gp120](#)
21. External envelope protein of the human immunodeficiency virus which is encoded by the **HIV** env gene. It has a molecular weight of 120 kDa and contains numerous glycosylation sites. Gp120 binds to cells expressing CD4 cell-surface antigens, most notably T4-lymphocytes and monocytes/macrophages. Gp120 has been shown to interfere with the normal function of CD4 and is at least partly responsible for the cytopathic effect of **HIV**.
Year introduced: 1990

[HIV Infections](#)
22. Includes the spectrum of human immunodeficiency virus infections that range from asymptomatic seropositivity, thru AIDS-related complex (ARC), to acquired immunodeficiency syndrome (AIDS).
Year introduced: 1990

[HIV Seroprevalence](#)

PubMed Search Builder

Add to search builder AND
Search PubMed

YouTube Tutorial

Find related data

Database:

Find items

Attach subheadings to your MeSH term

HIV Infections

Includes the spectrum of human immunodeficiency virus infections that range from asymptomatic seropositivity, thru AIDS-related complex (ARC), to acquired immunodeficiency syndrome (AIDS).

Year introduced: 1990

PubMed search builder options

[Subheadings:](#)

Click the boxes in front of subheadings you're interested in. Add many, or none!

- | | | |
|--|--|--|
| <input type="checkbox"/> analysis | <input type="checkbox"/> epidemiology | <input checked="" type="checkbox"/> prevention and control |
| <input type="checkbox"/> anatomy and histology | <input type="checkbox"/> ethnology | <input type="checkbox"/> psychology |
| <input type="checkbox"/> blood | <input type="checkbox"/> etiology | <input type="checkbox"/> radiography |
| <input type="checkbox"/> cerebrospinal fluid | <input type="checkbox"/> genetics | <input type="checkbox"/> radionuclide imaging |
| <input type="checkbox"/> chemically induced | <input type="checkbox"/> history | <input type="checkbox"/> radiotherapy |
| <input type="checkbox"/> classification | <input type="checkbox"/> immunology | <input type="checkbox"/> rehabilitation |
| <input type="checkbox"/> complications | <input type="checkbox"/> metabolism | <input type="checkbox"/> statistics and numerical data |
| <input type="checkbox"/> congenital | <input type="checkbox"/> microbiology | <input type="checkbox"/> surgery |
| <input type="checkbox"/> cytology | <input type="checkbox"/> mortality | <input type="checkbox"/> therapy |
| <input type="checkbox"/> diagnosis | <input type="checkbox"/> nursing | <input type="checkbox"/> transmission |
| <input type="checkbox"/> diet therapy | <input type="checkbox"/> organization and administration | <input type="checkbox"/> ultrasonography |
| <input type="checkbox"/> drug therapy | <input type="checkbox"/> parasitology | <input type="checkbox"/> urine |
| <input type="checkbox"/> economics | <input type="checkbox"/> pathology | <input type="checkbox"/> veterinary |

MeSH term
+ Subheading
Specific

For term definitions, click [Subheadings](#).



More on subheadings

HIV infections

/

Prevention & control

"HIV Infections/prevention and control"[Mesh]

VS

....HIV infections.....
..... tuberculosis prevention and
control.....

HIV Infections AND Prevention and control



Major MeSH ^{*}

□ 1: [AIDS](#). 2008 Sep 12;22(14):1841-50.

F

Male circumcision for HIV prevention in sub-Saharan Africa: who, what and when?

[White RG](#), [Glynn JR](#), [Orroth KK](#), [Freeman EE](#), [Bakker R](#), [Weiss HA](#), [Kumaranayake L](#), [Habbema JD](#), [RJ](#).

London School of Hygiene and Tropical Medicine, London, UK. richard.white@lshtm.ac.uk

MeSH Terms

- Circumcision, Male/economics
- Circumcision, Male/utilization ^{*}
- Developing Countries ^{*}
- HIV Infections/economics
- HIV Infections/prevention & control ^{*}
- HIV- ^{*}
- Health Care Costs



MeSH / Subheadings

"HIV Infections" [Mesh]

Includes

"HIV Infections" [Mesh]

"HIV Infections/prevention & control"[Mesh]

"HIV Infections/*any subheading listed*"[Mesh]

"HIV Infections" [Major]

"HIV Infections/prevention & control"[Major]

"HIV Infections/*any subheading listed*"[Major]



Major MeSH - limiting results to major focus

1. In the **MeSH database** type in your term. **Search.**
2. Click on the *most appropriate* MeSH term.
3. Click the **“Restrict to MeSH Major Topic”** checkbox.

HIV Infections

Includes the spectrum of human immunodeficiency virus infections that range from asymptomatic seropositivity, thru AIDS-related complex, acquired immunodeficiency syndrome (AIDS).

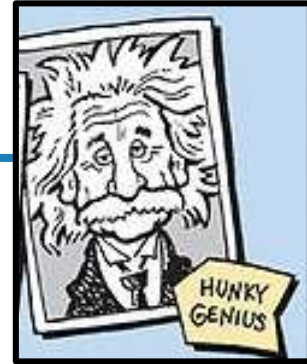
Year introduced: 1990

PubMed search builder options

Subheadings:

- | | | |
|---|--|---|
| <input type="checkbox"/> analysis | <input type="checkbox"/> epidemiology | <input type="checkbox"/> prevention and control |
| <input type="checkbox"/> diet therapy | <input type="checkbox"/> organization and administration | <input type="checkbox"/> ultrasonography |
| <input type="checkbox"/> drug therapy | <input type="checkbox"/> parasitology | <input type="checkbox"/> urine |
| <input checked="" type="checkbox"/> economics | <input type="checkbox"/> pathology | <input type="checkbox"/> veterinary |
| <input type="checkbox"/> embryology | <input type="checkbox"/> physiology | <input type="checkbox"/> virology |
| <input type="checkbox"/> enzymology | <input type="checkbox"/> physiopathology | |
- Restrict to MeSH Major Topic.
- Do not include MeSH terms found below this term in the MeSH hierarchy.

To EXPlode or not to EXPlode?



- **Exploding** means searching for both a term and all the more specific terms under it in the MeSH tree of terms.
- PubMed automatically explodes MeSH terms.
- To unexplode, that is search only for the general topic, click the box immediately beneath Major MeSH.

Africa

PubMed search builder options

Subheadings:

epidemiology

statistics and numerical data

ethnology

Restrict to MeSH major topic.

Do not include MeSH terms found below this term in the MeSH hierarchy.

Tree Number(s): Z01.058

All MeSH Categories

Geographical Locations Category

Geographic Locations

Africa

Africa South of the Sahara

Africa, Central +

Africa, Eastern +

Africa, Southern +

Africa, Western +

Africa, Northern

Algeria

Egypt


Libya


Morocco


Tunisia



MeSH:NoExp versus MeSH

How To 

PubMed  "Africa"[Mesh:NoExp] AND "hiv infections"[Mesh] |


 RSS [Save search](#) [Advanced](#)


[Display Settings:](#) Summary, 20 per page, Sorted by Recently Added


Results: 1 to 20 of 3555

<< First < Prev Page

- [Treatment. Supplements improve ART success in Africa.](#)
 1. [No authors listed]
AIDS Policy Law. 2014 Jul;29(8):1. No abstract available.
PMID: 25151678 [PubMed - indexed for MEDLINE]
[Related citations](#)
- [HIV-associated renal and genitourinary comorbidities in Africa.](#)
 2. Kalyesubula R, Wearne N, Semitala FC, Bowa K.
J Acquir Immune Defic Syndr. 2014 Sep 1;67 Suppl 1:S68-78. doi: 10.1097/QAI.0000000000000000
PMID: 25117962 [PubMed - indexed for MEDLINE]
[Related citations](#)
- [Challenges in the detection, prevention, and treatment of HIV-associated middle-income countries in Africa.](#)
 3. Adebamowo CA, Casper C, Bhatia K, Mbulaiteye SM, Sasco AJ, Phipps W, V
J Acquir Immune Defic Syndr. 2014 Sep 1;67 Suppl 1:S17-26. doi: 10.1097/QAI.0000000000000000
PMID: 25117957 [PubMed - indexed for MEDLINE]
[Related citations](#)
- [\[Psychosocial aspects on the treatment of HIV-infection\].](#)
 4. Batterav M, Haerry DH, Fehr J, Staehelin C, Wandeler G, Elzi L

How To 

PubMed  "Africa"[Mesh] AND "hiv infections"[Mesh] |

 RSS [Save search](#) [Advanced](#)

[Display Settings:](#) Summary, 20 per page, Sorted by Recently Added

Results: 1 to 20 of 23089

<< First < Prev Page of 1

- [Viral load monitoring and antiretroviral treatment outcomes in a pediatric HIV cohort in Ghana.](#)
 1. Kukoyi O, Renner L, Powell J, Barry O, Prin M, Kusah J, Cong X, Paintsil E.
BMC Infect Dis. 2016 Feb 3;16(1):58. doi: 10.1186/s12879-016-1402-9.
PMID: 26843068 [Free PMC Article](#)
[Similar articles](#)
- [Towards elimination of mother-to-child transmission of HIV in Ghana: an analysis of national programme data.](#)
 2. Dako-Gyeke P, Dornoo B, Ayisi Addo S, Atuahene M, Addo NA, Yawson AE.
Int J Equity Health. 2016 Jan 13;15(1):5. doi: 10.1186/s12939-016-0300-5.
PMID: 26759248 [Free PMC Article](#)
[Similar articles](#)
- [Virological outcome among HIV-1 infected patients on first-line antiretroviral treatment in semi-urban HIV clinics in Togo.](#)
 3. Konou AA, Salou M, Vidal N, Kodah P, Kombate D, Kpanla P, Nabroulaba T, Nyametso D, Singo-Tokofai A, Pitche P, Delaporte E, Prince-David M, Peeters M, Dagnra AY.
AIDS Res Ther. 2015 Nov 27;12:38. doi: 10.1186/s12981-015-0082-7. eCollection 2015.
PMID: 26617663 [Free PMC Article](#)
[Similar articles](#)
- [HIV knowledge, stigma, and illness beliefs among pediatric caregivers in Ghana who have not disclosed their child's HIV status.](#)
 4. Paintsil E, Renner L, Antwi S, Dame J, Enimil A, Ofori-Atta A, Alhassan A, Ofori IP, Cong X, Kyriak



Obtain MeSH terms using MeSH database

HIV Infections

Includes the spectrum of human immunodeficiency virus infections that range from asymptomatic seropositivity, thru AIDS-related complex (ARC), to acquired immunodeficiency syndrome (AIDS).

Year introduced: 1990

PubMed search builder options

Subheadings:

<input type="checkbox"/> analysis	<input type="checkbox"/> epidemiology	<input type="checkbox"/> prevention and control
<input type="checkbox"/> anatomy and histology	<input type="checkbox"/> ethnology	<input type="checkbox"/> psychology
<input type="checkbox"/> blood	<input type="checkbox"/> etiology	<input type="checkbox"/> radiography
<input type="checkbox"/> cerebrospinal fluid	<input type="checkbox"/> genetics	<input type="checkbox"/> radionuclide imaging
<input type="checkbox"/> chemically induced	<input type="checkbox"/> history	<input type="checkbox"/> radiotherapy
<input type="checkbox"/> classification	<input type="checkbox"/> immunology	<input type="checkbox"/> rehabilitation
<input type="checkbox"/> complications	<input type="checkbox"/> metabolism	<input type="checkbox"/> statistics and numerical data
<input type="checkbox"/> congenital	<input type="checkbox"/> microbiology	<input type="checkbox"/> surgery
<input type="checkbox"/> cytology	<input type="checkbox"/> mortality	<input type="checkbox"/> therapy
<input type="checkbox"/> diagnosis	<input type="checkbox"/> nursing	<input checked="" type="checkbox"/> transmission
<input type="checkbox"/> diet therapy	<input type="checkbox"/> organization and administration	<input type="checkbox"/> ultrasonography
<input type="checkbox"/> drug therapy	<input type="checkbox"/> parasitology	<input type="checkbox"/> urine
<input type="checkbox"/> economics	<input type="checkbox"/> pathology	<input type="checkbox"/> veterinary
<input type="checkbox"/> embryology	<input type="checkbox"/> physiology	<input type="checkbox"/> virology
<input type="checkbox"/> enzymology	<input type="checkbox"/> physiopathology	

Restrict to MeSH Major Topics

Do not include MeSH terms found below this term in the MeSH hierarchy.

PubMed Search Builder

"HIV Infections/transmission" [Me sh:NoExp]

Add to search builder AND

Search PubMed

Related information

PubMed

PubMed - Major Topic

Clinical Queries

NLM MeSH Browser

dbGaP Links

MedGen

Recent Activity

Turn Off Clear

HIV Infections MeSH

hiv infections (1) MeSH

Articles that address the issues of prevention of AIDS in low-income countries?

Concept 1

Use OR to combine alternative terms and synonyms.

AIDS

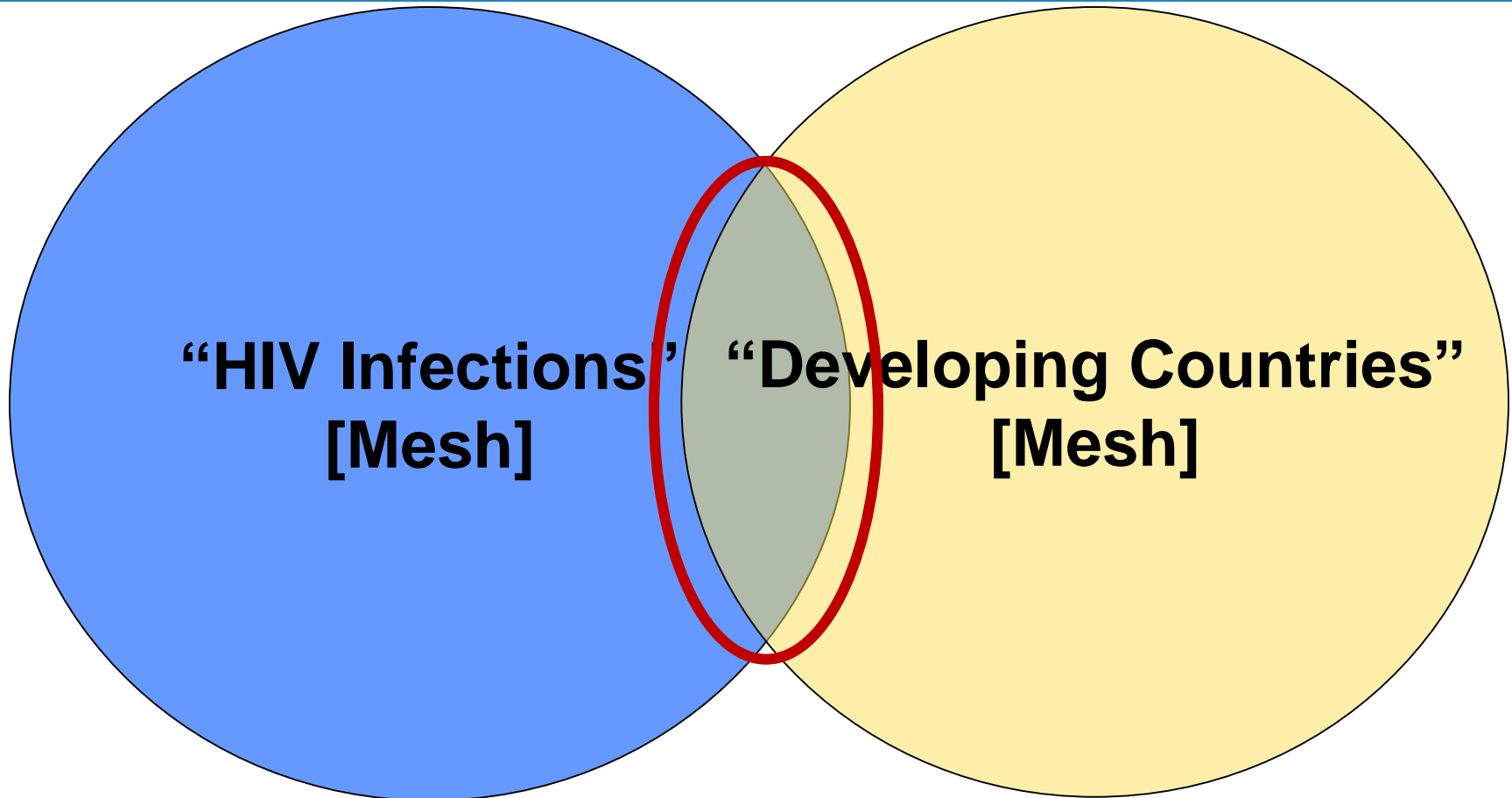
AND

Concept 2

Use OR to combine alternative terms and synonyms.

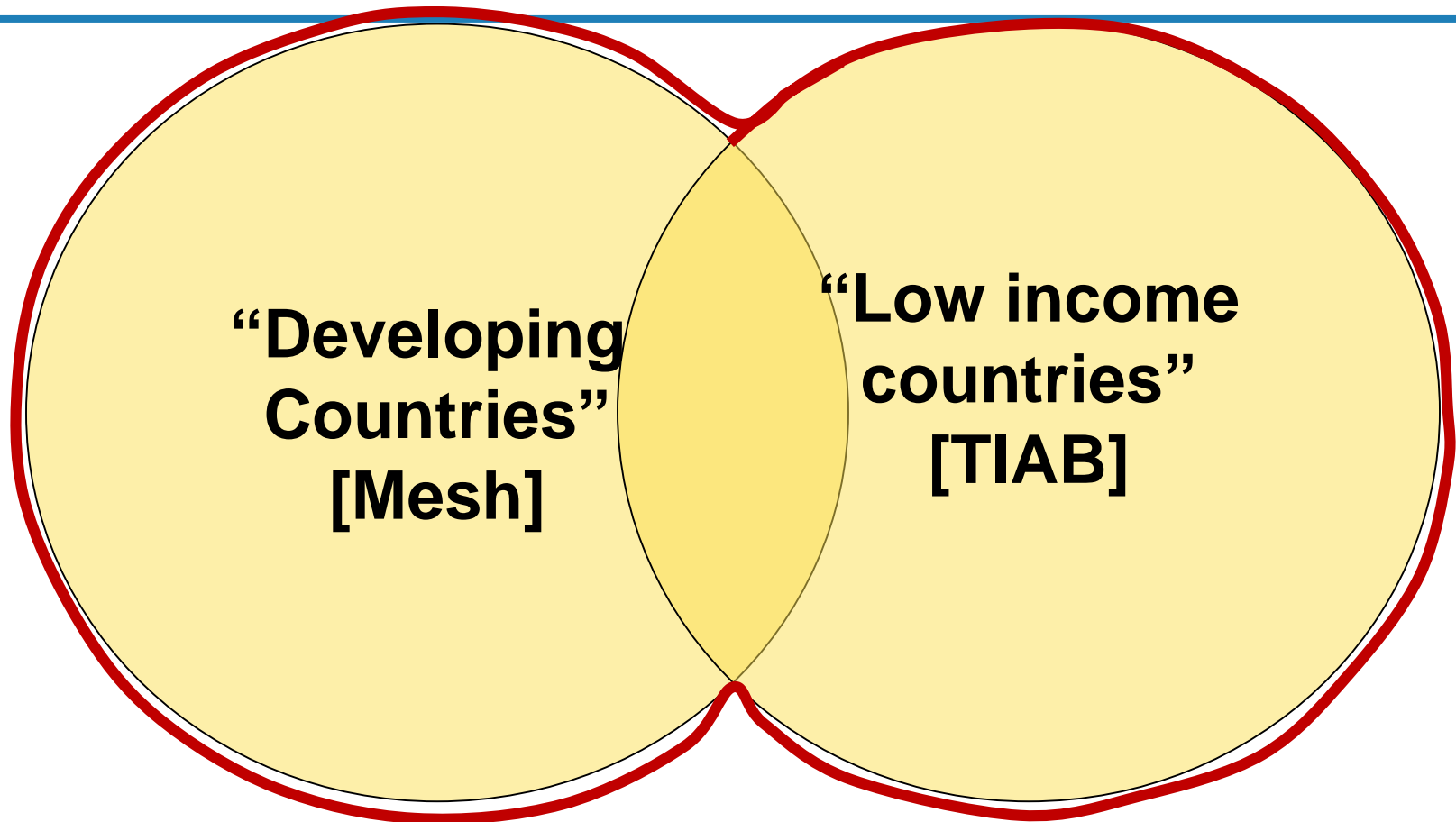
Low Income Countries

AND



AND= Finds results that contain both keywords.

OR



OR = Finds results that contain either keyword.

Incorrect syntax – AND vs and

NCBI Resources How To

PubMed.gov
US National Library of Medicine
National Institutes of Health

PubMed horizontal [tiab] and government [tiab]

Save search Advanced

⚠ The following term was not found in PubMed: and government[tiab].

ℹ See the search [details](#).

ℹ No items found.

NCBI Resources How To

PubMed.gov
US National Library of Medicine
National Institutes of Health

PubMed horizontal [tiab] **AND** government [tiab]

RSS Save search Advanced

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Display Settings: Summary, 20 per page, Sorted by Recently Added

[Send to:](#)

Text availability

Abstract available
Free full text available
Full text available

Publication dates

Results: 1 to 20 of 56

<< First < Prev Page 1 of 3 Next > Last >>

[Horizontal equity in health care utilization in Brazil, 1998-2008.](#)

1. Macinko J, Lima-Costa MF.
Int J Equity Health. 2012 Jun 21;11(1):33. [Epub ahead of print]
PMID: 22720869 [PubMed - as supplied by publisher] **Free Article**
[Related citations](#)

Problems finding a MeSH term?

NCBI Resources How To

MeSH MeSH international health regulations Search
Create alert Limits Advanced

NCBI Resources How To

MeSH MeSH international health international health problem international health problems problem, international health problems, international health Search
No items found. Turn off

Submit Data Genes & Expression BLAST Gene Expression Omnibus
Genetics & Medicine Nucleotide Map Viewer
Genomes & Maps Genome Human Genome
Homology SNP Mouse Genome
Literature Gene Influenza Virus
Proteins Protein Primer-BLAST
Sequence Analysis PubChem Sequence Read Archive

Use the [TI] and [SB] tags to find MeSH terms

NCBI Resources ▾ How To ▾

PubMed.gov
US National Library of Medicine
National Institutes of Health

PubMed ▾ "international health regulations"[TI] AND medline[SB] × Search

Create RSS Create alert Advanced

Article types

Clinical Trial
Review
Customize ...

Text availability

Abstract
Free full text
Full text

PubMed

Commons
Reader comments
Trending articles

Publication dates

5 years
10 years
Custom range...

Species

Humans
Other Animals

Summary ▾ 20 per page ▾ Sort by Most Recent ▾

Send to: ▾

Search results

Items: 1 to 20 of 115

<< First < Prev Page 1 of 6 Next > Last >>

- [The International Health Regulations 10 years on: the governing framework for global health security.](#)

Gostin LO, DeBartolo MC, Friedman EA.

Lancet. 2015 Nov 28;386(10009):2222-6. doi: 10.1016/S0140-6736(15)00948-4. Epub 2015 Nov 25. No abstract available.

PMID: 26615327

[Similar articles](#)

- [Ebola lessons guide International Health Regulations review.](#)

2. Brown C.

CMAJ. 2015 Jul 14;187(10):E301-2. doi: 10.1503/cmaj.109-5081. Epub 2015 Jun 8. No abstract available.

PMID: 26054608

[Similar articles](#)



Identifying the concepts in MeSH terms

[Travel Med Infect Dis](#). 2010 Mar;8(2):90-5. doi:

The international health regulati

[Plotkin BJ¹](#), [Hardiman MC](#).

Author information

Abstract

In 2007, the World Health Organization the globe. The IHR contain a range of b address the risks of international diseas a short list of infectious diseases (which risks, whether biological/infectious, che applicable to transnational tuberculosis international travel, the worldwide geog are an important element in addressing IHR, and their applicability in this conte

PMID: 20478516 [PubMed - indexed for MEDL



MeSH Terms

MeSH Terms

MeSH Terms

[Aircraft*](#)

[Contact Tracing](#)

[Extensively Drug-Resistant Tuberculosis/epidemiology](#)

[Extensively Drug-Resistant Tuberculosis/prevention & control*](#)

[Extensively Drug-Resistant Tuberculosis/transmission](#)

[Global Health](#)

[Guidelines as Topic](#)

[Humans](#)

[Infection Control/legislation & jurisprudence](#)

[Internationality/legislation & jurisprudence*](#)

[Mycobacterium tuberculosis](#)

[Public Health/legislation & jurisprudence*](#)

[Travel*/statistics & numerical data](#)

[Tuberculosis, Multidrug-Resistant/epidemiology](#)

[Tuberculosis, Multidrug-Resistant/prevention & control](#)

[Tuberculosis, Multidrug-Resistant/transmission](#)

[Tuberculosis, Pulmonary/epidemiology](#)

[Tuberculosis, Pulmonary/prevention & control*](#)

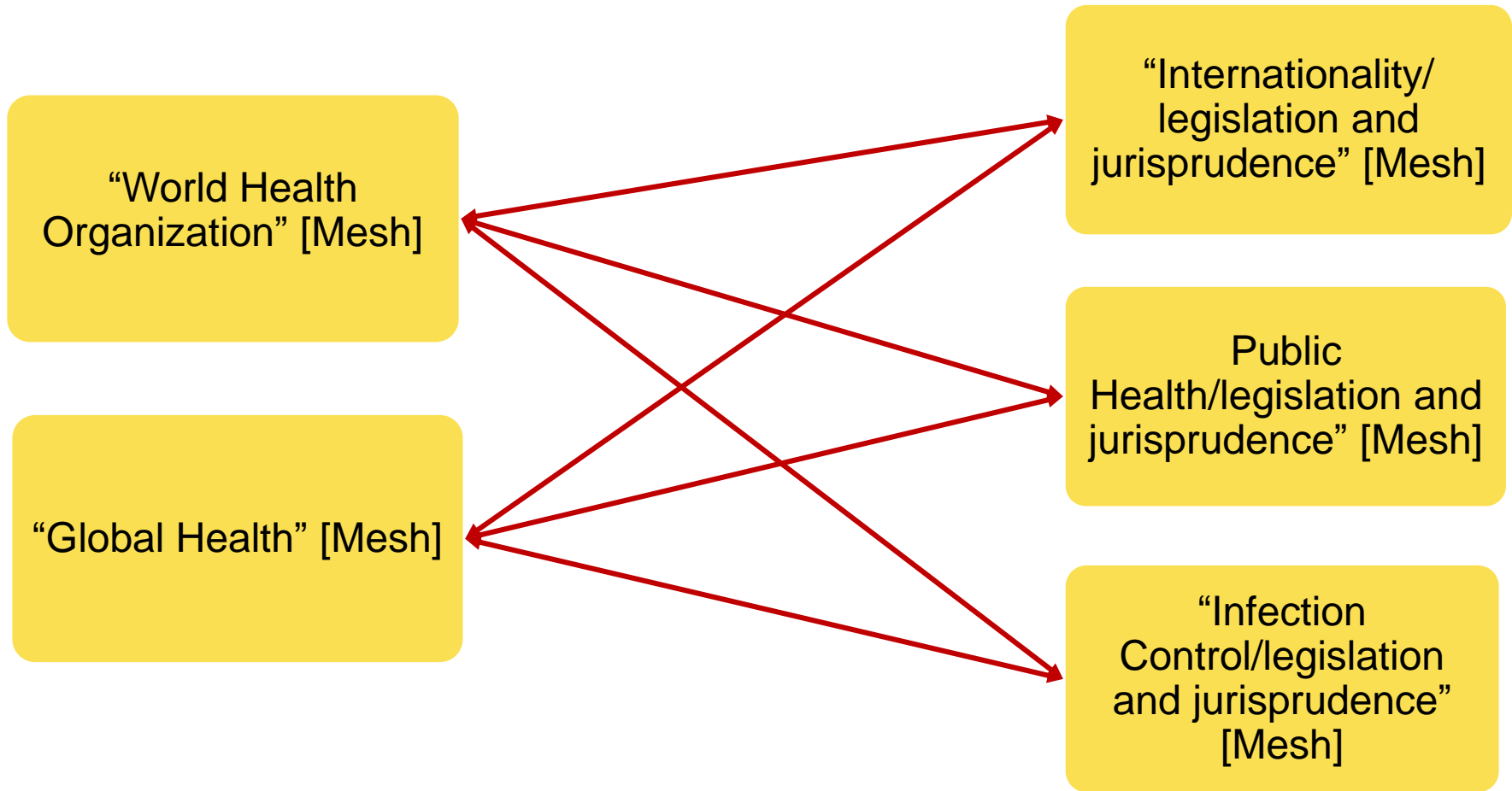
[Tuberculosis, Pulmonary/transmission](#)

[World Health Organization](#)

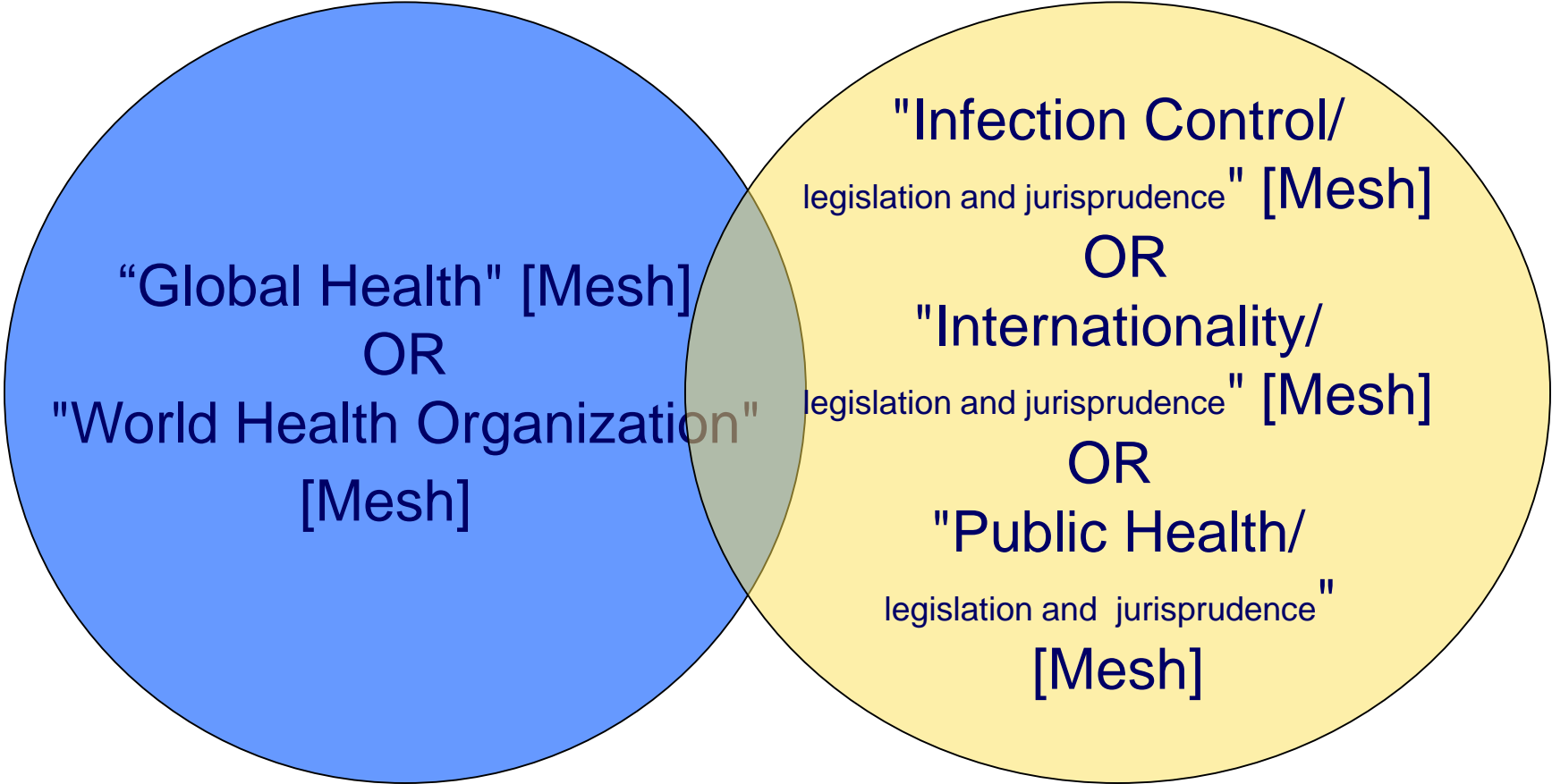
regulations") entered into force across building and further procedures to sions of the Regulations were limited to s internationally transmissible disease Regulations are now generally mbers of persons undertaking sistant TB ("XDR TB"), these Regulations describes the relevant provisions in the



Coupling MeSH to create a concept



Concept 1 AND concept 2 = new single concept



“Global Health” + “Infection Control”/lj ≈ International Health Regulations

Nesting using (....)

Parentheses can keep words/MeSH terms together to express one concept:

((A OR B) AND (C OR D OR E))

(("Global Health" [Mesh] OR "World Health Organization" [Mesh]) AND ("Infection Control/legislation and jurisprudence" [Mesh] OR "Internationality/legislation and jurisprudence" [Mesh] OR "Public Health/legislation and jurisprudence" [Mesh]))



Is Ms Indexer perfect? Not always.

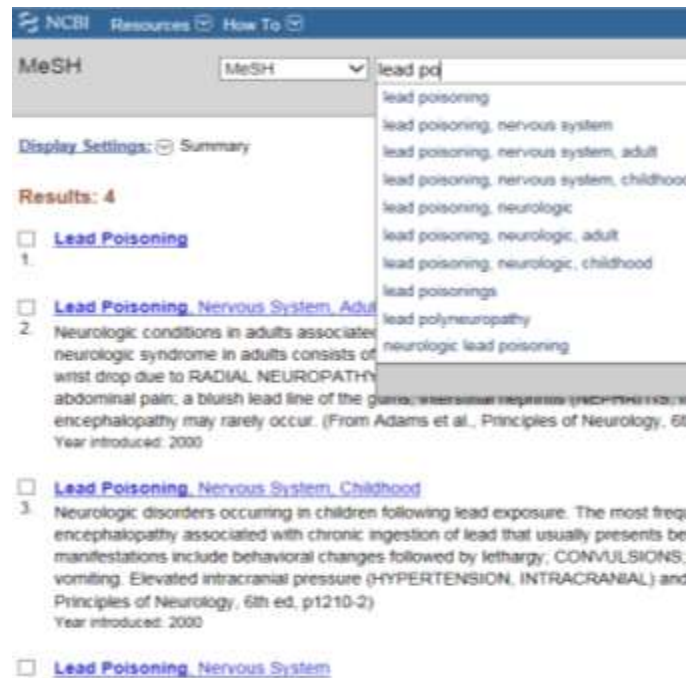
[Lead poisoning in cattle associated with car batteries and sump oil.](#)

[No authors listed]

Vet Rec. 2011 Aug 13;169(7):173-6. No abstract available.

PMID: 21961156 [PubMed - indexed for MEDLINE]

[Related citations](#)



NCBI Resources How To

MeSH MeSH lead poi

Display Settings: Summary

Results: 4

- [Lead Poisoning](#)
- [Lead Poisoning, Nervous System, Adult](#)
Neurologic conditions in adults associated with lead poisoning. The most frequent neurologic syndrome in adults consists of wrist drop due to RADIAL NEUROPATHY, abdominal pain; a bluish lead line of the gums; encephalopathy (encephalopathy); and encephalopathy may rarely occur. (From Adams et al., Principles of Neurology, 6th Year introduced: 2000
- [Lead Poisoning, Nervous System, Childhood](#)
Neurologic disorders occurring in children following lead exposure. The most frequent encephalopathy associated with chronic ingestion of lead that usually presents with manifestations include behavioral changes followed by lethargy; CONVULSIONS; vomiting. Elevated intracranial pressure (HYPERTENSION, INTRACRANIAL) and (Principles of Neurology, 6th ed, p1210-2) Year introduced: 2000
- [Lead Poisoning, Nervous System](#)

MeSH Terms

MeSH Terms

[Animal Diseases/epidemiology*](#)

[Animals](#)

[Animals, Domestic](#)

[Animals, Wild](#)

[Cattle](#)

[Disease Outbreaks/veterinary*](#)

[Great Britain/epidemiology](#)

[Poisoning/epidemiology](#)

[Poisoning/veterinary*](#)

[Sentinel Surveillance/veterinary*](#)

[Species Specificity](#)

Use of truncation

- PubMed searches for only the first 600 variations of a truncated term.
 - If more than 600 variations (rat*), warning displayed to lengthen the root word.
- Truncation stops term mapping and explosion of a MeSH term.
 - Heart attack* will not map to the MeSH terms Myocardial Infarction, Myocardial Stunning, Shock or Cardiogenic.



MeSHing – behind the scenes

193 537 results

NCBI Resources How To

PubMed.gov
US National Library of Medicine
National Institutes of Health

PubMed heart attack

Advanced

Search Details

Query Translation:

```
"myocardial infarction"[MeSH Terms] OR ("myocardial"[All Fields] AND "infarction"[All Fields]) OR "myocardial infarction"[All Fields] OR ("heart"[All Fields] AND "attack"[All Fields]) OR "heart attack"[All Fields]
```

Search

URL

Result:

193537

Translations:

heart attack	"myocardial infarction"[MeSH Terms] OR ("myocardial"[All Fields] AND "infarction"[All Fields]) OR "myocardial infarction"[All Fields] OR ("heart"[All Fields] AND "attack"[All Fields]) OR "heart attack"[All Fields]
--------------	---



Different citations results

4414 versus 193 537

PubMed



heart attack* |



Search

Advanced

Search Details

Query Translation:

```
heart attack[All Fields] OR heart attacks[All Fields]
```

Truncation turns off the search for related MeSH terms.

Search

URL

Result:

4414

Use search details



U.S. National Library of Medicine
National Institutes of Health

Search: PubMed

RSS [Save search](#) [Advanced search](#) [Help](#)

"low income countr*" OR "developing coutries"

Search Clear

Search details will give you an overview of how PubMed has Meshed your terms and which fields have been searched.



Related articles

- ▶ The World Fertility Survey: charting global childbearing. [Popul Bull. 1982]
- ▶ [Place of intrauterine devices in contraception (author's transl)] [Contracept Fertil Sex (Paris). 1981]
- ▶ [Access to birth control: a world estimate] [Profamilia. 1988]
- ▶ **Review** The prevalence of nutritional anaemia in women in developing co[World Health Stat Q. 1982]
- ▶ **Review** Epidemiology of breast cancer: an environmental disease? [APMIS. 2001]

» See reviews... | » See all...

Search details

```
(low[All Fields] AND  
("income"[MeSH Terms]  
OR "income"[All Fields]) AND  
countr[All Fields]) OR  
(developing[All Fields] AND
```

Search

» See more

PMID: 12278630 (PubMed - indexed for MEDLINE)



Check search details

Search Details

Query Translation:

```
((("hiv infections"[MeSH Terms] OR ("hiv"[All Fields] AND "infections"[All Fields]) OR "hiv infections"[All Fields]) AND ("medical subject headings"[MeSH Terms] OR ("medical"[All Fields] AND "subject"[All Fields] AND "headings"[All Fields]) OR "medical subject headings"[All Fields] OR "mesh"[All Fields])) OR "HIV"[MeSH] OR "hiv"[tw] OR "hiv-1*" [tw] OR "hiv-2*" [tw] OR "hiv1" [tw] OR "hiv2" [tw] OR "human immunodeficiency virus" [tw] OR "human immunodeficiency virus" [tw] OR "human immuno-deficiency virus" [tw] OR "human immune-deficiency virus" [tw] OR "human immune-deficiency virus" [tw])
```

Search

URL

Result:

Quoted phrase not found:

"HIV Infections[MeSH]"

"hiv infect*" [tw]

"human immun*"

"acquired immun*"



Is “aids”[ALL Fields] retrieving too many irrelevant citations?

Query Translation:

```
"HIV Infections"[Mesh] OR "HIV infection*"[All Fields] OR  
Acquired[All Fields] OR ("acquired immunodeficiency  
syndrome"[MeSH Terms] OR ("acquired"[All Fields]  
AND "immunodeficiency"[All Fields] AND "syndrome"[All  
Fields]) OR "acquired immunodeficiency syndrome"[All  
Fields] OR "aids"[All Fields])
```



Articles addressing AIDS prevention in developing countries

Concept 1

Use OR to combine alternative terms and synonyms

“HIV infections”[Mesh]

OR

HIV infection*[TW]

OR

AIDS[TI]

AND

Concept 2

Use OR to combine alternative terms and synonyms

“Developing countries”[Mesh]

OR

“Africa”[Mesh]

OR

“low income countries”[All Fields] OR “low income country” [All Fields]



Using tags or Advanced Search

- <http://www.ncbi.nlm.nih.gov/pubmed/advanced>.

[-] Search by Author, Journal, Publication Date, and more

Fill in any or all of the fields below, as needed.

All of these (AND) Any of these (OR)

Author

Journal

Publication Date to
(yyyy/mm/dd - month and day are optional)

[Add More Citation Search Fields](#)

Affiliation
All Fields
Author
Corporate Author
Create Date
EC/RN Number
Entrez Date
Filter
First Author
Full Author Name
Full Investigator Name

Search Field Descriptions and Tags

<u>Affiliation [AD]</u>	<u>Issue [IP]</u>	<u>Place of Publication [PL]</u>
<u>Article Identifier [AID]</u>	<u>Journal Title [TA]</u>	<u>PMCID & MID</u>
<u>All Fields [ALL]</u>	<u>Language [LA]</u>	<u>Publication Date [DP]</u>
<u>Author [AU]</u>	<u>Last Author [LASTAU]</u>	<u>Publication Type [PT]</u>
<u>Comment Corrections</u>	<u>Location ID [LID]</u>	<u>Secondary Source ID [SI]</u>
<u>Corporate Author [CN]</u>	<u>MeSH Date [MHDA]</u>	<u>Subset [SB]</u>
<u>Create Date [CRDT]</u>	<u>MeSH Major Topic [MAJR]</u>	<u>Substance Name [NM]</u>
<u>EC/RN Number [RN]</u>	<u>MeSH Subheadings [SH]</u>	<u>Text Words [TW]</u>
<u>Entrez Date [EDAT]</u>	<u>MeSH Terms [MH]</u>	<u>Title [TI]</u>
<u>Filter [FILTER]</u>	<u>NLM Unique ID [JID]</u>	<u>Title/Abstract [TIAB]</u>
<u>First Author Name [1AU]</u>	<u>Other Term [OT]</u>	<u>Transliterated Title [TT]</u>
<u>Full Author Name [FAU]</u>	<u>Owner</u>	<u>UID [PMID]</u>
<u>Full Investigator Name [FIR]</u>	<u>Pagination [PG]</u>	<u>Volume [VI]</u>
<u>Grant Number [GR]</u>	<u>Personal Name as Subject [PS]</u>	
<u>Investigator [IR]</u>	<u>Pharmacological Action MeSH Terms [PA]</u>	

Use of tags

- "world health" [TIAB]
 - "world health" [AD]
 - "world health" [TA]
 - "world health" [ALL]
 - "world health" [MH]
 - "world health" [MAJR]
- “Global Health” [MH]
“Global Health” [MAJR]

Use tags appropriately

- Tags such as [AU] = author or [TI] = title can be ANY terms.
- However some tags are specific
 - [Mesh]
 - [Major]
 - [SH] = subheading
 - [PS]
 - [PA]
- These tags need to be looked up as they are standardised. [Mesh] tags must be in the database.



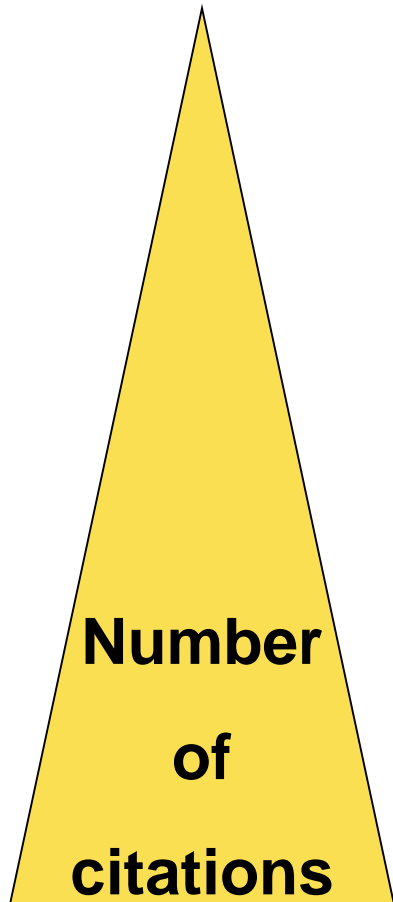
Using * for truncation

- Replaces any letters in a word
 - HIV Infection*
 - "HIV Infection" or "HIV Infections"
 - "HIV Infections" [Mesh] OR HIV infection*
 - "HIV Infections"[Mesh] OR "HIV infection"[All Fields] OR "HIV infections"[All Fields] OR "HIV infected"[All Fields]
- Use carefully and always test your results.
- Turns off the ability of PubMed to find the correct MeSH term.



Quantity vs precision

#1 yields fewer results than #5



1. "HIV Infections/prevention and control" [Major]
2. "HIV infections/prevention and control" [Mesh]
3. "HIV infections" [Mesh] AND "prevention and control" [Subheading]
4. (HIV infection* OR HIV infections [Mesh]) AND (prevention OR control OR "prevention and control "[Subheading])
5. (AIDS OR HIV OR HIV infections [Mesh]) AND ((Prevent* AND control*) or ("prevention and control "[Subheading]))



Precision vs quantity

#1 yields more relevant results than #5

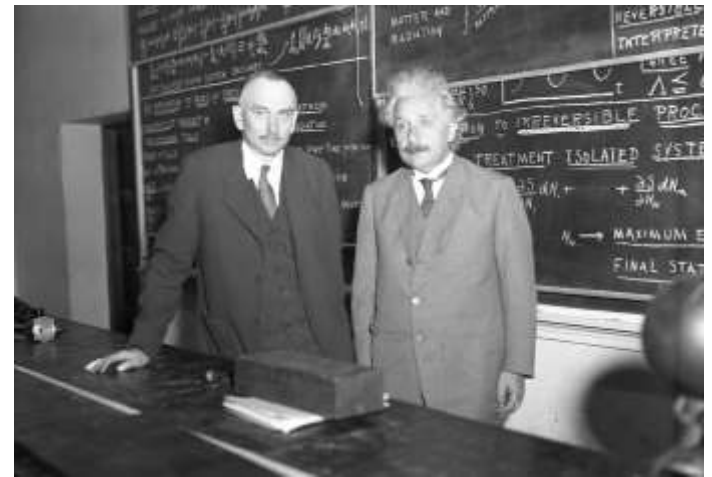
Relevance
to the
question

1. "HIV Infections/prevention and control" [Major]
2. "HIV infections/prevention and control" [Mesh]
3. HIV infections [Mesh] AND "prevention and control "[Subheading]
4. (HIV infection* OR HIV infections [Mesh]) AND (prevention OR control OR "prevention and control "[Subheading])
5. (AIDS OR HIV OR HIV infections [Mesh]) AND ((Prevent* AND control*) or ("prevention and control "[Subheading]))

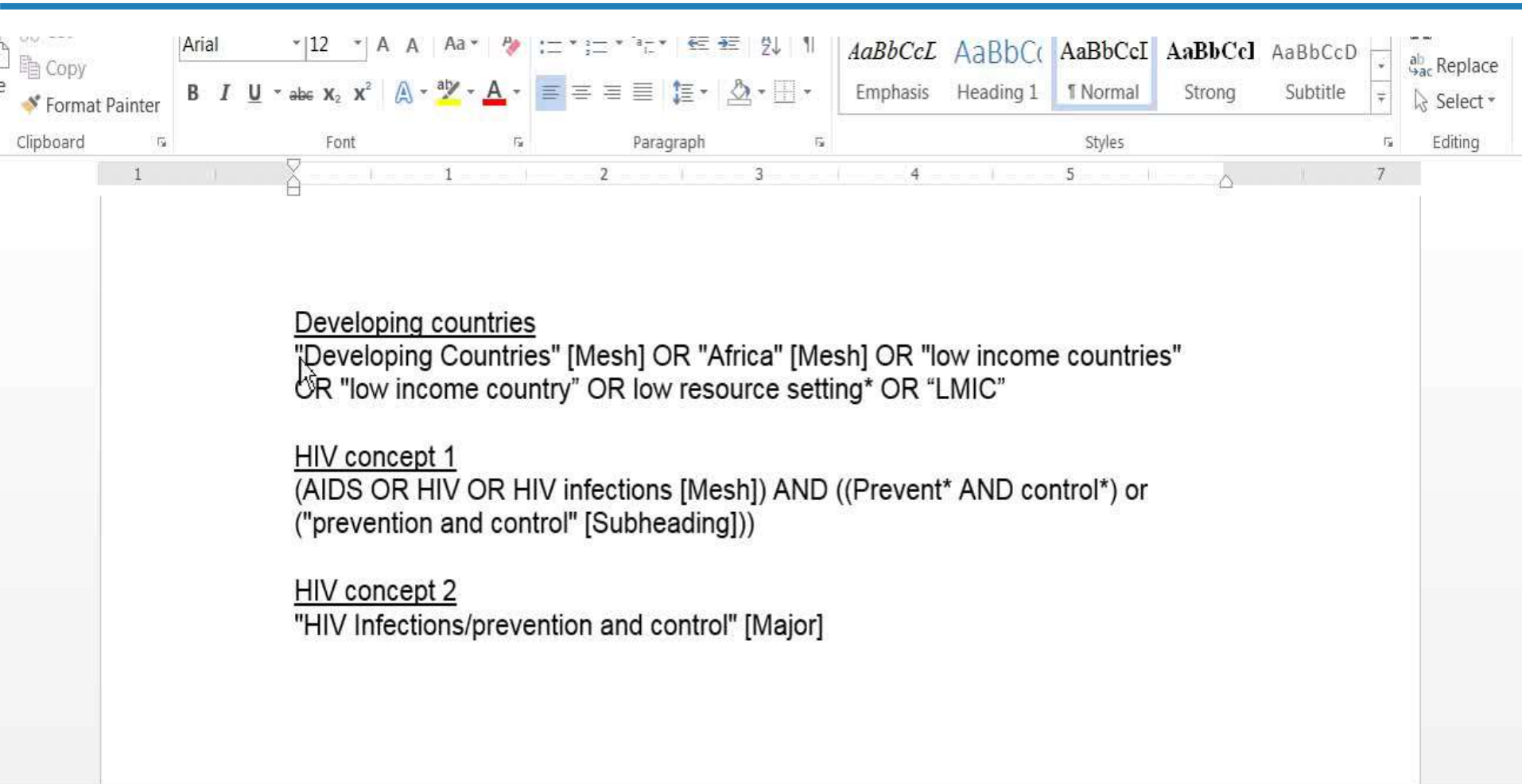


Test your search strategy

- Check your search strategy for spelling mistakes, truncation problems.
- Adapt your strategy for each database.
- Have someone go over the strategy.



Use Word and PubMed's Search History



The image shows a screenshot of the Microsoft Word interface. The ribbon is visible at the top, showing the Font, Paragraph, and Styles tabs. The main text area contains the following content:

Developing countries
"Developing Countries" [Mesh] OR "Africa" [Mesh] OR "low income countries"
OR "low income country" OR low resource setting* OR "LMIC"

HIV concept 1
(AIDS OR HIV OR HIV infections [Mesh]) AND ((Prevent* AND control*) or
("prevention and control" [Subheading]))

HIV concept 2
"HIV Infections/prevention and control" [Major]

Quantity vs. precise results

Search results

Items: 1 to 20 of 4802

<< First < Prev Page 1 of 241 Next > Last >>

- [INFECTIOUS DISEASE. Campaign against TB steps up its ambitions.](#)
 1. Cohen J.
Science. 2015 Dec 18;350(6267):1455. doi: 10.1126/science.350.6267.1455. No abstract available.
PMID: 26680171
[Similar articles](#)
 2. [\[Africa: controlling HIV/AIDS, an objective to be achieved\].](#)
Boëls N.
Perspect Infirm. 2015 Sep-Oct;12(4):40. French. No abstract available.
PMID: 26544004
[Similar articles](#)
 3. [Snipping away at the HIV pandemic, one foreskin at a time.](#)
Bateman C.
S Afr Med J. 2015 Aug;105(8):623-5. No abstract available.
PMID: 26543938
[Similar articles](#)
 4. [Education, HIV, and Early Fertility: Experimental Evidence from Kenya.](#)
Duflo E, Dupas P, Kremer M.
Am Econ Rev. 2015 Sep;105(9):2757-97. doi: 10.1257/aer.20121607.
PMID: 26523067 **Free PMC Article**
[Similar articles](#)
 5. [Estimating efficacy in a randomized trial with product nonadherence: application of multiple methods to a trial of preexposure prophylaxis for HIV prevention.](#)
Murnane PM, Brown ER, Donnell D, Coley RY, Mugo N, Mujugira A, Celum C, Baeten JM; Partners
P-EP-001 T

New feature

Try the new Display Settings option -
Sort by Relevance

Results by year



Download CSV

Find related data

Database:

Find items

Search details

```
("Developing  
Countries"[Mesh]  
OR "Africa"[Mesh] OR "low  
income countries"[All  
Fields] OR "low income
```

Search

See more...

Recent Activity

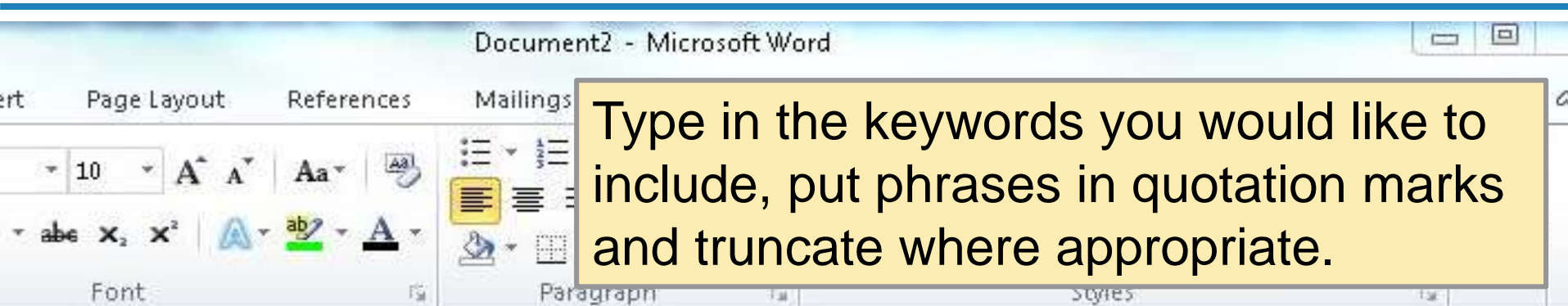


Advantages of Word/Search History combo

- Easy to add and remove search terms or otherwise adjust search strings.
- Allows us to reuse search strings and strategies.
- Makes it simple to add new search concepts to existing strategies.
- Easy to correct mistakes.
- Saves our strategies beyond eight hours.



Use Word to build strategy



"HIV Infections" [MeSH] OR "HIV"[MeSH] OR "hiv"[tw] OR "hiv-1"[tw] OR "hiv-2"[tw] OR "hiv1"[tw] OR "hiv2"[tw] OR hiv infect*[tw] OR "human immunodeficiency virus"[tw] OR "human immunodeficiency virus"[tw] OR "human immuno-deficiency virus"[tw] OR "human immune-deficiency virus"[tw] OR ((human immun*) AND ("deficiency virus"[tw])) OR "acquired immunodeficiency syndrome"[tw] OR "acquired immunodeficiency syndrome"[tw] OR "acquired immuno-deficiency syndrome"[tw] OR "acquired immune-deficiency syndrome"[tw] OR ((acquired immun*) AND ("deficiency syndrome"[tw])) OR "Sexually Transmitted Diseases, Viral"[MeSH:NoExp]

Template or model format

("HIV Infections"[Mesh] **OR** HIV infection* **OR** "Acquired immunodeficiency" **OR** AIDS)

AND

("Developing Countries"[Mesh] **OR** "Africa"[Mesh] **OR** "low income countries" **OR** "low income country" **OR** low resource setting* **OR** "LMIC")

AND

(Other concept [MH] **OR** other concept [ALL] **OR** other concept [TIAB])

Don't re-invent Einstein's Theory of Relativity

- Try to find other searcher's strategies they have used.
- The Cochrane Library's systematic reviews will usually list at least the key search terms, if not the entire search strategy.
- Other systematic or literature reviews, guidelines etc will document the search strategy.
- Look for filters or hedges ([PubMed's Systematic Review filter](#)).



Plot your search strategy

Search Planning Form

Use this form to identify/clarify the key concepts and the scope of your research topic.
For each section, refer to the **guidance notes** on the following page for further explanation.

Name: _____

Date search started: _____

Date search completed: _____

1. Your Research Topic

--

2. Consider how the following four categories apply to your research topic

Patient/Population and/or Problem	Intervention	Comparison/Control <i>(if applicable)</i>	Outcomes <i>(or Effects)</i>
Alternative Words			

Reporting your search

- Qualifications of searchers
- Search strategy
- Effort to include all available studies
- Search software
- Use of hand searching
- List of citations found
- Method of addressing non-English studies
- Handling of unpublished literature
- Description of any contact with authors.



Source: Donna F. Stroup, PhD, MSc; Jesse A. Berlin, ScD; Sally C. Morton, PhD; Ingram Olkin, PhD; G. David Williamson, PhD; Drummond Rennie, MD; et al. Meta-analysis of observational studies in epidemiology: a proposal for reporting. *JAMA*. 2000;283(15):2008-2012. doi:10.1001/jama.283.15.2008.
<http://jama.ama-assn.org/cgi/reprint/283/15/2008>.