Advanced search user’s guide

August 2023
Advanced search user’s guide

The Institutional Repository of Information Sharing (IRIS) is the World Health Organization official open access repository for its publications and technical documents. IRIS is built on a DSpace repository platform, and the advanced search module is based in a Solr search platform.

IRIS website URL is https://apps.who.int/iris/

Terms

Search queries are organized into terms and operators. There are two types of terms:

- **Single**: a single word such as *malaria* or *tuberculosis*
- **Phrase**: a group of words surrounded by quotation marks as "*viral hepatitis*". Will return results with the exact phrase

Note: always use straight quotation marks ("..."), instead of curly quotation ("...") to perform phrase searches.

Multiple terms can be combined with Boolean operators to form a more complex query. Multiple search terms are interpreted as if there were AND between each word, as opposed to an OR. Terms are not case-sensitive.

Search bar

The main search bar is located at the top right of every IRIS page. Terms entered in the search bar will be searched against all indexed metadata fields; as well as the full text for documents with optical character recognition (OCR), unless we specify a field (see explanation below).

Press the *search* button to execute the search.

---

1 *Apache Solr* is an open-source search platform build on *Apache Lucene* and integrated into the *DSpace* repository software
Boolean operators

Boolean operators allow terms to be combined through logic operators. Available operators include AND, OR, NOT. Operators must be in capital letters.

**AND**
The AND operator matches documents in which both terms exist anywhere in the text or metadata fields.

- tuberculosis AND pulmonary
- "hand hygiene" AND "health care"
- title:"cervical cancer" AND subject:guideline

Note: when performing a search specifying a field, search by typing the field name, then a colon (:) then the search term.

**OR**
The OR operator links two terms and finds a matching document if either of the terms exists within a document.

- diarrhea OR diarrhoea
- "lymphatic diseases" OR lymphoma

**NOT**
The NOT operator excludes documents which contain the term after NOT.

- toolkit NOT training
- subject:malaria NOT subject:zika
- depression AND adolescents NOT adults

Note: use NOT with caution, as it may be too restrictive and documents that are relevant may be removed. In the last example, we are discarding documents that are about both adolescents and adults.

**Building your search using filters**

Advanced search filters are available to refine your search. The advanced filters tool provides metadata fields and Boolean operator drop-down menus to perform a more targeted search. Press the search button and then the option of the advanced filters will be displayed.

---

2 Find the video tutorial How to search in IRIS-quick tour at https://apps.who.int/iris/help
Use the drop-down menu to set your search terms in specific fields. Field names and default fields are Dublin Core based and database-specific. In the drop-down menu, the following fields are available: author, title, subject (MeSH), subject, identifier (ISBN, ISSN, reference number...), date (of publishing), language, series (journals and series), publisher and document type (publication, technical document, journal, article, governing bodies...).

Using the search below, all articles from the journal *World health* published in 1995 are retrieved.

Note: using filters will add specifications to your main search and will narrow the results. Each field added is like an AND operator, and you can choose in the drop-down menu if the information in the field should be contains, not contains, equal or not equals.
Range searches

The range search selects records when the field value fits between the minimum and maximum value specified for the field.
A range search specifies a range of values for a field. The query matches documents whose field(s) values are between, and includes, the lower and upper bound specified by the range query. Sorting is done lexicographically. Range queries are not limited to date fields or even numerical fields.

The square brackets [start TO end] denote an inclusive range query that matches values including the upper and lower bound ranges.

- `dc.date.issued:[2023-01 TO 2023-03]` will return results published between January to March 2023.
- `dc.title.release:[3rd ed TO 5th ed]` will return publications that are 3rd, 4th or 5th editions.
- `dc.coverage.spatial:[Copenaghen TO Koppenhága]` will return publications published in Copenhagen, including from Copenaghen, Copenhagen, Copenhague, Copenhagen, Copenhagen, Kopenhagen to Koppenhága.
- `dc.title:[macro TO macroeconomy]` will return publications within the title, the words alphabetically between the two of them: macro, macro-economic, macroeconomic, macroeconomics, macroéconomie, macroeconómica, macroeconomía, but also macrochelid.

Searching within specific fields

The Dublin Core (DC) is an internationally agreed upon basic metadata scheme that defines fifteen general descriptive elements, for example, creator, title, date, subject, publisher. In IRIS, you can search within a specific field to perform a more specific query.

- `dc.language.iso:th` will return results that have Thai language in the field.
- `dc.title:"one health"` will return results that have oral health exact phrase in the field.
- `dc.contributor.author: "United Nations Children’s Fund"` will return results authored by UNICEF.

IRIS utilizes the Medical Subject Headings (MeSH), a controlled vocabulary created by the United States National Library of Medicine.
The following Dublin Core fields are available in IRIS:

<table>
<thead>
<tr>
<th>Field information</th>
<th>Dublin Core metadata element</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author or organization</td>
<td>dc.contributor.author</td>
<td>World Health Organization, Executive Board, World Health Assembly, Food and Agriculture Organization of the United Nations, United Nations Children's Fund</td>
</tr>
<tr>
<td>Title or subtitle</td>
<td>dc.title</td>
<td></td>
</tr>
<tr>
<td>Edition or version</td>
<td>dc.title.release</td>
<td>2nd ed, version 1.1</td>
</tr>
<tr>
<td>Place of publication</td>
<td>dc.coverage.spatial</td>
<td>Geneva, Brazzaville, Cairo, Copenhagen, New Delhi, Manila</td>
</tr>
<tr>
<td>Date of publication</td>
<td>dc.date.issued</td>
<td>2020, 2022-01, 2023-03-17</td>
</tr>
<tr>
<td>URL</td>
<td>dc.identifier.uri</td>
<td><a href="https://apps.who.int/iris/handle/10665/367419">https://apps.who.int/iris/handle/10665/367419</a></td>
</tr>
<tr>
<td>Physical description</td>
<td>dc.description</td>
<td>pages, spreadsheet, diapositives</td>
</tr>
<tr>
<td>ISBN</td>
<td>dc.identifier.isbn</td>
<td>9789240072497</td>
</tr>
<tr>
<td>ISSN</td>
<td>dc.identifier.issn</td>
<td>1010-9609</td>
</tr>
<tr>
<td>Publisher</td>
<td>dc.publisher</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>Subject</td>
<td>dc.subject</td>
<td>WHO guideline, resolutions and decisions</td>
</tr>
<tr>
<td>Type of publication</td>
<td>dc.type</td>
<td>publication, technical documents, governing body documents, journal / periodical articles, multimedia material, meeting reports, [press releases, fact sheets, newsletters, statements] (used only by some regional offices) [staff speeches &amp; WR speeches] (used only by some regional offices)</td>
</tr>
<tr>
<td>Series title</td>
<td>dc.relation.ispartofseries</td>
<td>Technical report series, Environmental health criteria, Clean house hold energy solutions toolkit</td>
</tr>
<tr>
<td>Abstract</td>
<td>dc.description.abstract</td>
<td>used only by some regional offices</td>
</tr>
</tbody>
</table>

Note: you can search in a specific field: dc.title, dc.subject, dc.subject.mesh… or use only the name of the field: title, subject, author… The system will perform the search in the Dublin Core fields that contains the name.
Grouping

Use parentheses to group clauses to form sub-queries. This can be useful if you want to control the Boolean logic for a search query.

(immunization OR vaccination) AND ebola will return results for either "immunization" or "vaccination", but that "ebola" also must be present, in metadata or full-text.

(postpartum OR "post partum") AND handbook will return results for either "postpartum" or "post partum", and "handbook" also must be present.

pregnant AND (healthy OR asymptomatic OR symptom-free) will return results for publications with the word pregnant and either healthy, asymptomatic or symptom-free.

(dc.subject.mesh:"Universal Health Insurance" OR dc.subject.mesh: "Universal Health Coverage") AND dc.subject.mesh:Vaccines
This search ensures that the term "vaccines" must exist, and either one of the terms: "Universal Health Insurance" OR "Universal Health Coverage". Terms will be searched only in the MeSH subject field, and not in full text.

Term modifiers

Term modifiers provide the ability to modify query terms to allow for a wide range or searching options. Wildcard characters can be applied to single terms, but not to search phrases. Single or multiple-character wildcard searches are supported.

- Use the ? symbol to perform a single-character wildcard search. The question mark matches exactly one.
  To search for women or woman use the search wom?n
  To search for neat, nest or next, use the search ne?t
- Use the * symbol to perform a multiple-character wildcard search. Searches for zero or more characters.
  To search for vaccine, vaccines or vaccination use the search vaccin*
  To search for documents that include drug, drugs and addict, addicts, addiction... use the search drug* addict*

Note: symbols such as ? or * cannot be used as the first character of a search term.
Proximity searches

A proximity search looks for terms that are within a specific distance from one another. Use tilde symbol ("~") to find multiple terms within a certain number of words of each other in a document, enter the words inside quotation marks, and use the tilde symbol and your desired number.

To search for the impact of climate change in health, you can use the following search to find these words not far from 5 words of each other in a document, use: "climate change impact health"~5

Fuzzy searches

Fuzzy searches discover terms that are similar in spelling to another term without necessarily being an exact match. Like proximity searches, use the tilde symbol ("~") as an operator at the end of a single-word term.

To search for a term similar in spelling to Stephen use the fuzzy search stephen~. This search will find terms like Stephen, Steven, Stevens, Steve, Steen, Steffen, Stephanie, stephensi, ...

An optional distance parameter specifies the maximum number of edits allowed, between 0 and 2, defaulting to 2.
For example: stephen~1. This will match terms like Stephens or Stephan, but not Steffen or Stevens since these have an edit distance of "2".

In many cases, reducing terms to a common root can produce similar effects to fuzzy searches and wildcard searches.

Arrange your results

Using the "gear" icon, you can sort your results by relevance, title ascending/descending, issue date ascending/descending, accessioned date ascending/descending and specify how many results do you want to appear per page.

Note: issue date is the document publication date. Accessioned date is the date on which the document was added to the repository.
Export your results

The metadata export option is available for search results or description item level, using the blue button on the right of the page. Export is limited to a maximum of 500 documents.

Export

<table>
<thead>
<tr>
<th>Format</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSV</td>
<td>10</td>
</tr>
<tr>
<td>Excel</td>
<td>10</td>
</tr>
<tr>
<td>BibTeX</td>
<td>10</td>
</tr>
<tr>
<td>RIS</td>
<td>10</td>
</tr>
</tbody>
</table>

Select all on a page