

# HMIC (Health Management Information Consortium)

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If you require this information in an alternative format (i.e. large print, Braille or audio format), please contact any library enquiry desk or telephone 0113 343 4096 and staff will make the necessary arrangements.



## Introduction

HMIC stands for Health Management Information Consortium.

HMIC brings together the bibliographic databases of 2 UK health and social care management organisations: the Department of Health (DH-Data) and the King's Fund (KF)

HMIC enables you to search for journal articles, books, policy documents and unpublished material in the areas of UK and international health and social care planning, policy and management. The databases are updated 6 times a year and the information goes back to 1983.

HMIC has direct links to the full text of some journal articles. For many articles however, it only provides the abstract (the summary paragraph) but each record will tell you which journal the article has been published in. See section 11 for more information about accessing the full text of articles.

## Learning outcomes

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

- Access HMIC via the Library website
- Perform a comprehensive search for a topic, using a variety of search techniques
- Combine your search results
- View and export your results
- Access databases from off-campus

## About this workbook

- Things that you need to type are displayed in **Courier New** bold font
- Instructions assume that you are using the Internet Explorer browser (the IT supported Web browser), but you can use any web browser.

# 1. Getting Started

## a. Before you start

This workbook aims to teach you how to search **comprehensively** for references on a chosen topic. If you decide it is too in-depth for your assignment or the research you are conducting, there is an **intermediate** level workbook for Ovid databases, which will show you how to use keyword searches (only) to search for references that contain simple words and phrases. This is available from the Medicine subject resources page (<https://library.leeds.ac.uk/subjects/1170/medicine>).

Throughout this workbook, you will learn how to use subject headings and keywords to find articles on this topic:

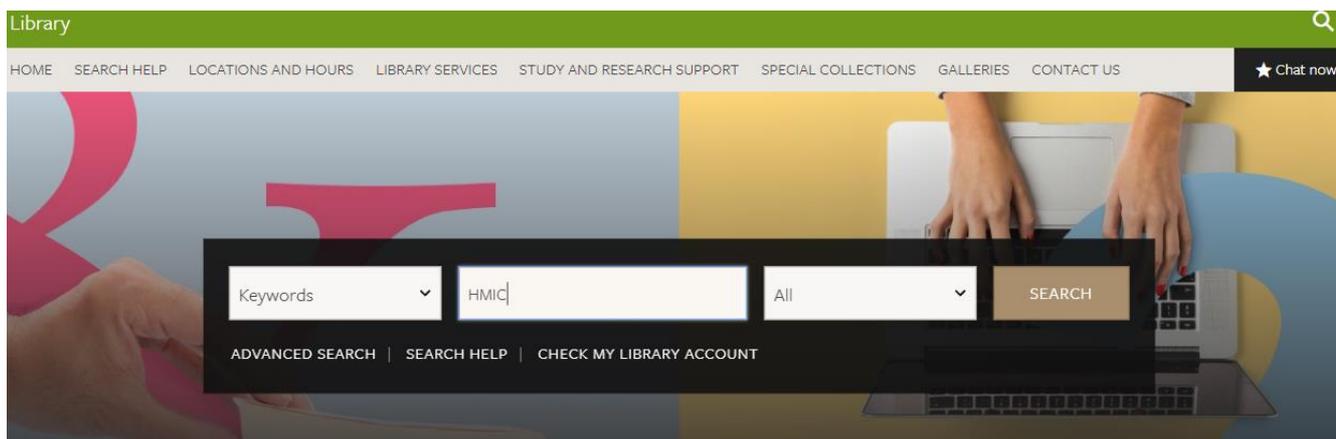
### Social inequality as an underlying contributory factor in obesity

Although you might not be interested in this particular topic, the guided example will teach you the principles behind the literature searching process. You can then apply the same skills to search for articles on your own topic.

## b. Logging in to HMIC

### Exercise 1 – Getting in to HMIC

To access the database, go to the Library's homepage at <https://library.leeds.ac.uk/> and type "HMIC" into the search box in the middle of the page:



Click on 'Go to HMIC database' link at the top of the results page:

SUGGESTED DATABASE

HMIC database

[Go to HMIC database](#)

This database brings together the bibliographic databases of 2 UK health and social care management organisations: Dept. of Health (DH-Data), King's Fund. HMIC enables you to search for journal articles, books, Department of Health policy documents and unpublished material in the area of UK and international health and social care management and policy. The 2 HMIC databases are updated 6 times a year and records go back to 1983. A free current awareness service provides email alerts to newly added content.

Depending on where you are, e.g. off-campus, you may be required to login in with your IT username and password.

Now click on the link to **HMIC Health Management Information Consortium 1983 to present** in the list of databases

### Select Resource(s) to search:

▼  All Resources

- AMED (Allied and Complementary Medicine) 1985 to July 2017 i
- BIOSIS Previews 1969 to 2017 Week 35 i
- BIOSIS Previews Archive 1926 to 1968 i
- CAB Abstracts 2000 to 2017 Week 29 i
- CAB Abstracts 1910 to 2017 Week 29 i
- All EBM Reviews - Cochrane DSR, ACP Journal Club, DARE, CCTR, CMR, HTA, and NHSEED i
- Embase 1996 to 2017 Week 31 i
- Embase Classic+Embase 1947 to 2017 July 28 i
- Global Health 1973 to 2017 Week 29 i
- Global Health 1910 to 2017 Week 29 i
- Global Health Archive 1910 to 1972 i
- HMIC Health Management Information Consortium 1983 - present** i
- International Pharmaceutical Abstracts 1970 to July 2017 i
- Maternity & Infant Care Database (MIDIRS) 1971 to June 2017 i

You should see this screen. During this workbook you will be searching on the **Advanced** screen, as this is the only screen that allows you to search using **subject headings** and **keywords** and then combine them using the AND + OR buttons.

The screenshot shows a library search interface. At the top, there are navigation tabs: Search, Journals, Books, My Workspace, and Multimedia. Below this is a 'Search History (0)' section with a table showing search results. The main search area is titled 'Basic Search | Find Citation | Search Tools | Search Fields | **Advanced Search** | Multi-Field Search'. The 'Advanced Search' tab is circled in red. Below the navigation, there is a search input field with a 'Search' button. There are also options for 'Limits' and 'Map Term to Subject Heading'.

## 2. Breaking down your question

To perform an effective keyword search, you need to start by breaking down your research question/topic into its main topics.

In this workbook remember we are looking for evidence about social inequality as an underlying contributory factor in obesity.

In this case our main topics are:

- **social inequality**
- **obesity**

The other words in the research question are less important and don't need to be searched for.

Here's the process:

- First we will search for articles about **social inequality**
- Then we will search for articles about **obesity**
- Finally, we will combine these sets of results using the **AND** button. This will leave us with one set of articles that contain **both** your topics together

Concentrating on one part of your question at a time and entering all those search terms separately means that the structure of your search strategy is much easier to follow, and it is much simpler if you later decide to delete one stage of your search.

### 3. Searching with subject headings – the ‘topic search’

In addition to the information about the article’s author, title and publication details, every record in HMIC contains a number of **subject headings** to help describe the content of that article. Subject headings are chosen by an indexer from a set list of words and phrases. You can choose to search for articles that have been given a particular subject heading. Searching by subject heading means that your results will be significantly about that topic, regardless of the words the author used to refer to the topic in the actual article.

When there is a tick in the box marked ‘Map term to Subject Heading’, HMIC will try to help you identify the subject heading that is used for your topic. For example, if you type in **alternative medicine**, HMIC will tell you that the recognised subject heading is actually **complementary medicine**.

Note that subject headings vary between databases so each database needs to be searched separately and the appropriate headings identified. This is referred to as ‘tailoring’ the search between databases.

#### Exercise 2

To carry out subject heading searches you must first put a tick in the box **Map term to subject heading** – do this now (see screenshot).

The screenshot shows the HMIC search interface. At the top, there are navigation links: Basic Search | Find Citation | Search Tools | Search Fields | **Advanced Search** | Multi-Field Search. Below this, it indicates '1 Resource selected' and 'HMIC Health Management Information Consortium 1983 - present'. The search input area has radio buttons for 'Keyword', 'Author', 'Title', and 'Journal', with 'Keyword' selected. A search box contains the text 'social inequality' and a 'Search' button. Below the search box, there is a 'Limits' section with a checked box for 'Map Term to Subject Heading'. Other options include 'Abstracts' (unchecked) and 'Publication Year' dropdowns. Buttons for 'Additional Limits' and 'Edit Limits' are also visible.

In the search box, type `social inequality` and click on **Search**.

HMIC will now try to find the most appropriate subject heading for you.

In this case the database has found an exact match for this term in its list of available subject headings. If it can’t, it shows some possible headings which it thinks are related. For some topics, 10 or more subject headings may be suggested.

Select	Subject Heading	Auto Explode	Scope
<input checked="" type="checkbox"/>	Social inequality	<input checked="" type="checkbox"/>	<a href="#">?</a>
<input type="checkbox"/>	social inequality.mp. search as Keyword		

What you need to do here is choose the closest matching heading for the topic you typed in. Sometimes you will find an exact match but other times you have to carefully choose from the database's suggestions. Just make sure you stick closely to the topic you were searching for.

If you want to find out more information about a heading, you can try clicking on its scope button.

In this case you can just click on **Social inequality**.

You are now on a page showing where **Social inequality** appears in HMIC's thesaurus of subject headings.

<input checked="" type="checkbox"/>	<b>Social inequality</b>		1090	<input type="checkbox"/>
	[Used For]			
	<a href="#">Inequality [social]</a>			
	[Broader Terms]			
<input type="checkbox"/>	<a href="#">Social problems</a>		156	<input type="checkbox"/>
	[Narrower Terms]			
<input type="checkbox"/>	<a href="#">Gender inequality</a>		14	<input type="checkbox"/>
<input type="checkbox"/>	<a href="#">Health inequalities</a>		5524	<input type="checkbox"/>
<input type="checkbox"/>	<a href="#">Racial inequality</a>		74	<input type="checkbox"/>
	[Related Terms]			
<input type="checkbox"/>	<a href="#">equality</a>		621	<input type="checkbox"/>
<input type="checkbox"/>	<a href="#">Social differentiation</a>		45	<input type="checkbox"/>
<input type="checkbox"/>	<a href="#">Social exclusion</a>		779	<input type="checkbox"/>
<input type="checkbox"/>	<a href="#">Social status</a>		94	<input type="checkbox"/>

### Exercise 3

Your heading will have a blue band across it. The corresponding number under the column **Hits** tells you how many articles will be retrieved.

Subject headings can have broader and/or narrower subject headings – look at the screenshot to check you can see these. If you want the papers belonging to a particular heading, you have to tell the database by ticking the box next to that heading – for example, don't assume that your topic's narrower terms are automatically included, as this is not the case. If you wanted to include additional terms you could tick them as well, or search for them separately to produce a neater looking search strategy.

Scroll to the top of the page and click on **Continue**.

You should now be back at the Main Search page where your first set of results can be seen.

<input type="checkbox"/>	# ▲	Searches	Results	Type	Actions	Annotations
<input type="checkbox"/>	1	social inequality/	1090	Advanced	Display Results More ▼	

Save Remove Combine with: AND OR

### Exercise 4

Now try another subject heading search for **obesity** – the second concept within our example research question. Follow the same process you used for social inequality.

Back at the main search page, your search table should now look similar to this:

<input type="checkbox"/>	# ▲	Searches	Results	Type	Actions	Annotations
<input type="checkbox"/>	1	social inequality/	1090	Advanced	<a href="#">Display Results</a>   <a href="#">More ▾</a>	
<input type="checkbox"/>	2	Obesity/	3450	Advanced	<a href="#">Display Results</a>   <a href="#">More ▾</a>	

Combine with:

**Note:** Now that you have a set of results for each of your topics you could tick and combine these sets together using the AND button. However this would only give you an indication of what has been published and would not be a **comprehensive** search. Also, if you need to show evidence of the way you have conducted your search, you may lose marks for not showing awareness of the more comprehensive search methods that are explained later in this workbook.

## 4. Searching with keywords – the ‘exact phrase search’

Subject heading searches will probably find you many of the relevant papers, but for a comprehensive search you need to supplement your subject heading searches with some **keyword searches**.

Searching by keyword means that you type in a word or phrase and the database will bring back any references where there is an **exact match** in the title or abstract (summary) fields.

**Note** – although this sounds very straightforward, there are a number of issues to be aware of:

1. The same concept (whether it's a drug, a condition etc) can often be referred to in more than one way. If you only search for it one way you will miss articles that refer to it in a different way (cancer, carcinoma etc) – more about this later
2. Words that you might be interested in can have variations, perhaps in the spelling (e.g. British versus American) or different endings (e.g. depressed, depression, depressive etc) that could be of interest – more about this later as well
3. Finally, check your spelling – especially if you are getting zero results! Remember the database will only bring back exact matches for what you type in

Keyword searching brings back references where the words or phrases you type in appear primarily in an article's **title** or **abstract**.

This can mean that although your concept is mentioned, it is not necessarily a major theme of the article.

You will need to make a judgement about how far you try to define the concepts you are interested in – this often depends on why you are carrying out the search. Under some circumstances it may be appropriate to stick to one major way of defining a concept, but if you're trying to be more comprehensive you should aim to think of and include as many synonyms as possible.

Spend a few moments thinking about the different ways our concepts could be referred to in the literature and list them below. Consider any alternative spellings (American versus British), plurals and abbreviations.

**This stage is vital.** For example if we were looking for papers about postnatal depression and only searched using that term, we would miss the articles that used the alternative term 'postpartum depression'.

How else might **social inequality** and **obesity** be referred to? Include even slight variations – otherwise your search results will exclude them.

How many can you think of? List them here: (if you get really stuck, refer to the appendix of this document for some ideas)

TOPIC 1 – social inequality	TOPIC 2 – obesity
?	?
?	?
?	?
?	?

### a. Truncation and wildcards

To help save you some time and effort, HMIC has some keyword search tools that look for variants of words. These are known as **truncation** and **wildcards**. Each software supplier uses their own set of symbols, but in the OVID databases the following apply:

- \* is used to truncate (shorten) words, e.g. depress\* will find *depressed, depression, depressive* etc
- # is used to search for a variable single character, e.g. organi#ation will find *organisation* and *organization*
- ? is used to search for a single character, or no character at all. This is very useful for some British and American spellings, e.g. orthop?edics will find both *orthopedics* and *orthopaedics*

**Note:** you can use these techniques in combination e.g. behavio?r\*

Look at the list of words you've created – can you find a suitable use for truncation or wildcards? Do you want to search for both plural and singular versions of words?

**Note:** Beware of truncating words too far, as you may find too many unrelated words. For example if you were searching for legal aspects of medicine, truncating legal to leg\* would also find articles about legs, legacy etc.

### **Exercise 5**

Now it is time to enter your words and phrases, one at a time, into HMIC. First, you need to tell the system you want to perform a **keyword search** and not a subject heading search.

To do this, **remove the tick** from the box marked **Map Term to Subject Heading** by clicking in the box.

Enter the first word or phrase you thought of for topic 1 and click on **Search**.

Repeat for **all** the other terms you came up with for topic 1, entering them into the database one at a time and clicking Search after each one.

Notice how the **number of results you find each time varies** – if you don't search using a range of terms you will miss some key papers.

### **Exercise 6**

Now do exactly the same for topic 2, searching for these one at a time as well.

**Note:** To delete any of your searches, tick individual boxes next to the search in the Search History (or the one at the top to select them all) and click **Remove**.

We'll look at how to use the AND + OR buttons to combine these results a little later.

### **b. Adjacency searching**

Another useful **keyword** search technique is called **adjacency searching**. This is useful if you want to look for papers where your words might appear NEAR each other rather than only right next to each other. To do this, separate your words with **ADJn** where **n** is the number of major words **MINUS 1** that you will allow to appear **between** your words.

For example, searching for **physician ADJ3 relationship** will find the words physician and relationship within **TWO** major words of each other in any direction – and would find many more papers than just searching for the specific phrase 'physician relationship'. Using this technique would retrieve papers with phrases like "physician patient relationship", "patient physician relationship", "relationship of the physician to the patient" and so on.

HMIC does not count **stop words** such as in, on, and, the, they etc. in the ADJ number, so your target words may well be even more than 2 words apart (but no more than 2 **major** (not stop) words apart).

So, following the database's adjacency searching rules **ADJ(n-1)** where n = the number of major words to appear between your words:

- ADJ searches for both terms next to each other **in the order as typed**.
- ADJ1 searches for both terms next to each other **in either order**.
- ADJ2 searches for both terms and up to **one** word in between them
- ADJ3 searches for both terms and up to **two** words in between them
- ADJn searches for both terms and up to **(n-1)** words in between them

**Note:** the higher the ADJ number you use, the further apart your keywords will be from each other. When this happens, you can start to lose the context you wanted. It is worth experimenting with different numbers and spot checking your results for relevance.

## 5. Combining your searches

Now that you know how to find some articles, you need to know how to **combine** your search results to be left with one final set of papers that contain **both** your concepts together.

Combining requires the use of the Boolean Operators AND + OR. These options appear as buttons on the search screen.

### Exercise 7

Look at your **Search History** table. This shows you every search you have carried out so far.

Identify all the searches (subject heading and keywords) you carried out about **social inequality** and tick the box to the left of every set.

Click on the **OR** button

This produces a combination set at the bottom of your search history table, containing all results about topic 1 all together.

Now tick every set of results you generated about topic 2 **obesity** and combine them using OR as well.

You should now have a second combination set at the bottom of your search history table.

### **The final stage is to combine your combination sets!**

To do this, just tick your two combination sets – but this time combine them by clicking on the **AND** button.

This narrows the search to leave you with one final set of results that contains both your topics together now.

Concentrating on one part of your question at a time and entering all those search terms separately means that the structure of your search strategy is much easier to follow, and it is much simpler if you later decide to delete one stage of your search.

Have a look through your final set of results – either by clicking on **Display Results** for that set or by scrolling down.

Do they help you answer your research question?

Your results will all mention all your topics, but not necessarily in the context you want; you will now need to browse the results and read the abstract to find out whether it's going to be useful.

Sometimes you will need to go inside the Complete Reference link for a reference to see exactly where your search terms appear in full – they should appear in colour to help you spot them.

Have a look at the final page (appendix) of this workbook – if you have followed all the steps correctly, your search strategy should look similar.

## 6. Viewing and saving your results

### a. Viewing your results

After your search, you can view the results and sometimes get a link through to the full text of articles. Being able to access the full text depends on the Library having a subscription to the journal a particular article had been published in – see below.

If you scroll down the screen you will see the first 10 results. References will have some or all of the following links beside them:

<a href="#">Abstract Reference</a>	A brief summary of the article
<a href="#">Complete Reference</a>	Full details of the article, including abstract and subject headings
<a href="#">Find Similar</a>	Clicking this will show you other related articles
<a href="#">Find Citing Articles</a>	See who has subsequently referred to (cited) a particular paper in their own research
<a href="#">Document Supply</a>	A link to the Library's Document Supply service, where you can request items we don't have access to in print or online. The service costs £10 per request.
<a href="#">check@leeds</a>	This will try to access the full text for you, if we subscribe electronically to the journal it is published in. If this link fails, try searching the Library Catalogue for the article to see if we subscribe or have it available in print.

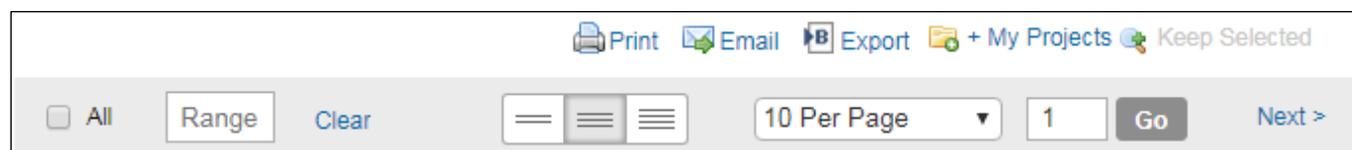
Try viewing some of your results, using the links described above.

**Note:** When navigating around the database and viewing references, try to avoid using the **Back** and **Forward** buttons inside your browser as these can mean you lose selected references, or at worst parts of your search. Use the navigation buttons **Next>**, **<Previous** and click the **Search** tab to get to the main search page again.

### b. Saving your results

There are various ways you can save the results of your search – not the full text papers themselves, just a record of the results that you have found.

You can tick individual results and then use the appropriate option Print/Email/Export on the bar above your results:



Or you can select all your results (within the maximum allowed number) by ticking just the box to the far left and then exporting/emailing etc.

**Instruction for EndNote software users only:** If you want to send your results to an EndNote library, choose the **Export** option and then in the window that opens you can choose to export a RIS file from the drop down menu. Click **Export** and a file will be downloaded to your computer. When you open the file, the references should be automatically added to your EndNote library. If you don't know what EndNote is and want to find out more, see

[https://library.leeds.ac.uk/info/1403/endnote/43/endnote\\_support](https://library.leeds.ac.uk/info/1403/endnote/43/endnote_support)

### c. Saving your search strategy – setting up a personal account

You can also save a live copy of your search strategy using OVID's free Personal Account feature. This means that you can re-run a search at a later date without having to re-type your terms. This is particularly useful when working on projects rather than just trying to find some background reading.

Don't feel obliged to complete the following exercise if you don't think it will be useful yet.

#### **Exercise 8**

To set up your personal account, click on **My Account** at the top right of the screen.

Then click on **Create Account**.

Follow the instructions on screen. Choose any account name and password, making sure it is something you will be able to remember easily – don't use any spaces or symbols or your details will be refused. Your account name and password do not have to be the same as your University IT account.

Now go back to the Search page and perform the search you want to save. (You may decide to run something very simple as a test).

Click on **Save All** underneath the Search History box and log in with your new account name and password if prompted.

At the top of the screen, type a name for your search into the Search Name box. Give the search a logical name so you can easily recognise it in the future. We also recommend adding the name of the database you used, and the date, so that you can easily distinguish between different searches.

By default your search will be saved permanently. You can also save a search temporarily, meaning it will disappear after 24 hours, or as an AutoAlert - each time the database is updated, any new references which match your search criteria will be sent to you in an e-mail. Make your selection of permanent, temporary or auto-alert from the **Type** drop down menu.

Click on **Save** to complete the process.

It is a good idea to make sure your Search History is clear before running a saved search. Otherwise your results will be added on to the end of any results already visible. To delete searches from the Search History, tick individual boxes for the lines you want to delete and click **Remove**.

Once you have saved a search strategy, you can run it again at a later date by clicking on **View Saved** in the top right corner. Select the search you want to run and click on **Run**. Your results will be available back on the main search page (click on the Search tab to get there).

## 7. Using limits

HMIC has some limits you can apply to your search. View the full range of available limits by clicking on **Additional limits** underneath the search box.

Use these with care when you are doing a comprehensive search as you can miss important references this way. If you do use them, apply them one at a time so you can see the effect they have. All you need to do to apply a limit to the search you have carried out is tick the appropriate limit and click on the Search button. This will apply the limit to the last search you performed (it's best to do this after you have finished combining any searches).

## 8. What next?

After your initial search you could try one of the following:

- Refine your search - look at the results you've got and see if there are any additional keywords you could use, or any you should take out. You will probably have to do a series of searches to come up with your best search, even experienced searchers do this
- Try different databases - try Medline, PsycINFO, Embase etc. You can see a list of medical and health related databases by going to your subject support page <http://library.leeds.ac.uk/subjects> or look for the Subject databases link on the Library homepage
- Follow up references - look at the list of references/bibliography at the end of a useful article and see if there are other articles you have missed. You could also use the **Web of Science** database to do a [citation search](#) to find who has quoted a particular paper since it was published.

## 9. Accessing HMIC from off-campus

All University staff and students can access HMIC and other databases (and electronic journals) from off-campus as well as inside the University. Usually, you will be prompted to log in with your IT username and password.

## Appendix 1

### Example search strategy

If you have correctly followed the steps in this workbook, your strategy should look very similar to this. It shows subject heading searches (those followed by /), keyword searches (those followed by .mp.) and how they should be combined. The number of results at each stage will change as new references are added to the database.

To generate a copy of your search strategy like this, click **Print** above the results list, and then tick the Include search history option, followed by **Print Preview**.

**Print Citation List:** X

Selected Results: 1-10

▼ **Select Fields to Display**

- Citation (Title, Author, Source)
- Citation + Abstract
- Citation + Abstract + Subject Headings
- Complete Reference
- Custom Fields Select Fields

▼ **Select Citation Style**

Ovid Citation ▼

▼ **Include**

- Search History

Cancel Print Preview

Database(s): HMIC Health Management Information Consortium 1983 - present

Search Strategy:

#	Searches	Results
1	social inequality/	1090
2	Obesity/	3450
3	social inequality.mp. [mp=title, other title, abstract, heading words]	1167
4	social status.mp. [mp=title, other title, abstract, heading words]	233
5	socioeconomic status.mp. [mp=title, other title, abstract, heading words]	1716
6	socio-economic status.mp. [mp=title, other title, abstract, heading words]	520
7	poverty.mp. [mp=title, other title, abstract, heading words]	3125
8	low* income*.mp. [mp=title, other title, abstract, heading words]	1713
9	obesity.mp. [mp=title, other title, abstract, heading words]	4446
10	overweight.mp. [mp=title, other title, abstract, heading words]	1457
11	over-weight.mp. [mp=title, other title, abstract, heading words]	2
12	obese.mp. [mp=title, other title, abstract, heading words]	1289
13	1 or 3 or 4 or 5 or 6 or 7 or 8	7238

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14	2 or 9 or 10 or 11 or 12	4822
15	13 and 14	405