**Knowledgeshare**


Ben Skinner BSc (Hons) MA
Evidence-based/Knowledge Management Librarian, KnowledgeShare, The Library, Audrey Emerton Building, Royal Sussex County Hospital, Brighton, UK

**Introduction**

In last month’s issue of *Quality in Primary Care* I wrote about the use of internet search engines in health care, and the ‘Google phenomenon’ in particular. I discussed the advantages of using these services, and suggested some techniques to make your search more effective, but concluded that any serious search for evidence should include Google only as a last resort. Many high-quality information sources are available online that remain considerably more efficient at answering detailed questions about patient care.

One of the reasons for Google’s appeal is that it provides an easy access point to the rest of the web and convinces users that there is no need to remember the location of any other resource. But there are other sites with a similar appeal; portals whose aim is to provide an easily accessible one-stop-shop directing healthcare staff not to the entirety of websites that are available, but to all those that are useful and evidence based. One such portal is the National electronic Library for Health (NeLH), which was launched in 2000 and remains extremely popular, with around 200 000 users every month.1,2

The NeLH was set up to complement the services of local NHS libraries by providing access for NHS staff to health information online. Much of this information is provided through the NHS Core Content which is a national collection of subscriptions to online journals, databases and other resources. There are close ties to other NHS bodies, such as the National Institute for Health and Clinical Excellence (NICE), as well as the royal colleges, and the NeLH team has also developed its own information services.

NeLH has proved to be a fantastically useful resource, and many readers will already be aware of it; the site has received numerous mentions in this column. However, in the last year significant progress has been made in the creation of a new National Library for Health (NLH), a more integrated programme that has developed the NeLH services further and will tie them more closely to local library support. An NLH website has been produced that will act as an improved portal with clearer navigation and new, innovative services.

**Search for resources**

New for the NLH site is a Google-style search service, a ‘single search environment’ that retrieves information simultaneously from all the different resources within the NLH collection. This service is available without the need for a password, at any time, from any internet-linked PC. The sources that are searched initially include systematic reviews from the Cochrane Library and the Database of Abstracts of Reviews of Effects (DARE), guidelines and protocols from the key national bodies, and evidence-based bulletins from *Bandolier*, *Clinical Evidence* and other similar publications. BioMed Central is also covered, an independent publishing house that provides free access to original, peer-reviewed biomedical research.

When you enter more than one word into the search box the interface will retrieve results that include all of your words, but they will not necessarily be next to each other in the text. In other words the NLH search does not use ‘phrase searching’ by default, which is similar to Google but is unlike some other health-based search services that you may be used to. To search for words as a phrase you must enclose them in speech marks, e.g. “community nurses” rather than community nurses. You can also combine words using the standard logical operators. Use OR to search for similar topics or alternate spellings, e.g. *melanoma* OR “*skin cancer*”. Use NOT to exclude topics that you are not interested in. Similar words can be searched simultaneously by using the *, e.g. *midwi* searches for ‘midwife’, ‘midwives’, ‘midwifery’, and so on.
The advanced search allows you to restrict your search to a particular field, e.g. title or author, and to restrict the number of sources that are searched. You can also limit the results to only those published within a certain time period. As with any information resource, searches often need to be refined with more or fewer search terms to produce the most relevant and manageable set of results. Don’t forget to include American spellings in your search to avoid missing important documents.

Results are sub-divided into the following categories: ‘Guidance’, ‘Evidence’ (the pre-appraised resources), ‘Journals & books’ and ‘For patients’. From these lists you can then view the complete reference by clicking ‘More detail’, or, in most cases, you can move to the ‘Full text’. The order in which results are presented is worth noting. They are not displayed in order of relevance, and nor are they presented in date order. The results are ordered according to which collection responded to the search request most rapidly. In theory this means that the same search conducted at different times could produce results in a different order, and highlights the importance of not restricting your viewing to the first screen of results.

Log-in for additional facilities

Although the NLH search service is available to people without passwords it is highly recommended that you do log in, to make use of extra functions. To do so you will only need an Athens username and password, which is available to all NHS staff as well as to many working with the NHS, for example students on placement. You can register for an Athens account at: www.athens.nhs.uk/region and will receive a password immediately if you register from an NHS computer (otherwise it will take a couple of weeks to come through).

When you log in, the range of resources covered by the single search engine increases to include the subscription-based clinical databases such as Medline, the British Nursing Index, and PsycInfo. Results from these sources are presented in a separate tab in the results list, called ‘Clinical databases’. In addition, the ‘Journals & books’ list will now include a much larger quantity of resources. Linking to the full reference still seems to be a little hit and miss, with many of the results from the journal article databases not taking you through to the relevant abstract. Hopefully this is a problem that will be solved in time.

After searching you get the option to save your search criteria. This allows you to quickly rerun a search the next time you log in. You can also save a ‘search profile’ (or more than one), which means that the system remembers which sources you prefer to search in.

Eventually the aim is to link this search facility to the resources purchased by your local library services. Logging in will identify the region in which you are working, and search results will include locally held books, journals and electronic resources in addition to the existing national ones.

Go direct to the NLH resources

Being able to conduct a simple search across so many different sources at once, and to see relevant guidelines, quality-assured digests, and journal articles side-by-side, really is a huge step forward for the practice of evidence-based health care. This is a resource which should be used in preference to Google or Yahoo! by NHS staff to answer almost any question. However, the single search engine does share a drawback with these general search engines, which is that it is not set up to answer in-depth queries.

Experienced searchers will know that there are advanced searching features available in many of the healthcare information resources that are not available through the simple NLH search interface. These include facilities such as index terms and associated subheadings, as well as advanced filters on age, sex, publication type and many more. In addition, each resource requires a slightly different approach in order to optimise its search effectiveness. If you do not have these sorts of advanced search skills, and would like to, then I recommend a visit to your local NHS library to ask about the training courses that are available to increase the effectiveness of your information retrieval.

For those people who do want to develop a more in-depth evidence search, the NLH site provides direct links to each of the different databases, publications and organisations in its collection. Under ‘Guidance’ you will find NICE, PRODIGY (a primary care guidelines provider) and Health Technology Assessments. ‘Evidence’ contains links to: Clinical Evidence, which is published by the BMJ and summarises the latest evidence on effective treatments for common conditions; the Cochrane Library, which contains full systematic reviews developed by the Cochrane Collaboration, as well as abstracts of almost all systematic reviews published elsewhere; the NHS Economic Evaluation Database; Bandolier, which summarises and appraises newly published research; and the Drug and Therapeutics Bulletin.

You will also find links to each of the major healthcare literature databases (available once you have logged in). Medline and Embase are both very good for articles on medicine, although the overlap between
them is only about 40%, so do make sure you search both. CINAHL and the BNI concentrate on nursing information. There is PsychInfo for psychiatric research, and the King’s Fund or DH-Data for health management information. Images MD is extremely useful for finding medical images, either to aid diagnosis, or for presentations. The ‘Journals & books’ section contains links to BioMed Central, mental health e-books, and an alphabetical list of more than 1200 electronic journals that have been subscribed to by the NHS on a national level.

Also available from this section of the NLH site are the specialist libraries. There are currently 16 of these, each focusing on a particular specialty within health care, from cancer to women’s health. Each specialist library is slightly different, but common elements are links to the main charities and royal colleges, critically appraised summaries of recent research, and the latest news in the area. There is a health management specialist library, which has been specifically set up to provide high-quality information to leaders and managers on the current hot topics in health care. A large collection of resources is available on NHS policy, structures, and activities, as well as on improving and monitoring quality, and staff management. Brief summaries and management briefings are also available that contain just the essential information on specific key topics.

News and RSS

The News & RSS page is divided into four main sections. ‘What’s New’ mainly contains news of the latest developments to NLH itself, introducing newly purchased resources or alerting users to recent updates and new services. ‘Focus on ... Bandolier’ highlights the latest topics being discussed by that publication. The NLH team also choose a ‘document of the week’ to include in this section; important reports from the major healthcare journals and professional bodies. Finally there is the ‘Hitting the headlines’ service, which is a fantastic resource that I highly recommend. It looks at the big health stories that are currently in the newspapers and analyses not only the way the stories have been reported, but also the validity and reliability of the original research on which the stories are based.

All of these regularly updated columns are presented on the News & RSS page. The latest two articles are shown, with options to view more detail or browse the full archive of previous bulletins. The ‘RSS’ refers to the facility to have the latest updates from one or more of these sources sent directly to your newsreader. This ensures that you stay up to date, without having to remember to regularly visit the NLH site. For more information about newsreaders, and for other key sites with RSS news feeds, see my article in the December 2004 issue of this journal.3

The page also contains an ‘RSS directory’ of other related resources that provide their own RSS feeds, for example NICE.

Preview what’s to come

On the main page you will find a small section headed ‘Preview’. This contains links to two new services that are still being developed.

The first is the primary care question answering service, a pilot service that seeks to answer questions that health professionals have not been able to answer, or do not have time to investigate thoroughly. Users are able to view recent questions, or browse by specialty, and can send in their own questions about aspects of health care. This service is the national equivalent of the literature searching service that most local NHS libraries already provide, and have been providing successfully for many years. Local services will generally be more flexible, and will usually search a broader range of sources and be able to tailor the results more closely to your own circumstances. They are also likely to retrieve relevant literature more rapidly, within hours rather than days, if you need information urgently. Nevertheless, if a local library service like this is not available then you may find this NLH question-answering service very useful.

The other developing service is called the ‘Map of medicine’, an online tool based around patient pathways, which takes the healthcare professional through from the initial complaint, suggesting diagnostic tests and giving recommended treatment options. The system spans the primary care–secondary care divide, indicating when to refer patients to a different department and linking through to referral forms. All the content is written by clinicians, based on the latest high-quality evidence, and drawn from existing clinical guidelines if possible. Most interesting of all, the Map can be localised by ‘clusters’ of primary care trusts and NHS trusts, to reflect practice and specialised facilities in their area. Eventually it will integrate with the electronic patient record. The ‘Map of medicine’ is due to be rolled out by region.

Conclusion

The National Library for Health is an exciting new development for healthcare staff interested in
evidence-based practice, and its website is easy to use with some innovative and useful facilities. Their idea of working more closely with local library services is to be welcomed when it raises the profile of existing information services, and brings down the cost of electronic resources through national subscriptions. While there is a danger of unnecessarily duplicating services that work better on a personal, one-to-one level, it seems likely that a satisfactory equilibrium between national and local information provision will emerge naturally. Hopefully, the NLH site will succeed in supplanting the popular search engines as the first port of call for healthcare staff on the web. It retains the simplicity of Google, while focusing on high-quality information and directing users quickly to the key healthcare sources.

REFERENCES

ADDRESS FOR CORRESPONDENCE
Ben Skinner, Evidence-Based/Knowledge Management Librarian, KnowledgeShare, The Library, Audrey Emerton Building, Royal Sussex County Hospital, Eastern Road, Brighton BN2 5BE, UK. Tel: +44 (0)1273 523307; fax: +44 (0)1273 523305; email: ben.skinner@bsuh.nhs.uk; website: www.KnowledgeShare.nhs.uk