give more patient and clinician-focused outcomes.

Evolution of the service

The core components of the service have changed little since ATTRACT was set up in 1997. The NLH Q&A service has a higher profile than ATTRACT and has received considerable attention already. This has resulted in a number of innovative suggestions, for example, the creation of a *BMJ*-style 'rapid responses' feature.

Discussion

To date, the NLH Q&A Service has been a great success, with the users of the service giving very positive feedback. Given the success of ATTRACT in Wales, this is not unexpected. With ever-increasing time constraints in primary care, GPs lack the time and skills to search and answer many of their clinical questions. Therefore, a system that takes away the more labour-intensive components of the process and gives 'nuggets of evidence' is likely to prove popular.

However, it's important that users are aware of the process and potential shortcomings. The NLH Q&A Service tries to be as transparent as it can reasonably be. Our methodology is clear from the site and all our answers are clearly available for others to see and comment on.

The growth and development of the service in the future is exciting and difficult to predict. However, with the continued backing of the NLH and the enthusiasm of the users the service will surely go from strength to strength.

New NeLH specialist library

<http://libraries.nelh.nhs.uk/palliative/>

The new **NeLH Palliative & Supportive Care Specialist Library** has been recently launched. An email discussion group <www.jiscmail.ac.uk/lists/ palliative-supportive-nelh.html> is also available to support the development of the library.

Current literature

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An annotated bibliography of articles relevant to the study and use of the Internet in the healthcare environment.

Aula A *et al*. Less is more in Web search interfaces for older adults.
First Monday 2005 Jul;10(7) <http://firstmonday.org/issues/issue10_7/aula/>.
This observational study compares the usability of Google and an elderly-friendly search interface, Etsin, designed by the authors to address usability problems faced by older adults. Major problems previously identified relate to editing the search text, not understanding the terminology and confusion caused by different types of documents (e.g. PDFs). Etsin, meaning Finder in English, was designed using the Google API. The Etsin interface includes a large emboldened font in the text box with larger spacing between letters and an extra button for clearing the search text, while an icon appears alongside documents that require an external application. Otherwise, it provides simplified functionality compared to Google: the advanced search option is hidden, the results listings do not display the size of documents, or the Cached or Similar pages links, nor are the URLs displayed by default, and the summary sentences are bulleted. On average, the ten participants encountered 40% more problematic situations when using Google, although two experienced searchers missed useful functionality offered by Google. The authors conclude that a simple design makes the search interface more usable for older adults and draw attention to the importance of conducting observational studies with the target user group.

Glenton C *et al*. Portals to Wonderland: health portals lead to confusing information about the effects of health care.
BMC Med Inform Decis Mak 2005 **Mar 15**; 5(1):7 <www.biomedcentral.com/1472-6947/5/7>.
The goal of this study was to evaluate four English-language government-run health portals as compared with the results of systematic reviews. The four portals – the Canadian Health Network, HealthInsite, MEDLINEplus and NHS Direct Online – were used to find information about the effects of interventions for eight health conditions, for which Cochrane reviews could be identified. 155 Web pages that referred to both the condition and the intervention were selected for inclusion and, of these, 92 presented information about effect, with 77 providing qualitative information and 15 providing quantitative information. Few of the Web pages were found to be consistent with the results of the systematic reviews and in some cases the portals offered contradictory information. The report concludes that health portals are only as good as the information to which they lead and recommend that investment is made in producing relevant, valid and understandable information to which the portals might lead.

Hajjar I *et al*. Quality of Internet geriatric health information: the GeriatricWeb project.
J Am Geriatr Soc 2005 May;**53**(5):885–90.
In this article the authors record the development of GeriatricWeb, a collaborative project between librarians and geriatric specialists initiated in 2003 to provide access to health information for geriatric clinical practice and professional education. They describe a three-level assessment process, which involved resource discovery by librarians, and further screening and detailed assessment by geriatric specialists, concluding with GeriatricWeb providing links to those resources that attracted favourable evaluations. An editorial review board undertook to review the resources providing a summary for each resource and using an online assessment tool. The tool was developed as a result of a review of tools and initiatives relating to Internet health information quality and included 20 attributes divided into four domains (credibility, accuracy, design and educational aspects). Medical organisations and academic institutions contributed the majority of

the selected resources. However, the majority of publicly accessible geriatric health information resources were found to be of inadequate quality, with 80% of those evaluated not meeting the relevant quality criteria, especially the credibility and educational domains – leading the authors to recommend that healthcare professionals need to know how to locate higher quality information and how to evaluate the quality of available information.

Mukohara K *et al*. Electronic delivery of research summaries for academic generalist doctors: a randomised trial of an educational intervention.
Med Educ 2005 Apr;**39**(4):402–9.

Despite an increased availability of summaries of primary studies, such as the ACP Journal Club and Clinical Evidence, the impact of such sources remains unclear. The randomised controlled trial reported in this article set out to establish the effect of a Weekly Browsing Journal Club (WBJC) – weekly emails of structured, critically-appraised summaries of one or two new research articles from five core general medical journals – on the use of evidence in practice. Study participants (n = 107), drawn from the Society of General Internal Medicine membership, were randomly assigned to receive either the WBJC or a weekly emailed link to the Yahoo! Health news Web site for 3 months. The majority of the recipients of the WBJC were highly satisfied with the summaries, wishing to continue to receive these, and their reading efficiency was found to improve. However, at the end of the trial, no significant differences were found between the WBJC and control groups in the use of research evidence in practice; changes in attitudes concerning the role of evidence in practice and confidence in evidence-based medicine skills (critical appraisal and skills of interpreting quantitative results) were also similar. The authors suggest that such interventions may have greater impact among doctors with less evidence-based medicine training and experience.

Networking nutrition research

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An introduction to nutritional genomics, and the benefits of virtual networking between scientists to drive forward this new research field.

We are exposed to a complex mixture of foods throughout life and intricate biochemical processes extract energy and use nutrients and other compounds to enable us to grow and function properly. In the past, many compounds were dismissed as being unimportant – having no obvious nutritional role. Intakes of vitamins and minerals are not just about avoiding deficiency diseases nor are levels of non-provitamin A carotenoids (see note) and plant polyphenols irrelevant, but rather important for the promotion of optimal health and the avoidance of age-related disease (e.g. cancer, cardiovascular disease [CVD], type II diabetes, cataract and macula degeneration, arthritis, *etc*.). However, it is also clear that the benefits in dietary choice are not the same for everyone.

There are factors other than diet that affect our risk of disease, not least genetic susceptibility. Women with female relatives that have had breast cancer are more likely to develop the disease than those who do not. Lifestyle – not smoking, being an appropriate weight for your height, drinking alcohol in moderation and taking regular exercise – also affects an individual's risk. Nevertheless, some 80% of case-controlled studies support the hypothesis that the proper diet (i.e. consumption of fruits and vegetables, cereals and plant-derived oils) can reduce the risk of chronic age-related illness. Southern Europeans, for example, are much less likely to develop cancer, which means they experience a much higher quality of life in later years; they eat more fruits and vegetables and have higher plasma levels of so-called antioxidants from food sources. Perhaps most telling is the increase in morbidity and mortality rates as children and young people in Spain, Portugal and Italy exchange their parents' traditional diets for the fast food culture of north-western Europe and the US.

There are very specific examples of benefit provided by individual food compounds. Folate lowers plasma homocysteine, which is an independent risk factor for CVD. It also maintains proper DNA synthesis and repair and optimises gene regulation, protecting against neural tube defects in the fetus and cancer in later years. Consumption of cooked tomato sauces reduces the risk of prostate cancer; the benefit is attributed to lycopene (the carotenoid that makes tomatoes red), although it is not associated with raw tomato consumption. Consumption of foods that contain plant polyphenols (e.g. apples, onions, *etc*.) reduces the risk of developing colon cancer. Of course, studies from the 1990s also demonstrated the risks associated with long-term, high-dose supplementation. Smokers and asbestos workers were given β-carotene and either vitamin E or vitamin A at levels far in excess of normal dietary intake with the aim of preventing lung cancer, and reducing incidences of other cancers and CVD in general. The studies were stopped when early data indicated lung cancer rates had increased by up to 8%. None of these studies, however, should be considered a failure since they forced the nutrition research community to re-think their approach.

Epidemiology and studies *in vitro* had suggested single food compounds could be beneficial to health in high doses. But cell culture model systems are exposed to high concentrations of oxygen making benefits more likely to be detected because the cells are normally under oxidative stress. The cells are transformed, immortalised or otherwise derived from tumour