Knowledgeshare

Web alert: resources to support the development of a knowledge management strategy

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Introduction

'Knowledge management' is a term that has been bandied around for over a decade, generating thriving software and consultancy industries and much academic discourse, but for many managers it is a term that remains ill-defined and elusive. A group of the world's leading knowledge practitioners, meeting in 2003, preferred to talk in terms of 'expertise, information and ideas' as more concrete illustrations of the concept. Their central point being that organisations should see the expertise and ideas of their employees as assets, assets to be valued and managed just as carefully as are the employees themselves, or indeed the organisation's estates, stock and expenditure. These ideas were laid out in a *Knowledge Proposition* during the sixth annual Chief Knowledge Officer's summit, which indicates that 'many organisations have realised significant benefits from developing a knowledge-conscious style of management'.[1]

In practical terms, the advantages gained by mobilising the knowledge of the workforce include greater innovation and creativity, better informed decisions, standardisation of practice and gains in efficiency across the organisation. The *Knowledge Proposition* referenced above includes detailed explanation, with examples, of how 'knowledge conscious management' can benefit organisations in terms of what they call customer intimacy, product leadership and operational excellence. Suggested goals include: 'turning good practice into common practice', 'preventing information duplication', and 'valuing fresh eyes on problems and processes', but the common theme is that individuals should be empowered to share their own knowledge and make the best use of knowledge gained from others.

This article will indicate some of the most useful websites for learning more about knowledge management, and implementing a knowledge management strategy, in the context of the UK National Health Service.

Knowledge management strategies

The *Knowledge Proposition*, and many of the tools and explanations that will be referenced below, have been written from a profit-making point-of-view, and will require some adaptation by managers in the NHS. With this in mind, it may be useful to start by looking at some knowledge management strategies that have been written specifically for UK health and governmental organisations. Perhaps the most important is the Department of Health's own *Knowledge Management Strategy Study*,[2] published in 2001 and currently being implemented. This Department of Health (DoH) strategy begins by outlining the importance of knowledge for the Department, with particular emphasis on the need for evidence-based policy making; this will be facilitated by better access to evaluated information sources, shared access to documentary information, and better identification and involvement of internal and external experts.

This strategy goes on to briefly describe the existing knowledge management activity within the Department, the potential changes and the implementation approach. It talks about: creating a knowledge base of books, articles, and expertise; making this knowledge easily accessible; persuading staff to seek out, use and share knowledge; and building a culture that 'fully rewards, encourages, values and supports knowledge and information sharing'.

Similar goals are to be found in knowledge management strategies from individual NHS trusts, some of which can be found online. These have been collected together by the National Library for Health (NLH) Knowledge Management Specialist Library (a fantastic resource that will be discussed more fully below) and can be found by going directly to: www.library. nhs.uk/knowledgemanagement/searchresults.aspx? &catid=10424. At the time of writing eight strategies are available here, from hospital trusts, mental health trusts, a public health community, a strategic health authority, and at least one that crosses the boundaries between primary and secondary care. They tend to give more detail than the DoH strategy, including objectives and year-by-year action plans, and should be extremely useful guides for any NHS organisation wishing to develop its own plan for improved knowledge management.

As we have seen from the DoH strategy, the concept of evidence-based practice can be seen as an important part of knowledge management: ensuring that expertise, information and ideas from trustworthy external sources are applied to practice within the organisation. Websites to support evidence-based practice have, however, been the subject of many of the previous Web Alert articles (see particularly *Quality in Primary Care* Volume 13 Number 4 and Volume 16 Number 2), and so this article will focus on the other side of knowledge management: the attempt to capture the tacit knowledge of individuals within an organisation and transfer it to a wider forum.

National Library for Health Knowledge Management Specialist Library: www.library. nhs.uk/knowledgemanagement

One of the most successful initiatives of the National Library for Health is its collection of specialist libraries, which bring together the high-level evidence, useful reference material, and patient information, on various health topics. Finding material within these specialist libraries is particularly easy because, in addition to being searchable, one can also browse for items within a subject hierarchy. The reader can see at a glance all of the most useful information on diabetes in pregnancy, let's say, or dental caries in children, gathered together by teams of specialists.

Although most of these libraries cover particular disease areas, patient groups, or types of healthcare delivery, there is also a specialist library for knowledge management. This is where the knowledge management strategies mentioned above can be found (under

the heading 'KM Strategy' in the hierarchy on the left-hand side), along with some useful tools to aid in strategy development. This is the best, if not the only, website to come to for a comprehensive selection of documents on all aspects of knowledge management, as applicable in a health context. Topics covered by the subject listing include:

- general concepts of knowledge management
- knowledge management in the NHS
- tools for assessing and developing knowledge management skills in healthcare staff
- inventories of knowledge management techniques
- a large section on embedding knowledge management
- evaluating the success of a knowledge management strategy.

Essentially, being able to manage knowledge, to take staff members' unspoken ideas, information and expertise and make them explicit in a form that can be used throughout an organisation, requires three things. It is first necessary to audit the flow of knowledge within and between teams, to map what people need to know to do their jobs, and discover what person-to-person networks already exist. If one can find out what people know, and what they do with that knowledge, it will be possible to identify the barriers and possible solutions that may improve the transfer of knowledge within the organisation. The second step is to find ways of capturing this tacit knowledge, methods for which include exit interviews, 'knowledge harvesting' and recording lessons learned. Finally, the captured knowledge must be mobilised across the organisation, so that everyone can benefit. All sorts of techniques for mobilising knowledge are available, some of which are technological and some procedural. The Knowledge Management Specialist Library takes these concepts one by one and gathers together the most useful resources, explaining the ideas and guiding the uninitiated through every process.

The Specialist Library also comes with a blog, guest editorials, a diary of forthcoming knowledge management events, a newsletter, and the opportunity to receive alerts on newly added resources.

I&DeA Knowledge: www.idea. gov.uk/idk/core/page.do? pageId=8152457

The Improvement and Development Agency (I&DeA) website was mentioned in a previous Web Alert article in relation to its helpful set of resources on performance improvement (*Quality in Primary Care* Volume

15 Number 6), and there is an equally useful section relating to knowledge management. I&DeA also has a UK focus, although it is directed towards supporting government and the public sector generally, rather than health care. Nevertheless, many of their tools will be applicable in a health context.

The site includes an introduction to knowledge management, explaining the contrast with information management and indicating that a key challenge in KM is determining what information within an organisation qualifies as 'valuable'. There is also a six-part guide on developing a knowledge management strategy, and a large selection of tools, techniques and case studies on all of the major topics, such as communities of practice, the knowledge marketplace, and after-action reviews.

People

The first step in developing a knowledge management strategy will be to identify who is going to lead on KM within the organisation. The recent report from the NHS Institute for Innovation and Improvement, nationally reviewing NHS health library services in England, recommends that every NHS organisation appoints someone at board level as a Chief Knowledge Officer (CKO).[3] This is a role that already exists in many commercial organisations and may be part of the portfolio of an existing director, but crucially the post-holder should act as 'the conscience of the board' on the issue of knowledge management. The CKO would be responsible for guiding the strategy and helping to develop a culture of knowledge sharing throughout the staff. The Review goes on to suggest that this person should be supported by a network of Team Knowledge Officers who would each take responsibility for good use of information, and knowledge capture, within their department.

Clearly it is crucial that all staff feel engaged with the need for better knowledge management, and can see the benefit that it will bring them, but provided the implementation is handled sensitively, gaining buy-in should be relatively easy. Most staff in most organisations, I think, feel frustrated sometimes by the difficulty in finding out who can answer a particular question, or how to find a necessary form, or even how things should be done in their department. Attempts to reduce these barriers within an organisation may well be warmly welcomed by staff.

Processes

One of the solutions is to identify existing formal or informal networks between staff, promote them, and encourage the creation of new ones. There are a number of websites that allow staff to share their ideas and expertise with the wider community, such as the Contacts, Help, Advice & Information Networks (CHAIN; http://chain.ulcc.ac.uk/chain/) and Knowledge Exchange (www.theknowledgexchange.co.uk), as well as NHS Networks (www.networks.nhs.uk), which can be used to host your own local network. I have written more about these and other networking sites in *Quality in Primary Care* Volume 14 Number 3. In knowledge management terms, one often talks about 'communities of practice', groups of staff who share a common interest and want to learn from each other how to improve their practice. Membership is voluntary and there is often no specific focus or expected output, but they can increase people's confidence and give access to expertise, save time and eliminate duplication, and have great long-term value for an organisation. For more, see the Communities of Practice website from the originator of the term, Etienne Wenger (www.ewenger.com/theory), or the Knowledge Management Specialist Library.

Another plank of knowledge management is the attempt to develop an 'organisational memory'. Instead of knowledge residing in the heads of individuals it should be available across the organisation, particularly so that when people move between departments or leave altogether, their knowledge is not lost. Knowledge harvesting refers to the idea of capturing and documenting the knowledge of experts, which may happen when someone moves on (for example in an exit interview), or may be done regularly so that the organisation 'knows what it knows'. There are lots of tools available online with sample questions that can guide you as to how to run such an interview, for example at: Knowledge Harvesting in Action (www.knowledgeharvesting.org).

Ensuring that lessons are learned from good and bad practice is an important component of knowledge management. This is already commonly done in the case of patient safety incidents, and the National Patient Safety Agency provides an 'Incident Decision Tree' to help determine what went wrong (www.npsa.nhs.uk/patientsafety/improvingpatientsafety/patient-safety-tools-and-guidance/incidentdecisiontree/). Other techniques include 'lesson cards' and 'after-action reviews' to record what did, or did not, go well, and

these are described in the website accompanying the book *Learning to Fly* (www.chriscollison.com/l2f/) as well as at the Clinical Governance Support Unit website (www.cgsupport.nhs.uk/resources/). As before, the Knowledge Management Specialist Library includes numerous additional materials on the subject.

Technology

Once knowledge has been captured, networks have been formed, and lessons have been learned, there needs to be some way of storing the resulting information, so that it is easily accessible for all staff. Owing to the quantity of information, and the massive advantages to be gained from fully cross-referencing the information, this store is usually electronic, and may be web-based. It is important to remember, though, that not all staff in the organisation will necessarily have easy access to computers, or the skills to use them to their best advantage. This is particularly true in the UK health system where availability of computers can be patchy. A knowledge management strategy should encompass the need to ensure availability of PCs, which have been, for some time, the key tool in terms of information storage and transfer. The strategy should also incorporate a programme of training targeted at improving the computer skills of staff who lack confidence in this area. The NHS Connecting for Health programme has published an interesting series of reports on the importance of computing to UK health care (see: www.connectingforhealth.nhs.uk/newsroom/worldview).

The knowledge management system used within an organisation should do two things: connect people to information, and connect people to people. Intranets are employed in many places to do this, with varying degrees of success, as they can by used to host discussion boards, store documents in an accessible way, provide tools for project support and create staff directories. Unfortunately, there are numerous problems with intranets, which must be overcome if they are to be made really useful. On the one hand, intranets are often maintained by small numbers of keen individuals, which can lead to the wider staff lacking 'ownership' of the content, but also risks a situation where someone vital leaves the organisation, leading the site to stagnate. Alongside this there may be the problem of multiple departments each developing their own set of pages, with no co-ordination, no cross-referencing of materials, few commonalities, and much unnecessary duplication. The ideal knowledge management tool, then, is one that is carefully structured and managed but edited and maintained by everyone.

The social web

This may sound ambitious, but it simply means emulating the many websites that have sprung up in recent years that work on exactly the same principle. Collectively known as 'Web 2.0', sites such as Facebook (www.facebook.com), Wikipedia (www.wikipedia.org), Delicious (http://del.icio.us), and Flickr (www.flickr.com), are carefully designed by small teams of people and then filled with content by their many users. Of course there would have to be some restrictions; NHS trusts will have documents stored on their intranets, such as policies and guidelines, that are ratified and unalterable; but an intranet based on the principles of the 'social web' could still be an extremely powerful tool.

Staff contact directories are notoriously difficult to keep up-to-date, but a directory that was editable by all would give staff the ability, and indeed the responsibility, to make sure their own details were correct. In fact, one can go beyond a simple contact directory to create a rich store of information about staff members' skills and interests. Such a directory could show which networks a person belongs to, which working groups and boards they sit on, who they work with and what they are working on, as well as linking through to documents that they have been involved in developing. This could sit within a larger, Wikipedia-style 'encyclopaedia' of the organisation that shows how departments interrelate and operate, with fully cross-referenced documentation, referral forms, and the opportunity to store after-action reviews and information gleaned from knowledge harvesting. Communities of interest would have their own pages on the site, with discussion boards and the opportunity to ask members' questions. Important new academic healthcare research could be shared and debated online, and jointly developed critiques of the papers could be stored for future use.

The application of a process known as 'tagging', in which individuals assign their own personal one-word descriptions to documents, which are then collated and made available to all, is used by many of the Web 2.0 sites to make their content easier to retrieve. LibraryThing (www.librarything.com), in which users can store and share their own personal book collections, is particularly good at this. Allowing people to personalise the way they see and interact with the site is another common feature. Both of these could translate to an NHS intranet, given some imagination, and would make knowledge management easier and more attractive to the staff. Setting up such a resource would be a challenge, but would free up the transfer of knowledge across the organisation and help translate tacit skills and experience into something the whole trust can own.

The Knowledge Management Specialist Library has a great selection of articles and suggestions on these topics, in the 'Technology' subsection of 'Mobilising Knowledge' in their contents page. Also worth a look is OpenClinical (www.openclinical.org), an international not-for-profit organisation supporting technologists and healthcare providers interested in knowledge management applications. Some key documents are listed in the references below.[4,5]

Freely available electronic journals

Finally, for those who would like to keep up-to-date with the latest writing on knowledge management, there are a number of freely available online journals. They are international in scope, covering all aspects of knowledge management, and although not specifically related to health care, many of the articles will transfer across. See:

- *Electronic Journal of Knowledge Management* – www.ejkm.com
- *Interdisciplinary Journal of Information, Knowledge, and Management* – www.ijikm.org/view.html
- *Journal of Knowledge Management Practice* – www.tlainc.com/issue1.htm
- *Knowledge Management for Development Journal* – www.km4dev.org/journal/index.php

ACKNOWLEDGEMENTS

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