Knowledge Management: The Most Important Health Technology?

Philip Davies, PhD
American Institutes for Research
Washington, DC 20007
A C20th View

“There is nothing a government hates more than to be well-informed; it makes the process of arriving at decisions much more complicated and difficult”

John Maynard Keynes
“For the last two hundred years, neo-classical economics has recognised only two factors of production: labour and capital. This is now changing. Information and knowledge are replacing capital and energy as the primary wealth-creating assets, just as the latter two replaced land and labour 200 years ago.”

Thomas B Riley, Executive Director and Chair, Commonwealth Centre for Electronic Governance
What is Knowledge?

Knowledge as an Object

Knowledge is factual information stored in books, journals, records, archives, databases, etc. It is what is known.
What is Knowledge?
The Donald Rumsfeld Principle

“That there are known knowns. There are things we know that we know. There are known unknowns. That is to say there are things that we now know we don't know. But there are also unknown unknowns. There are things we do not know we don't know. And each year we discover a few more of those unknown unknowns.”

(Donald Rumsfeld, Feb. 12, 2002, Department of Defense News Briefing)
What is Knowledge?

US Defence Secretary Donald Rumsfeld has won a "Foot in Mouth" award for one of his now legendary bizarre remarks. (BBC Website, 2 December 2003)
What is Knowledge?

Knowledge as Socially Constructed

Knowledge is “the act of coming to know something [that] involves a personal transformation. The knower and the known are indissolubly linked and changed in a fundamental way.”


If knowledge is seen as a process of accessing and applying expertise (largely tacit knowledge), then there is recognition that knowledge is closely tied to the person who develops it.” (Nutley, Walter and Davies, 2007:169)
What is Knowledge?

Explicit *versus* Tacit Knowledge

**Explicit Knowledge:**

- Knowledge that can be externalised, codified, stored and retrieved as an object. The ‘know that’ of social competence.

**Tacit Knowledge:**

- Knowledge that is closely tied to individuals and their experience, and resides ‘within’ them. The ‘know how’ knowledge of social competence.
What is Knowledge Management?

“Any process or practice of creating, acquiring, capturing, sharing and using knowledge, wherever it resides, to enhance learning and performance in organisations.”

(Scarborough et al. 1999, Knowledge Management: A Literature Review. London, Institute of Personnel and Development)

“The way in which people can create new knowledge, share knowledge around the organisation, and use that knowledge to best effect.”

(NHS, 2006, Knowledge Management Specialist Library)
What is Knowledge Management?

“Knowledge management is about ensuring that people have the knowledge they need, where they need it, when they need it - the right knowledge, in the right place, at the right time.”

(NHS, 2006, Knowledge Management Specialist Library)
Why Do We Need Knowledge Management?

• There’s a lot of it about
• The stock and flow: “exceeds the inherent limitations of the unaided human mind” (David Eddy, 2006)
• Not all of it is if equal value, including research evidence:
  ➢ Unclear objectives
  ➢ Poor research design
  ➢ Methodological weaknesses
  ➢ Inadequate data reporting
  ➢ Selective use of data
  ➢ Unsupported conclusions
• We need to establish the balance of QA’d evidence
Why Do We Need Knowledge Management?

• “It’s all on the internet”!
What is Needed to ‘Aid the Human Mind’

- Reliable and valid sources of knowledge
- Quality assured knowledge ➔
- i.e. critically appraised and sifted knowledge
- Separating the wheat from the chaff
- Presented in comprehensible and useable formats ➔
- e.g. 1:3:25
- Different types of professionals
- And different types of public/citizens ➔
- Who can search, find, critically appraise, summarise and establish the relevance of knowledge for their purposes
UK Responses - Professional Skills for Government Policy Makers’ Core Skills
Analysis and Use of Evidence

- *Anticipate* and secure appropriate evidence
- *Test* for deliverability of policy/practice – and evaluate
- Use evidence to *challenge* decision making
- Identify ways to *improve* policy/practice
- Champion a *variety of tools* for collecting/using evidence
- Ensure use of evidence is *consistent* with wider policy/practice requirements
- Work in *partnership* with a wide range of experts/analysts
Available Resources to ‘Aid the Human Mind’

- Canadian Health Services Research Foundation
- Canadian Institutes for Health Research
- Canadian Association for Health Services and Policy Research
- National Collaborating Centers
- Cochrane Collaboration (especially EPOC)
- Campbell Collaboration
- UK National Knowledge Service
- UK National Library of Health
- Coalition for Better Evidence (global)
“Knowledge is the enemy of disease. The application of what we know will have a bigger impact on health and disease than any drug or technology likely to be introduced in the next decade. The application of what we know from research, from data analysis, and from experience, can prevent and minimise healthcare problems”

(National Knowledge Service, 2006)
UK National Knowledge Service
Three Types of Knowledge

1. Knowledge derived from *research*, called evidence;
2. Knowledge derived from the analysis of routinely collected or audit *data*, called statistics;
3. Knowledge from *experience*, experience of both clinicians and patients.
UK National Knowledge Service
Three Work Streams

- The Best Current Knowledge Service
- The National Library for Health
- The National Decision Support Service
Mission:
“To ensure that the knowledge produced and procured for professionals and patients meets their needs.”

Sources:
National agencies responsible for knowledge production.
UK National Knowledge Service
The Best Current Knowledge Service

- Department of Health:
  - Care Service Improvement Partnership
  - Public Health Observatories
- NHS Institute
- NHS R&D Programme
- NHS Direct New Media
- National Institute of Health and Clinical Excellence (NICE)
- Medicines and Healthcare Products Regulatory Agency
- Health Protection Agency
- Information Centre for Health and Social Care
- Health Care Commission
- Social Care Institute of Excellence
Mission:

• To organise and mobilise of knowledge to meet the needs of users

• To provide a means of access to quality assured knowledge where and when it is needed

• To draw attention to new knowledge that is essential to promoting good health and health care.

• Either by searching or by messaging to the clinician, patient or healthcare professional
The National Decision Support Service

**Mission:**

- To provide knowledge support to human memory
- To provide computer-based decision support which reproduce or supplement the clinician’s powers of inference
- To provide patient decision aids which help the patient reflect on their values, taking into account the evidence and their own unique clinical situation
Coalition for Better Evidence

• Bridges the demand and supply sides of evidence for policy and practice - globally

• Helps decision makers clarify their evidence needs

• Provides quality assured evidence in a timely and concise manner - including what is already known

• Provides a range of evidence products - *evidence maps, rapid evidence assessments, evidence briefings, policy and practice guidelines, full-blown systematic reviews, consensus statements*

• Uses understandable and usable formats (e.g. 1:3:25)

• Contextualizes evidence for social and cultural relevance
Evidence-Based policy is no substitute for *thinking-based policy*
Davies’ Second Theorem®

Knowledge Management is no substitute for thinking management
Contact

Philip Davies PhD
Senior Research Fellow
American Institutes for Research

USA
1000 Thomas Jefferson Street, NW
Washington DC 20007-3835
Tel: 1 202 403-5785
Mobile: 1 202 445-3640
PDavies@air.org

England
2 Hill House, Southside
Steeple Aston
Oxfordshire OX25 4SD
Tel: +44 1869 347284
Mobile: +44 7927 186074
PDavies@air.org