

Knowledge management in mental health services: the role of NHS libraries

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What is KM?

A re-working /re-thinking of familiar concepts:

- Information management
- The “learning organisation”
- “info-mapping”
- Resourced-based theories of the organisation

etc.

(Corrall 1999)



The roots of KM

Japanese management philosophies:

- Total Quality Management (TQM)
- *Kaizen*
- Just in Time

all rely on

- *Sharing of tacit and explicit knowledge*
- *Teamworking*
- *Management of change*
- *Exploitation of knowledge as a capital asset*

Keeling, Carole and Lambert, Siân (2000)



Definitions of KM (1)

"KM is a strategy employed by an organisation wherein its collective information resources, acquired knowledge and personal talents are shared and managed in order to increase productivity, create new knowledge and new value, and improve competitiveness"

(Lindsey-King 1998)



Definitions of KM (2)

- “Knowledge management involves efficiently connecting those who need to know, and converting personal knowledge into organisational knowledge”

(Godbolt 2002, after Yankee Group 2000)



Definitions of KM (3)

“Knowledge management is the task of developing and exploiting an organisation’s tangible and intangible knowledge assets”

(DH 2001)



...but...

“People who define knowledge management are charlatans and carpetbaggers”

David Snowden, IBM Global Services



Aspects of knowledge (1)

- Data
- Information
- Knowledge
- Wisdom

...with apologies to T S Eliot



Aspects of knowledge (2)

- **Explicit**
 - what we may “know about” via an articulated and recorded “body of knowledge”
- **Tacit/implicit**
 - acquired through personal learning and experience
 - reflected in an individual’s capacity for action
 - could be articulated – but usually isn’t



Aspects of knowledge (3)

- Knowledge as individual or social construct
- The organisational environment in which people are encouraged to learn and to share knowledge
- Aspects of organisational “intelligence” that are amenable to planning and management processes

(Streatfield and Wilson 1999)



A caveat

- KM concept often associated particularly with the adoption of automated methods for capturing information and making it accessible
BUT – need to understand:
- representation and organisation of knowledge
- behaviour of information users
KM is not solely about IM&T
- (Perez 1999)



Aspects of KM (1)

- Content
- Infrastructure
- Skills
- Culture

(Haines 2001)



Aspects of KM (2)

Two different emphases:

- Codification
 - Accessing and re-using existing knowledge
- Personalisation
 - Capturing tacit knowledge

Aspects of KM and technology enablers

Existing KM technology enablers	
Codification strategy	Personalization strategy
Knowledge assets Intellectual capital management	Knowledge empowerment and Collaboration management
<ul style="list-style-type: none">• Document management systems• Data mining systems• Knowledge inventory systems (search engines, knowledge mapping and information retrieval systems)• Data/information repositories (best practices, storytelling and lessons learned)• Online training systems• Electronic performance support systems• Database management system	<ul style="list-style-type: none">• Help desk applications• Online workflow/document tracking• E-mail and messaging systems• Groupware• Group decision support systems• Yellow pages-directory of knowledge Sources and thought leaders• Communities of practice• Real-time data conferencing• Customer relationship management• Financial management systems• Executive information systems• Marketing information systems
Source: Charlie Bixler	



Basic KM technologies

- Intranets
- Relational databases
- Groupware (e.g. Lotus Notes)
- Document management systems
- Data mining/data warehousing

www.billinmon.com



Information retrieval system developments related to KM

- Automatic generation of Web page metadata (Dublin Core)
- Relevance ranking
- Use of “intelligent agents” for searching and current awareness
- Automated abstracting and indexing
- XML (interoperability, data exchange)



Cf. the (traditional) role of the information professional

- Acquiring and organising information
- Making it available for use
- Disseminating it
- Disposing of it

“Librarians have always
been knowledge managers”

(Lindsey-King 1998)



N.B. the information worker's (tacit) knowledge...

- The organisational context of a practitioner's work
- The patient population
- What type of information would be relevant
- How the practitioner works
- How the information would be used

(Fennessy 2001)



NHS “knowledge paradox”

- Richness in content/poverty in infrastructure
NeLH, guidelines output
cf. access to NHSnet
- Richness in skills
programmes/poverty of KM culture
ECDL, CASP
cf. lack of organisational development or
HR policies to encourage knowledge
sharing
(after Haines 2001)



The “bad old days” (1)

Locating an answer to a clinical question required:

- A visit in person to the library
- A literature search using library facilities
- Locating articles/books within the stacks
- Placing an ILL request if the items not available locally



The “bad old days” (2)

Major disadvantages:

- Involved time away from the clinical area
- A poor use of a busy clinician's time



Moore's law

"An information retrieval system will tend not to be used whenever it is more painful and troublesome for clients to retrieve the information than to live without it"



The clinician as knowledge worker

- Data gatherer

Capturing and storing data, e.g. admission histories

- Information user

Using information generated and displayed by a clinical information system


- Knowledge user

Using sources such as textbooks, research literature, clinical practice guidelines in interpreting clinical phenomena

- Knowledge builder

Generating new domain knowledge via clinical research

(after Snyder-Halpern 2001)



Factors involved in seeking answers to clinical questions

- “Cost” factors (see previous)
- Urgency of a patient’s problem
- Expectation that an answer exists
- KM skills
 - literature searching*
 - critical appraisal*
 - bibliographic management*
 - a major issue



The national policy context

- *A First Class Service* 1997
 - Clinical governance concept
- *Information for Health* 1998
 - NeLH and VBLs
- *Building the Information Core* 2001
 - IM&T implications of NHS Plan
- *HSG(97)47* guidance on library services
- *Mental Health NSF*



Role of KM in EBP

As knowledge users, clinicians and managers have questions about:

- What is best practice?
- Is it effective?
- How do interventions compare in terms of their relative effectiveness?

Wider KM initiatives in health care: (1)

Many related to EBP, e.g.

- Specialised bibliographic databases
DrugScope, HealthPromis
- Systematic reviews
- Secondary EBM literature

*Effective Health Care, evidence bulletins e.g.
Bandolier, abstracting journals e.g. EBMH*

- TRIP guidelines database
www.tripdatabase.org.uk
- Clinical trials databases
- Research gateways e.g. TRIAGE

Wider KM initiatives in health care: (2)

- Centre for Evidence-Based Mental Health – gateway to evidence-based mental health resources www.psychiatry.ox.ac.uk/cebmh/
- Critically Appraised Topics: CATbank www.jr2.ox.ac.uk/cebmdocs/catbank.html
- InfoPOEMS clinical awareness system www.infopoems.com/index.cfm
- DIPEX patient experiences database www.dipex.org/
- CLIP: database of clinical effectiveness initiatives
etc. etc.....



Priorities for information system and service development....

- locate decision support tools as near as possible to the clinical decision maker, so as to reduce the perceived resource costs
- provide reliable, high-quality information resources that are user-friendly and convenient
- integrate information resources with clinical information systems

The National electronic Library for Health (NeLH)

- Knowledge Cochrane Library etc.
- Know-how
 - Explicit Clinical guidelines
 - Tacit (development process)
- Knowledge management
www.nelh.nhs.uk



The National electronic Library for Health (NeLH)

- Main NeLH
 - to integrate with local intranet content
 - Virtual Branch Libraries (VBLs)
 - e.g. NeLMH, NeLLD, NeLKM
 - Professional portals
 - portals for PAMs and librarians now available
- *Link to and support (not replace) existing NHS libraries*



NeLH developments

1999-2003

- Integrating knowledge resources at the point of care
- Access to answers to questions at the point of care from within the EHR/EPR

www.nhs.uk/nhsia/nhs.uk/nelh/

- National Knowledge Service

Further integration of NeLH and nationally purchased information resources with NHS libraries

NeLH home page

National electronic Library for Health [Pilot Site]

[NHS Direct Online](#) [nhs.uk](#) [Department of Health](#) [Electronic Library for Social Care](#) 10th June 2002

Know How

- [CLIP Database](#)
- [Commission for Health Improvement](#)
- [Health Care Needs Assessment Maternity \(MIDIRS\)](#)
- [National Service Frameworks](#)
- [NeLH Care Pathways Database](#)
- [NeLH Guidelines Database](#)
- [NHS Modernisation Agency](#)
- [NICE Guidance and Guidelines](#)
- [NICE Audit Principles](#)

Knowledge

- [Anatomy](#)
- [Bandolier](#)
- [OMNI Reviewed Internet Resources](#)
- [British National Formulary](#)
- [Clinical Evidence Issue 6](#)
- [Cochrane Library 2002/2](#)
- [DIPEX](#)
- [Evidence Based on Call](#)
- [HTA Publications](#)
- [MEDLINE/PubMed](#)
- [NHS Cost & Effectiveness Reviews](#)
- [Research Findings Register](#)
- [ZETOC](#)

Resources

Mental Health

-- Professional Portals --

Welcome

The National electronic Library for Health Programme is working with NHS Libraries to develop a digital library for NHS staff, patients and the public.

- [Registering to use NeLH](#)
- [Frequently Asked Questions](#)
- [About Us](#)
- Site Maps: [A to Z](#) | [Where do I look?](#)

Pilot Search Engine

[\[more...\]](#) [\[help...\]](#)

Highlight

NeLH Publicity Material

Posters, leaflets and bookmarks are now available to download or order from this site. [\[more...\]](#)

Whats New?

22/05/02 **Top five questions for breast cancer**
NeLH cancer virtual branch library is assisting the National Cancer Research Network in developing questions for systematic review or new trials. [\[more...\]](#)

[\[archive...\]](#)

Hitting the Headlines

[\[What's this?\]](#) [\[archive...\]](#)

Do painkillers slow bone healing?

On 6 June 2002, four newspapers and the New Scientist reported that some painkillers may delay or prevent the healing of fractures. The study on which the reports were based was carried out in rats and the results cannot at present be applied to humans. [\[more...\]](#)

Added: 06/06/02

Document of the Week

[\[What's this?\]](#) [\[archive...\]](#)

MEDslides - "The World's Premier Site For Medical Slides"

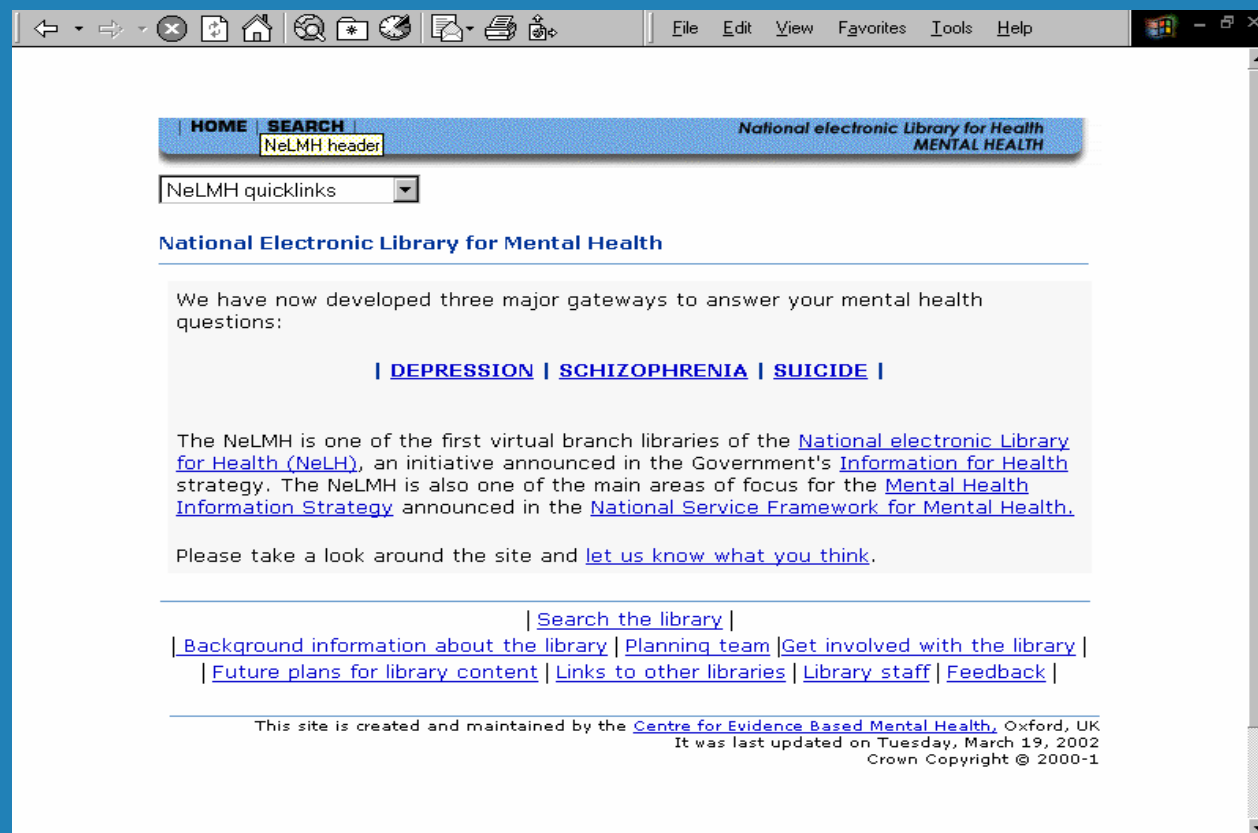
This is a free academic Internet service providing medical information in a concise slide presentation format. These slides will be useful as a quick reference tool or as a timesaving device to help you with that presentation you left until the night before. Slides can be used freely in presentations provided that they are referenced correctly and the source of the slides is acknowledged. [\[more...\]](#)

Added: 30/05/02

Medical Dictionaries

[\[help...\]](#)

NeLMH home page





Maximising access to explicit knowledge: the clinical intranet

- Organisational information
generated locally – “corporate memory”
 - directories (e.g. services, courses)
 - databases (e.g. vacancies)
 - documents (e.g. newsletters, policies, protocols)
 - other systems (e.g. IT helpdesk)
- Training delivery
generated nationally or internationally
 - Virtual Learning Centre

The clinical intranet: cont'd

- "Soft" clinical information generated locally, nationally, internationally

- Bibliographic databases
PubMed, Cochrane Library etc.
- Other research evidence
BMJ Clinical Evidence, Bandolier etc.
- Clinical databases e.g. OMIM
- Reference sources e.g. eBNF
- Clinical guidelines e.g. TRIP
- Care pathways
- Patient information leaflets


The clinical intranet: cont'd

- “Hard” clinical information:
computerised patient record
generated locally

Clinical intranet provides
seamless access

e.g Oxford Clinical Intranet

CCS soon to be available via SLAM intranet



The clinical intranet: future developments?


- How can clinical intranets provide context-sensitive linking to external information sources?
- How useful are decision support systems (DSS)??



Using and harvesting implicit knowledge

- Promoting collaborative working in project teams using networked applications
 - groupware
 - bibliographic management systems
- Fostering professional networks via communication facilities
 - web logs ("blogs")
 - mailing lists/listservs
 - discussion boards
 - newsgroups
- Auditing skills/building expertise databases

(after Lacey Bryant 2001, Corral 1999)



Roles of the librarian in supporting EBP

- Evidence locator
- Educator
- Disseminator
- Critical appraiser
- Resource provider
- Quality filter

After Booth (2000)

Common health library KM activities: (1)

Information services need to act as intermediaries between health practitioners and the knowledge available

- Working to improve networked access to the knowledge base, e.g. by building web/intranet sites
- Information skills training/outreach: locating and using clinical evidence
--access to knowledge does not change clinician behaviour by itself
- Compiling lists of/guides to resources
- Providing current awareness services



Common health library KM activities: (2)

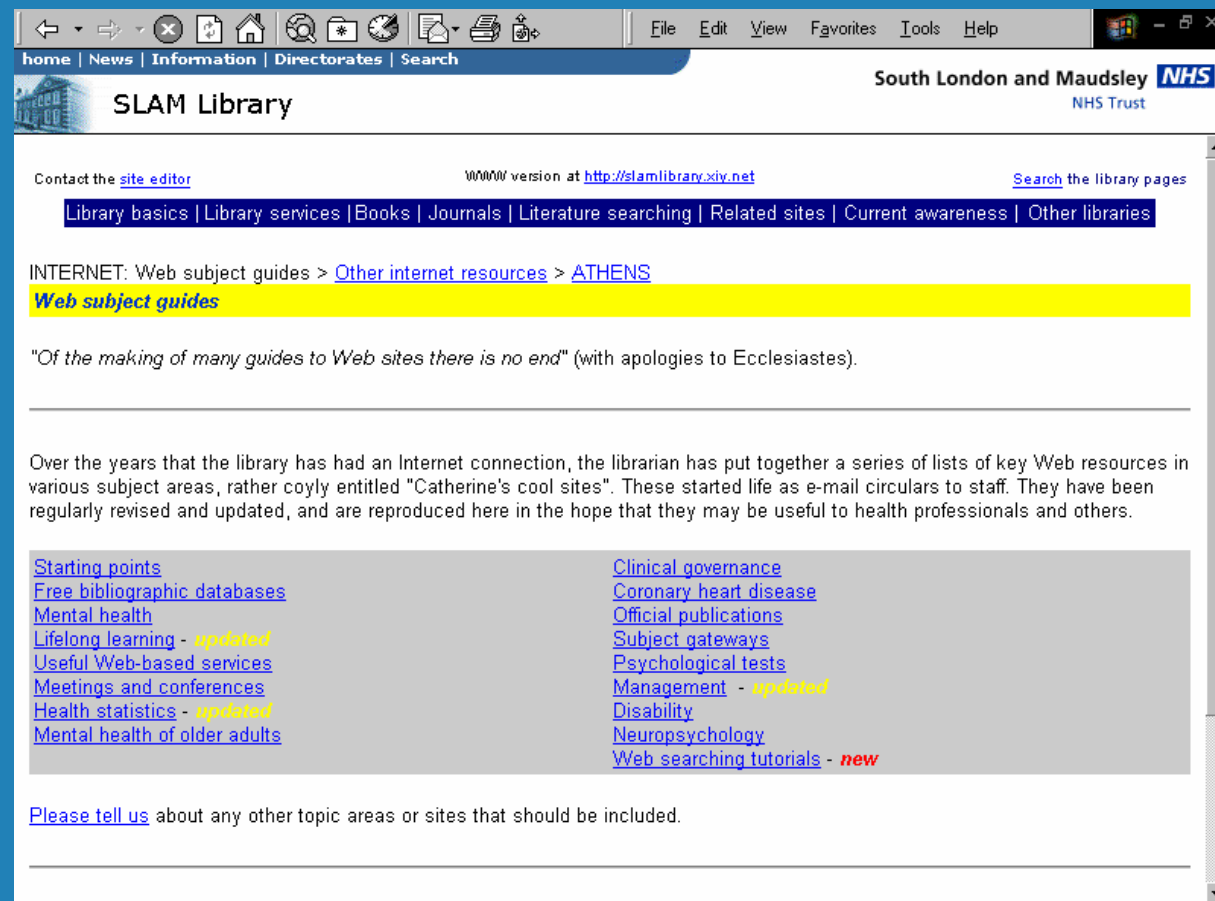
Reay House library intranet pages include:

- Web subject guides
- Lists of freely-accessible Web databases
- Presentations on health information topics
- Links to full text electronic journals and books
- Advice on sources of research information, critical appraisal, PDA use, pay-per-use document supply etc.
- Networked access to indexing/abstracting services (proposed) e.g. HMIC, EMBASE

Library intranet: home page



Library intranet: web subject guides



The screenshot shows a web browser window displaying the SLAM Library intranet. The browser's address bar shows the URL <http://slamlibrary.xiv.net>. The page header includes navigation links: [home](#), [News](#), [Information](#), [Directorates](#), and [Search](#). The SLAM Library logo is on the left, and the South London and Maudsley NHS Trust logo is on the right. A search bar is located in the top right corner. The main content area features a navigation menu with links: [Library basics](#), [Library services](#), [Books](#), [Journals](#), [Literature searching](#), [Related sites](#), [Current awareness](#), and [Other libraries](#). Below this, the text "INTERNET: Web subject guides > [Other internet resources](#) > [ATHENS](#)" is displayed. A yellow banner highlights the "Web subject guides" section. A quote follows: "Of the making of many guides to Web sites there is no end" (with apologies to Ecclesiastes). The main text explains that the librarian has compiled a series of lists of key Web resources in various subject areas, referred to as "Catherine's cool sites". These lists are regularly revised and updated. A table of links is provided, organized into two columns. The left column lists: [Starting points](#), [Free bibliographic databases](#), [Mental health](#), [Lifelong learning](#) - *updated*, [Useful Web-based services](#), [Meetings and conferences](#), [Health statistics](#) - *updated*, and [Mental health of older adults](#). The right column lists: [Clinical governance](#), [Coronary heart disease](#), [Official publications](#), [Subject gateways](#), [Psychological tests](#), [Management](#) - *updated*, [Disability](#), [Neuropsychology](#), and [Web searching tutorials](#) - *new*. At the bottom, a link [Please tell us](#) is provided for feedback on other topic areas or sites that should be included.

home | News | Information | Directorates | Search

SLAM Library

South London and Maudsley NHS Trust

Contact the [site editor](#) WWW version at <http://slamlibrary.xiv.net> [Search the library pages](#)

[Library basics](#) | [Library services](#) | [Books](#) | [Journals](#) | [Literature searching](#) | [Related sites](#) | [Current awareness](#) | [Other libraries](#)

INTERNET: Web subject guides > [Other internet resources](#) > [ATHENS](#)

Web subject guides

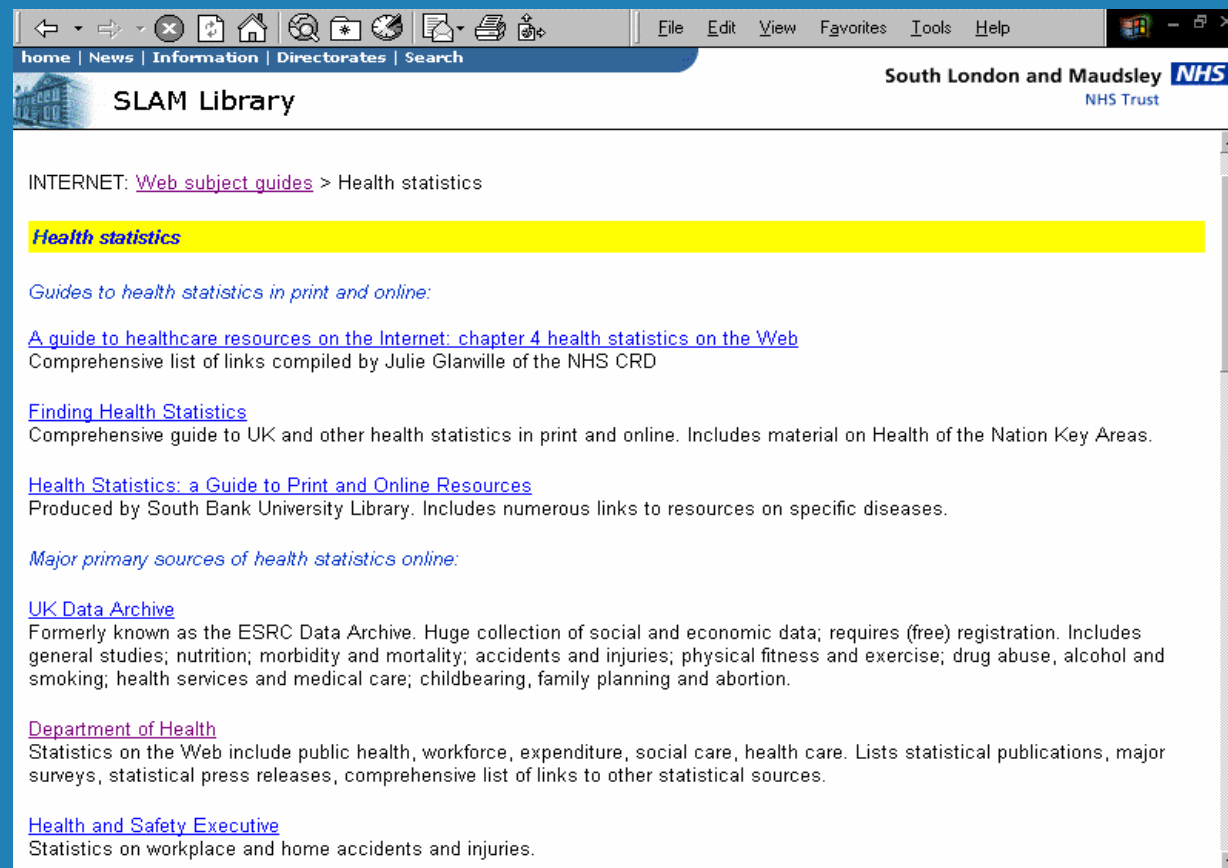
"Of the making of many guides to Web sites there is no end" (with apologies to Ecclesiastes).

Over the years that the library has had an Internet connection, the librarian has put together a series of lists of key Web resources in various subject areas, rather coyly entitled "Catherine's cool sites". These started life as e-mail circulars to staff. They have been regularly revised and updated, and are reproduced here in the hope that they may be useful to health professionals and others.

Starting points	Clinical governance
Free bibliographic databases	Coronary heart disease
Mental health	Official publications
Lifelong learning - <i>updated</i>	Subject gateways
Useful Web-based services	Psychological tests
Meetings and conferences	Management - <i>updated</i>
Health statistics - <i>updated</i>	Disability
Mental health of older adults	Neuropsychology
	Web searching tutorials - <i>new</i>

[Please tell us](#) about any other topic areas or sites that should be included.

Library intranet: health statistics



The screenshot shows a web browser window displaying the SLAM Library intranet. The browser's address bar shows the URL 'home | News | Information | Directorates | Search'. The page header includes the 'SLAM Library' logo and the 'South London and Maudsley NHS Trust' logo. The main content area is titled 'INTERNET: [Web subject guides](#) > Health statistics'. A yellow banner highlights the 'Health statistics' section. Below this, there are several links and descriptions:

- [Guides to health statistics in print and online:](#)
- [A guide to healthcare resources on the Internet: chapter 4 health statistics on the Web](#)
Comprehensive list of links compiled by Julie Glanville of the NHS CRD
- [Finding Health Statistics](#)
Comprehensive guide to UK and other health statistics in print and online. Includes material on Health of the Nation Key Areas.
- [Health Statistics: a Guide to Print and Online Resources](#)
Produced by South Bank University Library. Includes numerous links to resources on specific diseases.
- [Major primary sources of health statistics online:](#)
- [UK Data Archive](#)
Formerly known as the ESRC Data Archive. Huge collection of social and economic data; requires (free) registration. Includes general studies; nutrition; morbidity and mortality; accidents and injuries; physical fitness and exercise; drug abuse, alcohol and smoking; health services and medical care; childbearing, family planning and abortion.
- [Department of Health](#)
Statistics on the Web include public health, workforce, expenditure, social care, health care. Lists statistical publications, major surveys, statistical press releases, comprehensive list of links to other statistical sources.
- [Health and Safety Executive](#)
Statistics on workplace and home accidents and injuries.

Library intranet pages: list of electronic journals

home News Information Directorates Search			
SLAM Library			
free one year after publication			
British Journal of Social Psychology	1999-	ATHENS CatchWord	anywhere
British Journal of Social Work	1999-	ATHENS	anywhere
Bulletin (Canadian Psychiatric Association)	1996-	no	anywhere
Bulletin of the Medical Library Association	2000-	no	anywhere
Bulletin of the World Health Organisation	1999-	no	anywhere
Canadian Journal of Diabetes Care	1994-	no	anywhere
Canadian Journal of Psychiatry	1996-	no	anywhere
Canadian Medical Association Journal (CMAJ)	1999-	no	anywhere
Canadian Psychiatric Association Bulletin	1996-	no	anywhere
Cancer Nursing	1996-	ATHENS	anywhere
Cardiovascular Risk Factors		no	anywhere
CATscan: the creative arts therapy cyberjournal	1998-	no	anywhere
Catalyst: on Computers and Psychology	1998-	no	anywhere
Chest	1995-	no	anywhere
free one year after publication			
Child: Care, Health and Development		ATHENS	anywhere
Child and Adolescent Psychiatry Online		no	anywhere
Children and Society		ATHENS	anywhere
Circulation	1993-	ATHENS	anywhere
Circulation Research	1995-	ATHENS	anywhere
Clinical Diabetes	2001-	[no]	[anywhere]
free one year after publication			
Clinical Drug Investigation	1997-	no	anywhere
Clinical Geriatrics	1997-	no	anywhere
Clinical Governance Bulletin	2000-	no	anywhere
Clinical Journal of Pain	1996-	ATHENS	anywhere
Clinical Linguistics and Phonetics		ATHENS CatchWord	anywhere
Clinical Neuropharmacology	2000-	ATHENS	anywhere
Clinical Obstetrics and Gynecology	1996-	ATHENS	anywhere
Clinical Psychology and Psychotherapy		ATHENS	anywhere

Knowledgeshare

home page www.knowledgeshare.nhs.uk

The screenshot shows a web browser window with the Knowledgeshare NHS website. The browser's address bar shows the URL www.knowledgeshare.nhs.uk. The website has a blue header with the NHS logo and the text "Knowledgeshare NHS information support for evidence based practice". Below the header, there is a blue banner with the text "Knowledgeshare Alert 7 March/April 2002 out now - click here to view it". The main content area is titled "Evidence Based Practice: an introduction" and contains a table with three columns: "Formulate", "Find", and "Critique". The table lists various resources for each stage of the evidence-based practice process. Below the table, there is a section titled "Evidence Based Practice Pathways:" which lists two pathways: "Brighton and Sussex University Hospitals NHS Trust" and "South Downs Health NHS Trust". Finally, there is a section titled "Local Knowledge Resources:" which lists two resources: "Knowledgeshare Alert" and "Brighton Evidence Based Practice Discussion Group".

Knowledge what? Knowledgeshare Alert Knowledgeshare Enquiries

Knowledgeshare NHS information support for evidence based practice

[Knowledgeshare Alert 7 March/April 2002 out now - click here to view it](#)

Evidence Based Practice: an introduction

Formulate	Find	Critique
Clinical Questions	Bibliographic Databases	Critical Appraisal: a guide
Epidemiology Questions	Clinical Guidelines	A Guide to Study Design
Medical Questions	Evidence Based Centres	How to Read a Paper
Glossary	Health Care Gateways	Evaluating Research
	Health Care Journals	Critical Appraisal Skills
	NHS, DoH & National Social Care Organisations	Critical Appraisal Forms
	Research Activity Registers	CATs

Evidence Based Practice Pathways:

[Brighton and Sussex University Hospitals NHS Trust](#)

[South Downs Health NHS Trust](#)

Local Knowledge Resources:

[Knowledgeshare Alert](#)

[Brighton Evidence Based Practice Discussion Group](#)

Knowledgeshare newsletter

Knowledgeshare NHS information support for evidence based practice

Knowledgeshare Alert 7 - March/April 2002:

Bi-monthly bulletin outlining the latest information in evidence based practice available from health care libraries in the East Sussex region, collated by the Knowledgeshare project, The Library, Sussex Postgraduate Medical Centre, Brighton.

Contents:

NICE News

Web Alert - recommended web sites

Book Alert - latest books

Journal Alert- latest journal articles

Events and Courses - provided by East Sussex Health Care Libraries

NICE News

The National Institute for Clinical Excellence/ NICE has issued guidance in the following areas:

Appraisal consultation document: computerised cognitive behaviour therapy.

<http://www.nice.org.uk/article.asp?a=29161>

Appraisal consultation document: surgery for people with morbid obesity.

<http://www.nice.org.uk/article.asp?a=28700>

Guidance on the use of entanercept for the treatment of juvenile idiopathic arthritis.



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