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Healthcare IT: The Business of the Profession

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Successful IT supports a business environment by adding value to the organisation in achieving its strategic goals. In healthcare terms, this could mean better health outcomes for patients and safer, more effective services. It could also mean better value for money. Despite changing perceptions, the thought of IT successfully adding value to strategic business goals is still relatively novel in the health environment. There are a number of reasons for this, including questions about healthcare IT as a profession (staff experience, quality, accreditation etc.).

Healthcare IT Industry is Still Immature

Modern, ubiquitous IT has been with us in health for only about 20 years. Email was not implemented in the vast majority of NHS organisations in the UK in 1991/92. Electronic Document Management (EDM) was just developing but remained primitive.

Commercial, standards-based relational da tabases were virtually non-existent. Over all, inelegant, clunky, home-grown applications were far more common.

Inter operability between systems and integrated health care records were things of fantasy.

We know from the uptake of mobile phones and satellite TV that technologyuptake is accelerating rapidly. However, the IT industry's maturity is best compared with the development of the automobile. In the not too distant past, there was a high frequency of breakdowns, do-it-yourself skills were needed and there were constant punctures. These are a thing of the past. Few cars today even need a spare wheel.

There is also still evidence of immaturity in the implementation of IT-enabled change. Efficiency improvements can only be delivered with relevant, structured change management to ensure that the potential benefits available from newly com puterised processes are fully delivered.

IT Standardisation

Compared with 20 years ago considerable progress has been made; standards have proliferated and are crucial to future developments. Whilst at a high level, consistency in the application of standards is beginning to make a positive difference, at an operational level there is a massive amount of legacy applications and implementations to deal with.

There is no better example of this than in the NHS in the UK. The introduction of new clinical systems is a long-term project and will take many years to achieve all the benefits.

However, throughout the course of implementation of new, improved systems, inter-operability with existing systems needs to be maintained. For the clinician trying to manage a patient's care, improved functionality in new systems is something to look forward to – electronic transfer of referral information, previous medical history and results reporting are all essential now.

Health IT Versus Private Sector IT

Is health IT any worse than the private sector? There is a widespread assumption that the private sector "does it better", whilst our experience © For personal and private use only. Reproduction must be permitted by the copyright holder. Email to copyright@mindbyte.eu.

indicates that there is little evidence to support this.

There are certainly areas where the private sector has made more progress, for example Total Cost of Ownership for IT equipment and in 'managing the assets'.

However the delivery of effective information technology within the NHS is an unique challenge. From a technical perspective, health data is more complex and sophisticated in its interrelationships than data in other industries, which has hampered the production systems that support clinicians in the practice of medicine and caused an excessive focus on administrative systems, resulting in IT being a back office function. When you consider IT in the NHS, politics is never far from the agenda. Is the NHS a single entity run by the Department of Health, or a system of related independent organisations? The answer differs mark edly depending on what you believe.

Finally, the public's faith in the government impacts directly on whether they trust government institutions to handle their data. Whilst the track record of the NHS in managing confidential data compares favourably to any organisation, the scrutiny to which it is exposed is orders of magnitude greater. This creates a very difficult environment in which to drive forward the use of IT.

None of these challenges makes the attempt to implement high quality IT in the NHS any less worthwhile. Indeed, what could be more worthwhile than using IT to save lives, relieve pain and improve life chances?

Health IT Professionals

The last decade has seen many changes in terms of professional developments and qualifications for IT staff working in health. There is a growing recognition that people working in healthcare IT need to be able to demonstrate their fitness to practice – they need some form of professional qualification or accreditation. Other NHS staff groups such as finance and human resources have their established professional bodies, while in health IT this is just emerging. Organisations like Tribal Consulting, working with over 2,500 organisations, including schools, colleges and universities, the NHS and primary care trusts, local and central governmentdepartments and agencies and the UK Council for Health Informatics Professionals (UKCHIP), are developing a range of schemes that towards improved accreditation of services and individuals.

For example, the NHS Connecting for Health (CFH) has implemented an accreditation process for Local IT Service Desks based upon ITIL (Information Technology Infrastructure Library) Service Management Best Practice principles. There is also considerable effort being placed upon other benchmarking schemes and maturity models. UKCHIP has introduced an individual professional registration and accreditation process based upon a number of criteria (such as qualifications, experience, continuing professional development etc.) and these are currently being revised.

Our surveys of healthcare IT staff have highlighted a number of concerns which included:

- Ó Significant recruitment problems, primarily due to uncompetitive rates of pay.
- Ó Vacancy rates range from 12% for Information Managers to 4% for Senior Managers and Clinical Informatics staff. Staff retention is being affected by low morale; informatics staff feel embattled, overworked and under-valued.
- Ó Future skills shortages are anticipated in Project/Programme Management (2006/07 but not 2007/08); Business and Systems Analysts, Information Analysts, and ICT and System Trainers. Ó There is strong support for establishing a formal health informatics profession.

The NHS CFH has also identified a number of gaps through its Capability and Capacity Programme. The actions resulting from this appear to have addressed some of the concerns about the potential future shortages of project and programme management staff. However, questions still remain about the consistency of the professional development of health IT staff.

Accreditation Scheme for Healthcare IT Staff

The most significant recent changes have come with the publication of the Health Informatics (HI) Review report by the UK De partment of Health in July 2008 and the appointment of the first CIO for health, with responsibility for professional staff development.

An earlier Tribal Consutling report in March 2007 outlined the four possible components of an accreditation scheme for IT staff:

- 1. Training of generic (i.e. not healthcare specific) skills and knowledge assessed by examination.
- 2. Approved work experience in the health -care domain acquired through pro gress along designed career pathways.
- 3. An independent accrediting authority (which could be UKCHIP).
- 4. Approval by the accrediting authority that the employer provides a suitably professional environment for the work experience.
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Training and Examination

Some examples include:

- Ó British Computer Society (BCS) qualifications through the Information Systems Examinations Board (ISEB).
- Ó Vendor-related schemes for gaining certification in using the vendor's products, from a wide range of vendors.
- Ó Qualifications in project, programme and service management. NHS stakeholders agreed that the examination component of accreditation should be generic rather than health domain specific.

This is because they favour a regime that would enable movement of qualified staff between health and other industries. Health domain-specific examinations might inhibit this.

Work Experience and CPD

The second component of accreditation is concerned with approved work experience and CPD (Continuous Professional Development). UKCHIP has developed three registration levels:

- Ó For those who are either relatively new to the profession, or whose work does not require a particularly high level of healthcare informatics (HI) knowledge or experience.
- Ó For those who have begun to develop a career in HI.
- Ó For those whose careers in HI have reached a stage where they have the knowledge and experience to provide professional leadership.

The scheme is mainly based on assessing work experience. However, it is presently being revised, and is designed to encompass all categories of HI staff – not just IT practitioners.

A similar model has been produced by the Government IT Profession (GITP) and is being applied across the wider public sector in the UK.

In conclusion, despite some progress with IT in the NHS becoming a key enabler to service change, there is still some way to go in terms of applications, standards, suppliers and people. For the latter, universities and colleges will play a key role in training the health IT professionals of the future with the skills and competencies required for a modern health service.

This will go beyond traditional technical skills and into the realms of leader ship, bu siness transformation and people management, which are critical to ensuring that future IT systems meet the needs of clinicians and patients.

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