This paper appears in the publication, Journal of Cases on Information Technology, Volume 9, Issue 4

edited by Mehdi Khosrow-Pour © 2007, IGI Global

# **Healthcare IT Project Failure: A Systems Perspective**

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#### **EXECUTIVE SUMMARY**

This case describes the experiences of a healthcare organization in the North of England that introduced a multi-lingual electronic patient information system, the first of its kind in this part of the country. This information technology (IT) based project, commissioned as a pilot for the establishment of an information system to cater to the needs of ethnic minority languages, failed to make progress in-spite of its great potential, and the user satisfaction that it offered. The case presents a number of issues related to how the design and deployment of the project resulted in its lack of satisfactory progress. The findings from this case suggest why the project failed: the failure being a direct result of the approach taken to the project.

Keywords: boundary critique; healthcare; information technology; information system; systems think-

# ORGANIZATION BACKGROUND

In England, the responsibility for healthcare services provision rests with the National Health Service (NHS). At the local level of service delivery, the NHS is divided into Primary Care Trusts, Secondary Care Trusts, and Tertiary Care Centres. Primary Care Trusts provide the first point of contact for patients in a fixed geographical area. Secondary Care Trusts deliver specialized and hospital care. Tertiary Care Centres deliver highly acute medical services for complex and long term cases and illnesses. The organization on which this case is based is a Primary Care Trust (PCT) in the North of England, delivering primary care and commissioning secondary care services. There are 303 PCTs in England, controlling about 80% of NHS budget (Department of Health, 2006). They are responsible for:

- developing programs dedicated to improving the health of the local community
- deciding what health services the local population needs and ensuring they are provided and are as accessible as possible. This includes hospital care, mental health services, GPs

(General Practices), screening programmes, patient transport, NHS dentists, pharmacies, and opticians

- bringing together health and social care, so that NHS organizations work with local authorities, social services, and voluntary organizations
- ensuring the development of staff skills, capital investment in buildings, equipment, and IT, so that the NHS locally is improved and modernized and can continually deliver better services (Department of Health, 2006)

The PCT in this case is Ferens PCT (a pseudonym, necessary to ensure the anonymity of the organization). Ferens PCT serves a particular geographic area of the city of Ferensway (a pseudonym). The PCT was formed in 2001, and serves a total population of 163,000. Its mission statement is:

We will improve the health, well-being, and the quality of healthcare services of the people of [the part of] Ferensway.

Ferens PCT directly employs 500 staff in professions such as district nursing, school nursing, family planning, and health visiting. It has 27 General Practices, plus pharmacies, dentists, and opticians. Apart from this, it also owns and manages a range of specialist health centers and clinics. PCTs in the UK are assessed by the Healthcare Commission, which also awards annual performance ratings for NHS organizations. The Healthcare Commission awarded Ferens PCT 'two-star' ratings for the periods 2004/2005 and 2003/2004, the highest star ratings being three stars and the lowest being zero. Star ratings are awarded on the basis of a trust's performance level, the trust's performance value, the thresholds used in calculating performance against individual indicators, and the percentage of all trusts achieving the key target (Healthcare Commission, 2005). A star rating of two is described as: "Trust is performing well overall, but has not quite reached the same consistently high standards."

The budget of Ferens PCT for the financial year 2005/2006 was over £180 million (approximately \$342 million), to provide services directly and for commissioning services from other public and private care providers. The following table shows the operating costs for Ferens PCT for the financial years 2004/2005 and 2003/2004.

#### SETTING THE STAGE

# IT in Healthcare

IT has touched almost every aspect of human life, but there is extensive evidence to suggest that not all IT projects are successful. A study by Beynon-Davies & Lloyd-Williams (1999) argued that 60%-70% of all software projects fail. The Conference Board Survey, 2001, reported that "40% of projects failed to achieve their business case within one year of going live, implementation costs were found to average 25% over budget, [and] support costs were underestimated for the year following implementation by an average of 20%" (IT Cortex). Other studies like the Robbins-Gioia Survey, 2001, the KPMG Canada Survey, 1997, the classic Chaos Report, 1995, and the OASIG Survey, 1995, have all reported that success rates in IT projects can be a matter of concern (IT Cortex). IT projects can fail due to lack of user involvement, long/unrealistic time scales, poor requirements, scope creep, poor control systems, and poor testing (Coley Consulting). Each of these concepts is explained below:

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