

UK Quality Indicator Project[®] (UK QIP) and the UK independent health care sector: a new development

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Abstract

Purpose. To describe implementation of the UK Quality Indicator Project[®] (UK QIP) in the independent health care sector, drawing upon 10 years experience in the UK and approaching 20 years experience in the USA. We describe the history of the project, with an emphasis on recent developments, reflecting upon the critical features of the project and its value for participants.

Background. The International Quality Indicator Project[®] is the largest international data set of quality indicators. It provides participants with quarterly feedback of comparative indicator data and support for effective use of these data within the participants' own quality improvement programmes. The UK QIP now includes about two-thirds of UK private sector acute hospitals. The UK QIP began as a pilot project in the National Health Service (NHS) public sector in 1991. Implementation of the NHS performance assessment framework, and associated indicator programme, led to a reduction in public sector involvement. In contrast, the private sector, led by the Independent Healthcare Association, sought to identify a provider of key performance indicators to support both internal, within-sector drives for quality improvement and external demands produced by governmental review and the introduction of the National Care Standards Commission. The UK QIP was chosen since it provided a validated, epidemiologically sound system with capacity for support, education and flexibility to meet the changing demands of the sector. The future development of the QIP within the sector, including expansion from acute hospitals to mental health, is described.

Conclusions. Reflection on the process of engagement of the UK independent sector with the QIP emphasizes the generic nature of the project and offers insights into the value of the project. Future challenges, including the issue of public accountability, are discussed in light of the project's underlying philosophy and purpose.

Keywords: international, quality improvement, quality indicators, private sector

This paper describes the recent experience of implementing the UK Quality Indicator Project[®] (UKQIP) in the independent health care sector in the United Kingdom. The UK QIP is the largest component of the International Quality Indicator Project[®] (IQIP), which is based in the US and is itself derived from the longstanding Maryland Hospital Association Quality Indicator Project[®] [1–4]. Other international participants in the IQIP include Belgium (Flanders), The Netherlands, Austria, Portugal, Germany, Singapore and Taiwan. Together with the participants in the US, this project forms the largest international comparative dataset of quality indicators.

Whilst briefly describing the history of the QIP from its inception in the US in the 1980s, and its expansion into the UK beginning in 1991, we will concentrate on the introduction of the QIP into the independent health care sector in the UK,

describing the context within which the project was selected by the sector, and the successes and challenges of implementation. We will then reflect on the lessons learned and their applicability in other settings.

History of the UK QIP: background

The QIP is based on the collection, collation and quarterly comparative anonymized feedback of organization-wide quality indicators. The project has been described in detail elsewhere [4,5]; what follows is a brief overview. Indicator sets available in the project include acute general hospital and acute mental health (Table 1), as well as home care and long-term care. In the mid-1980s, in response to public release of hospital-wide

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Table 1 International Quality Indicator Project acute and mental health indicators

In-patient	
1.	Hospital-acquired infections
2.	Surgical site infections ¹
3.	In-patient mortality ¹
4.	Neonatal mortality
5.	Perioperative mortality ¹
6.	Management of labour
7.	Unplanned readmissions ¹
8.	Unplanned admissions following day case procedures ¹
9.	Unplanned returns to ITU
10.	Unplanned returns to the operating theatre ¹
11.	CABG perioperative mortality
12.	Use of restraint
13.	Sedation and analgesia
14.	Falls
Day case/A&E	
1.	Unscheduled returns to A&E within 72 hours
2.	Registered patients in A&E for >6 hours
3.	A&E cases where discrepancy between initial and final X-ray reading required a change in patient management
4.	Registered patients who leave A&E before completion of treatment
5.	Cancellation of day case procedure on the day of procedure
Mental health	
1.	Injurious behaviour and deliberate self harm
2.	Unplanned departures resulting in discharge
3.	Transfers/discharges to acute in-patient care unit (adults only)
4.	Readmissions to in-patient psychiatric care
5.	Use of involuntary restraint
6.	Use of seclusion
7.	Partial hospitalization
8.	Falls

¹Core indicators selected by the Independent Healthcare Association and private sector participants. ITU, intensive therapy unit; CABG, coronary artery bypass graft; A&E, accident and emergency.

mortality rates by the Health Care Financing Administration, hospitals in Maryland turned to the Maryland Hospital Association (MHA) for help in developing indicators that would be of value in stimulating quality improvement. Following funding from the Robert Wood Johnson Foundation in 1988 the project grew rapidly; it now includes hospitals in 49 continental states in the US.

In 1989, the UK government published its White Paper on National Health Service (NHS) reforms entitled 'Working for Patients', with a major emphasis on quality [6]. One of the authors (R.T.) visited the US to review quality initiatives in order to inform policy development within the NHS in the north of England. As a result of this visit, a pilot project began in 1992 with seven NHS hospitals, funded jointly by the NHS and the MHA, with an integrated evaluation programme. The UK was the first country outside of North America to take part in the project. The continuing expansion and evidence of benefits [4,5,7,8] demonstrate the utility of the project to participants.

A key feature of the project is voluntary participation, with anonymized feedback of comparative data to support internal

quality improvement; there is no system of external judgement or publication of data. The data are a means of improving quality; the philosophy of the project depends fundamentally on the fact that indicators are not absolute measures of quality, but rather act as flags or screens to direct attention to areas that require further analysis and interpretation [9]. The use of anonymized data, and the emphasis on the indicators acting to generate questions and stimulate local exploration reduces the need for case mix adjustment, although risk stratification of indicators allows comparison of like with like.

Another key feature of the project is clearly defined indicators, developed through a robust process of literature review, peer review with an expert panel, piloting and implementation, and which therefore guarantees both the relevance and reliability of the collected data. Data reliability is further supported by systems of training and support for hospital coordinators. In terms of indicator validity, we argue that the best test of indicator validity is whether its use leads to quality improvement. The effectiveness of the project is thus best assessed through the use of case studies [4,8] (see Box 1).

Box I Case studies**1. Hospital-acquired infections**

A hospital that had very low levels of wound infections for hip replacements observed a sudden and dramatic increase in post-operative infections, from a low baseline to ~10% over three consecutive data points. Furthermore, this increase in infections was also seen in knee replacements and hysterectomies. The increase was found to coincide with a change in operating theatre cleaning contractors. The new contract was discontinued and the infections fell back to previous low levels.

This shows the value of monitoring indicators over time and also re-emphasizes that understanding and explaining a particular indicator rate depends upon local audit/investigation.

2. Surgical site infections

The data indicated an increase in the number of CABG patients who were suffering delayed healing of sternal wounds. Further investigation by the Tissue Viability and Infection Control team revealed that the patients concerned were diabetic. As a result of this investigation a new protocol was devised. The Consultant Endocrinologist was asked to review any diabetic patient whose blood sugars were proving difficult to manage. In addition, changes were made to the type of cleansing agent used to prepare the skin for angioplasty, and an electric shaver was introduced in place of razor blades to reduce the risk of skin trauma/abrasions. Dieticians were alerted to the admission of diabetic patients and advice was sought. Short-term feedback suggests that problems with the healing of sternal wounds in diabetic patients have been reduced. Team-working amongst the Tissue Viability and Infection Control staff was also perceived to have improved as a result of this intervention.

This case study demonstrates the value of this indicator in raising questions leading to real improvements in patient care following local investigation and policy change.

In addition, the project is user driven and developed, not only in its initiation and in indicator development, but also in its reliance on close contact with users to obtain their views through formal surveys and consultation as a means of maintaining the responsiveness and flexibility of the project. This affects not only the way that new indicators are identified and developed, but also the continuing review of existing indicators; the refinement of indicators over time, on the back of the robust development process, ensures that they meet participant needs as well as maintaining relevance alongside developments in the evidence base and in health policy.

A further major component of the QIP, in contrast to the great majority of other indicator systems internationally, is its extensive systems of training and support in indicator data collection, interpretation and use. The UK QIP has built upon the central education and support mechanisms of the IQIP and supplemented them with additional UK-based initiatives. This includes access to case studies and audit protocols, educational workshops and user group meetings, regular newsletters, websites which provide access to appropriate evidence based materials, and ready access to email and telephone-based support. Furthermore, the internet-based data input and analysis system now allows participants to undertake their own comparative analysis and presentation of data, thus enhancing the flexibility of use for participants.

A 3-year pilot and evaluation showed largely positive results, with support for the indicators in the package and the overall approach, although it also showed that initial changes were largely to do with data quality with clinical benefits seen later, that it takes time to implement the project effectively and that there was a need for UK-based support. As a result, the UK QIP was further funded to expand its remit across the UK. In the UK, the document entitled 'A First Class Service' [10], published by the government in 1998, placed a statutory

duty on NHS organizations to evaluate and improve quality of care [11,12]. Subsequently, the Department of Health developed an indicator programme, including clinical indicators, derived from routinely available NHS data systems [13,14]. These indicators have become publicly available and form a core component of the Performance Management of NHS Hospitals, as well as contributing to a 'star ratings' system, which itself has significant implications for the funding, autonomy and capacity for development of NHS hospitals [15,16]. Despite initial growth in NHS participation in the UK QIP, the introduction of this NHS-wide indicator and performance management programme halted the growth of the UK QIP within the NHS. Whilst participant hospitals had found the UK QIP to be of considerable benefit in understanding and effectively using indicators within the NHS, the incentives for participating in the UK QIP were reduced by the need to engage with the NHS' own system, which, in contrast to the QIP, made data publicly available.

The independent sector in the UK

The majority of UK health care is provided by the publicly funded NHS, which is resourced from general taxation, but the independent sector provides an important minority of care, particularly for elective surgical procedures. Today there are >200 acute hospitals with ~10 000 beds, as well as >3000 mental health beds and around 420 000 long-term care beds. Ownership includes for profit, not-for-profit, charitable and voluntary organizations. The independent sector is now a partner to the NHS, delivering around 80 000 operations and treatments a year for NHS patients under the Concordat of 2000 [17].

The existence of the independent sector alongside the NHS has long been a source of political and ethical debate [18].

One area of concern has been the process of regulation and quality assurance [19]. Whilst the NHS has a structured organization, with line management and accountability through to the Department of Health and the Secretary of State, the independent sector consists of a variety of individual and group providers. One body that seeks to have an umbrella role for the sector is the Independent Healthcare Association (IHA). Established more than 50 years ago, it seeks (i) to provide the independent sector with leadership, knowledge and expertise; (ii) to act as the public voice of the sector and as a guardian of its external reputation; and (iii) to have a key role in the debate with government, members of parliament, civil servants and journalists.

A number of factors have produced an increasing emphasis on quality in the sector. These include the growth of total quality management initiatives (TQM) in wider service and the manufacturing industry during the 1990s, which led independent health care providers to seek tools to measure and improve quality, such as the Health Quality Service Healthcare Accreditation Programme (www.hqs.org.uk/), ISO 9002 and other quality improvement programmes. As part of their membership criteria, all independent hospitals that belong to the IHA have to have achieved a quality accreditation scheme or be working towards one.

Private Medical Insurers have also sought to encourage hospitals to participate in quality improvement programmes, and the spotlight was further focused on the independent sector with the increasing move for the NHS to commission care from independent hospitals as a means of addressing waiting lists.

At the same time, the government created the National Care Standards Commission (NCSC) in April 2002, a statutory body responsible for regulation and oversight of the independent sector, including the development of national minimum standards and placing a statutory obligation upon providers to collect performance data (Box 2) [20].

The IHA reviewed systems of quality improvement in the UK and, in collaboration with the insurers and the Independent Practice Forum of the Academy of Royal Colleges, started a programme to develop and implement a set of key performance indicators (KPIs) across the sector to support quality improvement. The IHA members wished to promote the collation of aggregated data that could be used by individual hospitals/groups to address issues of concern, as well as potentially

meeting data needs for the UK General Medical Council's revalidation and appraisal agenda [21].

The independent sector and UK QIP

In 1998, seven pilot hospitals joined the UK QIP from the BMI Health Care group, with extension across the group in 1999. Hence, whilst the IHA were exploring KPIs, there was emerging experience of involvement in the sector.

As a result of these initiatives, the IHA, lacking the expertise to develop an in-house model, set up a cross-sector steering group to review the available indicator programmes. As a result they agreed a programme of implementation and development with the UK QIP and IQIP with a view to developing an 'industry-wide standard'. Whilst, as a trade organization, the IHA cannot mandate involvement of its members, in view of previous experience in the sector, and the capacity of the UK QIP to offer further development and support, the IHA recommended the QIP to its members in late 2001.

The IHA steering group chose to promote the UK QIP as a provider because of: (i) the availability of comparative data and analytical capacity; (ii) robust epidemiologically-based indicators; (iii) the absence of a consistent information system across the sector; (iv) the availability of support and education from QIP; (v) the QIP philosophy, centred upon quality improvement rather than external judgment; (vi) the capacity to align the project with other quality assurance systems, including the Health Quality Standards Accreditation Programme (www.hqs.org.uk/); (vii) the capacity to map the QIP indicators to the explicit requirements from the NCSC (Box 2) [22]; (viii) the desire of the sector to be externally recognised for addressing quality improvement; and (ix) the flexibility and responsiveness of the IQIP in terms of capacity to produce a variety of reports and analyses, and to work with the sector to develop new indicators.

Implementation programme

The implementation of the UK QIP across the independent sector was largely completed in 2002. At the date of writing (September 2003) 143 hospitals are enrolled; this represents almost two-thirds of UK independent-sector acute hospitals.

Box 2 National Care Standards Commission standard on indicators and their links to the Quality Indicator Project indicator set (see Table 1)

Standard A3.4: all medical practitioners provide the registered person with, and make available to the National Care Standards Commission, the following clinical and performance indicators about any patient they have treated.

1. Any deaths at the hospital (in-patient indicators 3, 4, 5 and 11)
2. Unplanned re-admissions to hospital (in-patient indicator 7)
3. Unplanned returns to theatre (in-patient indicator 10)
4. Unplanned transfers to other hospitals (pilot study of indicator completed)
5. Adverse clinical incidents (several, e.g. in-patient indicator 13)
6. Incidence of post-operative deep vein thrombosis (under development)
7. Post-operative infection rates for the hospital (in-patient indicators 1 and 2)

A core set of indicators (Table 1) was chosen firstly because of their capacity to map on to the indicators required by the NCSC (Box 2), and secondly because of their relevance to the hospitals involved. All participants collect data on these indicators, but can collect data on a wider range as they develop expertise.

In addition, unplanned transfers to other hospitals (particularly to NHS hospitals) from the independent sector has been a key concern. This was incorporated within the NCSC list of indicators, but was not included within the QIP data set. In light of this, we began UK-specific development of this indicator, involving consultation across the sector, literature review, and initial drafting, consultation with an expert panel and redrafting of the indicator through an iterative process with participants in the sector. This indicator was piloted by the BMI group in 2002 in order to evaluate the ease of data collection and the appropriateness of the indicator. Following the pilot phase, a structured survey of pilot participants led to further refinement of the indicator prior to its release as part of the core set for the UK QIP alone.

Future developments within the sector

The further development of regulation and quality oversight of the independent sector within the UK is under continuing review. The Commission for Health Improvement, the NCSC and the Audit Commission, all of which have differing but overlapping roles for external review and inspection, are to be merged into a single organization, the Commission for Health Care Audit and Inspection (CHAI) which, subject to legislation, will come into being in April 2004. In the meantime, as a result of recommendations from the Kennedy report on the adverse events surrounding paediatric cardiothoracic surgery in Bristol [23], a semi-independent organization (The Office for Information on Health Care Performance) was set up within the Commission for Health Improvement in April 2003 (and will subsequently transfer to CHAI). This brings together indicator and 'star rating' programmes, and is likely to influence the further development of the QIP and its links with the independent sector.

Following expansion in acute hospitals, we are now recruiting independent sector mental health providers, again under the wing of the IHA.

Further discussion is ongoing with the cross-sector steering group and the participant groups on the continuing review of the best use of QIP data in the sector and in terms of how involvement with the QIP can be used to meet some of the public accountability demands that are increasingly influencing this part of the UK health care economy.

Conclusions

The narrative history of the development of the UK QIP and its recent expansion across the independent sector in the UK provides a valuable case study in the field of indicator systems. A number of features are worthy of reflection.

First, the project began in the UK as a pilot within the public sector NHS at a time when indicator use in this sector was extremely limited. The success of the pilot demonstrated the generic nature of the project and its potential application in a system very different to that for which it was developed. This formative international experience proved of value in supporting the engagement of other systems across Europe and Asia, further demonstrating the wide applicability of the model. However, when the NHS developed its own indicator programme within its performance management framework, the value of this independent project changed. The realities of a managed public health system led to a waning of interest from NHS hospitals in the QIP.

At the same time, increasing emphasis on quality of care in the independent sector, driven by both internal and external factors, led to an increased interest in performance and quality indicators. In the absence of a sector-wide equivalent to the NHS' own performance indicator programme, once again the generic nature of the QIP proved influential. This demand for support across the sector was undoubtedly influenced by the disparate nature of the sector itself, consisting of a number of large for-profit and non-for-profit groups, and a number of smaller groups and individual independent hospitals. Unlike the NHS, there was no central requirement for consistent and mandatory data collection; information systems and their use varied widely across the sector. In this setting, a project that could aid consistent and reliable data collection across a number of key indicators had obvious appeal.

Furthermore, given the absence of a central management function for the sector, any development required formal agreement between often competing organizations. This was facilitated by the Independent Health Care Association, which further legitimized the project by incorporating other key representatives, most notably the insurers and purchasers, into the advisory groups. In this way all key players could learn about and endorse (or otherwise) any proposed industry-wide approach.

It was apparent that the knowledge and understanding of indicators and their use varied widely across the sector. Here the educational features of the project were perceived as having particular value, not only in gaining agreement through the IHA group on the way forwards, but also in terms of the obvious capacity for ongoing support and development. The history of the project internationally and its 'independent' nature through affiliation to an academic institution provided reassurance on the integrity of the project. Alongside the non-threatening approach, which shuns a simplistic league table model of indicators, these features provided initial confidence in the sector on the value of the project. The fact that experience through piloting in independent hospitals preceded the IHA development was also important in demonstrating practical value and experience.

Finally, the flexibility of the project and its responsiveness to its users was seen as a major benefit by the sector; this has shown itself in the collaborative work already initiated in new indicator development and in continuing discussion and effective reporting mechanisms.

Challenges remain: not all of the sector is yet convinced of the value of the project, reflecting the varied nature of the sector,

although the present level of involvement shows widespread support. Discussions with mental health providers have taken longer to gain consensus, although expansion is now occurring.

The issue of public accountability through the QIP requires further exploration. The project itself remains firmly wedded to the internal anonymized use of comparative quality indicator data to support quality improvement, but equally recognises legitimate demands for accountability. There are thus tensions between the benefits to the participants of non-judgemental internal use and public accountability demands. In response to this, the IHA is to produce an annual public report of its involvement in the QIP, starting in late 2003. This will describe developments and benefits, including case studies, as well as providing sector-wide aggregate indicator rates. This will seek to maintain the project's unique character and philosophy, whilst addressing public accountability.

The further development of a single over-arching regulatory body for all health care in the UK, the Commission for Health Care Audit and Inspection, will also be watched with interest. The relationship between the IHA and the present NCSC and its successor will be critical.

In conclusion, we have described the history and development of the IQIP, and more specifically the UK QIP, with a particular emphasis on its adoption and implementation in the private sector in the UK. Reflection on this process offers insights into the value and strengths of the project, but ultimately it will be tested by the continuing and expanding engagement of the sector fuelled by benefits arising from its involvement.

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