

Case Study: Audit Commission

Audit Commission

The Audit Commission is an independent public body responsible for ensuring that public money is spent economically, efficiently, and effectively in the areas of local government, housing, health, criminal justice and fire and rescue services.

The Commission employs around 2,500 people. Its corporate services, such as communications, human resources and payroll are based at its administrative centre in Bristol. It also has a network of regional offices where its auditors and inspectors are based, and a head office in Millbank, London.

"IPL brought a fresh and independent look at the way we develop systems and has helped us to take a valuable step back from the day-to-day detail. I am confident that, together, we will develop many more successful solutions that will help us to influence providers of public services to improve the quality of service delivery to the public."

Jeremy Boss
Chief Information Officer



Benchmarking NHS Payment by Results

Background

Data is the lifeblood of most organisations and nowhere more so than within the NHS. Approximately 12 million hospital admissions take place in England each year accounting for over 50 million bed-days across 172 Acute trusts. The accuracy of the data recorded for each hospital admission is imperative to ensure the smooth operation of the health service. Not only does it assist the planning and resourcing of future healthcare, but under the Payment by Results (PbR) system it also directly affects the way trusts are reimbursed for the patient care they provide, through a transparent, rules-based costing system with payments linked to a national tariff.

The Department of Health asked the Audit Commission to develop a Data Assurance Framework for PbR to support the accuracy of inpatient data underpinning the new financial regime. A key element of the framework would be a programme of audits focused on clinical coding, a term used to describe the process of translating a patient's medical case notes into a set of internationally recognised codes. The translation relies heavily on the skills of a team of clinical coders and is therefore a potential source of error in patient data.

IPL's Role

Benchmarking is a technique used to compare similar entities, looking for areas where an entity appears to lie outside the bounds of expected behaviour, known as an "outlier". Following an initial pilot study, a senior IPL consultant was brought in under IPL's supply contract with Buying Solutions to assist the Audit Commission with putting together a formal benchmarking process for the Data Assurance Framework. The

goal was to define and develop a robust methodology that would help target the clinical coding audits at those areas within each trust where data quality was most likely to be an issue.

The consultant worked closely with the Audit Commission's statistical experts and those of the Information Centre for Health and Social Care, for a period of several months. During this time, the consultant helped to identify suitable data feeds, develop a robust set of performance indicators and create a rigorous statistical process for identifying outliers. This involved acquiring a detailed understanding of health data and translating highly complex statistical theories into a set of clear, unambiguous business requirements.

Once the requirements analysis was complete, the consultant provided additional project management expertise, leading a team of IPL developers to produce a data warehouse and associated tools to support the benchmarking process.

Outcome

Six months after IPL began work, the Audit Commission's programme of clinical coding audits commenced, driven by a data warehouse containing over 250 million records. This represents the biggest and most complex dataset ever compiled by the Commission. Furthermore, the benchmarking methodology, with its 22 performance indicators and use of funnel plot analysis has now gained considerable respect throughout the health community and is widely recognised for its depth and rigour.

Four months later, the scope of the work was extended with the launch of the National Benchmarker, an online tool to allow NHS organisations to access the PbR dataset and associated analyses directly. This will encourage self-monitoring and help trusts identify issues independently of the clinical coding audits. In the future, the work of the Audit Commission will help drive further improvements in data quality through the analysis of outpatient data – an even larger dataset.

IPL has continued to provide invaluable expertise throughout and as the second year of the audit programme approaches, the original consultant is helping to refine the methodology to ensure it remains at the cutting edge of health data analysis.

About IPL

Founded in 1979, IPL has a long history of successfully delivering excellent value consultancy and end-to-end software-intensive solutions to both the public and private sectors.

IPL's consultancy is renowned for its quality and value. Our consultants are talented and independent-minded individuals with extensive industry experience. We consistently exceed our clients' expectations through a combination of imaginative thinking, managerial and technical expertise and many years of systems engineering experience.

IPL's track record in end-to-end software solutions development is exceptional. Our proven development methodology allows us to cut through technical complexity, manage risk and completely focus on delivery. We consistently deliver reliable, efficient and accurate systems to a precise schedule.

In recognition of these qualities IPL has been awarded two Public Sector supply frameworks by Buying Solutions. IPL is an accredited Buying Solutions supplier under one category of Specialist Solutions (Application Development) and five categories of ICT Consultancy. These allow customers throughout the public sector to place orders with IPL under standard terms and conditions and at agreed rates.

IPL is an ISO9001:2000/TickIT registered company having a permanent workforce of 245, revenues of ca. £22M p.a. and 40,000 sq ft of secure office space in central Bath.



Certificate Number FM 01589

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