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### Healthcare and Radiology in Scotland - Improving Service Delivery

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**Since the Scottish Executive and Scottish Parliament were convened officially on July 1, 1999, powers in devolved matters such as justice, health, education and environmental policy, previously exercised by the Secretary of State for Scotland and other UK Ministers, were transferred to the Scottish Ministers.**

The Scottish Parliament has legislative power for health generally, including overall responsibility for the National Health Service (NHS) in Scotland, public and mental health. The education and training of healthcare professionals and the terms and conditions of NHS staff, including general practitioners, also fall under their remit.

#### **Central Management of Health in Scotland**

The Chief Executive of NHS Scotland leads central management of the NHS. He is accountable to ministers for the efficiency and performance of the service and heads the health department which oversees the work of fourteen area health boards responsible for planning health services for people in their geographical area and special health boards such as NHS Health Scotland. Resource is allocated both on a population proportional way and in line with a complex formula which takes into account a number of factors including deprivation.

#### **National Framework for NHS in Scotland**

In 2005 the Scottish Minister for Health commissioned 'Building a Health Service Fit for the Future - A National Framework for Service Change in the NHS in Scotland'. This review, led by Prof. David Kerr, described a proactive, modern NHS, in which services were embedded within Scottish communities rather than centered on acute hospitals in major urban centres. This model, it was argued, with its emphasis on proactive, anticipatory care, was better suited to the challenges of an ageing population and long term growth. Scottish Ministers accepted this prescription for the NHS in October 2005, with the publication of a subsequent action plan, "Delivering for Health".

In terms of radiology, "Delivering for Health" made some specific recommendations to enhance cooperation between local NHS Boards and recognised the need to further develop clinical leadership. It looked to balance demand and capacity by applying nationally agreed definitions and to benchmark and monitor performance using data collected through a Scotland-wide information system. It also identified the need to develop services that could be sustainable in remote and rural areas through appropriate role extension and the separation of image capture from reporting.

#### **Radiology and "Delivering for Health"**

Following publication of the report, the Minister for Health announced waiting time targets for eight key diagnostic tests, including CT, MRI and ultrasound.

The Access Support Unit within the Scottish Executive was charged with national performance management against this target and quickly identified the need to adopt nationally agreed definitions to enable the collection of robust performance management data. The National

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Radiology Information Development Group (NRIDG) therefore worked with the Information Statistics Division to develop an appropriate information system to unify the seven different Radiology Information Systems in use across Scotland. The NRIDG informed the operational requirement of the specification of a national procurement exercise to enable the service to collect information as a by-product of running the service on a day-to-day basis.

#### **Diagnostic Collaborative to Deliver Shorter Waiting Times**

At this stage, a Diagnostic Collaborative was announced, to support the service deliver the waiting times targets. The Collaborative provided some resource to local Health Boards to fund some "stand back" time for staff to undertake service redesign. The methodology was following that used by the Massachusetts-based Institute of Healthcare Improvement previously used by the Modernisation Agency in England.

This involved using the Model for Improvement and promoted the use of Plan-Do-Study-Act cycles of change. In addition, assessment of local demand, capacity, activity and queue information through rigorous information-gathering was undertaken. This allowed process mapping with involvement of all staff groups and users of the service and identification of key constraints which were then subject to local scrutiny and application of "High Impact Changes" which had been developed south of the border and had a track record of service improvement. The NRIDG again worked to develop the capacity demand toolkit in conjunction with the national Diagnostic Collaborative Team.

#### **Improving Delivery Through Service Redesign**

It is fair to say that the role of the national team was to give understanding and support to the service in developing the local information and applying the tools of process mapping and "High Impact Changes". The information gathered belonged to each locality and the solutions were different in each situation. This understanding of local demand and capacity did flush out where delivery could be improved through service redesign.

Examples were application of leave policies, DNA (did not attend) policies and patient-focused booking where appointments are agreed with patients rather than just given to them. The process of developing information made the business case robust.

Another element of the Diagnostic Collaborative has been the sharing of best practice and new ideas. This is done through newsletters, a web page, electronic knowledge exchange but also National Learning Workshops. The formal national and local structure involving executive leads, programme managers, information managers and clinical leads has had enormous strength in supporting a developing network. The waiting times are reducing and the next goal will be sustainability. It is very clear that the waiting list initiative, in the absence of service redesign, would not result in a sustainable improvement in patient experience through improved access.

#### **Other Service Improvement Initiatives**

Major planks of service redesign have been built on the 'High Impact Changes' but also on examining traditional roles and role extension together with backfilling of roles to allow education and training. The College and Society of Radiographers laid out its Four-Tier Model for radiographer role extension. In Scotland the Scottish Executive commissioned NHS Education Scotland to profile roles, skills and knowledge frameworks and to ensure that these could be accredited to ensure trust and understanding of the roles together with transferability. They also funded backfilling of assistant practitioner roles (50) to create capacity to allow practitioners to train as advanced practitioners. Several consultant radiographer posts have also been funded.

#### **Future Benefits**

The other major plank in service redesign has been implementation of the national Picture Archiving and Communication Systems (PACS). Once there is a national PACS, national RIS, and agreed definitions for information, many things will be possible in a more cohesive fashion. In particular, a national asset register could be developed to allow a rolling programme of equipment replacement.

Other benefits would be our ability to do trends analysis on investigation patterns through review of data and also to do predictive planning when we work with other information, e.g., cancer prediction work. In turn this helps us scope both equipment and manpower profiles for the future and also educational needs with the higher education institutions.

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