The reconfiguration of hospital services in England has been a contentious issue. There have been local public protests against hospital closures and more recently a concerted effort by the government to communicate the clinical case for change. The final report of the NHS Next Stage Review is due for publication in early summer 2008 and is expected to include recommendations from regional groups of clinical staff on how services should be provided in their respective areas. This is intended to prompt primary care trusts (PCTs) to review the current combination of services they commission.

This briefing examines the recent debate over hospital configuration in England; describes what changes are currently being proposed together with the main factors driving these changes; sets out the process by which services can be reconfigured; and identifies a series of issues which will need to be addressed by policy makers.

A brief history of hospital configuration

The debate about how hospital services should be configured is not new. Previous administrations have also grappled with the tension between the strength of community and professional loyalty to local institutions, and questions about the safety, clinical and cost-effectiveness of services that may undermine the viability of those institutions.

The size and location of most local hospitals are more the product of chance than of rational planning. When the NHS was established in 1948, a patchwork of hospital services that had been run by local authorities and voluntary organisations were nationalised. Some areas had few services, others had a duplication. An increase in the amount of money available for hospital building projects in the early 1960s and recognition of the ‘greater interdependence of the various branches of medicine’ prompted a review of existing services (Ministry of Health 1962). In 1962, Enoch Powell, the Minister of Health at the time, published the Hospital Plan for England and Wales, which announced that large district general hospitals (DGHs) of 600–800 beds, serving populations of 100,000–150,000 should form the mainstay of hospital provision over the following decades.

The Plan envisaged that these DGHs would provide almost all inpatient and outpatient care on a single site for the populations they served. That meant that some services such as maternity
hitherto provided in small freestanding units would be brought within the scope of a much larger general hospital. However, by the 1960s both medical and surgical specialities were beginning to develop; if most specialities were to be provided within a single hospital, its size, in terms of the population it served and the number of medical and surgical staff it employed, had to grow.

Economic pressures in the 1970s meant that the hospital building programme was cut back and so many smaller general hospitals continued in operation. By 1980, the Department of Health recommended that, while the model of the large DGH should be retained, the services they provided could be delivered across a number of sites using existing smaller-sized hospitals (Department of Health and Social Services 1980). As a result, the DGH survived into the 1990s as an ‘organisational concept’ (Harrison and Prentice 1996), according to which an institution provides all types of care, but not necessarily in one building or site. In many areas the concept was realised as a group of smaller sites located fairly close together, rather than as one large hospital site as originally conceived.

In addition to proposing a model of hospital care based on the large DGH, the 1962 Hospital Plan envisaged community hospitals also providing either maternity or long-stay geriatric services, or outpatient services in the case of those without beds. The benefits of community hospitals were re-emphasised in the Department of Health’s 1980 paper on the future of hospital services, in which it was argued that local hospitals were more accessible for patients and staff as well as being easier to manage than their larger counterparts. Nevertheless, throughout the post-war period, large numbers of community hospitals have closed, usually on financial grounds or due to concerns about safety, and typically against strong local opposition. These closures continued until 2006, when the government announced a policy of using and adapting existing community facilities wherever possible (Department of Health 2006a).

As a result of the closure of community hospitals and the specialisation of the medical workforce, the average DGH today serves a much larger catchment population than was originally envisaged in the 1962 Hospital Plan. The government collects data on acute trusts (which may include more than one hospital) rather than acute hospitals. There are 173 acute trusts in England giving an approximate average catchment population of 290,000 people per trust (Government’s Actuary Department and Office for National Statistics 2005).

What are the current proposals for changes to service configuration?

The configuration of hospital and community health services is the responsibility of the local NHS, that is, strategic health authorities (SHAs) and primary care trusts. However, the Department of Health does develop policies and issue guidance on which types of services should be provided in which settings in an effort to improve cost-effectiveness, quality and access in the health service, such as The NHS Cancer Plan (Department of Health 2000a) and National Service Frameworks.

The most recent ‘clinical case for change’ to hospital services was put forward by the Department of Health in a series of 10 papers produced by the national clinical directors and published in 2006 and 2007 (Alberti 2007; Appleby 2007; Boyle 2006; Colin-Thomé 2007; Darzi 2007; Philip 2007; Richards 2007; Roberts 2007; Shribman 2007a; Shribman 2007b). The services covered in the papers range from emergency care and surgery to primary care and maternity services, but the theme common to all the documents is the claim that some specialised care requires centralisation while other types of more routine hospital care can and ought to be delivered locally, including in GP practices and in patients’ homes.
This recommendation to ‘localise where possible and centralise where necessary’ is reiterated in the interim report of the NHS Next Stage review being led by health minister Lord Ara Darzi (Department of Health 2007b). However, in an effort to encourage local NHS organisations to establish what is most appropriate for their respective areas, the report focuses principally on how the process by which services are reorganised ought to be improved, rather than specifying what the future shape of services should be in each area. Answering this last question is in part the task of regional groups of health and social care staff, who have been brought together for the NHS Next Stage review, but principally a decision for PCTs and SHAs. The regional staff groups have been tasked with devising ‘care pathways’ across a range of clinical specialties and population groups, with a remit to ensure that services are ‘fair, personal, effective, safe and locally accountable’ (Department of Health 2007b). The pathways will form the basis on which PCTs, with practice-based commissioners (GPs holding indicative budgets with which to purchase services for their patients) and local authorities, will commission services.

Various factors are prompting the government and local health service commissioners to focus on service configuration. These can be grouped into two categories: those which suggest the centralisation and specialisation of some services, for example, complex surgery; and those which push for the localisation of other services, such as post-treatment follow-up outpatient appointments.

CENTRALISATION AND SPECIALISATION FOR COMPLEX CARE

The case for the centralisation and specialisation of some hospital services into specialist, ‘tertiary’ centres is usually based on some combination of the following factors.

- Safe staffing levels stipulated by the Royal Colleges are not being met in existing service configurations, and the extension of the European Working Time Directive, which restricts the hours worked by junior doctors, means that more doctors are required to maintain safe levels of cover 24 hours a day, 7 days a week.
- For some types of treatment, higher volumes of patient throughput is required to maintain institutional and individual competence and is associated with improved outcomes in terms of morbidity, mortality and error rates.
- Some specialised treatments can be expensive and if they are to be delivered safely require levels of staff expertise that cannot be made available in all hospitals.
- There is an expectation that focusing specialist services in a smaller number of hospitals will reduce costs.

These factors are not exclusively clinically related. The particular role that each plays in any case of service configuration will vary by service and geographical area. The following paragraphs illustrate how these factors are creating pressure for the centralisation and specialisation in care for heart attacks, consultant-led maternity services, and neurosurgery. These examples in part reflect the continuation of long-term trends towards specialisation identified above (see ‘A Brief History of Hospital Configuration’).

**Care for heart attacks**

The majority of patients who go to hospital for emergency heart treatment are suffering from a type of heart attack called ST-elevated myocardial infarction (STEMI). Research has found that this is most effectively treated with a set of procedures that are used to open narrowed or blocked arteries to the heart, known as percutaneous coronary intervention (PCI) (Academy of Medical Royal Colleges 2007). Angioplasty is an example of such a procedure.
There are currently 31 hospitals in England known as ‘tertiary centres’, which provide a full range of cardiac services including surgery. A further 53 hospitals have both diagnostic facilities and facilities for PCI, and in 2005 PCI was the default strategy for STEMI in 30 of these hospitals, though only 14 provided these services on a 24-hour basis (Academy of Medical Royal Colleges 2007).

The Academy of Medical Royal Colleges has concluded that it is not feasible to provide PCI services in most existing acute hospitals ‘because of the workforce implications of a 24-hour service and the necessity for a minimum throughput of cases to maintain institutional competence’ (Academy of Medical Royal Colleges 2007). Instead, they give an approximate estimate that it would be appropriate to have one specialist centre in each of England’s existing 32 heart networks. They argue that it is difficult to justify providing 24-hour services in more hospitals given the small number of out-of-hours patients these hospitals would receive. If this estimate were to be implemented, this would mean one large district hospital developing these facilities or the development of an additional tertiary centre and 14 hospitals currently providing 24-hour services for this type of heart attack ceasing to do so. The Academy emphasises that such a change would require all ambulance crews to be competent in the identification of STEMI and its management while taking the patient to the specialist facility.

Consultant-led maternity services

Currently many consultant-led maternity wards are understaffed compared to the levels stipulated by the Royal Colleges as necessary for the provision of safe services. In 2005, fewer than half of consultant-led maternity wards with more than 2,500 deliveries a year had the 40 hours of consultant presence recommended by the Royal Colleges (Royal College of Midwives et al. 2006). The Academy of Medical Royal Colleges has concluded that if consultant-led wards are to deliver safe staffing levels, and comply with the European Working Time Directive, then those units delivering fewer than 2,500 babies a year should accept only low-risk births and larger consultant-led units ought to be 'reconfigured', the implication being that services will have to be centralised (Academy of Medical Royal Colleges 2007). In the Academy’s proposed model for the future of acute services, consultant-led maternity services are only ‘possibly’ available at the level of the district hospital (serving populations of 250,000–300,000) (Academy of Medical Royal Colleges 2007).

Neurosurgery

Neurosurgery has been centralised in regional centres since the foundation of the NHS. Staff working in hospitals outwith these centres who receive a patient with severe head injury are expected to contact such centres for advice on the management (and possible transfer) of the patient (Patel et al. 2005). However, a significant minority of patients are not treated in such centres and there is evidence that these patients have poorer outcomes. Between 1994 and 2003, mortality rates among the one third of patients with severe head injury in England and Wales who were treated in non-neurosurgical centres were 26 per cent higher than among those treated in neurosurgical centres (Patel et al. 2005).

While the association between treatment in a centre with 24-hour neurosurgical facilities and better rates of survival is clear, the reason for this association is poorly understood. Despite many trials, no single treatment that is uniquely available in these centres has been found to improve outcomes (Patel et al. 2005). There is some evidence of an association between volumes of patients treated and outcomes, but this is restricted to comatose patients who have suffered trauma (Patel et al. 2005). The authors of the most recent major English study in this
area cite evidence that ‘the institution of packages’ of care in specialist centres is associated with improved outcomes for patients (Patel 2005), but this is still relatively unspecific.

In the face of these pressures for centralisation some existing DGHs will find it hard to continue providing their current range of services. But in some areas, particularly rural ones, the access implications of service closures may be severe. Longer journey times for patients could involve clinical (Nicholl et al 2007) as well as financial costs, in which case meeting the costs of maintaining specialist services on these smaller sites or investing in telemedicine, which allows the provision of expertise from a distance, will have to be considered.

LOCALISATION FOR LESS COMPLEX CARE

There has been a long-term trend of moving less complex types of care outside of hospital, but following survey results revealing a popular interest in more services being available in settings closer to people’s homes, the government has developed policies which actively promote this shift (Department of Health 2003; Department of Health 2006b). The range of services available in a community is principally the decision of local NHS organisations; however, the government has recently established both incentives and targets to help steer local planning in line with national policy objectives. These include:

- a stipulation that plans for any major building projects will only be approved if they are compatible with the model of concentrating more activity and resources in primary and community care
- £750 million of capital funding set aside for building and renovating community hospitals and polyclinics from 2006 to 2011
- making changes to the Payment by Results financial transaction system to enable payments for some types of hospital care to be redirected to community-based services (Department of Health 2007a).

In the ‘clinical case for change’ papers issued by the clinical directors, it is proposed that extended GP practices, sometimes referred to as ‘polyclinics’ could offer:

- more diagnostic tests, such as blood tests and ultrasounds and possibly CT and MRI scans (Richards 2007)
- follow-up outpatient appointments for less complex procedures such as hernia repair or varicose vein treatment (Colin-Thomé 2007)
- some kinds of minor surgery such as cataract or hernia operations on site (Darzi 2007; Colin-Thomé 2007).

Darzi’s interim report contained commitments to fund the development of 150 new GP-led health centres in England, which would be open from 8am to 8pm, seven days a week and would ‘maximise the scope for co-location with other community based care such as diagnostic, therapeutic (eg physiotherapy), pharmacy and social care services’ (Department of Health 2007b).

The government’s policy of shifting care outside hospitals is based on three broad justifications:

- people want to be able to access care closer to their homes
- it can be cheaper for the NHS to provide such services in the community
- it is as safe to provide some procedures and tests in community settings compared to hospitals.

The proposals do not relate to improving clinical quality.
Making services more accessible

A large-scale consultation of the public and stakeholders conducted for the NHS Plan found ‘near universal’ support for a system that would deliver more care closer to home rather than in hospital settings (Department of Health 2000b). It is worth noting, however, that the consultation also revealed that ‘the majority felt that there was a need to at least maintain adequate numbers of acute beds’ (Department of Health 2000b). Thus, while respondents may have favoured care closer to home, they may not necessarily have been willing to tolerate an equivalent reduction in some hospital services.

The cost of providing care in community settings compared to hospital

Shifting some hospital services into community settings was initially considered by the current Labour government as a means of reducing use of hospital beds among the elderly, but a review commissioned by the Department of Health review on the cost-effectiveness of such a strategy reported that evidence to date was inconclusive (Goddard et al 2000).

In the White Paper Our Health, Our Care, Our Say the government states that, ‘The same procedure in primary care can cost as little as one third compared to secondary care’, and cite the case of a vasectomy service run by GPs with special interests (GPSIs) in Stockport, which cost the NHS £150 per procedure, compared to the hospital costs of £463 (Secretary of State for Health 2006a).

However, recent research evidence indicates that reduced costs cannot be assumed to follow from moving services into the community. Community-based outpatient clinics provided by consultants often have lower throughput and higher costs than their hospital-based equivalents (Gruen et al 2003; Powell 2002). Two recent studies of GPSI-provided dermatology services found that GPSI care was consistently more expensive than hospital-based care, which researchers attributed in part to lower patient throughput and higher salary costs associated with the GP service (Coast et al 2005; Rosen et al 2005).

The safety and quality of ‘hospital’ services provided in the community

There is not yet a developed body of evidence on the quality of what in the past were hospital services being provided in primary care and community-based settings. There is some evidence from the 1990s that consultant outreach clinics providing outpatient appointments were associated with health outcomes equivalent to those from hospital-based treatment (Bowling et al 1997). More recently, researchers have found evidence that in dermatology and on routine cancer follow-up appointments GPs can deliver outpatient care which is of adequate quality (Rosen et al 2005; Grunfeld et al 1999) but evidence is limited to these specialties. In the case of minor surgery, there is some evidence that GPs perform surgical excisions less adequately than hospital doctors (Roland et al 2006).

What is the process by which health services are reconfigured?

Decisions about the reconfiguration of health services are the responsibility of local PCTs and strategic health authorities. PCTs have a legal duty to consult with their local communities and refer major changes to local authority overview and scrutiny committees. Also, the Department of Health issues guidance on the processes by which any major change should happen. In 2008, the regional groups of health and social care staff who have been convened as part of Lord Darzi’s NHS Next Stage review are due to advise local PCTs on the pathways of care that
should be made available for patients and service users in their area. It will then be the task of PCTs to establish what combination of providers (hospitals, treatment centres, primary care facilities) will be appropriate to deliver these pathways.

DEVELOPING THE CASE FOR CHANGE

Guidance on good practice in introducing major changes to service provision was produced by the former acting chief executive of the NHS Sir Ian Carruthers at the request of the Department of Health and circulated to chief executives of NHS organisations in February 2007 (Carruthers 2007). The interim report of Lord Darzi’s NHS Next Stage Review, published in October 2007, stated that additional guidance from the Department of Health would be issued on this topic by the end of the year (Department of Health 2007b).

Carruthers’ guidance confirms that programmes for major changes to services have to be led by PCTs (or groups of PCTs) while SHAs are responsible for overseeing all developments: ‘SHAs must have, and continue to have, a secure grip on what, when and why service proposals are being discussed in their area’ (Carruthers 2007). PCTs are expected to develop business cases for change that set out the ‘clinical case for change, the impact on workforce, benefits for patients [and] the costs and savings’, and these should be reviewed by SHAs to ensure that the proposals are fit for purpose before they are put out for consultation (Carruthers 2007). This includes establishing that they are adequately researched; that there is a clear understanding of the main objectives of the proposed change; that the change is consistent with national policy priorities; and that resources can be secured for its delivery.

Lord Darzi’s report indicates that in future these requirements will be strengthened, stating ‘Change should only be initiated where there is a clear and strong clinical basis for doing so’, and that the Department of Health will ‘raise the standard of evidence we expect before change takes place’ (Department of Health 2007b). These stipulations will be set out in the new guidelines and supported by a national clinical evidence base ‘housing what national and international clinicians believe to be the best available evidence’ (Department of Health 2007b). The guidelines will set out how all cases for change will require independent clinical assessment (using the Office of Government Commerce’s gateway review process) before being put out for public consultation.

Clinician involvement at all stages of service change, from the pre-consultation period of developing a case for change through consultation, decision-making and implementation, is recommended by both Carruthers and Darzi, with Darzi adding that the local case for change must be led by clinicians (Department of Health 2007b).

Ensuring that resources are made available to ‘open new facilities alongside old ones closing’ was recommended in the Darzi report and also raised in a report from the Academy of the Medical Royal Colleges, which recommends that ‘Plans to redesign services which involve moving services from a particular site must not be fully implemented until replacement services are established and their safety audited’ (Academy of Medical Royal Colleges 2007). The considerable cost implications of ‘double running’ services would need to be taken into account in any reconfiguration plans.

PUBLIC CONSULTATION

The role of public consultations in all plans for major change is established in statute. Following commitments made in The NHS Plan (2000) to introduce greater accountability and patient
involvement in decisions about local health services, the Health and Social Care Act 2001 created a legal duty for NHS organisations to consult their local populations on the ongoing planning of health services and on any decisions that could affect the operation of the local health service. In addition to this legal duty to consult on proposals for change, the forthcoming guidelines described in Lord Darzi’s report will require that ‘consultation should proceed only when there is effective and early engagement with the public’ (Department of Health 2007b). At present the only guidance available to the NHS on what constitutes an adequate consultation is a code of practice for all government departments produced by the Cabinet Office (Cabinet Office 2004).

OVERVIEW AND SCRUTINY COMMITTEES AND ARBITRATION IN CASES OF DISPUTE

The Health and Social Care Act also requires local NHS bodies to consult their local authority’s overview and scrutiny committee (OSC) on any ‘substantial’ plans for developing or changing the provision of health services in the local area. What constitutes a ‘substantial’ development or change is not defined in the Act itself, and the Department of Health has advised that this is something organisations should agree among themselves at a local level. Guidance on how local PCTs and OSCs can reach agreement on this question has been produced by the Centre for Public Scrutiny (Centre for Public Scrutiny 2005).

Since 2002, OSCs have had the power to refer decisions by the NHS to the Secretary of State for Health if they consider either that the public consultation process was inadequate or that the proposed change is not in the interests of the local area. By July 2007, 27 proposed changes had been referred to the Secretary of State by OSCs (House of Commons Health Committee 2006, Hansard 2007b). The number of referrals has increased in recent years: there were just two referrals between 2002 and 2004, six in 2005 and nineteen between 2006 and mid-2007, the most recent date for which information is available (House of Commons Health Committee 2006; Hansard 2007b). This could suggest that the number of proposals for service change is increasing and/or that local disagreement around such proposals is becoming more common.

The Secretary of State can choose to refer cases to the Independent Reconfiguration Panel – a group of senior clinicians and managers who offer advice and guidance on managing configuration changes – but the Secretary of State’s decision is always final. Nine of the twenty-seven cases received by the Secretary of State by mid-2007 were referred on to the Independent Reconfiguration Panel (House of Commons Health Committee 2006, Hansard 2007b).

Early versions of these plans to introduce a greater degree of accountability into the process of reconfiguration reportedly had OSCs being able to refer proposed changes to the Independent Reconfiguration Panel direct, rather than via the Secretary of State (Day and Klein 2007), and critics of the current arrangements have argued that the process would seem less politicised and more fair if a direct pathway for advice between OSCs and the Independent Reconfiguration Panel was to be restored (Farrington-Douglas and Brooks 2007).

In July 2007, the new Secretary of State for Health Alan Johnson announced that while Darzi’s review of the NHS was under way, he would refer all cases of reconfiguration he received from OSCs to the Independent Reconfiguration Panel (Hansard 2007a). This does not, of course, bind him to follow the Panel’s recommendations.

A published summary of some of the decisions taken by the Secretary of State on contested reconfigurations between 2002 and the end of 2005 indicates that the majority had supported the original decision of the local NHS (House of Commons Health Committee 2006).
Lord Darzi’s report recommends that the national working group tasked with considering the establishment of an NHS constitution ought to look at how such a document might provide ‘an open and accountable process for arbitration and decision making where decisions on the shape and delivery of local services cannot be resolved locally’ (Department of Health 2007b), which implies a possible removal of the strong role currently played by the Secretary of State.

**The future**

The government, with clinical support, is putting itself behind the case for more centralisation of some hospital services and for decentralisation of others to the community. The evidence for these shifts is not comprehensive. The ‘clinical case for change’ put forward by the national clinical directors has been expressed in general terms, without supporting evidence of the scale of the benefits that might be realised by such changes.

According to existing evidence, shifting services from hospital to community settings may not necessarily produce gains on cost or quality and safety. The Department of Health has commissioned research in this area based on the assessment of ‘demonstration sites’ (Department of Health 2006b). Although the resulting reports have developed useful compilations of the manifold factors that need to be considered by local areas considering such changes (Department of Health 2007c), a ‘rapid review’ of evidence on the impact such shifts were likely to have on quality, cost and access, commissioned by the NHS Institute for Innovation and Improvement, concluded that there was ‘insufficient evidence’ to support a shift of outpatient clinics and day case surgery into primary care settings (University of Birmingham Health Services Management Centre 2006).

There is stronger evidence that the quality of some types of specialist care tends to be higher in centralised units, and that such centralisation may be necessary to secure safe staffing levels as stipulated by the Royal Colleges. However, evidence on the cost and access implications of the changes proposed is particularly limited, and the appropriate trade-off to be made between maintaining or improving quality, access and costs will depend critically on local geography.

In light of this, it will be hard for local commissioners to meet the demand that they establish a rigorous business case spelling out the costs and benefits of proposed reconfigurations as set out in Carruthers’ guidance and the standards for an evidence-based approach indicated by Darzi.

There is a need for central government and local commissioners to be as transparent as possible about the multiple pressures prompting any reorganisation. For example, if the centralisation of a service is deemed necessary in order to achieve safe staffing levels stipulated by the Royal Colleges, local commissioners may need to be frank about the fact that in the existing configuration of services, staffing levels are below this safety threshold.

If the government does encourage or require substantial consultation and deliberation activities of the local NHS to ensure that members of the public are fully involved in processes of reconfiguration, the issue of funding for such activities will also need to be addressed. The questions of how much money should be spent on such activities, the opportunity costs associated with this spending (the money might otherwise have been spent on health care) and who should provide the funding (PCTs, groups of PCTs, SHAs or central government) have yet to be openly explored. Deliberative events in particular can prove costly. For example, meetings held for the *Your Health, Your Care, Your Say* consultation, comprising four regional deliberative events with 100 or fewer participants, one national event with 1,000
participants and the use of a citizens’ panel cost the Department of Health just under £1 million (Department of Health 2007d). As the average PCT population is 300,000, a consultation of this size in a PCT would involve less than 1 per cent of the population.

Any plans for health service configuration also need to be considered in the context of existing system reform mechanisms (competition between providers, patient choice, Payment by Results and practice-based commissioning). These reforms are also intended to drive ‘bottom up’ changes in the location and nature of care, partly through the direct decisions of patients and partly through the decisions of their GPs (as referrers and as providers of alternative sources of treatment outside hospital). The Academy of Medical Royal Colleges argue these existing levers that encourage competition between providers may hinder the development of collaborative working between providers, which they consider essential in a system in which some specialised resources, such as care for heart attacks, are centralised (Academy of Medical Royal Colleges 2007). It is not clear whether competition and collaboration can work alongside one another, nor whether reconfiguration means commissioners appointing one provider to meet the needs in a particular specialty or a range of providers being available to secure patient choice.

Many local plans for service reconfiguration are likely to be put on pause while the Darzi NHS Next Stage review is completed. The final report is expected in 2008 and is set to include (or be accompanied by) the findings of each of the regional staff groups who have been tasked with establishing appropriate care pathways in their respective regions. It will then be the job of commissioners (PCTs) to consider the implications of these recommendations for the future shape of service provision.
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