UNDER ONE ROOF

Will polyclinics deliver integrated care?

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King's Fund

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Foreword

There is a strong case for looking again at the way we organise health care in England. It is a model that has changed little since the National Health Service began 60 years ago. Now advances in technology, changes in the composition and working hours of staff, as well as patient expectations and evidence about what is effective, all signal the need to review how and where care is delivered.

In secondary care some services are being concentrated in more specialist centres in order to maximise the safety and quality of care. At the same time there are opportunities to bring other services closer to where patients live, making them more accessible without compromising quality or driving up costs. Our system as a whole is too focused on the acute sector, which retains activities such as diagnostics and follow-up appointments – these do not always need to take place in a hospital setting.

The system is also fractured, with a longstanding gulf between primary and secondary care. Services that should be seamless have awkward gaps through which patients and information tend to fall. They are operated by institutions with different priorities who frequently fail to communicate effectively with one another.

In primary care there are compelling arguments for scaling up provision in areas where, for example, single-handed general practitioners may struggle to provide the range of services now required. Primary care is no longer confined to treating patients when they are ill, it must also manage long-term conditions proactively and offer a growing range of preventive services to keep the population as healthy as possible.

It is understandable therefore that policy-makers have looked abroad for models to deliver more accessible integrated services – models able to provide 21st-century care in a 21st-century environment.

Polyclinics have been held up as one such model, although in reality, as this report points out, the term covers a number of rather different approaches to service delivery and can be used by different commentators to mean different things.

One of the options in the original *Healthcare for London* report, for example, was a hub-and-spoke model in which the polyclinic was more of a referral centre for a number of practices that worked together but remained in their separate locations. In the main, though, the polyclinic has been seen as a building that will co-locate general practices alongside specialists and a range of other services.

It is important to note that there are differences between the nature of services here and those in Germany and the United States where polyclinics appear to have been introduced

with some success. Most significantly, our workforce profile is different. Our specialists are not based in isolated offices but rather in hospitals – and the European Working Time Directive and changes to postgraduate medical training are likely to keep specialists in hospitals. The polyclinic model of care therefore presents significant challenges to our current workforce structure.

Under One Roof: Will polyclinics deliver integrated care? also highlights experience from the LIFT (local improvement finance trusts) programme, which allows the development of new general practice premises. This initiative has shown that bringing staff together in one place does not necessarily change the way in which they work – and indeed can actually make joint working more difficult. The absence of clinical and managerial leadership in these facilities seems to be a key factor inhibiting new ways of operating.

We should acknowledge that, in the main, access to primary care in England is currently very good and we must be careful not to undermine that. The larger polyclinic model is likely to mean that patients, most of them elderly, have further to travel to access primary care. Nevertheless, it may be possible to build polyclinics on existing hospital sites, create the hub-and-spoke models proposed in the London report and provide primary care with more direct access to diagnostic tests.

We hope that the findings of *Under One Roof: Will polyclinics deliver integrated care?* will encourage thoughtful debate on this subject at local level. While the case for change is strong, there is a need to ensure that any proposals match local needs as well as clinical evidence of what works. Like any proposed changes this needs to be judged against clear criteria of access, quality and cost. Alongside this, there is a need to provide the leadership and incentives to bring about genuine integrated care.

Niall Dickson
Chief Executive, The King's Fund

Summary

Current government policy is driving a fundamental shift of care from hospitals to more community-based settings. There is a growing expectation that this shift will be supported by the development of a comprehensive network of new facilities in which primary, community and secondary care services are co-located, referred to by some as 'polyclinics'.

Policy-makers have been inspired by international examples of polyclinics providing a broad range of services in high-quality, local settings. It is hoped that by bringing GPs together into larger groupings alongside their community and secondary care colleagues, polyclinics will deliver many benefits to patients. In particular, that they will:

- improve the **quality** of health care – particularly providing more patient-focused and integrated care
- support better **access** to health care – enabling care to be localised
- deliver **cost** savings.

Drawing on published literature and original research into facilities similar to the polyclinic model, this report identifies and explores both the opportunities and risks presented by the proposed transition to this model of care in England. Specifically, it asks to what extent the shift of services will support wider policy ambitions to enhance access and quality and to deliver savings.

There is significant diversity in models of polyclinics in England and abroad. The scale and scope of the services included, who provides them, and their relationship with the rest of the health care system varies widely. Furthermore, there is a range of titles (even just in England) for essentially similar concepts – health centres, super-surgeries, community hospitals.

This report uses as its starting point the proposals put forward for London. NHS London proposes the development of polyclinics serving populations of around 50,000 and housing a variety of primary, community and secondary care professionals. This has two major implications for the way in which health care would be delivered in the future, namely a significant shift of some secondary care services from hospital to community settings and a progressive concentration of current GP practices into larger facilities.

The evidence presented in this report suggests that although there are opportunities to improve the quality of care and address some longstanding problems in the English health care system, there are also risks, particularly around the transition to this new model. The report describes contextual differences that may place limits on the transferability of apparently successful polyclinic models from other countries. If polyclinics are to succeed in promoting integrated health care, policy-makers and commissioners need to recognise these differences and actively manage the associated risks.

The report identifies opportunities and risks in relation to: the quality of care, accessibility of services and cost.

Quality

Opportunities

- In theory, more integrated care – through rapid referral and sharing of expertise between teams
- Improved quality of care for people with long-term conditions
- Services targeted towards local health needs
- New or improved facilities that are valued highly by patients and staff
- Services provided in a more normalised environment than the traditional health clinic

Risks

- In practice, co-location alone is often not sufficient to generate co-working or integration of care
- Although evidence suggests that quality of care for most services shifted out of hospitals is comparable, this is limited to a small number of specialties. There is also evidence that quality may be decreased in certain cases
- The limited inspection and accreditation of out-of-hospital care is a serious deficit in quality assurance
- Specialists working on a sessional basis in multiple community sites may experience professional isolation, threatening professional development and motivation
- Primary care services will need to be carefully planned to ensure continuity of care

The co-location of multiple services presents opportunities for delivering more integrated care, particularly for people with chronic diseases. However, the evidence suggests that in practice these opportunities are often lost. A key factor limiting success in England has been the lack of an overall governance structure, with unclear lines of accountability and no single leader or management board. Significant effort would be needed to realise the potential benefits (*see* 'Key conclusions' opposite).

Access

Opportunities

- Improved access to diagnostics, specialist advice and treatment. This could be particularly beneficial in rural areas and for people with long-term conditions
- Improved access to extended hours and out-of-hours care, in particular for primary and community services

Risks

- Physical accessibility of primary care is likely to be reduced for most patients if their GPs move into polyclinics, particularly in rural settings
- Potential gains in the physical accessibility of secondary services could be marginal in urban settings and may be lost if polyclinics are located away from natural transport hubs

- Provision of specialist services in polyclinics would need to be carefully planned to ensure efficient scheduling of specialist staff time

If a substantial centralisation of primary care were pursued, the consequent reduction in access to these services would be a major sacrifice. Evidence suggests that use of primary care is more sensitive to distance than use of outpatient or acute services. Hub-and-spoke models for primary care (*see* 'Key conclusions' below) are likely to be more appropriate, and particularly so in rural areas. The movement of secondary services into community settings is also most likely to be beneficial in rural settings. In all settings the benefits of access to secondary care services would be highly sensitive to the quality of local transport networks.

Cost

Opportunities

- In theory, cost savings may be delivered, given the lower overheads of community-based services
- More cost-effective models of chronic disease management by facilitating collaborative, multidisciplinary working

Risks

- In practice, evidence suggests that shifting services into the community can lead to equivalent or higher unit costs unless care pathways are redesigned and hospitals can reduce their unit costs
- New community-based services may stimulate demand or lower referral thresholds
- For some services, transitional funding will be required

Evidence from published research and from the original research conducted for this report points towards important risks in terms of cost. Expectations that community-based services will be less costly than hospital-based equivalents are frequently not met. Furthermore, new community-based services often fail to reduce hospital activity – acting as supplements to rather than substitutes for hospital-based care.

Key conclusions

- For some health communities the development of polyclinic-type facilities could offer real opportunities to establish more integrated, patient-focused care, but only if considerable investment of time, effort and resources is put into their planning and development.
- The primary focus should be on developing new pathways, technologies and ways of working rather than new buildings. Co-location alone is not sufficient to generate co-working between different teams and professionals. Investment in change management and strong clinical and managerial leadership will be required.
- Commissioners will need to consider new ways of commissioning primary and community services. Services will need to be contracted on the basis of clear quality standards in order to ensure that the benefits of the new models of care are realised.

- New approaches to assure the quality of out-of-hospital care and support professional development will be needed. There needs to be a much stronger framework for inspection and accreditation.
- A major centralisation of primary care is unlikely to be beneficial for patients, particularly in rural areas. A hub-and-spoke model, where the polyclinic acts as a central resource base in a co-ordinated network of practices, is likely to be more appropriate to achieve the desired development of primary care services.
- To maximise accessibility, choice of location is critical – polyclinics should ideally be developed in natural transport hubs. Where this is not possible, finding ways to integrate services more effectively within existing facilities or on existing sites would be preferable to developing a polyclinic in a less accessible location. Improved access by car cannot be assumed given restrictions on car parking imposed by local authorities on any new developments.
- Substantial cost savings are unlikely to be made. Costs for some services may increase, unless hospitals can significantly reduce their unit costs and commissioners can manage demand. Scheduling of services will need to be carefully planned in order to ensure effective utilisation of building space and staff time. Developing polyclinics is likely to require transitional funding.
- There are significant workforce implications that need to be thought through and addressed.
- New developments should not simply be a response to a new national target, but a well thought-out element of a broader strategic plan that responds to local needs.
- Any polyclinics developed should be subject to rigorous evaluation to help fill the current gaps in the evidence base.

The report describes best- and worst-case scenarios for the future of out-of-hospital care, based on the risks and opportunities identified. It concludes by making some specific recommendations for primary care trusts (PCTs) and policy-makers that we hope will help them to deliver the best-case scenario.

1 Introduction

The White Paper *Our Health, Our Care, Our Say* (Department of Health 2006) lays out the ambition to create a fundamental shift of care from hospitals to more community-based settings. This ambition was reaffirmed by Lord Darzi in *Our NHS, Our Future* (Department of Health 2007c) and encapsulated by the principle to 'localise where possible, centralise where necessary'. Lord Darzi cites the transition already experienced within the American health care system, in which the percentage of outpatient activity taking place within the community has grown from 10 per cent to 50 per cent. Currently, only 10 per cent of outpatient appointments in England are delivered in a community setting (Department of Health 2007c).

There is a growing expectation that this shift in care will be supported by a comprehensive network of community-based facilities in which primary, community and some secondary care services are co-located, referred to by some as 'polyclinics'.

The aspiration for these new service delivery models is that they will:

- improve the quality of care – providing more patient-focused and integrated models of care
- support better access to health care – enabling care to be localised
- deliver cost savings.

The term 'polyclinic' has been applied to a number of different models. In some, the defining feature is the co-location of a range of specialties. In others, the polyclinic is not a physical entity but an organising principle in which services on several sites join together using new technologies and ways of working ('virtual' polyclinics). The version described most fully in recent English policy documents is the co-located model given in *Healthcare for London* (NHS London 2007a). This includes two proposals carrying significant consequences for the way in which current health care is delivered:

- a major concentration of current GP practices into larger facilities, with 70 per cent of GP practices to be sited in polyclinics
- a significant shift of some specialist services from hospital to community settings, with 40 per cent of all outpatient activity to be delivered in polyclinics.

The aim of this report is to test the co-located polyclinic model. We do not focus on the fine detail of proposals made in *Healthcare for London*, but rather explore the risks and opportunities associated with this *sort* of model. To be specific, the model assumed throughout the report is one in which the polyclinic is a large, community-based health centre, serving a population of 50,000 or more and housing a variety of primary, community and secondary care professionals, which may include some or all of the following:

- general practice services

- diagnostics
- devolved outpatient services
- community health/social care services
- minor surgery
- other primary care services (dentistry, optometry, pharmacy)
- mental health services.

It is important to note the diversity in models of polyclinics in England and abroad. The scale and scope of the services included, who provides them, and the relationship with the rest of the health care system varies widely. A significant variation is the degree of specialist consultant input. The model proposed by *Healthcare for London* (NHS London 2007b) assumed three full-time equivalent (FTE) consultants working within the polyclinic (but also care delivered by many more coming to the polyclinic on a sessional basis). The international models tend to have consultants permanently based in and frequently employed by polyclinics (*see* 'International experience', p 25).

In this report we examine existing health facilities that represent close fits to this model, focusing particularly on NHS LIFT schemes and international examples of polyclinics.

NHS LIFT schemes The NHS LIFT (Local Improvement Finance Trust) scheme is a capital procurement route allowing primary care trusts (PCTs) to develop new facilities for primary and out-of-hospital care. An important aim is to facilitate the development of health centres offering integrated, multi-professional care on a 'one-stop-shop' model. We identified a number of existing facilities developed under the LIFT scheme that fit the polyclinic model under investigation. This report presents the results of interviews with key stakeholders involved in developing and operating in these facilities (*see* Section 3).

International examples of polyclinics Facilities based on the polyclinic model already exist in several countries, serving as one of the key sources of inspiration referred to in *Healthcare for London* (NHS London 2007a). We briefly examine the form that these facilities take in a variety of countries, and the extent to which their objectives have been met (*see* Section 4).

In addition to examining existing facilities that fit the polyclinic model, this report reviews the academic literature relating to two of the core features of the model, namely: shifting specialist services from hospital to community settings and consolidating primary care services into larger aggregations (*see* Section 5).

At the end of this report we draw on these various sources of evidence to describe the risks and opportunities associated with the polyclinic model, and use them to outline worst- and best-case scenarios for the future of out-of-hospital care (*see* Section 6). We conclude with recommendations that should allow commissioners, at national and local levels, to steer towards the best-care scenario (*see* Section 7).

First, we set out the policy context and drivers for change. The concept of the polyclinic or health centre is not new to English health care, so Section 2 looks at both the history of the polyclinic model in England and its possible future.

2 The policy context and drivers for change

Health care provision faces a constant struggle to integrate many disparate elements around the varied needs of patients. In 1920, 28 years before the inception of the NHS, Lord Dawson, in his *Interim Report on the Future Provision of Medical and Allied Services* (Dawson 1920), laid out a remarkably farsighted view of a comprehensive health service organised hierarchically, with primary health centres as the frontline contact with the local community (*see* Figure 1, p 8):

> *The domiciliary services of a given district would be based on a Primary Health Centre – an institution equipped for services of curative and preventative medicine to be conducted by the general practitioners of that district, in conjunction with an efficient nursing service and with the aid of visiting consultants and specialists.*
> (Dawson 1920, p 6)

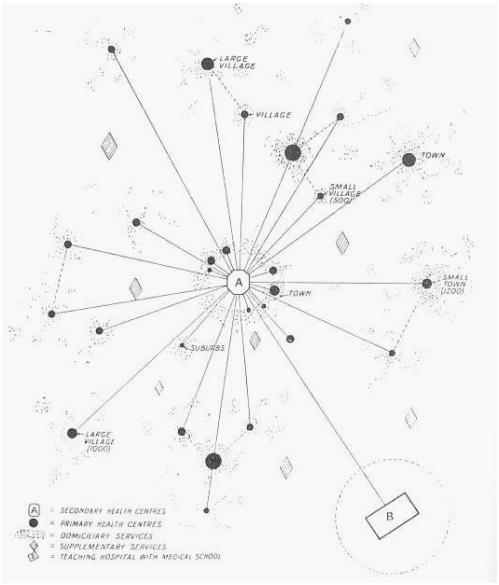
> *In the Health Centre there would be the equipment and the encouragement to do good work, and opportunities for observation and investigation and self improvement. Disease too would be detected in its earlier and, therefore, more curable stages. Judged alone by the effect on medical men and medical knowledge, it would be impossible to exaggerate the benefits that would accrue to the community by the establishment of Health Centres.*
> (Dawson 1920, p 14)

As Kendall and Carrier have pointed out, 'Lord Darzi would recognise its [sic: Dawson's] main proposals as fulfilling most of the arguments for polyclinics' (Kendall and Carrier 2008, p 16).

It was a vision that was never executed, but the notion of a health centre that could support the integration of different elements of health care was not lost. However, 88 years later, it has yet to be delivered in the way that Dawson originally envisaged. Since the 1920s the 'health centre', or polyclinic, as the foundation of health care delivery, has received recurring bouts of enthusiasm from policy-makers, but a singular lack of enthusiasm from the medical profession and in particular its British Medical Association (BMA) representatives. Despite enthusiasm from Bevan for the health centre model, professional opposition resulted in these proposals being severely watered down. In the 1946 National Health Service Act, health centres would not be mandated but were to be only experimental. As Klein (2006) notes, a key element was the BMA's hostility to 'any proposal which appeared to turn general practitioners into public servants' (p 10). By 1963 only 18 purpose-built health centres were in place (Owen and Wall 2002).

The 1962 Hospital Plan (Ministry of Health 1962) signalled the demise of many small community hospitals and did little to encourage health centre developments, although the

1 **DAWSON'S VISION: SCHEMES FOR THE SYSTEMATISED PROVISION OF MEDICAL AND ALLIED SERVICES, AS SHOULD BE AVAILABLE, FOR THE INHABITANTS OF A GIVEN AREA**



Source: Ministry of Health 1920

report did suggest that 'There will often be the need for the establishment of peripheral clinics or diagnostic centres where consultations can be undertaken locally without the full resources of the general hospital' (p 6).

The 1970s did see a significant expansion in the number of community health centres and, by 1977, there were 731 centres with 3,800 GPs, housing about 20 per cent of all GPs (Cartwright and Anderson 1981). However, these centres were far from the original Dawson vision; in the main they housed a range of GP and community services, and did not support broader primary–secondary integration.

In 2000, the NHS Plan (Department of Health 2000) laid out a vision for primary care in which:

> *… many GPs will be working in teams from modern multi-purpose premises alongside nurses, pharmacists, dentists, therapists, opticians, midwives and social care staff. Nurses will have new opportunities and some GPs will tend to specialise in treating different conditions. The consulting room will become the place where appointments for outpatients and operations are booked, test results received and more diagnosis carried out using video and tele-links to hospital specialists. An increasing number of consultants will take outpatient sessions in local primary care centres.*
> (Department of Health 2000, p 19)

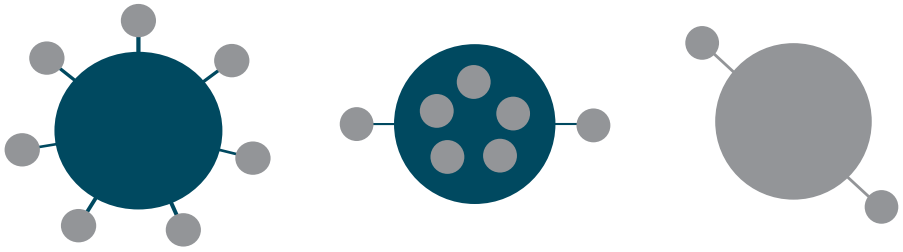
The plan envisaged the development of 500 one-stop primary care centres by 2004. To support these primary care developments the NHS Plan signalled an additional investment of £1 billion in primary care facilities, and the creation of the NHS LIFT scheme as a capital procurement route (*see* Appendix 1 for details).

In the White Paper, *Our Health, Our Care, Our Say* (Department of Health 2006), the development of primary and community care services, and an accompanying shift of care from hospital to community settings, were the major focus of the report, and a raft of policy initiatives was proposed to take this agenda forward. The case was made that people would prefer care delivered out of hospital and that technological developments would enable this shift. There was a strong presumption that this shift would deliver care that was not only of higher quality but also better value for money: 'A strategy centred on high-cost hospitals will be inefficient and unaffordable compared to one focused on prevention and supporting individual well-being in the community' (Department of Health 2006, p 129).

The development of polyclinics was not a specific recommendation of *Our Health, Our Care, Our Say* (Department of Health 2006); it focused more on generic shifts of care from secondary to primary care settings, and the potential role of community hospitals as a setting for expanded community care and more integrated care. The polyclinic's first prominent appearance was in *Healthcare for London* (NHS London 2007a) – the strategic review of London's health care conducted by Lord Darzi. The ambition for polyclinics as set out in *Healthcare for London* is that they would provide the main locus for the delivery of health care:

> *Londoners will view their polyclinics as their main stop for health and wellbeing support. GP practices will be based at polyclinics, but the range of services – from pharmacy and social care to staying healthy services and dentistry, from outpatient appointments and diagnostics to mental health services and antenatal care – will far exceed that of most existing GP practices.*
> (NHS London 2007a, p 91)

2 POLYCLINICS AND GP SERVICES – THREE OPTIONS FOR ORGANISATION



A networked polyclinic
Existing GP practices would link to a local hub for specialist clinics and services such as blood tests, scanning and plaster facilities. The hub could be developed from an existing GP practice or other provider or new building.

Same site polyclinic – but retain separate practices
GP practices could come together under one roof, sharing many services but being run as different practices, perhaps linking with some other practices.

Same site polyclinic – GPs merge
GPs merge into one large practice, again linking with other practices that are not on the same site.

Source: Healthcare for London 2007

NHS London has suggested three different approaches for GP integration within the polyclinic model (*see* Figure 2, p 9). The merged model is closest to that described in the main body of the original report, but their subsequent consultation document suggests that models should reflect the local context and need.

> *The networked model could be suitable in parts of London where the population is relatively spread out. The same-site model would be more suitable where the population is concentrated and existing GP practices are too small or there are not enough doctors.*
> (NHS London 2007c, p 41)

In *Our NHS, Our Future* (Department of Health 2007c), the interim report for the national NHS next stage review, Lord Darzi uses the term 'health centre' rather than polyclinic, but recommends a model of care that is not dissimilar: '150 GP-led health centres… open 8am–8pm 7 days a week, offering a range of services to all members of the local population… and co-location with other community based services such as diagnostic, therapeutic, pharmacy and social care services'. (Department of Health 2007c, p 25).

The Operating Framework published by the Department of Health later that year confirmed that in 2008/9 'all PCTs will complete procurements… for new GP-led health centres' (Department of Health 2007d, p 14).

Professional bodies such as the Royal College of General Practitioners (RCGP) and the BMA remain somewhat antagonistic to the model, particularly if it were to be implemented universally (BMA 2007; RCGP 2007); as our review of the evidence suggests, there are good reasons to remain cautious. However, there is a compelling logic to the original Dawson vision that warrants further exploration.

3 The polyclinic model: experience from LIFT sites

We have identified 12 schemes developed through NHS LIFT (see Appendix 1 for the background and key elements of NHS LIFT) that fit a polyclinic-type model – that is, large, community-based health centres housing a variety of primary, community and secondary care professionals. As highlighted in Section 2, the NHS Plan (Department of Health 2000) sets out a target of achieving investment of more than £1 billion into primary care and community facilities via NHS LIFT. The Department of Health's aim was twofold: as well as the renewal of estate, it also sought to modernise care delivery. The stated ambition is for:

> *PCTs to invest in new premises, in new locations, not merely reproducing existing types of service… providing patients with modern integrated health services… The one-stop-shop principle is an important component of NHS LIFT – allowing patients to be treated in their locality in so called 'One-Stop-Centres' or primary care centres that are modern, convenient, easy to access and staffed by a wide range of health care professionals.*
> (Department of Health 2007a)

The first NHS LIFT scheme opened in November 2004. Since then schemes have been developed in a series of waves.

We are aware that many community hospitals also house a range of services that are akin to the polyclinic model. We chose to focus on schemes developed through LIFT because the ambition for the LIFT schemes is so closely aligned to that for polyclinics. The schemes also benefit from facilities that are fit for purpose, and the fact that they have been developed so recently should mean that services are at the cutting edge of service innovation. If anywhere were to demonstrate the benefits of the polyclinic model in England, it should in theory be evident in LIFT schemes.

Methodology

The research began with a documentary review of 93 operational LIFT schemes. From these, 12 schemes were identified that matched the polyclinic model most closely. Structured interviews were then conducted with 28 key stakeholders linked to the selected sites, including clinical staff and other people managing and working in the new facilities, as well as those commissioning services from each of them. Representatives from acute trusts that provide services within the facilities were also interviewed. Site visits to 3 of the 12 schemes provided an opportunity to speak more informally to a broader range of staff and see how the facilities were being used in practice. We did not speak direct to patients but sought feedback on patients' views from all those who were interviewed. Front-line staff were able to draw on direct experience in doing this. Three of the twelve schemes were able to cite feedback from patient surveys that they had undertaken.

TABLE 1: SUMMARY OF SERVICES IN 93 COMPLETED LIFT SCHEMES

Service description	Selected schemes (12)	Other schemes (81)
GP practices	Average two practices/scheme	Average two practices/scheme
GP out-of-hours services (%)	42	1
Walk-in centre/minor injury services (%)	33	2
Pharmacy (%)	42	31
Dental services (%)	92	26
Healthy living services (%) (most common – smoking cessation and diet advice)	83	25
Range of community health services	Average six different services/ scheme	Average three different services/scheme
Most common:		
Community nursing (%)	92	54
Baby clinics (%)	83	34
Podiatry	75	32
Audiology/speech and language therapy (%)	75	19
Family planning/sexual health (%)	75	15
Chronic disease management teams and supporting services (%)	83	5
Counselling/mental health services (%)	83	18
Services previously provided in hospital (eg, ENT outpatients or anticoagulation)	83	14
Diagnostics (at least one of phlebotomy , radiographs, ultrasonography or ECG)	75	11

Service content of the selected schemes

Table 1 provides an overview of the service content of the 93 schemes reviewed, broken down into the 12 that were researched in more depth and the remaining 81.

Summarised below are some of the key findings from interviews conducted with those involved in the 12 selected schemes. This research illuminates many of the issues that health communities will face as they develop and shift services into the community. We conclude with lessons learnt and recommendations for those implementing schemes in the future, as well as a brief overview of one scheme that we have identified as an example of good practice.

Benefits of NHS LIFT schemes

The benefit cited by nearly all respondents was the huge improvement in the quality of the environment for both service users and staff:

'... we feel like we have died and gone to heaven...'

'... facilities are a thousand times better...'

The facilities are often in marked contrast to the quality of the surgeries or community health centres occupied previously, which were variously described as 'falling apart', 'shitty old surgeries', 'old health centre was a tip'. Particular value was placed on the high quality of facilities in areas of high deprivation:

'... local people feel they are worth being invested in...'

'... it would make you proud to be a patient...'

These comments are not surprising given that much of the primary and community care 'estate' is substandard and not fit for purpose (*see* 'Discussion' p 41). However, the case studies bring out how important it is to address this. A high-quality, fit-for-purpose environment is valued greatly by staff and service users alike.

Three of the schemes have developed facilities jointly with the local authority and located health services alongside other services, including leisure and library facilities. Several respondents said they felt that this more 'normalised' environment was better for patients and also helped to encourage use by more hard-to-reach groups such as young people. Engagement with the local authority also seemed to result in services being put in more accessible town centre settings. This was seen as a big bonus for patients and as encouraging greater use of services – especially 'walk-in' centres.

The scale of the LIFT schemes allows service provision to target local health needs. Although this had not happened in all the schemes surveyed, for many it was a major driver; if they had not already targeted services in this way, they planned to. We found examples of centres targeted more towards younger or older people, as well as gearing of services towards specific chronic diseases.

Some schemes have also used a range of innovative partnerships to draw in extra resources for their developments, for example:

- leisure and recreation facilities, including money from Sport England
- council support services and information, including libraries
- SureStart and specialist children's services
- education
- affordable housing
- Single Regeneration Budget (SRB) funding.

Improving quality: delivering integrated and more personalised care

Although all the schemes reviewed had a broad range of services within them, including community and secondary care outreach services, only a few could be described as providing a one-stop-shop service in which patients avoided multiple visits because different elements of services were brought together around their needs. This can be diagnostics with outpatient assessment or different elements of community services that meet people's multiple needs. Services of this type are particularly important for people with chronic disease. For example, nine of the twelve schemes offer services for people with diabetes and variously offer access to related services such as diabetes screening, dietetics, expert patient support, outreach consultant, GP with a specialist interest (GPSI), specialist nurse, retinal screening and podiatry. However, in eight of the nine schemes,

only one or two of these related services were in place. Only one centre had aligned the retinopathy and podiatry clinics with its diabetes clinics to create a one-stop shop, at which diabetes patients could have their feet and eyes checked at the same time as their regular check-up.

The GPs and nurses interviewed noted that being in the same building as a service gave them a much better appreciation of what that service offered. This encouraged cross-referral between services. The opportunity to 'pop across the corridor' and seek informal advice about a patient was also seen to be very helpful.

However, many respondents described their 'disappointment' that the original vision of the benefits of service co-location had not been realised:

'... a gap between expectations and what is happening...'

'... had hoped that co-location would deliver a lot more than it has...'

'... the scheme is an enabler of innovation but only a few staff groups have grabbed the opportunity...'

'... only achieved co-location not integration...'

'... co-location much easier than co-working...'

Staff felt that most services were operating independently within these new facilities, commenting that 'it is difficult for staff to see the bigger picture'.

There were several examples of co-location failing to bring about integration or more seamless services. In one LIFT scheme, GPs were unable to make direct referrals to the consultant outreach clinic operating in the same building because the referral had to be made to the host hospital, which may or may not then offer patients an appointment at the LIFT scheme. The increased use of referral management schemes could make this type of situation more common. In the same LIFT scheme, the diagnostic services run through a private company were also problematic. The contract (which had been let for five years) required paper-based referrals to the company's headquarters several hundred miles away and radiological results (available digitally in the NHS) were also paper based. This meant that they had to be scanned into the GPs' computer systems, preventing access or analysis via an electronic database. The GPs were also unable to refer patients directly to the radiology facility. As a consequence some of the GPs were not using that facility in their building and instead referred patients to the local trust. In another scheme, a GPSI and the associated consultant visited the LIFT scheme on different days of the week, preventing their active co-operation and limiting the capacity of the consultant to provide support and supervision to the GPSI.

The degree to which GP services integrate with other services varies widely. Several centre managers felt that GPs were more concerned with their own practice-based issues than with the scheme as a whole. This is possibly not surprising given that most schemes have incorporated GP practices primarily as a means of renewing their practice facilities, rather than as part of a broader strategic shift and development of primary and community-based care. However, it underlines the need for a strategic vision and significant investment in management support for change if staff are expected to work together differently.

Interestingly, these findings resonate with the recent findings of a major review of LIFT schemes by the Commission for Architecture and the Built Environment.

> *The LIFT programme was devised to improve efficiency and introduce a more patient focused ethic by bringing services together… The new ways of working mean accepting space as a shared resource rather than as a series of designated territories… The change in culture and attitudes required to meet these aspirations does not automatically come with a new building… Attitudes to… sharing spaces and the positioning of spaces, appeared to be largely based on previous experience, rather than on envisaging new ways of working and new configurations of space in which these improved services could happen.*
> (Commission for Architecture and the Built Environment 2008, p 21)

There may also be a particular need to consider new governance and management structures. Should GPs be put in charge of a polyclinic or should polyclinics create a structure that recognises the different models of governance within them, while securing memoranda of understanding between the different service elements?

Overall, little formal investment seems to have been made to support joint working. In one scheme, housing more than 100 staff, provision had not been made for a communal area where staff could eat and meet informally. Although local centre managers, whose remit is primarily around facilities management, often made great efforts to encourage harmonious working, this did little to drive innovation and new patient pathways. Feedback from staff in one of the schemes that we visited suggested that, as the non-medical clinical staff within the schemes were at a relatively junior level, there was not the management presence needed to drive service change. Few of the 12 schemes were able to identify innovative services that had arisen since the facilities opened.

Only 3 of the 12 schemes had social care teams within them, and one of these was part of the children's centre within the scheme. Several schemes said that they had planned for social care to be part of the facility but that local authority partners had 'fallen by the wayside' during the planning process. One PCT we spoke to ascribed this to local authorities 'not having the revenue streams to support the LIFT overhead costs'. One factor that seems to determine local authority engagement is their ability to claim Private Finance Initiative (PFI) credits, which are available to local authorities in areas of 'designated need' and result in 90 per cent of their rent payments to NHS LIFT being reimbursed. Without these credits or other forms of subsidy, it appears very difficult to persuade local authorities to become tenants. We asked everyone to identify benefits from co-location but no one highlighted particular benefits accruing from the presence of social care. The opportunity that LIFT offers – to bring health and social care services together – appears to be another opportunity with benefits that are yet to be realised.

Many respondents identified the significant barrier that the lack of an integrated information technology (IT) system creates for joint working. The need for parallel data entry, depending on whether a patient is seeing a GP, member of the community services staff or hospital staff, and therefore an inability to see patient contacts in the round, were cited as creating particular problems.

More generally, there is an issue for many of the schemes over a lack of clarity about responsibility for their strategic development. In many PCTs it is unclear whether

leadership should come from commissioning, providing, primary care development or estates functions:

> *'... the project falls between estates management and the commissioning arm of the PCT, nobody owns it.'*

Aligned to this was a lack of clarity about who was responsible for overall clinical governance within the facilities – for example, developing a programme of clinical audit and quality assurance. Several schemes had undertaken ad hoc patient surveys but no one described any systematic clinical audit. This is in marked contrast to the situation in a hospital setting, where clinical governance structures are generally strong and assured through the regulatory framework.

Improving access: shifting care from hospital to community

None of the schemes has shown a significant shift of traditional outpatient care from hospital to the community. The largest movement of outpatient services that any of the PCTs interviewed could identify was around 10 per cent:

> *'We anticipated many more services coming out of secondary care...'*

> *'A disappointing number...'*

> *'Trusts supported the idea initially but then backtracked when it came to the transfer – I can understand their difficulty in managing a much more fragmented service.'*

Context is important. Many of the schemes that we surveyed have been developed in urban areas and are only a few miles from the neighbouring acute trust. Where the distances are greater, the case is more compelling for larger-scale shifts of services. One scheme was developed on a community hospital site with the nearest acute hospital more than a 30-minute drive on clear roads. They had a well-established portfolio of outpatient clinics which ensured that most outpatient services were delivered locally, but these were longstanding and had not shifted with the new development.

Feedback from local acute trusts suggested a number of issues lying behind the reluctance to move services. For some, the main barrier was financial. The Payment by Results tariff is perceived to be a relatively blunt financial instrument based on a case-mix measure (the Healthcare Resource Group – HRG) that inadequately takes account of variation in case complexity (that is, there can be significant cost variation between patients assigned to the same HRG). Trusts that lose routine (low-cost) cases can be left with complex (high-cost) cases, for which the tariff is insufficient to cover the hospital's actual costs. In some cases trusts have negotiated a full tariff for the activity that they carry out in LIFT schemes and are not making any financial contribution to the new facility, so the transfer is revenue neutral for the trust, but not for the health economy. It was expected that, over time, this position would not be sustained, and contributions would have to be made to support the new facility's overheads.

Associated with financial barriers and the degree to which they can be overcome is the less tangible dimension of trust between the commissioners and secondary care providers, and the degree to which they have a shared vision of the new model of care. The examples of well-integrated services we found sat in a broader context of strong joint working supported by strong leadership. The few PCTs that developed services jointly with

local authorities tended to have well-developed partnership working arrangements and good working relationships. Likewise, where health care provision was well integrated between primary and secondary care, there was a history of strong collaborative working between the PCT and local acute trusts, often going back many years.

An important barrier identified by some was lack of clinical engagement. A community site tends to be seen as 'less important' than a hospital site by consultant staff. However, one trust noted that where there are high levels of private practice, consultants can be keen to work more closely with GPs because this secures private referrals. There are also logistical barriers, especially in the absence of an electronic patient record.

In one area, the poor experience of trying to move secondary care services has resulted in the PCT abandoning the idea of bringing secondary care services into later LIFT schemes:

> *'In the latest scheme to be planned the focus is much more around the development of primary and community services given their recent growth.'*

In another area, the PCT has ceased trying to shift services because the development of an independent sector treatment centre (ISTC) locally has acted as a major draw to consultants and diagnostics and made further devolvement of care very difficult.

A third of the PCTs said that they expected practice-based commissioning (PBC) to be a growing force behind future shifts from secondary to primary care. The same proportion of PCTs was less certain and perceived practice-based commissioners as being more interested in re-providing services themselves. One of the GPs in a LIFT scheme, who was also involved in PBC, felt that practice-based commissioners were being inhibited by the growing bureaucracy around the governance framework for PBC.

The development of alternatives to secondary care by practice-based commissioners as opposed to shifting secondary care services could have a significant impact. In one area, the establishment by the practice-based commissioners of a GP referral assessment service supported by GPSIs and diagnostics has driven a 50 per cent reduction in cardiology and dermatology referrals to the acute trust in just two years. Diabetes referrals for a catchment population of several hundred thousand have fallen to 150 a year, suggesting a significant financial threat and case-mix shift for the trust, which expects to be left with fewer but much more complex cases that need ongoing follow-up, for which the current tariff would not give adequate compensation. If the tariff is adjusted to reflect the change in case-mix, there will be a consequent issue for community-based services, which would then lose funding.

An interesting dimension to the development of the new LIFT facilities is the opportunity that it gives to foster contestability by bringing together a number of providers within a single location and/or introducing tendering from a range of providers for services in that location. If a number of providers use the same facility, this enables genuine choice to be offered at a local level, not affected by access issues. So far, PCTs have found this difficult to achieve, however. There are a few examples of schemes that house several different secondary care providers, but currently they are each providing different services.

Consolidating primary care

A strong message from all 12 schemes was the difficulty that they faced encouraging GPs to relocate to the new facilities. Most schemes had planned for larger numbers of GPs than eventually relocated. Two schemes had failed to attract any GPs.

A number of factors were suggested for this lack of success in attracting GPs. Some PCTs said that it was because practice premises are 'a GP's pension scheme' – an asset that GPs can sell to release a large capital sum when they retire. Some PCTs and GPs cited the prospective loss of autonomy that a GP would face in a communal facility. Many PCTs cited anxiety among GPs that, if they moved away from their natural catchment area, they would lose significant numbers of patients. In fact, one practice stated that they had experienced 20 per cent growth in their list size in the 18 months since they had moved into the LIFT scheme. Although they had moved away from their natural catchment area, they were now in a much more accessible location that people passed through for other purposes. PCTs said that it was easier to attract GPs into LIFT schemes when existing premises were very poor.

As described earlier, general practices do not always seem to find it easy working with others. Centre managers often described GPs as their least happy tenants in the schemes, needing to be 'stars of their own show' or to 'keep themselves to themselves'. In all the schemes the individual practices have remained largely separate – with separate waiting areas, reception areas and support staff. Although this creates a more personalised service that patients and staff value, it undermines any economies of scale. The feedback also suggests that very little professional joint working occurs – for example, covering for each other or even joint audit activities. One GP felt that cultural differences between practices were often a barrier. The example given was of two practices in the same building, trying to work together more closely – for example, providing cross-cover and sharing administrative support – but failing despite investment in team building. The GP felt that cultural differences lay at the heart of this failure.

As referred to earlier, there is enthusiasm among PCTs to use these larger community facilities as hubs for elements of primary care activity. Many are already using them as bases for out-of-hours services, and several plan to use them to offer the extended-hours services now required at evenings and weekends.

Cost-effectiveness of LIFT schemes

None of the schemes has undertaken a full economic evaluation of the new facilities, and none felt that they could, so far, demonstrate either savings or improvements in cost-effectiveness. Most PCTs and trusts we spoke to felt that at present the schemes are driving up costs. One respondent said that it was 'absolute rubbish' to suggest that shifting services into the community would save money.

LIFT itself was perceived to be expensive for a number of reasons:

- Feedback from PCTs suggests that, in the early stages of LIFT, they lacked the skills to maximise the value for money from schemes: 'Early LIFT schemes did not think through the service specification, and were poorly managed; as we lacked the relevant expertise, this led to over-design and redesign.'

- The retention of the asset by the building developer and maintainer, the LIFT company (*see* Appendix 1 for details), tends to produce highly specified buildings with high capital costs and high maintenance charges.

In general the hope was that as new ways of working developed, the higher capital and running costs could be offset by the financial and non-financial benefits of the improved service model, especially if a significant change in skill-mix could be achieved.

One great concern has been under-utilised space, especially given the comparatively high rental cost per square metre. Several respondents said that it was double an equivalent commercial rent in their locality. A number of reasons were given for poor utilisation.

- Schemes being developed because there was a political imperative to have a LIFT scheme in their area rather than to meet a local need. This was reported by PCTs in a third of the schemes in the report. This is clearly a real risk for the prospective development of polyclinics, which all too easily could become a political imperative in their own right.
- Most schemes had experienced prospective tenants dropping out of the scheme during planning processes that were sometimes prolonged, which left unfilled space at the outset. A consequence of this was that in some instances, facilities ended up with an incoherent mix of services. We found one instance of joint working being undermined because only one element of a service had been put into a facility, leaving other elements at another location.
- Using the facilities to provide office and record storage space for community nursing staff, who use their offices for only short periods of the day. Several interviewees said that community nurses should be moving towards an entirely peripatetic model supported by new technology.
- Minor operations suites that have been under-utilised by GPs. Some said that this was a result of an uneven demand during the week, with most GPs wanting access on Wednesday afternoons and leaving the suite unused for the rest of the week.
- Other dedicated suites (for example, diagnostic suites) being run for only one or two sessions a week.

The drive to avoid a 'white elephant' has led several PCTs to subsidise tenants' rents in order to persuade them to join the facility (such as the example above of a trust being paid the full tariff for its activity in a scheme, but contributing nothing to the overhead costs of the scheme). There were several examples of local authority and voluntary groups having their rent partly or wholly subsidised.

Many interviewees referred to the high service charges associated with LIFT schemes, confirming the poor value for money described recently by the National Audit Office (2008) report. In addition to concern about the high costs, there was considerable frustration over the length of time that making any changes could take and the associated paperwork. Many quoted 16 weeks as the time it would take to make any changes, although this did vary between schemes. Against this, several argued that a building that was maintained to a high standard makes a refreshing change compared with the traditional NHS experience of buildings becoming very dilapidated in relatively short periods of time as a result of the appropriate investment not being made in maintenance.

Lessons learnt for future implementation

Planning

Many of the people we interviewed were involved in LIFT schemes that were developed as part of the early waves of the initiative and so were planned during the period 2001–4. Most PCTs interviewed said that they had already learnt from this experience and were planning future schemes under LIFT differently. There was universal acknowledgement that for schemes to succeed, significant investment of time and effort into their planning is needed:

> *'… be really clear about what you want these places to deliver.'*

Most PCTs recognised that this needs to go beyond the facility design and include investment in developing new processes and multidisciplinary team working. One PCT highlighted the tension that they felt between their role as commissioner and that as 'change manager'. Polyclinic development brings into sharp relief the confusion that is still evident in some PCTs about whether they are a commissioner or provider when developing community-based services. Some respondents have recognised the need to distance themselves from the provider role and develop services through a process of competitive tendering, although others still feel a sense of 'ownership' of community-based services.

The overall planning and development timeframes seem to vary widely. Some schemes were in place in under two years, others had taken up to five years. Several had been thrown off course by PCT reorganisation in the middle of the planning process. The loss of organisational history created problems and delays, and meant that the scheme became a building project rather than a strategic development.

There were some positive examples of how PCTs had worked with local communities to design schemes and plan the services that should go into them. These PCTs have continued to engage with local people to help shape their facility's future development. Several schemes are adorned by art works produced by the local community, which they feel give them a strong sense of community ownership.

Location

Several schemes have been developed in central locations with good transport links. Everyone associated with these schemes highlighted the benefits for patients and staff of doing this. It is felt to be especially important in the context of local authority restrictions on car parking spaces – almost every scheme identified these as posing real problems for patients and staff. Many staff could not access car parking and many patients also had to park in the street or, if there were local parking restrictions, park some distance from the scheme.

The schemes that have been developed opportunistically on existing health sites not well served by public transport reported regretting this choice of location.

Facility design

The key appears to be to design flexibility into facilities from the start. Health care is changing rapidly, and many people in the sector recognise that services will need to change significantly over the life cycle of their building. One scheme said that they had

designed their facility so that the walls could be moved, allowing for different space allocations. They are already taking advantage of this as they accommodate new services.

Good practice exemplars

It would be inappropriate to suggest some sort of blueprint or menu for services that should be provided in a polyclinic-type facility. Much of the merit of schemes of this scale is their capacity to adapt and respond to local needs. However, we found some common themes around the types of services that had flourished in the LIFT developments and those that had not. Many used the term 'community hub' as the most beneficial role for services in this setting. Most positive feedback was given on community hubs for:

- open access diagnostics (from GP referral)
- integrated chronic disease management
- integrated older people's services
- integrated out-of-hours services.

There was one example of a renal dialysis unit being part of the service portfolio. The high-quality environment and local access were much valued by some of the most intensive users of NHS services. Feedback from Partnerships for Health suggests that dialysis services have been highly valued in other LIFT developments. One user commented: 'It has enabled me to get my life back.'

There was no strong feedback on the benefits of integrating mental health services in these settings, although there is a body of professional opinion that supports mental health service provision in a more normalised environment. Several schemes had built on an original concept as a children's centre and had a broad range of children's services including mental health, education and social service provision. Although there are clear benefits from this co-location, there was no strong feedback to suggest that these were particularly valued elements of a broader-based scheme.

Looking to the future, some saw community hubs or polyclinics incorporating space to house mobile facilities, for example, mobile MRI (magnetic resonance imaging) machines or cataract surgical suites. This could further extend the range of services on offer, and be particularly beneficial in more rural settings.

One scheme, Litherland Town Hall Health Centre (*see* box), stood out in terms of the strength of support that it had from those using it, commissioning services from or providing outreach services to it. It has many of the key service elements listed above, but it is also distinguished by its development having been underpinned locally by strong partnership arrangements and a shared strategic vision.

Conclusions from the NHS LIFT experience

The LIFT schemes provide rich exemplars of the opportunities and risks within out-of-hospital care – the opportunities to provide accessible, patient-focused care within a high-quality environment, versus the risks of fragmented, dislocated care that is more costly.

A number of things will need to happen if these opportunities are to be grasped.

- PCTs need to set out clear specifications of what must be provided and the governance

LITHERLAND TOWN HALL HEALTH CENTRE

Overview

£5.2 million development opened in September 2005. Liverpool and Sefton Health Partnership worked with Sefton PCT to create a centre that responds to the health needs of the community. The centre acts as the hub of locally based health and social care services. It serves a population of approximately 185,000.

Healthy living facilities

- Dietary advice and smoking cessation service

Primary care services

- One GP practice with scope to incorporate additional GPs in the future
- One private dental practice and PCT out-of-hours dental service

Integrated urgent care services

- A nurse-led walk-in treatment service open from 8.00am to 8.00pm Monday to Friday and from 9.00am to 6.00pm at weekends. Uses computer-supported decision-making and nurse prescribing
- Acts as a base for all out-of-hours services including GP, district nursing, community matrons, pharmacy and dental services. Pharmacy offers extended advice and support out of hours – this was reported to be very beneficial for managing people with chronic diseases

Community services

- Nurse-led clinics, eg, wound-dressing service

Chronic disease management

- Cardiac service, including heart failure
- Diabetes service with range of multidisciplinary support – for which the centre has become established as a local centre of excellence
- COPD (chronic obstructive pulmonary disease) team, including spirometry
- Staff report benefits for patients – particularly those with co-morbidities – from being able to easily refer to and seek advice from specialists in other chronic diseases, and the smoking cessation service

Intermediate tier and secondary care services

- Diagnostic services including direct access phlebotomy and digital radiology facility staffed by radiographers from the acute trust – this facility was described as indispensable by staff from the walk-in centre
- Geriatrician providing two to three clinics per week with rapid assessment after falls
- Musculoskeletal service providing referral assessment

Other

- A dedicated community space to host a range of health-related community activities

structures to underpin that provision. These specifications should be assessed by strategic health authorities (SHAs) to ensure that the PCT is not merely responding to a 'political imperative' but robustly delivering on the more fundamental policy ambitions of better integrated and patient-focused care.

- Partnerships at a service level within a polyclinic will need ongoing support at a senior strategic level, both from any overarching provider organisation and from local commissioners.
- Significant investment in change management and pathway redesign will be required and commissioners will need to recognise this in the financial support that they give to development of these schemes.
- Services should be aligned to local health needs, recognising the demographic and disease profile of the local population.
- Opportunities for strong community engagement should be grasped, ensuring that service users and local stakeholders have a strong voice in the design and ongoing development of any scheme.
- Facilities that are not accessible by foot to all those using them should be sited as far as possible in central locations with good transport links.
- Flexibility must be a key consideration in building design from the start to enable adaptation to changing needs.
- Any development should be underpinned by services that have been put out to tender, with contracts that specify the integrated services needed, together with a full benefits realisation programme outlining the desired benefits, outcomes and objectives of the scheme, including quality, access and cost, and outlining how these benefits will be achieved and evaluated.

4 International experience

International use of polyclinics serves as a source of inspiration for policy-makers in England. The examples of the Polikum at Friednau in Berlin and Westchester Medical Centre in New York are often cited (NHS London 2007a) (*see* boxes p 26 and p 27). We have been unable to find any systematic evaluations of polyclinic models adopted in other countries, and have identified a number of contextual differences that may limit transferability. Caution must therefore be exercised in basing policy in this area on international experience. Some literature was identified raising issues that were pertinent to the goals of English health policy – for example, delivering integrated care. This section aims to highlight these issues, rather than provide a comprehensive review.

There are facilities based on the co-located polyclinic model in many settings, including several former socialist states and countries that were heavily influenced by the former USSR (for example, Finland). Soviet polyclinics were criticised by western commentators and health consultants in the post-Soviet era (*see* below), and many eastern European countries have moved away from this model and towards decentralised, pluralistic general practice on a market model. However, more recently several western countries have taken an interest in the model, including Germany, Northern Ireland, Canada and the USA.

Polyclinic models in other countries

The polyclinic model appears in different forms in each country. In Cuba, the emphasis of polyclinics has always been public health and primary care, with a strong focus on epidemiological surveillance, prevention and community participation (Diaz Novas and Fernandez Sacasas 1989). In Northern Ireland, new community care and treatment centres (CCTCs) give a high level of prominence to social care services, housed alongside health services. Finnish health centres also focus on primary and community care and have relatively few specialists because of the low status attached to working in this setting (Ettelt *et al* 2006). In contrast, the German, American and Russian polyclinics are dominated by specialists. In the two examples of the Polikum and Westchester Medical Group, described on pages 26 and 27, the majority of the employees are doctors, and 80 per cent of these are specialists.

Polyclinics also vary within countries. In Russia, there is a planned hierarchy of clinics, with those serving a wider catchment area providing more specialist services, and some clinics specialising in certain disciplines – for example, obstetrics and gynaecology (Tragakes and Lessof 2003). In the former East Germany, redevelopment of socialist-era polyclinics (now renamed Medizinische Versorgungszentrum, or MVZ) since 2004 has been opportunistic, with a variation in what each polyclinic provides. In Finland, some health centres use a co-located model, whereas others are distributed across several sites (Jarvelin 2003).

Accepting this variability, polyclinics across the countries studied typically contain some or all of the following elements:

- general practice services
- diagnostics
- devolved outpatient services
- community health/social care services
- minor surgery
- other primary care services (dentistry, optometry, pharmacy)
- mental health services.

We include below two case studies that have been used by English policy-makers as exemplars of how polyclinics could improve the quality of patient care. We include them to illuminate not only the model of care but also the policy aspirations for polyclinics. Both were cited within the *Healthcare for London* (NHS London 2007a) work and the Westchester presentation was made at the clinical summit in December 2007 for *Our NHS, Our Future* (Department of Health 2007c).

THE POLIKUM MODEL – FRIEDNAU, BERLIN

Workforce and patient numbers

- Currently, 50 physicians (45 full-time licences) – 36 specialists covering 19 specialties and 14 GPs
- Medical staff numbers grown rapidly from a base of 16 in 2005
- Largest polyclinic in Germany
- Supporting 10,000 patients – numbers expected to grow

Facilities

- 3,200 sq metres growing to 4,700 sq metres
- Pharmacy and medical supplies
- Imaging services

Distinctive quality features

- Well-developed use of IT to streamline processes and underpin quality of clinical care – including electronic patient record
- Use of internet-based guidelines for clinical staff
- Significant investment in time and resources for teamwork and quality improvement initiatives

Benefits for patients as identified by the clinic

- Complete care – every specialty at any time
- High-quality, pleasant atmosphere
- Physicians working as a team
- Quick appointments
- Short waiting times

Source: Kewenig (2008)

THE WESTCHESTER MEDICAL GROUP

Workforce numbers

- Currently, 125 physicians – more than 20 specialties
- 2/3 growth from consolidating small practices
- GP and obstetrics – about 20 consultants, both full- and part-time

Facilities

- Urgent care 9.00am–9.00pm weekdays, 9.00am–5.00pm weekends
- 2 clinics 8,000 sq metres and 6,000 sq metres + 6 small satellite offices
- On-site laboratory for collection and routine testing
- Imaging services, including CT, MRI and ultrasound

Distinctive quality features

- Advanced IT systems – paperless practice, electronic physician interactions, web-based access for patients to physicians and parts of their electronic records
- Workflow redesign – Use of Six Sigma/Lean
- Staff paid quality bonuses
- Staff express very high rates of satisfaction

Benefits for patients – as identified by the clinic

- GP, consultant and imaging visits same day, in same location
- Rapid outpatient management of common conditions
- Routine lab drawn just before visit with results available within 45 minutes
- X-ray and imaging reports available within 15–20 minutes
- Same-day surgical and endoscopic procedures

Source: Compiled from material in presentation made by Simeon Schwartz (Schwartz 2008)

Both case studies provide examples of clinics making considerable investment of time and resources to support teamworking and quality improvement. New technologies have been exploited in both instances to deliver more integrated and patient-focused care. Patients are offered rapid assessment and often resolution of their health care problems by the relevant medical specialist. The model of care and professional approach is highly attractive. However, contextual differences, in particular the degree of specialist input, may limit the transferability of the models.

Key differences between the traditional pattern of care in Germany and England suggest that establishing polyclinics in England would not necessarily deliver the same benefits as some have found in Germany.

- The size of the medical workforce is much greater in Germany, with a greater proportion of specialists to GPs.
- The majority of specialists working within the community have no competing commitments to support hospital-based care. Until 2004, outpatient services in Germany were delivered solely by office-based doctors in the community. Hospitals were restricted from providing outpatient care (Rau 2007).

- There was considerable concern about the proportion of office-based specialists that were working in single-handed or small practices, in relative clinical isolation (Organisation for Economic Co-operation and Development 2007).
- Historically, patients could access office-based specialists direct, without needing to be referred by a GP.

Taken together, these contextual differences mean there was a markedly different rationale for re-introducing the polyclinic model in Germany. The starting point was a system in which outpatient care was provided by office-based specialists whom patients could access directly. There was little integration of care, and there were concerns about supplier-induced demand following from the lack of GP gate-keeping (Ettelt *et al* 2006). The task of establishing polyclinics has involved aggregating these dispersed specialists into common premises. In England, it would involve the opposite movement – taking specialists currently co-located in hospital and disaggregating them into community settings.

In the Polikum in Berlin, the staff/patient ratios are significantly better than the average in England. The data provided by the polyclinic (Kewenig 2008) suggest that it has twice as many primary care physicians per patient as the average general practice in England. The number of consultants is also proportionately many times that available on average in England, especially if one takes account of competing commitments to inpatients. Workforce limitations mean that developing polyclinics on the Polikum model may not be feasible in England.

Learning

Although contextual differences mean that international comparisons should be used with caution, it is informative to consider some of the challenges encountered by those countries in which the polyclinic model has been implemented for some time.

Bringing professions together under one roof has not always been enough to lead to integrated care. Cuba found this to be an early problem, and introduced joint consultations to promote multi-professional working. Lack of integration between polyclinics and hospitals has been a further problem identified in Cuba (Diaz Novas and Fernandez Sacasas 1989), Russia (Sheiman 1996) and Finland (Ettelt *et al* 2006). Cuba tackled this by obliging family doctors to perform shifts in hospital and to visit their patients while in hospital. In Finland, a system of e-consultation now allows GPs to receive advice and recommendations from hospital-based specialists within one or two days.

Lack of personal continuity of care has been identified as a problem if patients are not registered with a specific doctor within polyclinics. This was perceived to be a major disadvantage of the polyclinic systems operating in the Soviet bloc countries – for example, in former Czechoslovakia (Gibbons 1993). In Finland, the 'population responsibility principle', under which a doctor retains responsibility for all patients within a defined area, was introduced to overcome this problem (Jarvelin 2003).

It is perceived that professional motivation and development have been threatened by working arrangements in polyclinics. In Russia, degradation of specialists' skills as a result of limited peer contact was identified by western commentators as a key problem in Soviet-era polyclinics (Vlassov 2007). In Cuba, limited opportunities for teaching and research

were thought to underlie poor motivation. This was tackled by developing strong teaching and research functions within polyclinics, and encouraging university professors to participate in services provided by clinics (Diaz Novas and Fernandez Sacasas 1989). The Finnish Ministry of Social Affairs and Health has expressed similar concern about the adequacy of support for research within health centres (Makela 2005).

Soviet polyclinics were also criticised for encouraging over-use of specialist care, and thereby increasing costs and leading to care being delivered in a fragmented way (Vlassov 2007).

A final problem associated with some polyclinic systems is a lack of patient choice. In Finland, patients are not allowed free choice of either a polyclinic or the doctor working within a polyclinic (Jarvelin 2003). Although this would not necessarily be the case in England, concentrating general practices within a smaller number of polyclinics could clearly restrict patient choice in terms of the locations in which they receive primary care and the teams involved in delivering it.

Conclusions from the international experience

This section has used international experience to provide insight into the use of the polyclinic model in practice. We have not attempted to review the international experience systematically. Nevertheless, this section has identified several important points.

- Caution needs to be exercised in basing policy on international experience. There is a lack of rigorous evaluations of polyclinics in other countries. Furthermore, contextual differences are important. Polyclinics have been introduced in various forms, for a variety of reasons, in settings which differ from England in a number of potentially important ways.
- Co-location of professionals is not sufficient to guarantee integrated care. Barriers may remain between professionals housed in the same polyclinic, and between polyclinics and hospitals. Attention needs to be paid to how these barriers might be overcome, to enable multi-professional working and truly integrated care.
- Moving specialists from hospitals to community settings may pose risks to professional development and motivation. This must be avoided if polyclinics are to provide high-quality care. It may be useful to consider ways of enabling specialists in polyclinics to be involved in education and research.
- Attention should be paid to the issues of patient choice and continuity of care, and how these are to be safeguarded within a polyclinic-based system.

5 Evidence from the literature

As noted in the two previous sections, health facilities fitting the co-located polyclinic model have existed for some years in England and abroad, yet we have not been able to identify any published evaluations on the impact of this particular service configuration on the delivery of services.

However, two of the core components of the model focused on in this report – shifting some specialist services from hospital to community settings and the consolidation of primary care services into larger aggregations – have precedents within the NHS that have received attention from researchers. Relevant evidence on the consequences of such changes for service quality, access and cost was identified by searching a number of bibliographical databases (Department of Health-Data, Embase, King's Fund, Medline, ASSIA, HMIC) for peer-reviewed and grey literature published since 1990. We also drew upon the Department of Health-commissioned evaluation of the 'Care closer to home' pilots, which were set up following recommendations in *Our Health, Our Care, Our Say* (Department of Health 2006).

Shifting specialist services out of hospitals

This section reviews relevant literature to assess the strength of the evidence base for moving selected hospital-located services into community settings. We include outpatient, first and follow-up appointments, elective and emergency minor surgery, urgent care services and diagnostics. We also review evidence regarding the impacts that this shift may have on chronic disease management. Table 2 (*see* overleaf) provides a summary of implications for access, clinical quality and cost within each of these clinical areas. Although there are some potential gains in terms of access, this cannot be taken for granted. There are serious concerns about cost, and in some cases there are also risks to quality.

Quality

With respect to clinical quality the evidence suggests that although some services may be shifted out of hospitals without detrimental consequences, there are some services, notably minor surgery, where the change in location may carry risks.

There is some evidence to suggest that in each of the following services, community-based care is of a comparable quality to hospital-based equivalents:

- outpatient clinics provided by consultants in primary care settings (Powell 2002)
- outpatient services delivered by GPSIs in dermatology (Rosen *et al* 2005; Salisbury *et al* 2005), GPSIs in orthopaedics (Baker *et al* 2005), GPs delivering cancer routine follow-up (Grunfeld *et al* 1999a, 1999b), and GPs delivering post-surgical follow-up appointments (Atherton *et al* 1999)

TABLE 2: SUMMARY OF RESEARCH EVIDENCE

	Quality	Access	Cost	Summary
Outpatient services performed by hospital specialists	= Equivalent outcomes	+/= Travelling distances decreased, but unpredictable effects on waiting times	X Higher costs and lower patient throughput	Equal quality Access may be improved but this is not guaranteed Higher costs
Outpatient services performed by GPs	=/? Limited existing evidence suggests equivalent outcomes	+/= As above	X/? Existing studies suggest higher costs	As above, although evidence base is limited to a few specialties
Diagnostic services	=/? Limited evidence base suggests comparable quality	+/? Some evidence for shorter waits, especially if coupled with direct access	=/? One study found that costs were roughly equivalent	Similar quality and costs Access may be improved, especially with direct access
Urgent care services	? Quality in nurse-led minor injury units (MIUs) slightly lower but not unsafe. No evidence on doctor-led	+/= Shorter waits in MIUs compared with A&E, but no effect on A&E waiting times	X One study suggests higher costs. MIUs may serve to stimulate new demand	Quality may be lower than hospital but still safe Access may be improved Costs of MIUs may be higher
Minor surgery performed by GPs	=/X/? Equivalent in dermatology but poorer quality in removal of lesions	+ Lower journey distances	?/X Little evidence comparing costs directly	Some threats to quality – more research needed Access is improved More research needed on costs
Chronic disease management performed by community-based, multidisciplinary teams	+/? May be improved through integrated working/ multidisciplinary teams, but evidence is not consistent	? No evidence found	+/? Evidence of reduced resource use in the case of heart failure	Quality may be improved and costs reduced, but the evidence is not directly related to the polyclinic model

+, positive change; X, negative change; =, stays the same; ?, absence of evidence.

- chronic disease management – provided that practices establish disease registers and implement evidence-based guidelines (Roland *et al* 2006)
- diagnostic testing – for example, ultrasonography delivered by a radiographer (Pallan *et al* 2005).

There is, however, variation in the strength of the evidence base for these services and a limited number of specialties for which there is any evidence. For example, the assessment of diagnostic testing was based on an evaluation of one example of a service, whereas evidence on the quality of GPSI-delivered minor orthopaedic and dermatology services comprises randomised controlled trials (RCTs) and reviews of a number of service examples. Findings in one specialty will not necessarily translate into others.

In addition, there is evidence from a recent review of studies to suggest that primary care practitioners may be less adept at performing certain forms of minor surgery, such as surgical excisions to remove lesions (Roland *et al* 2006). Furthermore, reports from nurses involved in the 'closer to home' demonstration sites of feeling under-trained for new roles are a cause for concern (National Primary Care Research and Development Centre and Health Economics Facility 2007).

A key argument for moving services out of hospital and into community settings is that it would allow primary and secondary services to be better integrated, thereby increasing the quality of care, particularly for those with chronic diseases. A wide-ranging literature review on improving chronic care found some evidence, albeit inconsistent, that models of care involving close collaboration and joint responsibility between primary and secondary care professionals delivered better outcomes than the usual care (Singh 2005). For example, a Cochrane review of five RCTs found that collaborative GP and hospital care for diabetes led to better attendance and glycaemic control than hospital care alone, provided that GPs were well supported – for example, using computerised prompting systems (Griffin and Kinmonth 2004). However, the studies cited by Singh (2005) focus on examples of integrated care where the primary and secondary care professionals involved remained based in different locations (the GP practice and the hospital). Hence, although the evidence reviewed gives tentative support to the notion that integration of primary and secondary services could improve the quality of chronic disease management, it says little about the role of co-location in enabling this.

Related to this, shifting services could potentially improve quality by enabling the development of multidisciplinary, community-based management of chronic disease, as advocated by models such as Wagner's chronic care model (Wagner 1998). The literature review cited above found conflicting evidence on the impact of multidisciplinary teams on the quality of chronic disease management (Singh 2005). For example, a systematic review of 35 trials found that community-based, multidisciplinary teams in rheumatoid arthritis achieved better short-term outcomes than usual outpatient care (Vliet Vlieland and Hazes 1997). In contrast, a randomised trial found no significant differences in clinical outcomes among community-based multidisciplinary teams (Donnelly *et al* 2004). Hence the evidence in this area is suggestive rather than compelling.

Access

The accessibility of services is influenced by a range of factors, including: waiting times; distance and time required to travel to a service; the availability of public transport; the mobility of service users; and costs associated with travel. Furthermore, access may be more important for patients with long-term conditions and those requiring intense treatment programmes than for people who use services rarely and require only a single episode of care.

Moving some hospital services into community settings would make them more accessible to many in terms of reducing the distance that people have to travel to reach the service, which would be particularly beneficial for those living in rural areas. The impact would be less significant for those living in urban areas (86 per cent of the population), where travelling times to hospitals are generally not prohibitively high – with half living within 30 minutes of a hospital by foot or public transport (Department for Transport 2007).

The impact of moving services into the community on waiting times is difficult to predict, however. Competing factors mean that it could result in an increase, a decrease or, more likely, a variable effect across different services.

On the one hand, shifting services into community settings may increase waiting times as a result of the effects of splitting one large waiting list into several smaller ones. A major cause of waiting is the mismatch between variation in capacity and variation in demand (Silvester *et al* 2004). Splitting services into smaller units would increase both these types of variation, and hence the potential for long waiting lists to develop at one facility while another operates below capacity. For example, variation in capacity caused by staff illness would have a greater impact on waiting times in smaller units with less scope for remaining staff to provide cover. Resources are therefore utilised more efficiently when waiting lists are pooled (NHS Institute for Innovation and Improvement 2005). This would be more challenging to organise as services are split up into the community. On the other hand, shifting services into the community may decrease waiting times by facilitating and simplifying interactions between primary and secondary care. This is especially true in the case of direct access services – for example, diagnostic services to which GPs can refer patients directly without the patient having to see a hospital specialist first. Evaluations of direct access to both a gastroscopy service (Bramble *et al* 1993) and a urinary tract imaging service for children (Polmear *et al* 1999) found reduced waiting times for patients. However, this model requires a change to the patient pathway rather than to the organisational infrastructure; the study of Polmear *et al* involved GPs referring directly to diagnostic services in the existing hospital setting.

There is evidence from a systematic review that waiting times are shorter for community-based outreach outpatient clinics (Powell 2002) – a finding corroborated by an evaluation of the government-initiated 'Care closer to home' demonstration sites (National Primary Care Research and Development Centre and Health Economics Facility 2007). Waits were also found to be shorter in an evaluation of a community-based ultrasound service (Pallan *et al* 2005) and in two studies of minor injury units (Sakr *et al* 2003; Snooks *et al* 2004) – all of which could potentially be housed within a polyclinic. These studies were all restricted to evaluations of a single service. A slightly larger-scale study, which involved a survey of GPs, patients and consultants involved in six outreach clinics, compared with hospital-based outpatient clinics, reported shorter waits in one specialty (dermatology) but not another (orthopaedics) (Black *et al* 1997). Advantages may in large part be a product of services being new and supplementary rather than substituting for existing services – for example, most of the 30 'Care closer to home' demonstration sites were established as additions to existing hospital services (National Primary Care Research and Development Centre and Health Economics Facility 2007). There is now a developing body of evidence from studies in England and Spain to suggest that the presence of community-based minor injury units (MIUs) and walk-in centres has no effect on levels of A&E attendance (Chalder *et al* 2003; Hsu *et al* 2003; Oterino de la Fuente *et al* 2007).

Costs and cost-effectiveness

With respect to costs there is little evidence that moving hospital services to community settings would be cheaper. Indeed, there are grounds to expect a decrease in cost-effectiveness, as a result of a number of factors, including:

- higher staff costs in some cases – for example, GPSIs or consultants versus registrar-grade doctors

- lower throughput
- stimulation of additional activity.

There is a large volume of evidence supporting the claim that relocation of services results in increased costs. For example, two systematic reviews of studies on community-based outreach clinics staffed by consultants both concluded that these have higher costs than their hospital-based counterparts, sometimes significantly higher (Powell 2002; Gruen *et al* 2003). This is attributed to the costs of consultants' time spent travelling, and the fact that outreach clinics may not be able to make use of registrar-grade doctors. There is also evidence of lower throughput in outreach clinics (Gruen *et al* 2003). Similarly, services in which primary care staff are used to perform work previously conducted by hospital staff can prove more expensive, particularly in the wake of the 2004 GMS (General Medical Services) contract. For example, dermatology services provided by GPSIs have consistently been found to be more costly per patient than hospital-based care (Coast *et al* 2005; Rosen *et al* 2005). Rosen *et al* attributed this to a combination of lower patient throughput and higher salary costs associated with the GPSI service.

Following the recommendations in *Our Health, Our Care, Our Say* (Department of Health 2006), the government set up a series of pilot schemes in which hospital care was provided in community settings. An independent economic evaluation of six of the schemes found that the costs of treatment were lower than the equivalent secondary care reference cost. However, as reference costs are adjusted for case-mix and the pilot outreach schemes were treating the least complex cases, the authors concluded that they could not say with confidence whether it was more or less expensive to treat these patients in community settings (NPCRDC and Health Economics Facility 2007).

There is a possibility that by making services more accessible, the shift into the community may stimulate increased activity, either through meeting previously unmet demand or by lowering referral thresholds. For example, there is evidence from several studies, including two RCTs, that devolved outpatient services (Sanderson 2002; Duckett and Casserly 2003; Maddison *et al* 2004) and minor surgery (Lowy 1993; Pockney *et al* 2004; Rosen *et al* 2005) performed by GPSIs does not replace care in hospitals, but supplements it. Similarly, analysis of activity data in local health economies with MIUs, walk-in centres and their equivalents has found that the presence of the centres does not reduce demand for A&E services (Chalder *et al* 2003; Hsu *et al* 2003; Oterino de la Fuente *et al* 2007), meaning that their cost should be considered as an addition to existing service costs, and not as a replacement to part of the cost of A&E services.

The model used for new, community-based services is an important determinant of the impact on hospital activity, and therefore on the overall cost-effectiveness of the system. A major review of 119 studies (Sibbald *et al* 2007) found that strategies involving relocating specialists into community settings with no substitution of the professionals involved do not tend to be effective in reducing hospital activity, and are to be recommended only in settings with poor physical access to secondary care services (for example, remote rural areas). In contrast, strategies involving transfer of services to primary care by substituting hospital practitioners for primary care practitioners (for example, GPSIs) can be more effective in reducing hospital activity. The review drew the following conclusion:

> *A general expectation is that community care will be cheaper than hospital care because of lower salary costs and reduced overheads. However, the available research suggests*

> *that this expectation is not always met… There is, therefore, reason to suppose that shifting care from hospital to the community might increase overall NHS costs.*
> (Sibbald *et al* 2007, p 116)

There is an argument that moving specialist services into the community will enable a more integrated approach towards patients with long-term conditions, and that this will deliver cost savings – for example, by reducing unplanned hospital admission. There is some evidence to suggest that multidisciplinary, community-based, chronic disease management may be successful in doing this. Singh (2005) reviews evidence from several systematic reviews and RCTs, most of which found that multidisciplinary programmes (largely concerning heart failure) reduced admission to hospital and were cost-effective relative to usual care. However, this evidence is relevant here only to the extent that co-located polyclinics can serve to support these ways of working – itself a contested point.

Conclusions on shifting care out of hospital

This section has reviewed the literature relating to the movement of outpatient care and other selected services from hospital into community settings. This is a key policy ambition, with the aims of improving access and reducing costs. Our analysis suggests that although such a shift would reduce journey times for many (although not all) people, there is little published evidence to suggest that the reconfigured system would make substantial savings. Indeed, the evidence suggests that in some cases costs may be increased. In particular, approaches involving the relocation of services from secondary to primary care settings without more fundamental redesign of services or care pathways are likely to stimulate additional demand without reducing hospital activity levels. In such cases, overall costs will almost inevitably rise.

Shifting specialist services into the community clearly presents opportunities for improving access. These gains cannot be taken for granted, however. Although average journey times could be expected to fall, access in terms of waiting times could deteriorate in some cases as a result of the inefficiencies associated with splitting one large waiting list into several smaller ones. Waiting times may be reduced by establishing direct access systems – for example, to diagnostics, but again, this is more a question of service redesign than relocation as such.

The evidence on the quality of community-based services supports consultant-provided outreach clinics and GPSI services in orthopaedics and dermatology. However, research also warns that minor surgery performed by GPs may not always be of a comparable quality to hospital-based surgery. Evidence for other types of treatment is lacking. There are therefore grounds for caution in untested specialties and a need for close monitoring of the quality of any services moved into the community.

In the case of long-term conditions, there is evidence that more integrated models of care have the potential to improve outcomes and decrease costs – for example, with more collaborative working between primary and secondary care professionals and multidisciplinary, community-based teamworking. However, the evidence suggests that shifting secondary care professionals into co-located community facilities may be neither necessary nor sufficient to develop this.

Consolidating primary care

An important aspect of some forms of the polyclinic model is the aggregation of GPs into larger health centres. Here, the evidence suggests that larger practices have some benefits (in terms of organisational factors and management of long-term conditions) and some drawbacks (in terms of access and, potentially, continuity and personal care). Given this, there is merit in allowing practice sizes to be determined at a local level, rather than seeking a universal optimum. Crucially, there is little evidence that a major centralisation of provision would have sufficient benefits to justify the dramatic reduction in access.

There has been much debate about the capacity of single-handed general practices to provide comprehensive management of chronic diseases and to support policy ambitions for out-of-hospital care. This controversial debate is not addressed directly here, where the focus is primarily on the merits of smaller group practices (with perhaps two or three GPs) versus larger group practices (with five or more GPs). It should be noted that we could find no evidence regarding even larger aggregations of GPs as featured in some polyclinic models.

Quality

The impact of consolidation on the quality of care is a complicated issue, as a result of the multidimensional nature of quality. The evidence suggests that larger practices may be better at managing chronic diseases and organising care packages, but less good at offering continuous, personal care. In terms of clinical outcomes there is no evidence supporting the centralisation of primary care.

Large-scale, national analyses of the Quality and Outcomes Framework (QOF) data suggest that practices with larger list sizes may outperform those with smaller lists in terms of organisational structures and resources, and the processes used to manage chronic disease. For example, in larger practices a higher percentage of patients with a diagnosis of coronary heart disease had this confirmed by echocardiogram, and patients with newly diagnosed angina were more likely to be referred for exercise testing and/or specialist assessment (Saxena *et al* 2007). There are similar associations for the management of diabetes (Millett *et al* 2007). Wang *et al* (2007) found that attainment of QOF points in the 'organisational' domain (as opposed to points for clinical care or patient experience) was higher in larger practices.

In terms of other dimensions of clinical care, and outcomes, these studies suggest, however, that group practices of all sizes are broadly similar. Wang *et al* (2007) did not find significant differences outside the organisational domain, concluding that 'smaller practices continue to provide clinical care of comparable quality to larger practices but that they may need increased resources or support, particularly in the organisational domain' (p 830). Millett *et al* (2007) note that the observed differences between practices with larger and smaller lists in management of diabetes are on the whole modest. Furthermore, a study focusing solely on QOF points for clinical care found the opposite relationship – with smaller practices performing marginally better (Doran *et al* 2006). This study also found that there was much greater variation in the performance of smaller practices, suggesting that small practices include both the best and the worst of practices.

It is important to highlight that in all of these studies, the 'large' practices were around a

quarter of the size of the polyclinics proposed in *Healthcare for London* (NHS London 2007b). We could find no evidence to indicate whether the benefits observed would continue to increase with practice list sizes beyond 15,000, or at what point decreasing returns might start.

One reason to expect the quality of care delivered by GPs in large, multi-professional settings to be superior is the increased opportunity for professional contact and interchange with other GPs and specialists, who can offer second opinions on diagnoses and appropriate pathways of care. However, the evidence suggests that although co-location can bring professional benefits in some cases, it cannot be assumed to lead automatically to increased interaction. One study of nine consultant outreach clinics in the 1990s found that over half of participating GPs felt that their own skills and expertise had broadened as a result of the clinic being established in their practice (Bowling *et al* 1997). However, a survey of GPs and consultants involved in six practice-based outreach clinics under GP fundholding found that there were few opportunities for increased interaction between consultants and GPs (Black *et al* 1997). Another study that examined the impact on referral patterns of having an independent adviser available to GPs found that the initiative had no effect (Grimshaw 1998). These contrasting findings suggest that co-location is not sufficient to produce effective multi-professional working and ensuing quality gains – a point expanded on under 'Discussion' (*see* p 41).

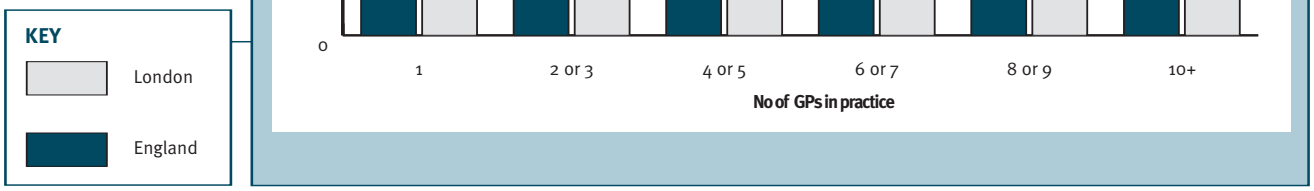
There is some evidence from patient surveys that smaller practices may tend to offer patients more continuity of care in the doctor–patient relationship and a more personal, empowering experience (Howie *et al* 2000; JL Campbell *et al* 2001). Surveys also suggest that personal continuity is highly valued by those using primary care most regularly – people with long-term conditions and older people (Department of Health 2003). The United Kingdom appears to fare relatively well in this respect – according to an international survey conducted in 2006, 63 per cent of UK patients have been registered with their GP for more than five years – comparing favourably with other countries included, for which the average figure stood at 49 per cent (Schoen *et al* 2006).

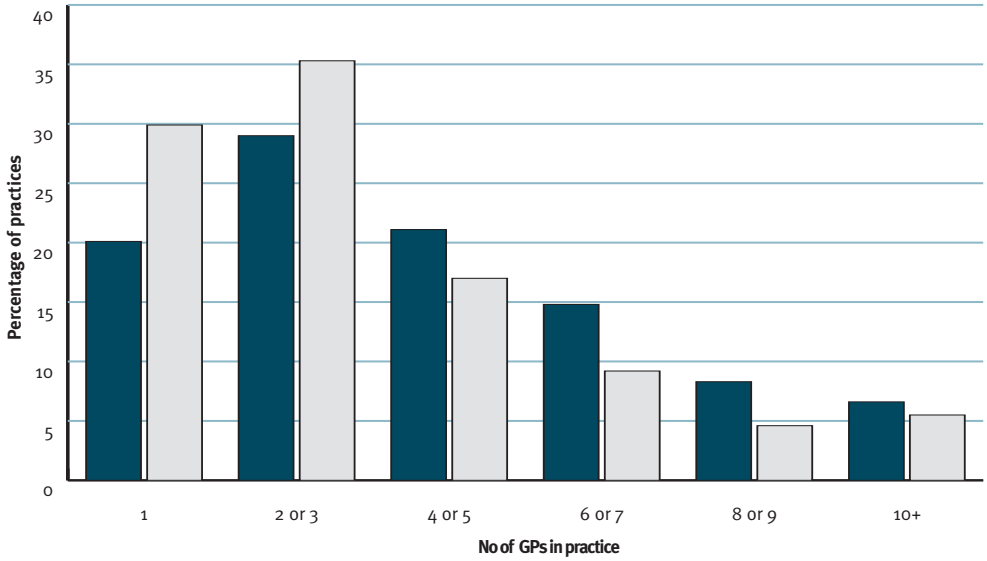
Overall, the evidence leads to the conclusion that there is no simple relationship between practice size and quality. For example, JL Campbell *et al* (2001) concluded that there is no rule dictating optimal practice size, but various competing factors to be considered on a local basis. Similarly, the Audit Commission (2002) found that 'different practice types perform well on different measures – there is no simple blueprint for good practice' (p 24) and that there are 'good arguments for preserving a diversity of practice sizes' (p 39).

Access

Taking the proposals in *Healthcare for London* (NHS London 2007b) as an example, the suggested population served by a polyclinic is 50,000. In some cases two might be located together on the same hospital site, implying populations of 100,000. Currently, the largest GP practice list in London is 27,000 patients (NPCRDC 2007). The average practice list size for London is 5,300 and, for England as a whole, 6,400 (NPCRDC 2007). Figure 3 shows that, across England, and particularly in London, most GPs are based in practices with between one and five GPs. This indicates that the introduction of polyclinics on the proposed model would entail a major centralisation of GP services, and therefore a significant increase in the distance that people have to travel to access these services.

3 SIZE OF GP PRACTICES IN ENGLAND AND LONDON





There is some evidence to suggest that the negative relationship between practice size and travelling times may also extend to other components of access. In two patient surveys, scores for access – based on location, opening hours, waiting times, availability of doctors and reception staff by telephone and same-day urgent availability – were higher for smaller practices (JL Campbell *et al* 2001; SM Campbell *et al* 2001).

Conclusions on the consolidation of primary care

This section has discussed the opportunities and risks associated with the consolidation of primary care into large health centres or polyclinics. Potential benefits include increased quality in terms of infrastructure, organisational capacity and chronic disease management. Against this, there are serious risks to access to care. As primary care accounts for 90 per cent of all patient contact with the NHS (Department of Health 2007b), it is unlikely that the gains in access to some services currently provided in hospital are worth the losses for primary care patients. The heaviest users of primary care services have relatively low levels of car ownership – 69 per cent of single senior citizens and 43 per cent of lone parents do not have access to a car (Office for National Statistics 2004). Developments making services less accessible by foot or public transport would therefore be highly undesirable. Empirical evidence suggests that there may also be threats to continuity of care, although in theory it would be possible for this to be maintained within a polyclinic setting.

The question that arises is how to realise the benefits of scale while avoiding the disadvantages. The first point to make is that the benefits are likely to be realised by modest increases in practice size. There may be a case for some aggregation in London, where, in 2006, 52 per cent of GPs worked in single or dual-handed practices (compared

with 37 per cent nationally) (NPCRDC 2007), but this case is less strong in other areas, particularly less densely populated areas where the access implications could be significant. Importantly, there is no evidence at all to suggest that benefits would continue to accrue as practices grew beyond a list size of 15,000 (or about 10 GPs). The second point is that it may not be necessary to co-locate GPs to achieve these benefits. It may be possible to increase organisational capacity and improve chronic disease management through a 'hub-and-spoke' model (*see* 'Discussion'), in which most GPs remain in their own practices but develop stronger links with local service hubs. This model would not pose the same threat to access.

6 Discussion

This report has drawn together evidence from a wide range of national and international sources to identify the potential impact of introducing the polyclinic model to the NHS. As mentioned at the start of the paper, in the absence of an agreed definition of a polyclinic, we used as our reference the co-located model of the type given in *Healthcare for London* (NHS London 2007a) – that is, a large, community-based health centre serving a population of 50,000 or more and housing a variety of primary, community and secondary care professionals.

There is a lack of definitive evidence on the polyclinic model in its entirety, but despite this we believe that conclusions can be drawn from the evidence available on key components of the model. We have looked in particular at the impact on three key policy ambitions:

- to improve the quality of care – providing more patient-focused and integrated models of care
- to support better access to care – enabling care to be localised
- to make savings.

Our overarching assessment is that the polyclinic model poses both opportunities and risks, and that the approach taken towards establishing polyclinics would determine which of these prevail. In this section we discuss the possible impact on the quality, accessibility and cost of health services. At the end of the section we describe a best-case and worst-case scenario in order to exemplify the risks and opportunities involved. These scenarios are deliberately extreme, our aim being not to make particular predictions but to paint a picture rich enough to illustrate the issues. In this section we also consider some of the key implementation challenges that need to be overcome for the best-case scenario to be delivered.

Impact on quality

In terms of quality, the co-location of multiple services presents opportunities for delivering more integrated care. The polyclinic model can enable PCTs to cluster diagnostic, treatment and follow-up services around the needs of particular client groups, such as those with multiple health needs and chronic conditions. There are also opportunities to deliver services in a more normalised environment, which could be particularly beneficial for young people or those with mental health problems. More specialist and community-based support can be brought alongside diagnostics to provide one-stop shops that integrate care and reduce the length of the care pathway. The experience of LIFT schemes and international examples reviewed suggests, however, that in practice these opportunities are often lost. Co-location alone is not sufficient to overcome existing barriers and develop new ways of working – significant effort will be needed to realise the potential benefits (*see* 'Best-case scenario' and 'Recommendations').

There are also grounds for caution with regard to the clinical quality of specialist services moved into community settings. Although existing research indicates that in some specialties, such as dermatology, quality is comparable to that in hospital-based services, the range of specialties for which there is evidence is relatively limited. There are also a small number of cases in which the quality of care offered in primary care settings has been found to be inferior to that in hospital-based services. If certain specialist services are to be increasingly provided in non-hospital settings, systems of clinical governance and quality regulation will need to be adjusted to ensure that all health care meets certain minimum quality standards, irrespective of the setting in which it is delivered. The scope of regulatory activity should accordingly be defined by service type rather than by organisation.

Evidence to date does not indicate that the quality of primary care services would be improved by a major concentration of GPs into co-located polyclinics. Although there is some evidence to suggest that some small practices may benefit from additional support in the organisational domain, there is no simple relationship between practice size and quality, and no evidence relating to very large practices with 10 or more GPs.

Impact on access

The impact on access is a complex question, because access encompasses not only physical access but also other issues such as waiting times. Access priorities also vary between different patient groups.

If a substantial centralisation of primary care were pursued, the consequent reduction in access to primary care would be a major sacrifice, not adequately compensated for by the relatively smaller gains in access to specialist care. Primary care visits account for 90 per cent of all patient contact with the NHS – 314 million contacts per year. Only 3 per cent of GP consultations result in a referral to secondary care. Taking into account follow-up appointments, there is one outpatient consultation for every six GP consultations (Department of Health 2007b). The population currently has very good access to primary care. More than 80 per cent of the population in urban areas are within 15 minutes of their GP, by foot or public transport (Department for Transport 2007). Evidence suggests that use of primary care is more sensitive to distance than use of outpatient or acute services. For the latter, increases in distance have little effect on utilisation, and hence on patient outcomes. In contrast, patients *are* deterred from using primary care as travel distances rise (Carr-Hill *et al* 1997). More accessible outpatient services are therefore a poor compensation for less accessible primary care.

The impact on the physical accessibility of specialist services is likely to vary according to geographical context and choice of location. Shifting services out of hospitals may be especially beneficial in rural areas, where currently two-thirds of households must travel for over 30 minutes to reach a hospital using public transport (Department for Transport 2007). The experience of LIFT centres suggests that a poor choice of location can negate any access benefits that might be expected to arise from relocation in community settings. Given that car ownership is lowest among the heaviest users of health services, the polyclinic model is more likely to deliver access benefits when facilities are developed in sites that are central locations with good transport links (*see* 'Estate', below). This is particularly true if they are designed to serve larger populations. This issue – the quality of transport links – has been a recurrent theme in NHS reconfiguration debates with the public.

The impact on waiting times of devolving secondary care services into the community is difficult to predict. Inconsistent evidence was found in the literature and in the experience of LIFT schemes. Both, however, suggest that the impact may be most positive when relocation is coupled with redesign of pathways – for example, to allow direct access to diagnostics.

When shifting services into the community, priority should be given to patients who need to access services most frequently. People with long-term conditions make the heaviest use of health care services, and the numbers of people with such conditions are large. More than 30 per cent of people report having a long-term condition, and in total they account for 52 per cent of all GP appointments and 65 per cent of all outpatient appointments (Department of Health 2008). In any year, people with diabetes or arthritis are three times more likely to visit a hospital or their GP for an appointment than those who do not have these conditions (Office for National Statistics 2005). Account also needs to be taken, however, of the specific condition. Making specialist services more accessible for a person with renal failure who may need to visit a hospital three times a week for four hours at a time will deliver much greater benefits than shifting specialist services for a person with asthma, a condition that may now be managed predominantly through self-care with occasional primary care visits, rarely requiring hospital visits.

Impact on cost

In terms of cost, the literature review and the experience of LIFT schemes both point towards important risks. Expectations that community-based services will be less costly than hospital-based equivalents are frequently not met.

The evidence from published research shows that community-based provision can be more costly than existing hospital services – for both GP-provided and consultant-provided community-based care. Costs may prove to be additional to, rather than substituting for, the cost of existing hospital care – a number of studies have found that provision of new community-based services does not reduce demand on equivalent hospital services. On the other hand, there is the potential for cost savings if relocation is accompanied by redesign of care pathways, supported by changes in working practices and skill-mix. The impact on the cost of chronic disease management will depend on the extent to which polyclinics succeed in encouraging collaboration between primary and secondary care and multidisciplinary teamworking. Developments of polyclinics on hospital sites may be worth exploring to realise the benefits of more integrated care, while avoiding the inefficiencies that arise when care services are split up. An important role for the PCT will be to ensure that a formal benefits realisation programme should accompany any new developments.

There are also significant financial risks as a consequence of the current arrangements for Payment by Results and the national tariff. The national tariff can present the health economy with ‘false’ savings if PCTs and practice-based commissioners ignore the impact that the withdrawal of activity has on the acute trust. The transfer will drive up overall costs in the health economy, unless the removed activity is re-provided at an actual cost less than that of the equivalent hospital-based activity; and unless the hospital can also reduce its unit costs to ensure that the remaining activity is not delivered at a loss. The findings from the LIFT study confirm that this is a real risk that is already evident in some areas. Greater transparency in costs across the whole care pathway and refinements in the tariff to reflect case-mix differences more accurately could mitigate these risks.

Implementation challenges

The polyclinic model has some significant implementation challenges that need to be addressed. We believe that three areas are particularly important:

- estate
- workforce capacity
- professional engagement.

Estate

Despite a significant growth in capital spend in recent years, much of the NHS estate and facilities is out of date and does not provide an appropriate environment for health care in the 21st century. There has also been an uneven pattern of capital investment, leaving some areas with poorer quality estate than others.

- Only 40 per cent of primary care premises are purpose built; almost half are either adapted residential buildings or converted shops; around 80 per cent are below the recommended size (Department of Health 2007a).
- Some 56 per cent of community hospitals are more than 30 years old; 41 per cent pre-date 1948 (Hospital Estate and Facilities Statistics 2008).

Centres developed opportunistically on existing health sites away from central locations may suffer from inadequate connections with the public transport network, compounded by insufficient provision of parking spaces for those using private transport. There is, of course, the issue of affordability – centrally located sites are likely to be the most expensive. However, there may be opportunities for more creative approaches to gaining sites in accessible locations – for example, using existing sites to facilitate land swaps and/or joint ventures with other public or private sector partners. Where there is no scope to build new facilities in accessible sites, finding ways for better integration of services within existing facilities would be a better option than developing a polyclinic in an inaccessible location.

There are also significant cost and legacy issues with respect to buildings developed through public–private partnerships such as LIFT or PFI. These arrangements require long-term commitments from NHS partners, and the need to protect the value of buildings can make maintenance costly and change difficult.

Given these issues and the changing landscape of health care delivery, with new and emergent technologies, commissioners should reflect on whether a new building is the best way to deliver more personalised and integrated care in their local health economy. New technologies present possibilities for transforming the way in which consultations and diagnostic tests are conducted. Increasingly, co-working between professionals could be 'virtual' (*see* 'Best-case scenario') – in which case, investment in buildings may be an outdated solution to the problem of integration.

Workforce capacity

Developments in out-of-hospital care will require expansion in certain workforce groups and development of new roles. The structure and throughput of current training programmes generate workforce projections produced by the national Workforce Review

Team. Current projections suggest that without action there will be workforce gaps. By 2016 a shortfall of around 2,000 full-time equivalent (FTE) GPs is predicted. This results partly from the lack of placements in primary care settings. The recent cuts in nurse training also suggest gaps in community nursing, but these are hard to quantify. In addition, there are concerns that there is not the national training infrastructure in place to deliver the specialist nursing roles on which effective chronic disease management and extended community care so heavily rely.

The more dispersed model of specialist care – in which consultants conduct outpatient consultations and support multidisciplinary teams in a number of polyclinics as well as in hospital – suggests there will also be a need to expand the consultant workforce. Current modelling suggests that there will be a potential oversupply within the consultant workforce by 2016, but this may be offset by a reduction in participation rates as a consequence of the increased feminisation of the medical workforce. There will also be pressures as a result of the anticipated shift from a consultant-led service, in which the majority of care is delivered by doctors in training, to a consultant-delivered service, in which the majority of care is delivered by trained doctors – that is, consultants. This shift is being driven by a number of factors. The limitations on junior doctors' working hours and the new training patterns for junior doctors are reducing the service contribution made by doctors in training. There is also an increasing demand for consultant input to hospital care to drive up quality. For example, in obstetrics and gynaecology, there is a long-term ambition to have dedicated 24-hour consultant cover on the wards (RCOG 2007). Greater consultant input is also desired during the assessment process for all patients to avoid unnecessary hospital admissions.

The polyclinic model also raises questions about the working patterns of specialists. Should there be an increased demarcation between elective and emergency commitments, and between hospital and community? Does it suggest that the 'hospitalist' model should be pursued, as has been the case in America, in which some doctors specialise in the skills to care for people in hospital rather than in a particular specialty? This would enable other specialists to move their locus from the hospital to the community. For some specialties – for example, dermatology – there would already seem to be a growing logic to this.

Professional engagement

Policy history, our LIFT research and recent professional commentary suggest that a significant potential obstacle to polyclinic-type developments will be a lack of professional support, in particular from GPs. Some have ascribed this to the threat that they pose to GPs' status as independent contractors (Webster 1995). The RCGP and BMA have raised concerns about strengths that may be sacrificed by the consolidation of primary care, which our research would suggest need to be taken seriously (BMA 2007; RCGP 2007). Doctors working in the NHS today have grown up with strong and entrenched divides between primary and secondary health care. The new integrated care model has profound implications for the way in which professionals, and in particular doctors, work. If the 'best-case scenario' is to be realised it will need to address the change required in working practices and cultures.

Worst-case scenario

A LARGE PROPORTION OF CURRENT OUTPATIENT CARE IS MOVED INTO POLYCLINICS WITHOUT REDESIGN OF CARE PATHWAYS OR INVESTMENT IN DEVELOPING NEW TEAM-BASED MODELS OF CARE

Polyclinics are developed according to a centrally designed blueprint which specifies that every polyclinic should have access to all specialists, rather than focusing on local health needs and those chronic conditions requiring most frequent specialist support. There is no clear leadership or governance framework. No effort is put into bringing together related services or to facilitating multidisciplinary teamworking, and as a result there is little co-working across service boundaries in the polyclinics. The more dispersed model of care means that secondary care professionals spend large amounts of time travelling rather than seeing patients. The increased use of referral management schemes with alternatives to specialist opinions reduces consultant productivity and creates additional steps in the patient pathway. Many patients have to make more rather than fewer visits. The additional costs of new facilities are not met through efficiency gains. Unit costs rise, and productivity falls, and as a consequence services begin to be cut.

The increased number of separate queues of patients means that waiting times begin to rise in some polyclinics, breaching the 18-week target. Patients are encouraged to travel further for the shortest wait. The hoped-for improvements in geographical access do not materialise.

Quality issues arise from specialists working in relative isolation without peer review, and from the re-allocation of tasks to generalists without adequate training or supervision. Particular problems occur in minor surgery.

THERE IS A SIGNIFICANT CONCENTRATION OF GP SERVICES INTO FEWER, LARGER FACILITIES

The new, larger practices of 25 GPs or more split their work into subspecialist areas and provide urgent care through a 1 in 25 rota. Patients rarely see the same GP or nurse. The continuity and quality of the personal relationship between patient and GP are eroded.

With fewer, larger practices the current access problems in rural areas are exacerbated, and in urban areas many people can no longer reach their GP by foot. This particularly affects the heaviest users of primary care – older adults and parents of young children – who have relatively low levels of car ownership. These groups must therefore rely on public transport to reach their GP. Public transport access is made more difficult by the fact that polyclinics have been developed primarily on existing health care sites, which do not have good transport links. There are inadequate parking facilities in the new polyclinics because of planning restrictions and severe parking restrictions in local roads. This means that accessibility in urban areas is also poor for car owners.

Primary care consultations, accounting for 90 per cent of the population's contacts with the NHS, become less personalised and more difficult.

NEW 24/7 DIRECT ACCESS URGENT-CARE SERVICES ARE DEVELOPED IN ALL POLYCLINICS

All polyclinics try to provide direct access urgent-care services 24/7. There is no attempt to integrate their operation with other services, for example, community matrons, pharmacy

or social care. The new services do not deliver a commensurate reduction in A&E attendances. With smaller numbers the services have a higher unit cost than the equivalent activity in A&E. Overall costs of urgent care in the health economy rise.

Best-case scenario

POLYCLINICS ARE DEVELOPED ONLY WHERE A LOCAL CASE CAN BE MADE, AND ARE CAREFULLY PLANNED AND WELL SUPPORTED AT A LOCAL LEVEL

Polyclinics are developed as part of a broader strategic vision and their configuration is driven by local health needs and geography. Some follow a 'hub-and-spoke' model in which the polyclinic acts as a resource centre housing a range of diagnostic, community and specialist services, and possibly some GPs, but with most GPs remaining in existing premises and directly accessing resources based in the polyclinic. Multidisciplinary teamworking, particularly to support those with long-term conditions, is encouraged through strong clinical leadership, with a focus on quality improvement and innovation.

The clustering of more specialist and community-based support with diagnostics enables the provision of one-stop shops that integrate care and reduce the length of the care pathway. Significant investment is made in change management and process redesign to ensure that they support the integration and not just the co-location of services. The focus on those with greatest health care needs creates the numbers needed to support full utilisation, and the patients with the greatest needs receive the greatest benefits. Redesigned pathways enable professional productivity to rise and unit costs to fall.

In other areas, commissioners choose not to invest in new buildings but rather pursue technology-based approaches – developing what some have termed 'virtual polyclinics'. In these, systems are developed to enable better sharing of health information, allowing specialist advice and consultation to take place remotely. Whether the polyclinic model is virtual or in a building, technology-based opportunities are seized when research demonstrates their benefits. For example, video-conferencing equipment may be used to support the hub-and-spoke model, by allowing GPs in medium-sized practices to consult polyclinic-based specialists remotely and in real time.

Opportunities to develop services jointly with other public and independent sector partners are grasped and help ensure that health services, including some community mental health services, are delivered in a more normalised environment – for example, alongside leisure facilities or libraries. Where at all possible, polyclinics are developed in transport nodes and act as a focal point or hub for local primary and community service provision. In areas where existing service bases – for example, community hospitals – would provide fit-for-purpose accommodation, these facilities move towards the polyclinic model.

LOCAL ACCESS AND A VARIETY IN GP PRACTICE SIZE ARE SUSTAINED

Patients are able to choose between a small intimate practice with few co-located facilities and one in a larger setting with a broad range of co-located services. Good local access to general practice is maintained. Continued support is given to general practice to renew their estate through either small or larger-scale developments, working where possible with other public sector services to do this. GPs work collaboratively, providing the critical mass to drive local service developments and a structure to support work on service

improvement. Access is retained and quality improved.

INTEGRATED HUBS OF URGENT-CARE SERVICES ARE PROVIDED OUT OF HOURS

The equivalent of the one-stop shop for urgent-care out of hours is developed. These urgent-care hubs are provided in a range of settings. In urban areas they are co-located with A&E; in sparsely populated areas where geographical access is more of an issue, they are provided as stand-alone facilities in polyclinics or community hospital settings. They bring together primary and community care out-of-hours services, including community matrons and social care support with a pharmacy. The hubs enable effective primary care-led intervention out of hours and prevent a significant number of hospital admissions.

Key conclusions

- For some health communities the development of polyclinic-type facilities could offer real opportunities to establish more integrated, patient-focused care, but only if considerable investment of time, effort and resources is put into their planning and development.
- The primary focus should be on developing new pathways, technologies and ways of working rather than new buildings. Co-location alone is not sufficient to generate co-working between different teams and professionals. Investment in change management and strong clinical and managerial leadership will be required.
- Commissioners will need to consider new ways of commissioning primary and community services. Services will need to be contracted on the basis of clear quality standards in order to ensure that the benefits of the new models of care are realised.
- New approaches to assure the quality of out-of-hospital care and support professional development will be needed. There needs to be a much stronger framework for inspection and accreditation.
- A major centralisation of primary care is unlikely to be beneficial for patients, particularly in rural areas. A hub-and-spoke model, where the polyclinic acts as a central resource base in a co-ordinated network of practices, is likely to be more appropriate to achieve the desired development of primary care services.
- To maximise accessibility, choice of location is critical – polyclinics should ideally be developed in natural transport hubs. Where this is not possible, finding ways to integrate services more effectively within existing facilities or on existing sites would be preferable to developing a polyclinic in a less accessible location. Improved access by car cannot be assumed given restrictions on car parking imposed by local authorities on any new developments.
- Substantial cost savings are unlikely to be made. Costs for some services may increase, unless hospitals can significantly reduce their unit costs and commissioners can manage demand. Scheduling of services will need to be carefully planned in order to ensure effective utilisation of building space and staff time. Developing polyclinics is likely to require transitional funding.
- There are significant workforce implications that need to be thought through and addressed.
- New developments should not simply be a response to a new national target, but a well thought-out element of a broader strategic plan that responds to local needs.

- Any polyclinics developed should be subject to rigorous evaluation to help fill the current gaps in the evidence base.

7 Recommendations: steering towards the best-case scenario

To address the challenges faced by the health system and steer towards the best-case scenario, the focus for service development must be on *redesigning*, not just *relocating*, care. Strategists must also take seriously the cost rises that can be associated with some models for shifting care out of hospital. There are workforce and estate issues that threaten the deliverability of the best-case scenario.

This section presents key recommendations for commissioners at national and local levels, and for changes in the tariff and workforce planning systems. No specific recommendations are made for providers, because it is the role of commissioners to provide the strategic leadership to ensure a best- rather than a worst-case scenario.

Development of polyclinics in new or refurbished facilities

There is an urgent need to improve the quality of the estate in which primary and community care services are delivered, but in the context of rapid technological change and increased costs.

Proceed only where quality, access and cost benefits to the local population are clear

DEPARTMENT OF HEALTH AND SHAs SHOULD:

- consider national/local pilots of a variety of models, including 'virtual' polyclinics, in a variety of contexts with full evaluation
- use learning to help avoid financial risks and maximise potential patient benefits.

PCTs SHOULD:

- support any development with a full benefits realisation programme outlining the desired benefits, outcomes and objectives of the scheme, including quality, access and cost, and also how these benefits will be achieved and evaluated
- undertake transport accessibility planning for all new proposals
- consider creative approaches to acquire accessible sites for new developments – for example, land swaps or novel partnership arrangements
- ensure that community-based facilities have ongoing strategic development and are not seen purely as 'estate' rather than a service issue
- consider alternatives to a buildings-based solution – for example, through the exploitation of IT and new technologies.

Shifting care from hospital to community settings

Although shifting care may improve access for some, there is no strong evidence to

support major shifts of care from hospital to community settings on the basis of cost or quality.

Identify areas of greatest benefit – proceed with caution

PCTs, WORKING WITH PRACTICE-BASED COMMISSIONERS, SHOULD:

- provide strategic leadership
- set out clear service specification
- underpin any strategic change with a robust benefits realisation programme, setting out the benefits in terms of cost, quality and access
- focus on chronic disease and high-volume activities to maximise cost-effectiveness and patient benefit
- invest in change and process management and use the opportunity to redesign care pathways to deliver more patient-focused care
- ensure a strong clinical governance framework to address potential quality issues in out-of-hospital care.

Concentration of primary care

The report has concluded that a major nationwide concentration of primary care practices into polyclinics would be undesirable on the grounds of reduced access, and there are no strong quality arguments that would countermand this.

Do not proceed without evidence of benefits at a local level

PCTs SHOULD:

- not drive whole-scale concentration of general practice services
- ensure that local configuration of primary care is driven by local needs
- consider the development of hub-and-spoke models.

National tariff

The national tariff can present the health economy with 'false' savings if PCTs and practice-based commissioners ignore the impact that the withdrawal of activity has on the acute trust.

Create financial transparency across whole patient pathway – take whole system perspective

DEPARTMENT OF HEALTH SHOULD:

- encourage more transparency in costs across the whole care pathway
  - review options for creating more transparency and understanding of activity and costs within primary care.

PCTs SHOULD

- exploit current opportunities for a more transparent approach, for example:
  - agree local variations to tariff
  - support the creation of pooled budgets where appropriate.

Workforce

Developments in out-of-hospital care will require expansion in certain workforce groups and development of new roles.

Plan and develop workforce at national and local level to deliver new model of care

NATIONAL AND LOCAL WORKFORCE PLANNERS SHOULD:

- take action to address prospective workforce gaps, for example:
  - increase primary and community care placements
  - address career progression and structure for specialist nurses
  - consider implications for specialist training and working patterns – would the 'hospitalist' model or dedicated community-based roles facilitate the new pattern of care?

Appendix 1
How does NHS LIFT work?

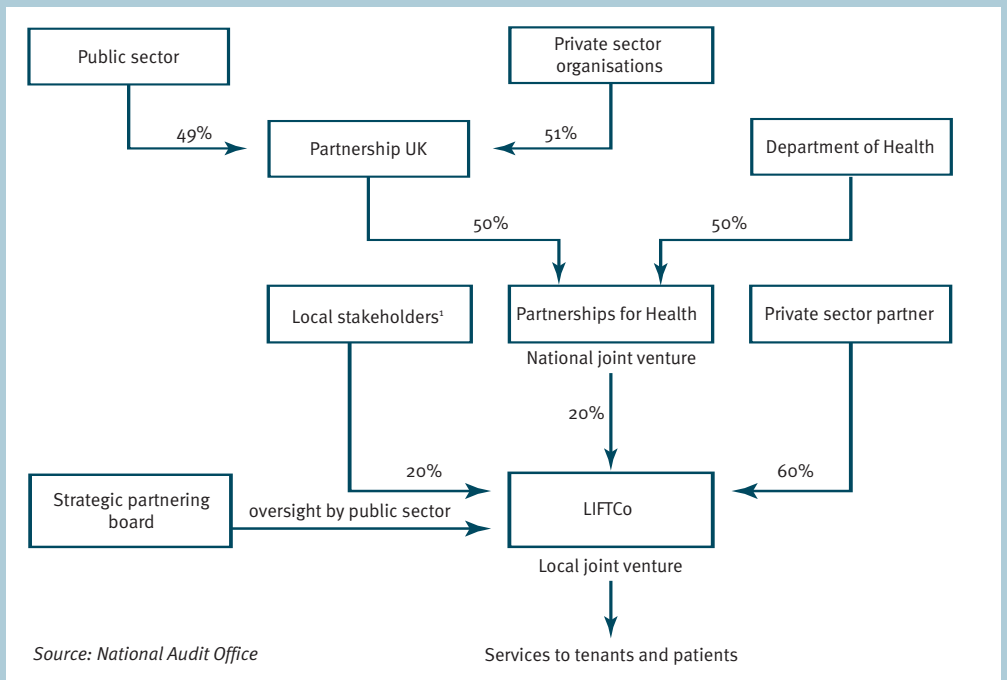
NHS LIFT (Local Improvement Finance Trust) is a capital procurement route supported by public–private partnerships (PPPs) at national and local levels. These partnerships have changed over time.

At a national level, the PPP originally involved Partnerships for Health, the Department of Health and Partnerships UK (Figure A1). Partnerships for Health has now become Community Health Partnerships (CHP), which is wholly owned by the Department of Health, so Partnerships UK no longer has an interest.

The local LIFT or LIFTCo is also a PPP. It is set up as a limited company with the local NHS (potentially including individual practitioners), Partnerships for Health, now CHP, and the private sector as shareholders (*see* lower part of Figure A1).

The local LIFTCo is a limited company in which the local NHS, Partnerships for Health and the private sector are shareholders – owning 20 per cent, 20 per cent and 60 per cent of

A **STRUCTURE OF A LIFT PUBLIC–PRIVATE PARTNERSHIP**



Source: National Audit Office

NOTE: 1. Primary care trusts, local authorities, general practitioners who wish to take a shareholding

the shares respectively. Unlike PFI deals (in which the NHS retains ownership of the asset), LIFT deals are based on the local LIFTCo owning the premises that it builds and refurbishes. Income comes from leasing the space to PCTs, health care professionals (including GPs, pharmacists and dentists) and other interested social care or voluntary sector tenants.

A LIFTCo is expected to provide a long-term (20-year) partnering arrangement to develop local care facilities. The local PCTs are always shareholders in the LIFTCo to protect the public interest. At the end of the partnering arrangement, the PCT has the option to buy back the facility at discounted market rates.

References

Atherton WG, Faraj AA, Riddick AC, Davis TR (1999). 'Follow-up after carpal tunnel decompression – general practitioner surgery or hand clinic?' *Journal of Hand Surgery*, vol 24, pp 296–7. Cited in University of Birmingham Health Services Management Centre and NHS Institute for Innovation and Improvement (2006). *Making the Shift: Key success factors*, p 19.

Audit Commission (2002). *A Focus on General Practice in England*. London: Audit Commission.

Baker R, Sanderson-Mann J, Longworth S, Cox R, Gillies C (2005). 'Randomised controlled trial to compare GP-run orthopaedic clinics based in hospital outpatient departments and general practice'. *British Journal of General Practice,* vol 55, pp 912–17.

Black M, Leese B, Gosden T, Mead N (1997). 'Specialist outreach clinics in general practice: what do they offer?' *British Journal of General Practice*, vol 47, no 422, pp 558–61.

Bowling A, Stramer K, Dickinson E, Windsor J, Bond M (1997). 'Evaluation of specialists' outreach clinics in general practice in England: process and acceptability to patients, specialists, and general practitioners'. *Journal of Epidemiology and Community Health,* vol 51, pp 52–61.

Bramble MG, Cooke WM, Corbett WA, Cann PA, Clarke D, Contractor B, Hungin AS (1993). 'Organising unrestricted open access gastroscopy in South Tees'. *Gut*, vol 34, no 3, pp 422–7.

British Medical Association (2007). 'The response of the British Medical Association to Lord Darzi's review *Healthcare for London: A framework for action*'. Available at: www.bma.org.uk/ap.nsf/Content/LordDarziReview (accessed on 18 April 2008).

Campbell JL, Ramsay J, Green J (2001). 'Practice size: impact on consultation length, workload, and patient assessment of care'. *British Journal of General Practice,* vol 55, pp 644–50.

Campbell SM, Hann M, Hacker J, Burns C, Oliver D, Thapar A, Mead N, Gelb Safran D, Roland MO (2001). 'Identifying predictors of high quality care in English general practice: observational study'. *British Medical Journal*, vol 323, pp 784–7.

Carr-Hill R, Place M, Posnett J (1997). 'Access and the utilisation of healthcare services' in Ferguson B, Sheldon TA, Posnett J (eds), *Concentration and Choice in Healthcare*. London: Financial Times Healthcare.

Cartwright A, Anderson R (1981). *General Practice Revisited*. London: Tavistock.

Chalder M, Sharp D, Moore L, Salisbury C (2003). 'Impact of NHS walk-in centres on the workload of other local healthcare providers: time series analysis'. *British Medical Journal*, vol 326, no 7388, pp 532–6.

Coast J, Noble S, Noble A, Horrocks S, Asim O (2005). 'Economic evaluation of a general practitioner with special interest-led dermatology service in primary care'. *British Medical Journal*, vol 331, no 7530, pp 1444–9.

Commission for Architecture and the Built Environment (2008). *Assessing Design Quality in LIFT Primary Care Buildings*. London: CABE. Available at: www.cabe.org.uk/default.aspx?contentitemid=2387&field=sitesearch&term=LIFT%20survey%20report&type=0 (accessed on 25 April 2008).

Dawson B (1920). *Interim Report on the Future Provision of Medical and Allied Services*. Cmd 693. Consultative Council on Medical and Allied Services (CCMAS). London: HMSO.

Department for Transport (2007). *Travel in Urban and Rural Areas. Personal Travel Factsheet – July 2007*. London: Department for Transport.

Department of Health (2008). *Raising the Profile of Long Term Conditions: A compendium of information*. London: Department of Health.

Department of Health (2007a). 'About NHS LIFT'. Department of Health website. Available at: www.dh.gov.uk/en/Procurementandproposals/Publicprivatepartnership/NHSLIFT/DH_4000519 (accessed on 18 April 2008).

Department of Health (2007b). *Departmental Report 2007*. London: HMSO.

Department of Health (2007c). *Our NHS, Our Future*. London: Department of Health.

Department of Health (2007d). *The NHS in England: The operating framework for 2008/9*. London: Department of Health.

Department of Health (2006). *Our Health, Our Care, Our Say*. London: Department of Health.

Department of Health (2003). *Choice, Responsiveness and Equity National Consultation*. London: Department of Health.

Department of Health (2000). *The NHS Plan*. London: Department of Health.

Diaz Novas J, Fernandez Sacasas JA (1989). 'From municipal polyclinics to family doctor-and-nurse teams'. *Revista Cubana de Medicina General Integral*, vol 5, no 4, pp 556–64.

Donnelly M, Power M, Russell M, Fullerton K (2004). 'Randomized controlled trial of an early discharge rehabilitation service: the Belfast community stroke trial'. *Stroke*, vol 35, no 1, pp 127–33.

Doran T, Fullwood C, Gravelle H, Reeves D, Kontopantelis E, Hiroeh U, Roland M (2006). 'Pay for performance programs in family practices in the United Kingdom'. *New England Journal of Medicine*, vol 355, pp 375–84.

Duckett S, Casserly H (2003). 'Orthopaedic GP fellowship: does it work?' *Annals of the Royal College of Surgeons of England,* vol 85, pp 195–6.

Ettelt S, Nolte E, Mays N, Thomson S, McKee M (2006). *Health Care Outside Hospital: Accessing generalist and specialist care in eight countries.* Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies.

Gibbons B (1993). 'Salaried general practice in Czechoslovakia: personal observations and impressions'. *British Journal of General Practice,* vol 43, pp 345–7.

Griffin S, Kinmonth AL (2004). 'Systems for routine surveillance for people with diabetes mellitus' in *The Cochrane Library,* Issue 2. Chichester, UK: Wiley & Sons.

Grimshaw JM (1998). 'Evaluation of four quality assurance initiatives to improve out-patient referrals from general practice to hospital'. PhD Thesis. Aberdeen: University of Aberdeen. Cited in Grimshaw *et al* (2005).

Grimshaw JM, Winkens RAG, Shirran L, Cunningham C, Mayhew A, Thomas R, Fraser C (2005). 'Interventions to improve outpatient referrals from primary care to secondary care'. *Cochrane Database of Systematic Reviews (Online)*, issue 3: CD005471.

Gruen RL, Weeramanthri TS, Knight SE, Bailie RS (2003). 'Specialist outreach clinics in primary care and rural hospital settings (Cochrane review)'. *Cochrane Database of Systematic Reviews,* issue 4: CD003798.

Grunfeld E, Fitzpatrick R, Mant D, Yudkin P, Adewuyi-Dalton R, Stewart J, Cole D, Vessey M (1999a). 'Comparison of breast cancer patient satisfaction with follow-up in primary care versus specialist care: results from a randomized controlled trial'. *British Journal of General Practice,* vol 49, pp 705–10.

Grunfeld E, Gray A, Mant D, Yudkin P, Adewuyi-Dalton R, Coyle D, Cole D, Stewart J, Fitzpatrick R, Vessey M (1999b). 'Follow-up of breast cancer in primary care versus specialist care: results of an economic evaluation'. *British Journal of Cancer,* vol 79, pp 1227–33.

Hailey D, Roine R, Ohinmaa A (2002). 'Systematic review of evidence for the benefits of telemedicine'. *Journal of Telemedicine and Telecare*, vol 8 (suppl 1), pp 1–7.

Healthcare for London (2007). *Consulting the Capital*. Consultation document [online]. Available at: www.healthcareforlondon.nhs.uk (accessed on 7 May 2008).

Hospital Estate and Facilities Statistics (2008). Data available from website: www.hefs.ic.nhs.uk (accessed on 31 January 2008).

Howie JGR, Heaney DJ, Maxwell M, Walker JJ, Freeman GK (2000). 'Developing a "consultation quality index" (CQI) for use in general practice'. *Family Practice,* vol 17, no 6, pp 455–61.

Hsu RT, Lambert PC, Dixon-Woods M, Kurinczuk JJ (2003). 'Effect of NHS walk-in centre on local primary healthcare services: before and after observational study'. *British Medical Journal*, vol 326, no 7388, pp 530–2.

Institute of Medicine (2001). *Crossing the Quality Chasm*. Washington DC: National Academy Press.

Jarvelin J (2003). *Health Care Systems in Transition, Finland 2002*. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies. Available at: www.euro.who.int/document/e74071.pdf (accessed on 18 April 2008).

Kendall I, Carrier J (2008). 'Twas ever thus: why Darzi is 90 years too late'. *Health Service Journal*, vol 28, pp 16–17.

Kewenig S (2008). 'New Ways of Working – The Polikum Model', Presentation to NHS Confederation – February 2008. Available at: www.nhsconfed.org/issues/issues-3227.cfm (accessed on 18 April 2008).

Klein R (2006). *The New Politics of the NHS*, 5th ed. Oxford: Radcliffe Publishing.

Lowy A (1993). 'Minor surgery by general practitioners under the 1990 contract: effects on hospital workload'. *British Medical Journal*, vol 307, pp 413–17.

Maddison P, Jones J, Breslin A, Barton C, Fleur J, Lewis R, McSweeney L, Norgain C, Smith S, Thomas C, Tillson C (2004). 'Improved access and targeting of musculoskeletal services in northwest Wales: targeted early access to musculoskeletal services (TEAMS) programme'. *British Medical Journal*, vol 329, pp 1325–7.

Makela M (2005). *Research in primary health care centres*. Gutersloh: Health Policy Monitor. Available at: www.hpm.org/en/Surveys/STAKES/05/Research_in_primary_health_care_centres.html?content_id=251andp_ft=health+centreandsortOrder=sortAscandlastSortOrder=sortAscandlanguage=enanda=snandsortBy=sortCountryandy=16andp_c:185=185andpageOffset=oandlastSortBy=sortCountryandx=57 (accessed on 18 April 2008).

Millett C, Car J, Eldred D, Khunti K, Mainous AG, Majeed A (2007). 'Diabetes prevalence, process of care and outcomes in relation to practice size, caseload and deprivation: national cross-sectional study in primary care'. *Journal of the Royal Society of Medicine,* vol 100, no 6, pp 275–83.

Ministry of Health (1962). *A Hospital Plan for England and Wales*. London: HMSO.

Ministry of Health (1920). *Consultative Council on Medical and Allied Services, Interim Report*. Cmd 693. London: HMSO.

National Audit Office (2008). *Making Changes in Operational PFI Projects*. London: The Stationery Office.

National Primary Care Research and Development Centre (2007). *GMS Statistics 2006*. National Primary Care Database. Manchester: NPCRDC.

National Primary Care Research and Development Centre and Health Economics Facility, University of Birmingham (2007). Evaluation of 'Closer to Home' demonstration sites. Final report. Available at: www.npcrdc.ac.uk/r5.77 (accessed on 18 April 2008).

NHS Institute for Innovation and Improvement (2005). *Improving Flow: Process and systems thinking*. Available at: www.institute.nhs.uk (accessed on 18 April 2008).

NHS London (2007a). *Healthcare for London: A framework for action*. London: NHS London.

NHS London (2007b). *Healthcare for London: A framework for action. Technical Paper*. London: NHS London.

NHS London (2007c). *Healthcare for London: Consulting the capital*. London: NHS London.

Office for National Statistics (2005). *General Household Survey.* London: ONS. Available at: www.statistics.gov.uk/StatBase/Product.asp?vlnk=5756 (accessed on 18 April 2008).

Office for National Statistics (2004). 'Focus on social inequalities'. Available at: www.statistics.gov.uk/downloads/theme_compendia/fosi2004/SocialInequalities_full.pdf (accessed on 18 April 2008).

Organisation for Economic Co-operation and Development (2007). *Health at a Glance*. Paris: OECD. Available at: www.oecd.org/document/11/0,3343,en_2649_37407_16502667_1_1_1_37407,00.html (accessed on 18 April 2008).

Oterino de la Fuente D, Baños Pino JF, Blanco VF, Álvarez AR (2007). 'Does better access to primary care reduce utilization of hospital accident and emergency departments? A time-series analysis'. *European Journal of Public Health,* vol 17, pp 186–92.

Owen B, Wall A (2002). *Health Policy*. London: Routledge.

Pallan M, Linnane J, Ramaiah S (2005). 'Evaluation of an independent, radiographer-led community diagnostic ultrasound service provided to general practitioners'. *Journal of Public Health*, vol 27, no 2, pp 176–81.

Pockney P, George S, Primrose J, Smith H, Kinley H, Little P, Lattimer V, Lowy A, Kneebone R (2004). 'Impact of the introduction of fee for service payments on types of minor surgical procedures undertaken by general practitioners: observational study'. *Journal of Public Health,* vol 26, no 3, pp 264–7.

Polmear AF, Kenney IJ, Barnard SA (1999). 'Should GPs have direct access to imaging for children with urinary tract infections? An observational study'. *British Journal of General Practice*, vol 49, no 439, pp 115–17.

Powell J (2002). 'Systematic review of outreach clinics in primary care in the UK'. *Journal of Health Services and Research Policy,* vol 7, pp 177–83.

Rau S (2007). 'The liberalization of the German health care service sector' in *On the Subject: Update from Germany*. Dusseldorf/Munich: McDermott Will & Emery.

Roland M, McDonald R, Sibbald B, Boyd A, Fotaki M, Gravelle H, Smith L (2006). *Outpatient Services and Primary Care: A scoping review of research into strategies for improving outpatient effectiveness and efficiency*. London: NHS Service Delivery and Organisation R&D Programme.

Rosen R, Jones R, Tomlin Z, Cavanagh, M (2005). *Evaluation of General Practitioners with Specialist Interests: Access, cost, evaluation and satisfaction with services*. London: NHS Service Delivery and Organisation R&D Programme.

Royal College of General Practitioners (2007). *The Future Direction of General Practice: A roadmap*. London: RCGP.

Royal College of Obstetricians and Gynaecologists (2007). *Safer Childbirth: Minimum standards for the organisation and delivery of care in labour.* London: RCOG. Available at www.rcog.org.uk/resources/public/pdf/safer_childbirth_report_web.pdf (accessed on 18 April 2008).

Sakr M, Rendall R, Angus J, Saunders A, Nicholl J, Wardrope J (2003). 'Emergency nurse practitioners: a three part study in clinical and cost effectiveness'. *Emergency Medicine Journal*, vol 20, no 2, pp 158–63.

Salisbury C, Noble A, Horrocks S, Crosby Z, Harrison V, Coast J, De Berker D, Peters T (2005). 'Evaluation of a general practitioner with special interest service for dermatology: randomised controlled trial'. *British Medical Journal,* vol 331, pp 1441–6.

Sanderson D (2002). *Evaluation of the GPs with Special Interests (GPSIs) Pilot Projects within the Action on ENT Programme*. York: York Health Economics Consortium.

Saxena S, Car J, Eldred D, Soljak M, Majeed A (2007). 'Practice size, caseload, deprivation and quality of care of patients with coronary heart disease, hypertension and stroke in primary care: national cross-sectional study'. *BMC Health Services Research*, vol 7, p 96.

Schoen C, Osborn R, Huynh PT, Doty M, Peugh J, Zapert K (2006). 'On the front lines of care: primary care doctors' office systems, experiences, and views in seven countries'. *Health Affairs – Web Exclusive,* vol 25, pp w555–71.

Sheiman I (1996). *Developing Integrated Health Care Delivery and Funding Systems in Russia (Health Maintenance Organizations)*[online] . Available at: www.health.gov.ua/zpr.nsf/6d7bc4049b9d4b5ac12567ac00289a36/135c43a0ec027fe6c12567ad003de949?OpenDocument (accessed on 18 April 2008).

Schwartz S (2008). 'The Westchester Medical Group'. Presentation to Our NHS, Our Future clinical summit, ExCel Centre, London 21 November. Available at: www.ournhs.nhs.uk/wp-

content/uploads/2007/12/simeon-schwartz.ppt#257,1,Slide 1 (accessed on 25 April 2008).

Sibbald B, McDonald R, Roland M (2007). 'Shifting care from hospitals to the community: a review of the evidence on quality and efficiency'. *Journal of Health Services Research and Policy,* vol 12, no 2, pp 110–17.

Silvester K, Lendon R, Bevan H, Steyn R, Walley P (2004). 'Reducing waiting times in the NHS: is lack of capacity the problem?' *Clinician in Management,* vol 12, no 3, pp 105–11.

Singh D (2005). *Transforming Chronic Care: Evidence about improving care for people with long-term conditions*. Birmingham: Health Services Management Centre.

Snooks H, Foster T, Nicholl J (2004). 'Results of an evaluation of the effectiveness of triage and direct transportation to minor injuries units by ambulance crews'. *Emergency Medicine Journal*, vol 21, no 1, pp 105–11.

Tragakes E, Lessof S (2003). *Health Care Systems in Transition Summary: Russian Federation 2003*. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies. Available at: www.euro.who.int/document/e81966.pdf (accessed on 18 April 2008).

Vlassov V (2007). 'Back to the USSR'. *British Medical Journal*, vol 335, p 61a.

Vliet Vlieland TP, Hazes JM (1997). 'Efficacy of multidisciplinary team care programs in rheumatoid arthritis'. *Seminars in Arthritis and Rheumatism*, vol *27*, no 2, pp 110–22.

Wagner EH (1998). 'Chronic disease management: what will it take to improve care for chronic illness?' *Effective Clinical Practice*, vol 1, pp 2–4.

Wang Y, O'Donnell CA, Mackay DF, Watt GCM (2007). 'Practice size and quality attainment under the new GMS contract: a cross-sectional analysis'. *British Journal of General Practice*, vol 56, pp 830–35.

Webster C (1995). 'The battle for the health centre'. *Healthmatters*, issue 22, p 5. Available at: www.healthmatters.org.uk/issue22/healthcentre (accessed on 18 April 2008).