



COMMISSIONING IN THE ENGLISH NHS: THE CASE FOR INTEGRATION

March 2007

Background

To explore the challenges involved in strengthening the role of commissioners, the Nuffield Trust arranged a series of high level seminars led by experts in this field.

The seminars addressed a range of topics: Judith Smith from the University of Birmingham and Nick Mays from the London School of Hygiene and Tropical Medicine led the seminar on the research evidence on health care commissioning; Ian Rutter from the NHS in Bradford and the Department of Health contributed with the experience of NHS commissioners; Simon Stevens from UnitedHealth Europe spoke on the contribution of the private sector to the development of commissioning; Niek Klazinga, Professor of Social Medicine at the Academic Medical Centre, University of Amsterdam, and Chair of the Department of Social Medicine, discussed the experience of the Netherlands.

This briefing paper, written by Chris Ham, draws on the discussions at the seminars, and explores the implications for the NHS.

About the Nuffield Trust

The Nuffield Trust is one of the UK's leading independent health policy charitable trusts. It promotes independent analysis and informed debate on UK health care policy and acts as a catalyst

where fresh ideas and information are devised and developed through a programme of activities within four policy themes: Policy Futures; The Changing Role of the State; Public Health; and Quality.

1. The Policy Context

The NHS is over half way through a 10-year programme of reform designed to tackle long standing weaknesses in performance. The progress made to date in reducing waiting times and raising standards in areas of clinical priority like cancer and heart disease has resulted from national targets, extra investment and aggressive performance management. In the next phase of reform, progress will depend increasingly on systems reforms, including giving patients more choice, extending payment by results, and introducing greater plurality among health care providers.

Of critical importance in the next phase will be the strength of the commissioning function. Commissioning was the weak link in the internal market in the 1990s, and there is a risk of history repeating itself. The government has recognised this by reducing the number of primary care trusts (PCTs) and developing plans to introduce practice based commissioning. Arrangements are also being put in place to support specialised services commissioning, and a national procurement is underway to make available the commissioning skills of private sector companies to the NHS.



The commissioning framework published by the Department of Health in July 2006, focusing particularly on hospital services, provided an update on the government's plans. Other aspects of commissioning, including commissioning for primary care services, children's and maternity services, health and well-being, long-term conditions, and joint commissioning with local government, are the subject of ongoing policy development. The effort being put into these issues in the Department indicates the importance attached to commissioning in the health reform programme.

Commissioning is of critical importance because the emerging health care market will be dominated by providers in the absence of an effective countervailing force. The establishment of NHS Foundation Trusts and independent sector treatment centres requires commissioners to raise their game if they are to negotiate on equal terms in a world of legal contracts and business oriented financial regimes for providers. Specifically, commissioners face real challenges in:

- ensuring that payment by results supports patient choice without inflating hospital activity inappropriately
- achieving reductions in emergency bed days through a stronger focus on chronic disease management, and
- using the potential benefits of a contestable provider market to bring about improvement in the quality of care for patients.

These challenges have to be addressed in the context of the restructuring of PCTs and the uneven development of practice based commissioning. At a time when priority is being given to achieving financial balance, many PCTs are focusing their efforts on the reduction of deficits rather than the development of new services. The prospect of much lower levels of expenditure growth for the NHS in England in 2008 and beyond adds to the urgency of strengthening the commissioning function.

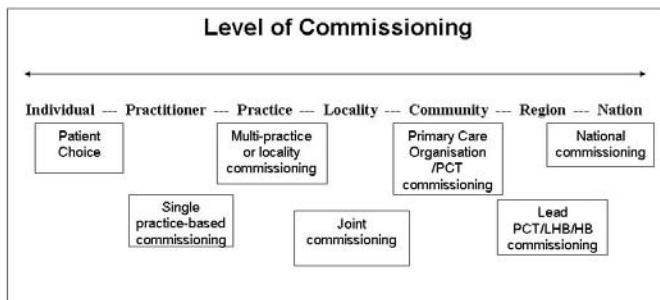
Questions that arise are: what can and should be done to strengthen commissioning? Are there lessons that can be drawn from research into commissioning? What can be learnt from previous NHS experience and what can the private sector contribute? Also, are there lessons from the experience of other countries? These questions were debated at a series of seminars held at the Nuffield Trust in the second half of 2006 and this briefing paper summarises the discussions at these seminars.

2. Lessons from research

A study conducted by Smith and colleagues has reviewed the published research evidence on the effectiveness of primary care-led commissioning and its place in the NHS (Smith et al, 2004). This study is of particular relevance because of the emphasis on primary care-led commissioning in the health reform programme in England.

One of the points to emerge from the study is that primary care-led commissioning should be seen as part of a continuum of commissioning models, as illustrated in the accompanying figure. Analysis suggests that there is no ideal size for a commissioning organisation and that different population bases are needed for commissioning different services. Primary care-led commissioning may be particularly appropriate for 'simple' and community-based chronic disease management and primary care services. Other models of commissioning are required for more specialised and complex services.

A continuum of commissioning models in the UK



In assessing the impact of commissioning, the study concluded:

- there is little substantive research evidence to demonstrate that *any* commissioning approach has made a significant or strategic impact on secondary care services (emphasis added)
- primary care-led commissioning (where clinicians have a clear influence over budgets) can however secure improved responsiveness such as shorter waiting times, as was seen with GP fundholding
- primary care-led commissioning made its biggest impact in primary and intermediate care, for example in developing a wider range of practice based services
- highly determined managers and clinicians are able to use commissioning to change long-standing working practices in the local health system, as demonstrated in the total purchasing projects
- primary care commissioners can effect change in prescribing practice, as demonstrated through GP commissioning and GP fundholding
- primary care-led commissioning increases transaction costs within commissioning.

Based on its review of the evidence, the study drew out a number of policy implications, including:

- adequate levels of management support are vital to the success of commissioning, as was demonstrated by the experience of total purchasing where schemes with higher levels of support achieved better outcomes
- timely and accurate information is required for commissioning, with much greater potential to exploit NHS routine data for this purpose
- real and meaningful clinical engagement in commissioning is crucial
- commissioners need to have effective relationships with providers, and also the ability to move services and activity elsewhere
- commissioners need a degree of organisational stability
- commissioners would benefit from new and more advanced forms of support, for example in risk stratification of patients, case management, predictive modelling, and data analysis.

Few of these conditions have been met by the present government. The restructuring of PCTs, for example, is intended to reduce management costs rather than provide adequate management support; commissioners often do not have access to timely and accurate information; clinical engagement in commissioning is uneven; relationships with providers are variable and in many places immature; organisational change has destabilised commissioners; and only latterly have steps been taken to offer commissioners support in areas such as risk stratification, predictive modelling and data analysis.

The gap between research evidence and policy does not augur well for the development of commissioning.



3. Lessons from NHS experience

The NHS has accumulated extensive experience of commissioning in the last 15 years. Beginning with GP fundholding and health authority purchasing in the early 1990s, and continuing through the total purchasing projects and the work of primary care groups and trusts later in the same decade, a wide variety of models have been introduced, adapted and abandoned in response to changing government policies.

The experience of areas such as North Bradford has been influential in illustrating the changes in clinical practice and patient experience that can be achieved when a PCT works closely with practices to commission care. Under the leadership of Ian Rutter, a GP who became the chief executive of the PCT, North Bradford empowered practices to bring about service improvements in a number of areas.

In the case of prescribing, for example, the PCT saved £3 million by working with practices to increase the use of generic statins. In part, this resulted from offering practices a share of the savings made, and in part it resulted from feeding back information to practices about prescribing patterns. Practices were able to compare their prescribing with that of other practices, and the use of information in this way, alongside incentives to switch to cheaper but equally appropriate drugs, produced a significant change in behaviour.

One of the most important innovations in North Bradford was the development of GPs and practitioners with special interests. This contributed to a reduction in waiting times and improvements in access to care by patients. Examples included orthopaedics, where physiotherapists were used to triage patients in the community, and ophthalmology, where optometrists were able to place patients directly onto waiting lists after referral from GPs. The development of these new

roles contributed to improvements in hospital efficiency by freeing up surgeons to spend more time operating.

The work done in North Bradford rested on the PCT working with the grain of general practice to achieve change. Of critical importance was understanding that GPs are not in a line management relationship with the NHS. In this context, the role of PCTs is to be servant leaders, bringing about improvements in care by facilitating development rather than imposing new ways of working. The background of the PCT chief executive in general practice, and his long association with the area and the people who worked there, contributed to the progress made in North Bradford, and holds lessons for the rest of the NHS.

While some other areas have also used commissioning to improve performance, the perception is that these areas are the exception rather than the rule. This explains the decision to restructure PCTs and to put in place the fitness for purpose assessment process. Most of the chief executives and senior managers in the new organisations have been recruited from their predecessor bodies, notwithstanding the appointment of a small number of people from other parts of the NHS. This reflects a strongly held perception in some quarters that the most experienced and able managers prefer to work in the large NHS acute trusts, which also tend to offer more attractive pay and rewards.

In recognition of the challenges involved in developing effective commissioning, the Department of Health has taken steps to remove some functions from PCTs. These steps include fixing the prices paid for care under the national tariff (thereby removing the need for price negotiation) and establishing a national regulator of quality in the form of the Healthcare Commission. Decisions on the scope of many of the services to

be funded by the NHS have also been removed from commissioners and placed in the hands of the National Institute for Health and Clinical Excellence. Equally important has been the promulgation of a national contract for use by commissioners in negotiating contracts with providers, and the publication of detailed guidance on the management of demand for services. While all of these initiatives are sensible in their own right, taken together they provide a clear indication that policy makers share the doubts that have been expressed about the ability of the new PCTs to perform more effectively than their predecessors, and are willing to take steps to compensate for their weaknesses.

In view of this, much hinges on practice based commissioning being successful in engaging a sufficient number of practices in delivering improvements in health and health care. The signs here are decidedly mixed with an increasing number of practices reported to be involved but with little evidence as yet that a critical mass are *fully engaged* in practice based commissioning and will use their influence to make significant changes in services for patients. The experience of GP fundholding in the 1990s suggests that around 50% of practices may be motivated to become involved in commissioning over time provided that the incentives to do so are strong enough, and this remains uncertain.

An even greater challenge will be developing the skills among practices to enable them to commission effectively. On an optimistic assumption, two thirds of practices may be sufficiently skilled and competent to challenge providers to improve the performance of services and to substitute care delivered in hospitals with care provided in alternative settings. Combining this estimate with the assumption that around 50% of practices may be motivated to participate fully in commissioning suggests that only one third of practices will be motivated *and* competent to bring

about improvements in health and health care (see accompanying box).

In these circumstances, it is extremely doubtful that practice based commissioners *on their own* will be the countervailing force needed to ensure that entrepreneurial providers do not dominate the emerging health care market. In any case, as the research evidence summarised earlier concluded, a judicious combination of different approaches to commissioning for different population bases is likely to be needed, rather than a single approach. It is for this reason that policy in this area includes bringing in private sector expertise alongside attempts to strengthen PCTs and develop practice based commissioning.

| | Competent | Not competent |
|------------------|-----------|---------------|
| Well Motivated | 33% | 17% |
| Hard to Motivate | 33% | 17% |

Much therefore hinges on the ability of the private sector to support practice based commissioners and PCTs to commission services more effectively. While there is evidence that some private sector organisations have niche expertise in areas such as the use of data that is likely to be useful to the NHS, it is not at all clear that they will be more effective than NHS organisations in undertaking the full range of commissioning tasks. For this reason, it is most appropriate to view the private sector as an additional source of expertise, alongside NHS commissioners, as has been argued by the director of commissioning in BUPA:



'The private sector has no 'magic bullet' to deliver effective commissioning overnight, nor is it an alternative to the role of NHS commissioners who must ultimately make choices on behalf of patients and citizens...capable private sector companies can supplement the capabilities of NHS commissioners as they seek to exert their influence in an increasingly commercially savvy health system' (Macdonald, 2006)

Both the research evidence and NHS experience raise important questions as to whether the combination of different approaches is optimal in the current design of the system reform programme. These questions are underlined by experience in other health care systems.

4 . Lessons from other countries

Outside the UK, a number of countries have experience relevant to the development of commissioning. In Europe, the insurance based systems are of particular interest insofar as health insurers are expected to be active purchasers of care from providers, and not just passive payers.

The Netherlands is a case in point. Recent reforms in the Dutch health care system have had the effect of creating a single national health insurance scheme run by competing private insurers. The new scheme has replaced a system in which people on lower incomes were enrolled in social insurance and people on higher incomes were enrolled in private insurance. This system was regressive for people at the margins of the income threshold used to determine access to social insurance. Politicians from different parties agreed that a single national health insurance scheme would be fairer and decided that the scheme would be run by competing private insurers as part of the political compromise that was reached. Citizens are able to choose their insurer once a year and insurers compete for members on the basis of the nominal premiums they

charge (over and above income related premiums) and other considerations.

The Netherlands now has a regulated health insurance market and one of the consequences has been a reduction in the number of insurers from over 100 to around 20 over the past fifteen years. Regulation of the market encompasses the scope of the benefits package which is determined by law. Also, insurers are required to accept any citizen who applies for the national insurance scheme. A risk equalisation fund has been established to compensate insurers who attract high cost members. In the first year of the new scheme, 20% of people changed their insurer. The premiums paid by citizens in part reflect the amount of choice they have and their use of services. Policies with restricted choice are cheaper than those with open choice and no claims bonuses are paid depending on the claims record of insured people. Premiums are also reduced if citizens agree to take on bigger co-payments in the event that they do use services.

Early experience in the Netherlands is that insurers are more focused on marketing their products and responding to citizen's demands than assessing the population's needs for health care. Considerable effort and expense is put into marketing policies to the public and in offering services that are attractive, such as free check ups and tests. There is little independent information about insurers and the services contracted by them for the citizens to assist them in choosing their insurer although several initiatives have been taken over the past years to produce comparable performance information to fill this information gap. Insurers contract with providers on an annual basis with the emphasis being placed on volume and price. Much less attention has been given to the quality of care and patient safety. One of the consequences of the insurance reform has been to stimulate mergers among hospitals, and this has seen the emergence of hospital chains. Mergers have resulted from

providers seeking to strengthen their negotiating position vis-a-vis insurers.

In each region, the insurer that is the market leader negotiates contracts on behalf of all insurers. It is expected that there will be further rationalisations among insurers with the number being reduced from 20 to perhaps five. One of the big questions for the future is whether there should be further consolidation of both the insurer and the provider markets and whether regulated competition will actually result in better quality, more efficiency and financial sustainability. Another issue under debate is the scope of the benefits package and the extent to which this should be restricted in the face of funding pressures.

From a UK perspective, the experience of the Netherlands provides an interesting point of contrast. The ability of citizens to choose between competing private insurers in a regulated market raises questions about the focus of the NHS in England on geographically based commissioners of care. The reduction that has occurred in the number of insurers, and the expectation of further consolidation, also raises questions about the number of organisations involved in commissioning in England, and the risk that scarce expertise is spread too thinly.

The other issue to arise out of the changes in the Netherlands, reinforced by experience in other countries (Figueras, Robinson, and Jakubowski, 2005), is the challenge in ensuring that insurers really are active purchasers of health care and not merely passive payers. Although the Dutch reforms are at an early stage of implementation, there is little in their experience to date that suggests their performance holds many lessons for the NHS. Competition is based on marketing and risk pricing for add on products rather than cost containment and demand management. Recent experience in Germany points in the same direction.

Outside Europe, the United States is the country where the role of health insurers is arguably most developed, driven by ever increasing health care costs and the evolution of managed care. This has resulted in the emergence of active buyers and purchasing coalitions seeking to exert leverage on behalf of public and private funders of health care. In view of the diversity of health care in the United States, a variety of approaches have been used, and it would be misleading to suggest that commissioning (to use the language of this paper) is well established in all markets. Nevertheless, drawing on the experience that has been gained in the United States, Light (1998) has summarised seven lessons for the NHS, including:

- commissioning organisations need to be large and strong
- commissioning teams need to be smart, well trained and technically supported, and
- commissioning through primary care has serious drawbacks.

Applying these lessons to the NHS, it can be suggested that the restructuring of PCTs has started the process of creating commissioning organisations that have the potential to be large and strong. However, commissioning teams do not contain the ‘excellent data system analysts and programmers, clinical epidemiologists, clinical managers, organisational experts, financial specialists and legal advisers’ (Light, 1998, p. 67) that United States experience suggests are needed. Furthermore, the move to establish practice based commissioning is vulnerable to the criticism that primary care commissioners lack the skills, time, training and clout to take on powerful specialty groups and hospitals. Also, it is questionable whether the incentives are strong enough to fully engage GPs in commissioning (Smith et al, 2005).

The conclusion this indicates is that the NHS has some way to go before it can be said to be acting on the lessons from experience in other countries.



5. Where next?

The systems reforms taking place in the English NHS are based on four inter-related sets of changes:

- more choice and a much stronger voice for patients
- more diverse providers, with more freedom to innovate and improve services
- money following patients, rewarding the best and most efficient providers, giving others the incentive to improve
- a framework of system management, regulation and decision making that guarantees safety and quality, fairness, equity and value for money.

Commissioning is particularly relevant to the first set of changes – aimed at expanding the choices available to patients and giving them a much stronger voice – but it is also critical in ensuring that the other changes are implemented as intended and that the system reforms function coherently as a whole.

The evidence presented in this paper casts doubt on whether commissioning will be able to deliver what is expected of it. The gap between the research evidence and policy, questions about the ability of the new PCTs to perform better than their predecessors, the likelihood that practice based commissioning will be taken up with enthusiasm and skill in only a minority of areas, and the untested nature of private sector involvement in commissioning, creates significant risks for the direction of reform in England and the integrity of the reform programme. These risks are underlined by the experience in other countries and the lack of any working models of health care systems where commissioning is working effectively *across the whole system*.

In these circumstances, there are two options. The first is to redouble the efforts that have been made

to strengthen commissioning by the Department of Health and the NHS. This is the direction set out in the operating framework for the NHS in England for 2007/08. The operating framework emphasises the role of the fitness for purpose assessment process and the ‘customised development plan’ that each PCT will put in place based on this assessment. The NHS Institute is supporting this process, and has produced a manual and capability gaps analysis tool to facilitate the further development of PCTs.

Alongside action to support PCT development, the Department of Health is using the national model contract and guidance on care and resource utilisation in an attempt to provide commissioners with the tools they need to negotiate effectively with providers. These tools include approaches such as utilisation management and prior approval that were developed in the United States as part of the managed care movement. Care and resource utilisation is being pursued despite the negative consequences that were evident in the United States, including resistance from patients because of restrictions on choice, and concerns on the part of clinicians that their decisions were being micro managed (Robinson, 2001).

The second option is to ask whether commissioning will ever deliver what is expected of it, and if not to explore alternative approaches. What might these alternative approaches be? One approach would be to pursue the path of health reform taken in Scotland. In essence, this entails rejecting the separation of commissioner and provider roles and reverting to an integrated organisational structure in which change and improvement are driven by planning and performance management rather than choice and competition. A similar approach has been taken in New Zealand where, after a brief experiment with the purchaser/provider split, services are funded and provided through integrated district health boards.

While there are some attractions in this approach, it is unlikely to find favour in the current English policy context, and in any case may be less effective in improving performance than a hybrid model based on developing competition between integrated systems. In this model, the roles of commissioners and providers would be combined, with patients and citizens exercising choice between these systems. The attractions of competing integrated systems have been emphasised both in comparative studies of health care reform (van de Ven et al, 1994) and in strategic policy reviews commissioned by the government (such as the Health Strategy Review undertaken in 2001/02).

These attractions are practical as well as theoretical, as the experience of the United States illustrates. In the United States, there is now mounting evidence that systems like Kaiser Permanente, the Veterans Health Administration, Group Health Co-operative, and Health Partners outperform other forms of health care on most dimensions. This has been attested to not only by the advocates of integrated systems but also by analysts such as Porter and Teisberg (2006) who compare these systems favourably with the fragmented non-systems that characterise mainstream medicine in the United States, even though they favour more radical reform of the health care market. Similarly, Davis, Chu and Steele (2006) have drawn attention to the achievements of integrated systems in the United States as part of a broader argument for reform in that country.

The policy puzzle is to figure out the route map from the current reforms in England to an arrangement in which integrated systems might emerge. One way forward would be through entrepreneurial practice based commissioners forging alliances with independent sector and NHS providers. Another route would be through successful NHS Foundation Trusts integrating with PCTs and practice based commissioners. In either case, it is possible to envisage how integration

might develop through local initiatives and then expand to other areas as and when they demonstrate their value. Under these arrangements, citizens would be able to choose between competing integrated systems, and the allocation of public resources would follow their choices. Among other things, this would require person based capitation payments with risk adjustment, and regulation to require mandatory acceptance of enrollees and a standard benefits package.

The case for competing integrated systems is partly negative and partly positive. The negative argument rests on the difficulty of developing an effective commissioning function, and the risk as a consequence that entrepreneurial providers will dominate the health care market. Alongside the empirical reasons advanced in this paper for this argument might be added the theoretical barriers identified by Williamson (1975) in his classic analysis of the contexts in which contracting arrangements are likely to deliver superior outcomes to hierarchical arrangements. Because health services tend to be complex, are difficult to define in clear contractual terms, exhibit marked information asymmetries between buyer and seller, involve the exercise of professional discretion, require lengthy training to deliver, frequently rest on long term relationships between patients and professionals and, for some services, are subject to major problems of local monopoly, there are major obstacles to the efficient operation of systems in which the roles of commissioners and providers are separated (Mays and Hand, 2000).

The positive argument is the record of achievement of integrated systems in the United States and their ability to achieve high levels of performance not through contracts and transactional reform but rather via engaging clinicians (especially doctors) in the quest for improvement and by aligning the incentives facing the organisation with those of the key front line decision makers in the organisation. The relationship between commissioner and



provider is in effect internalised within these systems and assumes a different form because they are competing with other systems for market share. In organisations like Kaiser Permanente and Group Health Co-operative, multispecialty medical groups have a major influence over the use of resources, and they use this influence to minimise the use of expensive hospital facilities and keep members in good health. Doctors work closely with the health insurance arm of the organisation to meet the needs of members, and they have a direct stake in its success.

In Kaiser Permanente (at least in California), integration encompasses the insurance function, the medical group and hospitals, whereas in Group Health Co-operative the insurance function and the medical group are within the organisation, and hospitals are mainly outside. Kaiser Permanente in Colorado is organised along similar lines to Group Health Co-operative. One of the implications for the NHS is that in some areas vertical integration may be appropriate (for example, in rural communities), whereas in others aligning GPs and specialists with commissioners may make more sense. It follows that the structure of integrated systems is likely to vary, encompassing vertical integration in some communities and different forms of virtual integration in others.

In conclusion, the point to emphasise is the potential for competing integrated systems to develop organically from the current reforms, rather than to be mandated by government. In view of the destabilising effects of recent NHS restructurings, effort should be concentrated on taking forward the reforms and modifying them as appropriate to correct weaknesses in their design and to seek opportunities as they arise to move in the direction set out here. Other commentators have noted the potential for adapting the lessons from Kaiser Permanente through multispecialty medical groups taking control of budgets and reshaping services through collaborative contracting (Light and Dixon,

2005), and through integrated health and social organisations being formed in which GPs and specialists provide services wherever possible and contract for those services they are unable to provide (Donaldson and Ruta, 2005).

At a time when increasing NHS efficiency depends principally on tackling variations in clinical practice (Ham, 2007), creating frameworks in which GPs can work with specialists in this task holds out more promise than setting commissioners against providers in a system that risks becoming increasingly fragmented. As the experience of the best United States systems has shown, the benefits of integration include reduced hospital use, a strong focus on prevention and keeping patients healthy, and the provision of care closer to home. In other words, integration is a way of realising the vision set out by the government in the white paper, *Our Health, Our Care, Our Say*. Further, by enabling patients to choose between integrated systems, the ideas set out in this paper create strong incentives for those who provide care and control budgets to respond to the needs of patients. The challenge now is to find a way of making these ideas work on the ground.

Chris Ham is professor of health policy and management at the University of Birmingham and an adviser to the Nuffield Trust.

References

- K Davis, B Chu, G Steele (2006), *Integrated care systems: the potential for greater efficiency and better quality*. New York: The Commonwealth Fund
- C Donaldson and D Ruta (2005), 'Should the NHS follow the American way?' *BMJ*, 331: 1328-30
- J Figueras, R Robinson and E Jakubowski (eds.) (2005), *Purchasing to improve health systems performance*. Maidenhead: Open University Press
- C Ham (2007), *Increasing NHS Efficiency*. London: The Nuffield Trust
- D Light (1998), *Effective commissioning*. London: Office of Health Economics
- D Light and M Dixon (2004), 'Making the NHS more like Kaiser Permanente', *BMJ*, 328: 763-65
- N Macdonald (2006), 'Speak out', *HSJ*, 19 October, 21
- N Mays and K Hand (2000), *A review of options for health and disability support purchasing in New Zealand*, New Zealand Treasury Working Paper
- M Porter and E Teisberg (2006), *Redefining health care*, Cambridge: Harvard Business School Press
- J Robinson (2001), 'The end of managed care', *JAMA*, 285 (20): 2622-28
- J Smith et al (2004), *A review of the effectiveness of primary care-led commissioning in the UK NHS*, The Health Foundation, London
- J Smith et al (2005), 'Practice based commissioning: applying the research evidence' *BMJ*, 331: 1397-999
- W van de Ven et al (1994) 'Forming and reforming the market for third-party purchasing of health care', *Social Science and Medicine*, 39 (10): 1405-12
- O Williamson (1975) *Markets and hierarchies: analysis and antitrust implications*. New York: The Free Press.

© The Nuffield Trust 2007

The Nuffield Trust
59 New Cavendish Street
London
W1G 7LP
www.nuffieldtrust.org.uk