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Health Care UK

The King's Fund review of health policy

Edited by John Appleby and Anthony Harrison

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Autumn 2000

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Class mark HIBI	Extensions Hea
Date of Receipt 14.9.00	Price £9.99 Donation

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Published by
King's Fund Publishing
11–13 Cavendish Square
London W1G 0AN

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First published 2000

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ISBN 1 85717 414 3

A CIP catalogue record for this book is available from the British Library

Available from:

King's Fund Bookshop
11–13 Cavendish Square
London
W1G 0AN

Tel: 020 7307 2591
Fax: 020 7307 2801

Printed and bound in Great Britain

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CONTRIBUTORS

John Appleby
Director, Health Systems Programme, King's Fund

Andrew Bell
Head of Media, King's Fund

Seán Boyle
Research Fellow, London School of Economics

Brian Edwards
Professor of Health Care Development, School of Health and Related Research, University of Sheffield

Anthony Harrison
Fellow, Health Systems Programme, King's Fund

Robbert Huijsman
Professor of Care Policy for the Elderly, Institute of Health Care Policy and Management, Erasmas University, The Netherlands

Justin Keen
Fellow, Health Systems Programme, King's Fund

David J Kerr
Professor of Clinical Oncology, CRC Institute of Cancer Studies, University of Birmingham

Jacqueline Mallender
Partner, MHA

Matt Muijen
Director, The Sainsbury Centre for Mental Health

Jo-Ann Mulligan
Research Officer, Health Systems Programme, King's Fund

Andrew Perkins
Senior Research Associate, University of East Anglia

EDITORIALS

In this issue

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John Appleby

The health services have maintained their high media profile since the winter, with budget bonanzas, continuing medical scandals ... and the emergence of a National Plan for the NHS. Planning, service delivery and organisation are the main themes of this issue of *Health Care UK*, with two issues dominating: the National Beds Inquiry (NBI) and the National Service Frameworks (NSFs).

Matt Muijen reviews the NSF for Mental Health and concludes that achieving the standards it sets will be daunting. And as with other NSFs, it is not prescriptive – leaving much up to local health and social services to plan and organise. **David Kerr and Brian Edwards** reveal the exhausting work of implementing the recommendations of the prequel to the current batch of NSFs, the Calman-Hine report. Measuring the actual health impact of Calman-Hine (as the authors say, a quasi-public health experiment) is difficult and there remain significant funding, organisational and other issues to be resolved. Nevertheless, both remain upbeat, believing that cancer services will improve.

The central question faced by the National Beds Inquiry team led by Clive Smee, the Department of Health's Chief Economic Adviser, could have been simply stated: how many beds are needed to run an acceptable health service? The answer (naturally) is less easily set out. **Anthony Harrison**'s good news concerning the Inquiry is that it took a 'whole systems' view of the important issues it raised. The bad news is that it failed to tackle the short-term (aka 'winter crisis') problem and the need to provide help to those faced with making long-term decisions about the structure and organisation of health services. (The **King's Fund**'s official response to the Inquiry is reproduced in full.) **Jacqueline Mallender** takes a local view of the Inquiry's investigation, and confirms the importance of the problem of elderly people inappropriately stuck in hospital. Answers to this problem – intermediate care, encouragement of independent healthy lifestyles, etc. – have been suggested time and again since the 1920s.

Policy concerning the financing of the bricks and mortar to accommodate the NHS bedstock (whatever size and composition the Inquiry eventually recommends) seems set, however. New hospitals are now being financed through the Private Finance Initiative (PFI) (which of course requires a local, long-term view of bed requirements). **Seán Boyle and Anthony Harrison** argue that the PFI has failed to follow the whole systems logic of the Beds Inquiry – going instead for ad hoc, hospital-based capital planning solutions. Moreover, they suggest that the risks associated with uncertainties about the future still predominantly lie with the Government/public and that they would be more appropriately dealt with if pooled and under public sector control.

Internationally, the UK does not occupy a unique position regarding the state of its bedstock – although it has lost 40 per cent of its in-patient beds between 1979 and 1995, it ranks alongside Ireland, Denmark and Canada in terms of beds per 1000 population. The Netherlands does stand out somewhat on bed comparisons, however, and **Robbert Huijsman** provides an international view of the Inquiry from the perspective of this country.

Another whole systems issue arose with proffered explanations for the continuation of the downturn (starting circa 1988) in breast cancer mortality here and in the USA. The British media led with the wonders of (British invented) Tamoxifen, but **Jo-Ann Mulligan** describes the difficulties of disentangling the complex effects of screening, drugs, lifestyle and changes in the general approach to the medical management of breast cancer. With five appraisals out so far, NICE not only faces disentanglement problems but in many cases a dearth of any evidence to disentangle in the first place. **John Appleby** looks at some of the issues beginning to emerge from vital NICE work.

NICE's guidance is aimed mainly at the medical profession, who may feel that they have enough to cope with at the moment without being told which hip prosthetic to use or to stop extracting healthy wisdom teeth. In the current climate, the BMA may be starting to regret raising the issue of revisions to consultants' NHS contracts. As **Justin Keen** notes, the Government seems to be taking this as an opportunity to raise that most delicate of issues, the official sanction (through the current contract) of moonlighting (that is, private work).

And finally, this year is the centenary of an international agreement to use a standard classification of diseases. In Paris in 1900, 26 countries signed up to the International Classification of Diseases – ICD. The codes have been revised a number of times since then and currently include nearly 12,500 classifications of disease – from 'Cholera due to Vibrio cholerae 01, biovar cholerae' to 'Environmental pollution-related condition'. But they also include non-medical codes such as 'unemployed' and 'living alone'. The possibilities for using these codes in research is examined by **John Appleby and Andrew Perkins**, who show that non-medical codes hold some potential. More research, as they say, is needed.

The National Beds Inquiry: did it do the right job?

Anthony Harrison

Given the absence of any official statement or, in England, any officially supported study of the role of the hospital for 20 years, the announcement of the National Beds Inquiry and the publication of its subsequent report were welcome in themselves. As Jacqueline Mallender indicates below, the Inquiry has succeeded in highlighting issues that have been neglected for too long.

Furthermore, the report's focus on care for elderly people and its recognition of the close interrelationship between the hospital and the rest of the health care system was particularly welcome – acknowledging as it did that the hospital is 'not an island' and that the interactions between hospital and community are much more complex than implied by 'the strategic shift to the community', the slogan that dominated much official rhetoric of the 1990s.

Although the Inquiry was established in response to the series of winter crises that afflicted the NHS from the early 1990s, it did not focus on the short-term issue of whether or not the NHS could cope with the forthcoming winter, but aimed for a long-term perspective. Nevertheless, the Inquiry did not make a serious attempt to imagine the role of the hospital in the next 10–20 years; neither did it consider how the needs of elderly people might change during that period, nor the scope for modifying these needs through preventive and other anticipatory measures. Apart from the emphasis on uncertainty, it provided little help to those faced with making long-term investment decisions. What sort of help should that have been?

The accepted facts are:

- there are many forces making for change in hospitals, most of which are hard to predict
- there is considerable potential for alternatives to hospital treatment and alternative ways of working within hospitals
- there are large knowledge gaps as to what structure of hospital and related services works best.

Against this background, what the service needed was a quite different report.

In the first place, it should have had a short-term, as well as a long-term, focus. The NHS will be seen to fail if it does not get its short terms right, i.e. if it does not deal successfully with the coming winter and the winter after that. Hence it should have contained a thorough examination of the nature and scale of seasonal variations in the demand on hospital beds and of the scope for making the supply of hospital care more flexible in response to these variations. It should, in other words, have made a more serious attempt itself to answer the questions it set out for consultation, particularly those bearing on the management of the overall bedstock and the conflicting demands of elective and emergency work. Although the annual reports of the Emergency Services Action Team contain much relevant material, they reflect the experience of the service rather than serious analytic work on the precise nature of the problems the service has been experiencing.

In the second place, the Inquiry should have considered the long term in more depth. As the report itself made clear, uncertainty is the name of the game, so long-term detailed planning is inappropriate. But long-term decisions have to be made. Furthermore, the scope and nature of the decisions that can be taken in the short term depend to some extent on measures such as training reforms, which cannot be done quickly but which shape the ability of the service to respond to the pressures upon it.

The role of long-term thinking is to identify and open the way for measures that cannot be implemented in the immediate future, but which might at some date form part of a strategy to deal with short-term variations. For example, a division between hot and cold hospitals cannot be implemented overnight but it might provide a route to better reconciling the conflicting demands of planned and unplanned work. Alternatively, the scope for anticipatory or preventive measures may be large, but cannot be tapped quickly.

Any action taken to meet the immediate pressures of winter demands might form part of a long-term strategy, provided the measures are properly evaluated.

Furthermore, there is a closer link between short- and long-term issues than at first might appear. Any action taken to meet the immediate pressures of winter demands might form part of a long-term strategy, provided the measures are properly evaluated. However, as Jacqueline Mallender points out, this is often not the case. A properly designed evaluation and learning process is required.

In fact, however well the Inquiry had tackled the short- or the long-term issues – on what was originally a short timetable – it could not have solved them in any permanent sense. The factors making for change continue to change themselves. Furthermore, the fact that the Inquiry had to be set up in the first place reflects a failure on behalf of the NHS and the Department of Health to establish an appropriate framework for considering the future of service provision. That gap will take time to fill.

The last official study of hospitals in England was a Consultation Document issued in 1980.[1] Since then the capacity at regional level to think strategically – which led to two major studies of the hospital[2,3] – was dismantled as part of the 'streamlining' of the service in the 1990s. Analytic capacity at regional and health authority level is now very limited and the ability of the service at all levels to integrate all the policies and other factors bearing on service planning is low.

Had the NHS had such a capacity, either nationally or regionally, the need for a special inquiry would still in all likelihood have been necessary, but it would have been carried out against a background of greater shared understanding of how the delivery of health care and the demands upon it were changing.

However, as the King's Fund response[4] to the Inquiry argues, it is not just a matter of service planning. The overall policy framework needs to be got right. The 'whole system' for elderly people, as countless reports including that of the recent Royal Commission on Long Term Care[5] have shown, is driven by inappropriate incentives. Yet, unless these are set correctly, the whole system will never work properly. Hospital bed/capacity planning should follow from the incentive framework, not lead it.

In summary: two jobs needed doing when the Inquiry was set up. The first was a technical job, focused on the capacity of the hospital and the wider care system to deal with patient needs and the scope for modifying those needs through preventive policies or anticipatory care.

The second was a policy job, focused on bringing together the many strands of policy work that bear on the hospital in particular, and the care system more widely.

The Inquiry made a start on the first, but ignored the second entirely. Yet, unless the policy framework is right, the technical work has little chance of successful implementation. As the King's Fund's response puts it (see pp.47–54) there is a need to:

> *bring together all the relevant strands of policy, including National Service Frameworks (particularly for older people and for mental health); the Private Finance Initiative and the capital planning process in general; and workforce planning ...*

The response goes on to point out that the whole systems approach endorsed by the report can be realised only if the incentives facing the individual agencies involved encourage them to work together. Rhetoric alone will not be enough.

Neither the technical nor the policy work is 'once and for all'. Rather, the NHS and the Department of Health require the means to bring all the strands bearing on service development to be linked together. As far as the technical work is concerned, the need is for a specific locus that provides an intelligence function for the service as a whole. In its response to the Inquiry, the Fund proposes that this might be linked to the new service development and organisation R&D programme.

As far as policy work is concerned, the need is for a regular means of making the connections across the various policy areas so that they mutually inform each other. How that should be done is essentially an internal matter for the Department of Health. To encourage the process, the Department should aim to publish a capital strategy that, unlike the first,[6] does relate capital planning to the other policies that bear on it and which thereby fully embodies the 'whole system' approach adopted but not fully developed by the Inquiry. As Seán Boyle and Anthony Harrison point out elsewhere in this issue, hospital procurement has gone ahead at a rapidly rising rate, without the benefit of any strategic framework.

Such a framework would require much more than a view on likely bed numbers. It would require consideration of the future configuration of acute hospitals, their likely future scale and the mix of activities on different sites. Recent reports from professional bodies such as the BMA, the Royal College of Surgeons and the Royal College of Physicians[7,8] argue that change is necessary, particularly in the field of emergency care. Proposals for specialist elective care centres (recycling an old but never fully evaluated idea) would mean substantial change in the field of elective care. The Department and/or the NHS need to bring all this together. The requirement is not, as in 1962, for a new Hospital Plan. Rather, it is to present an analysis of the factors making for change and to define options for new models of service and new configurations to help the service to think through the options appropriate to each area. That will involve workforce as well as capital planning and, here again, numbers are not enough. New configurations will require new ways of working and types of staff. But quite what is required can only be worked out against specific proposals for change in service delivery.

The whole system of which the hospital forms part is exceedingly complex and difficult to grapple with. But that is no reason for the Department not to attempt to describe how it is changing or to speculate in public about how it might work in future, as well as making the connections within its own organisation between the various policies that influence it.

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The National Beds Inquiry: where next?

Jacqueline Mallender

The significance of the bed as the unit for measuring the hospital provision required can be exaggerated.[1]

Even as far back as the 1962 and 1966 Hospital Plans for England and Wales, it was recognised that factors other than bed provision, such as the availability of clinical support services and primary and community health and social care, played a major part in determining the performance of the hospital system. Nevertheless, the hospital bed remains a convenient, if highly politicised, measure of hospital capacity. Justifiable questions from the general public to the effect of 'have we got enough beds?' and 'are we using beds properly?' deserve to be answered in an informed and intelligent way. Thankfully, the National Beds Inquiry provides a considered response.

FOCUS ON OLDER PEOPLE

The Inquiry rightly chooses to focus on the needs of older people. As the report acknowledges, 'older people occupy two-thirds of general and acute hospital beds and account for over half of the recent growth in emergency admissions'.[2] The report draws attention to the failure in recent years of community service provision to grow in line with demography, and to the reduction in the breadth of available home care support. Both of these factors must go some way to explaining the inexorable rise in emergency admissions to hospital of older people.

The report also presents evidence that challenges the widely held view that a supply response simply involving the provision of more beds is the right solution: 'Authorities using more beds for older people are prone to both longer waits for emergency admissions and above average rates of delayed discharges'.[3] On the contrary, the supporting research identifies the growing body of national and international evidence of the benefits of developing primary and community health and social services to act as alternatives to the acute bed.

None of this should come as any surprise to commissioners and providers of health and social care services. A routine analysis of hospital activity data identifies older people as disproportionate users of acute hospital beds. Moreover, national research undertaken by the Audit Commission[4] and the Clinical Standards Advisory Group[5] has already identified a number of deficiencies in the delivery of health and social care services to older people.

This national evidence is supported by unpublished evidence at local level. Time and again, examples arise of older people remaining in hospital long after their initial need for acute medical care has abated. Many of these elderly patients are frail, have underlying chronic health problems, suffer from mild mental health problems of depression or confusion (often exacerbated by a stay in hospital) and have little support from relatives or other potential carers outside hospital. Many are in hospital for such a long time that they acquire new health problems, often arising from cross-patient infections. Nevertheless, in the absence of community-based rehabilitative services, hospital can provide the only 'safe' care setting.

Despite this, many hospital providers have not seen older people's services as a priority: the numbers of patients are relatively small (even though they stay in hospital a long time) and often there is no pressure from relatives or patient representatives. Rather, senior management attention in acute hospitals has been on addressing the more immediate pressures of waiting list targets, rising hospital costs, the medical staffing agenda, specialist nursing and therapy shortages, and so on. Moreover, to date, the political agenda has focused on 'headline' issues, such as numbers on waiting lists, trolley waits in A&E and cancelled operations. There appears to be little political capital to be made from delivering quality health and social care services to frail elderly people. Perhaps the National Beds Inquiry will succeed in placing older people's services where it should be – right at the top of the agenda.

POTENTIAL FOR INTERMEDIATE CARE

The Inquiry puts forward three scenarios for the future: a continuation of current models of care; a growth in the acute sector; or the development of alternatives to acute hospitals, the 'closer to home' scenario. The report holds back on formal endorsement to any one of these scenarios as the preferred strategy for the NHS; a consultation period is proposed before confirming the 'vision'. However, the Foreword by the Secretary of State leaves little doubt that he considers the development of intermediate care services (the 'closer to home' scenario) as being fully consistent with the Government's modernisation agenda. Whilst the proposal would see an expansion of the number of beds within the 'whole system' of care, that expansion would be accompanied by 'a radically different approach to the management of care in the NHS'.[6]

> *There appears to be little political capital to be made from delivering quality health and social care services to frail elderly people.*

The Inquiry draws from the supporting research from the University of York, which '... concluded that for older people, around 20 per cent of bed-days were probably inappropriate if alternative facilities were in place'.[7] These research findings are entirely consistent with the mainly unpublished local research undertaken by trusts, primary care groups and health authorities. Case audits, bed census, patient cohort studies and hospital activity data analysis are all research tools that have been used to identify the potential number of people in acute hospitals who, for want of alternative services, do not need to be there.

Some innovative services have developed across the country, and many of these are cited in the York research. However, on close inspection, many of these schemes lack robust evidence-based evaluation and some represent aspirations for services rather than a true reflection of what is actually happening in practice. Unfortunately, there are also many examples of expensive, inefficient and ineffective schemes. Often these have been set up opportunistically, in response to winter pressures partnerships and short-term funding streams. Many have failed to integrate properly with mainstream services. Instead of providing an effective bridge between home and hospital, they have resulted in large protectionist walls being built by hospital clinicians anxious to prevent any further shifts of resources into the community to fund largely unproven service models.

Local champions of intermediate care services will be familiar with the very real problems associated with trying to convince hospital staff that there are alternative solutions and that funding would be better spent in the community. Unfortunately, the balance of power still rests with the acute provider. In times of financial hardship, it is extremely difficult for commissioners of services to convince acute trusts to forego precious funding on the basis of a promise. The worst possible outcome would be the transfer of resources into a poorly conceived and ineffective intermediate care scheme: the acute trust would still be left as the only place of safety for these patients, but with fewer resources to meet their needs.

The Government is certainly trying to influence the debate. The focus on vulnerable people in the Modernisation Priorities, the emphasis given to older people's services in the local Health Improvement Programmes and Joint Investment Plans prepared by health and local authorities, the targets set for services for older people in the National Priorities Guidance have all been geared towards raising awareness of the effect of ageing on the health and social care system.

Nevertheless, if the development of intermediate care is to work as a bridge between home and hospital, it needs to become part of the National Plan and embodied within the forthcoming National Service Framework for older people. It is essential that local schemes be based on sound local needs assessment, which builds upon evidence-supported models of good practice. Once implemented, schemes must be monitored carefully and evaluated to ensure that they are indeed achieving their objectives, and that local stakeholders can see the benefits in comparison to the status quo.

IS INTERMEDIATE CARE ENOUGH?

The focus on the needs of older people and the proposed provision of intermediate care services is of course welcomed by those who have bemoaned the paucity of community-based rehabilitative health and social care services. However, it must be remembered that the development of intermediate care services is essentially a 'supply' response to a much more fundamental problem of demand.

If we are to move forward during the 21st century, perhaps we should now look for solutions beyond the health and social care system. We need to start to consider whole community solutions to our ever-increasing demand for health and social care services.

The health of older people can be affected by a number of potentially inter-related factors, for example income, housing, diet and nutrition, lifestyles (including social networks), environment, transport, underlying disease prevalence, mental health, carer availability and carer thresholds. For many older people an emergency admission to hospital can arise as a result of a long anticipated and ultimately predictable crisis arising from an accumulation of problems, many of which are not health-related.[8]

If healthy and independent lifestyles are to be encouraged for the older population, a truly comprehensive approach that cuts across the whole of the public sector, including pensions and social security arrangements, housing, environment and transport arrangements, the promotion of healthy living, etc., is required. However, unless society as a whole is geared towards supporting healthy and independent lifestyles it will be missing the point.

The Government's modernisation agenda really does need to take the debate forward. Sadly, the health service has spent the last century debating how it should be structured. Even as far back as 1920, the Dawson Report[9] proposed a health system comprising primary health centres run by GPs, providing rehabilitation and diagnostic services (among other things) and supported by a secondary sector for more complex services. There is little fundamental change from this in the recommendations of the 1969 report of the Bonham-Carter Committee[10] and again in the recommendations of the July 1999 report on the organisation of acute hospital services from the Joint Consultants' Committee.[11]

If we are to move forward during the 21st century, perhaps we should now look for solutions beyond the health and social care system. We need to start to consider whole community solutions to our ever-increasing demand for health and social care services.

POSTSCRIPT: THE RETURN TO PLANNING NORMS

In line with its formal remit, the Inquiry has undertaken an assessment of in-patient bed requirements. It has also returned to the concept of national planning assumptions and in particular bed norms. Bed norms were first used nationally in the 1962 Hospital Plan and formed the basis for a national but ultimately unaffordable building programme of large acute hospitals. As the Inquiry itself acknowledges, planning is not an exact science and there is always a degree of uncertainty about the future. However, it is for precisely these reasons that these planning assumptions are likely to be adopted by local planners as a convenient substitute for more detailed local needs assessment work. This would be a dangerous development and is an unnecessary return to the command and control approach to health service planning that prevailed during the 1960s and 70s.

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Hospitals merge into vertical care chains

Robbert Huijsman

INTRODUCTION

An impressive inquiry of hospital beds and services[1] deserves international attention and reflection. When attempting to improve the quality of the policy-making evidence base, there is much to be learned from the international exchange of trends, ideas and experiences. And evidence-based organisation and policy, either on local, regional or national level, can certainly profit from an international perspective.

However, as the National Beds Inquiry report notes in reference to a whole systems approach to health care, patients' needs cannot be pigeonholed by traditional classifications applied to the services provided. It can be all too easy to simply extrapolate past trends and current structures and modes of care in order to address future challenges and needs. Although human beings may rely on the security of past experiences to handle the unknown future, building hospitals to last three or four decades may well be a risky and suboptimal strategy as an answer to the continuously changing needs of greying, individualising, emancipating and multicultural populations.

While the National Beds Inquiry nicely summarises the current pattern of hospital and related services with excellent data at regional and (inter) national levels, it lacks a future perspective to focus government and hospital management on the alternative strategies to face the challenges ahead. Integration of professional services into new vertical organisations based on a sound vision and mission, and on the regional needs for care, are developing rapidly and seem an excellent alternative to current superannuated structures. I will elaborate on this point, making connections between developments in The Netherlands and the UK by focusing on alternative options to deal with the mismatch between present service and (future) needs so eloquently presented in the Inquiry.

HOSPITAL TRENDS IN THE NETHERLANDS

Since the 1960s, general hospitals in The Netherlands have experienced many changes. Due to closure, mergers and de-institutionalisation, the number of general hospitals has more than halved – from 215 to 101 – and the number of beds has decreased slightly from 50,000 to 46,550. In four different waves over the last four decades, more than 250 hospitals were involved in 92 horizontal mergers, leading to greater economies of scale and scope (the average capacity per hospital almost doubled to 450 beds, but recently merged hospitals have 640 beds on average).[2] Next to the general hospitals, there now are eight university hospitals (with 7570 beds), 11 specialist hospitals (with 2265 beds) and 17 rehabilitation hospitals (with 1440 beds). The Dutch Ministry of Health foresees further horizontal clustering of hospitals in the near future, resulting in only 40 to 50 conglomerates. The Dutch Government aims at further reduction in the number of beds to a recently disclosed (but not officially proclaimed) norm of 2 beds per 1000 population, although in practice it is now at 3.5 beds per 1000 of the Dutch population of 16 million people.

This new norm may be a feasible policy if hospitals make use of different key strategies in regional collaboration with

Figure 1

NUMBER OF IN-PATIENT BEDS PER 1000 POPULATION, 1995

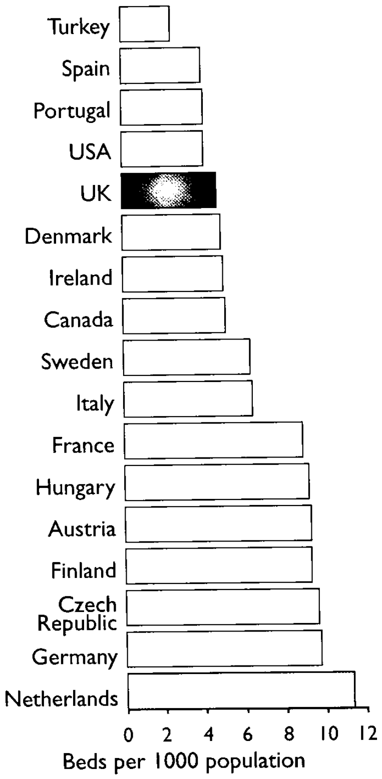
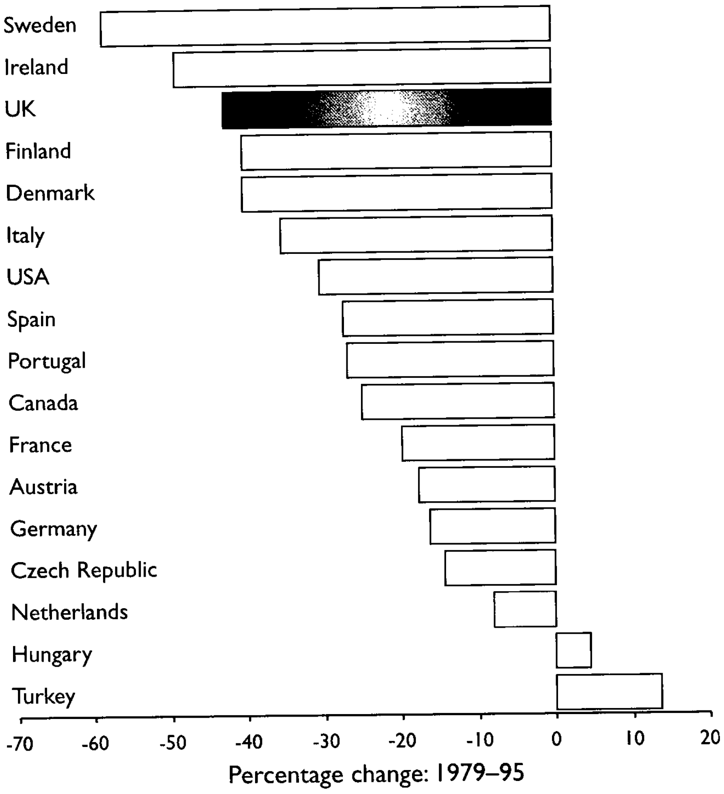


Figure 2

PERCENTAGE CHANGE IN THE NUMBER OF IN-PATIENT BEDS PER 1000 POPULATION, 1979–95



other care providers. Such strategies could include:

- implementation of patient monitoring, total quality and logistics concepts for better decision-making and management of admission, referral and discharge of patients
- de-institutionalisation, bringing care closer to home and transferring (low- and medium-level) medical technology outside the hospitals to (groups of) general practitioners (with observational beds), specialised nurses in community wards, nursing homes, etc.
- improvement in the rather low (and still decreasing) bed occupancy rates (near 70 per cent on average at present)
- rigorous monitoring and management of persisting inefficiencies in hospital organisation (according to a recent study from the Dutch Social and Cultural Planning Bureau, there still exist approximately 15–20 per cent inefficiencies).[3]

One of the most promising strategies, however, seems to be the new initiatives on vertical integration or 'care chains' (in many ways akin to care pathways and National Service Frameworks in the UK).

VERTICALISATION AND FUNCTIONAL INTEGRATION

Recent experiments with fundamental restructuring of hospital services (based on the concept of business process redesign) have showed remarkable reductions in waiting times and in length of stay

Figure 3

PERCENTAGE CHANGE IN THE NUMBER OF IN-PATIENT BEDS, 1979–95

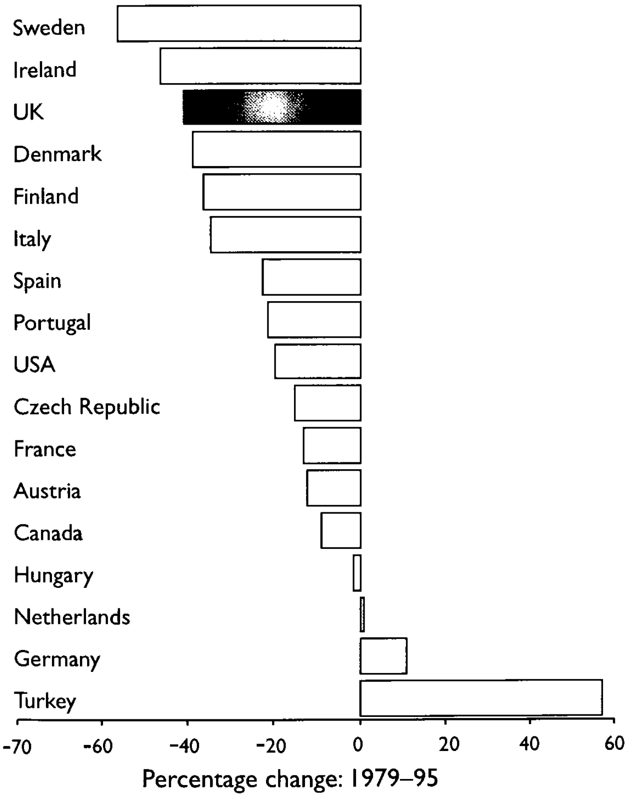
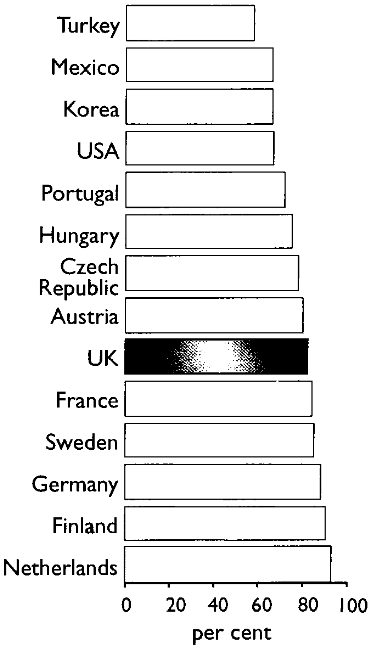


Figure 4

PERCENTAGE IN-PATIENT BED OCCUPANCY, 1995



(which is now on average slightly more than nine days). The use of diagnosis-based groups has proved to be a useful organisational and financial concept to connect different professionals and organisations in a series of concerted actions following different phases of diseases. Moreover, Dutch experiences support the conclusion of the Inquiry that nursing home, residential care and community health and social services can often substitute in-patient beds. These alternatives work especially well for very elderly patients – as can be seen in the very low acute (overnight) hospital admission rates of over 75s in The Netherlands.

On-going experiments in various regions with stroke services – using the most recent guidelines of evidence-based care in the acute, rehabilitation and chronic phases – serve as a nice example of these care pathways. For example, reorganising stroke services along the lines of a care chain has led to decreases in the average length of hospital stay from over 30 to 10 days or even less. And hospitals that closely co-ordinate patient processes with all other care organisations in their region have reduced their average length of stay to seven or eight days, close to international figures and significantly below the Dutch average of 9.5 days. American figures of four to five days seem to serve as a benchmark to efforts to build successful care chains.

Vertical integration and co-ordination are key to these achievements.[4,5] As a result, The Netherlands is now entering a phase of vertical mergers between hospitals, nursing homes, rehabilitation clinics and home care organisations, resulting in vertically integrated care networks. These cover the whole range of care – from low level home care to highly specialised services in dedicated facilities. The current – and inappropriate – demarcations between buildings, beds, services and professionals will vanish as new concepts of integrated care in the community are fostered from advanced (information, communication and care) technologies, decision support systems, patient following financing schemes and new logistics concepts.

CONCLUSION

To promote care pathways in order to improve health outcomes, The Netherlands has to develop new management strategies and objectives (instead of simply minimising costs) and to compete not only on the quality of care but also on the efficiency and actual cost of integrated care chains. The scenarios are at hand, but these are only one of the elements in initiating collaboration and action, within a shared vision and mission. Integration down care chains of the key support functions – such as financial management, human resources, information systems, strategic planning and total quality management – will be the critical success factor in pathway management. But in addition, concerted international actions and programmes are needed to stimulate learning from each other, in a combined effort of governments, managers, professionals and scientists, to extract synergy from comparative study and work.

> *The current – and inappropriate – demarcations between buildings, beds, services and professionals will vanish as new concepts of integrated care in the community are fostered*

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CALENDAR OF EVENTS

MARCH 2000

6 **National Service Frameworks:** the National Service Framework (NSF) on Coronary Heart Disease (CHD) published. The NSF sets out a ten-year programme with which ministers hope to achieve the Government target of cutting CHD and stroke deaths by 40 per cent by 2010. The Government also announced the appointment of Dr Roger Boyle, consultant cardiologist in York, to lead the implementation of the Framework.

7 **Smoking:** £16 million allocated to a specialist smoking cessation service, part of the three-year campaign against smoking.

9 **Hearing services:** the Government launched a scheme to improve hearing aid services – part of a £4 million pilot project that will provide digital hearing aids on the NHS for the first time. There will be 20 first wave schemes to evaluate the benefits and costs of digital hearing aids for the NHS, efficient and effective ways to supply hearing aids, and the delivery of a modern hearing aid service for NHS patients.

13 **Nurse prescribing:** following the Crown report, the Government announced plans to allow nurses to prescribe more medicines and to allow supplementary prescribing by pharmacists, physiotherapists and chiropodists for repeat prescriptions and dose adjustments.

17 **Accountability:** Health Secretary Alan Milburn dismissed Mrs Mary Styth, the Chair of North Lakeland Healthcare NHS Trust. The action followed an internal inquiry by the Trust into allegations of abuse and mismanagement in December 1998 that was deemed to be unsatisfactory, following which an Independent External Review Panel was set up to investigate the issues further. The Commission for Health Improvement has been sent to the Trust to investigate the problems.

20 **NHS Direct:** results announced of the second interim monitoring report by the University of Sheffield. This found that NHS Direct was helping to reduce the rate of increase in demand for GP out-of-hours services and has not increased demand for other services such as A&E.

21 **Health spending:** Chancellor of the Exchequer Gordon Brown announced that the NHS will receive real terms funding increases of 6.1 per cent over the next four years. The increase for April 2000 was £4.9 billion, of which £2.9 billion had been announced previously; £300 million was to come from increases in revenue from tobacco duty and £1.7 billion was allocated as new money.

22 **NHS modernisation:** the Prime Minister announced that he would take personal charge of the Government's modernisation plans for the NHS. He stated that the extra money given to the NHS in the Budget would be provided on condition that the service met the Government's targets for improving the quality of care.

Public appointments: the Commissioner for Public Appointments issued Public

Appointments to NHS Trusts and Health Authorities, which found a large influx of people politically active in the Labour Party and concluded that the practice of seeking nominations from MPs and local authorities had had a disproportionate effect on the appointments process.

23 **NHS National Plan:** Health Secretary Alan Milburn announced that five teams of NHS professionals would be involved in drawing up a National Plan for the NHS. Leaders of the health professions, as well as frontline clinicians and managers, will be drafted in to work alongside health ministers to help draw up the Plan, due to be published in summer 2000.

The five teams cover:

- Partnership – making all parts of the health and social care system work better together and ensuring the right emphasis at each level of care
- Performance – improving both clinical performance and health service productivity
- Professions – increasing flexibility in training and working practices and removing demarcations, in the context of a major expansion of the health care workforce
- Patient care – which has two components: ensuring fast and convenient access to services; and empowering and informing patients so that they can be more involved in their own care
- Prevention – tackling inequalities and focusing the health system on its contribution to tackling the causes of avoidable ill health.

Drugs: joint study announced between the Government and the Association of the British Pharmaceutical Industry into the extent of competition in the supply of branded medicines to the NHS. The results are intended to inform a mid-term review of the Pharmaceutical Price Regulation Scheme.

NHS complaints: the latest report covering 1998/99 revealed a 3 per cent fall in the number of written complaints.

27 **NICE:** NICE issued guidance to the NHS on the removal of wisdom teeth. It recommended that impacted wisdom teeth that are free from disease (healthy) should not be operated on. Patients who have impacted wisdom teeth that are not causing problems should visit their dentist for their usual check-ups. Only patients who have diseased wisdom teeth, or other oral conditions, should have their wisdom teeth removed. Around 140,000 operations to remove impacted wisdom teeth take place in hospitals and in dental practices each year and between 28,000 and 42,000 of these procedures may be inappropriate. Inappropriate extractions are estimated to cost the NHS at least £5 million a year.

Health Act guidance: circular issued on partnership arrangements between health and local authorities, relating particularly to the use of pooled funds, lead commissioning and integrated provision.

28 **Health spending:** the Health Secretary distributed the first tranche of new NHS funds – and the immediate allocation of £600 million for the NHS in England – as part of the extra cash increase announced in the Budget. The funds will bypass health authorities, going directly to primary care groups (PCGs) and NHS trusts. The money is to be used for new intermediate care services to provide a bridge between hospital and home for older people, helping the NHS better prepare for winter.

In addition to the £600 million allocation, a performance bonus of £60 million will be made available to reward good performance on achieving local targets. This will be given in quarterly tranches of £15 million for NHS trusts and PCGs that meet local targets.

Trusts and PCGs will be required to produce an action plan detailing how they will meet local targets. By delivering on these plans and meeting targets, the trusts and PCGs will be able to gain access to these additional resources later in the year.

Trusts and PCGs that consistently fail to meet their targets will receive support and intervention from an external Recovery Team, appointed by the Director of the local NHS Executive Regional Office. The Regional Director will be expected to report weekly to the Chief Executive of the NHS on progress in resolving problem areas. The Chief Executive will recommend to the Secretary of State any further action that may be needed.

29 **Disability equipment services:** an Audit Commission report, *Fully Equipped*, found that equipment services for disabled people are unresponsive and provide poor quality equipment. £14 million was made available from 1 April for powered wheelchair and voucher schemes within NHS wheelchair services.

30 **R&D:** the NHS service delivery and organisation R&D programme launched, 'to consolidate and develop the evidence base on the organisation, management and delivery of health care services'. At the same time new funding arrangements were announced in *Research and Development for a First Class Service*. The new structure distinguishes between support for science and NHS priorities and needs. The changes are intended to focus R&D on the areas of top priority – cancer, heart disease and mental health – and to promote collaboration and networks between researchers and the organisations involved with R&D in the NHS. The R&D budget for 2000/01 is £448 million, compared with £435 million in the previous year.

Clinical standards: four final reports of the Clinical Standards Advisory Group published, covering out-patients, depression, pain and epilepsy.

31 **GP training:** new arrangements to improve the training of general practitioners announced by Health Minister John Denham. The local organisations responsible for training GPs will now have the ability to buy the most appropriate training, instead of training GPs on an ad hoc basis. The new arrangements mean that the training period can be extended where appropriate so that GPs gain more experience.

Cancer care: referral guidelines issued for 12 areas of cancer.

APRIL 2000

3 **Foods Standards Agency:** the Food Standards Agency launched to provide the public with independent information and advice about food safety and standards.

6 **Workforce planning:** consultation document issued on workforce planning, *A Health Service of All the Talents: developing the NHS workforce*. This confirmed many of the weaknesses identified in the earlier report on workforce planning from the House of Commons Health Committee and put forward a number of proposals designed to improve the planning process.

Ministers also launched a new strategy to improve representation of women and minority ethnic communities at a senior level in the NHS, where both are still under-represented. The positive action plans include targets for board and managerial level representation.

Drugs: task force established on the competitiveness of the UK pharmaceutical industry. It is to:

- identify the criteria for maintaining the UK as a base for the industry

- consider how the home market can best support the international competitiveness of innovative medicines produced by UK R&D
- evaluate the role of the NHS in pharmaceutical research and clinical studies
- consider how the system of intellectual property protection should be developed
- foster further partnerships between industry, academe and government.

Dental services: around 250 volunteer dental practices sought to pilot the introduction of clinical governance.

10 **NICE:** NICE issued guidance to the NHS on the selection of prostheses for primary total hip replacement. The guidance stated that the best prostheses (using long-term viability as the determinant) demonstrate a revision rate (the rate at which they need to be replaced) of 10 per cent or less at ten years. This should be regarded as the current 'benchmark' in the selection of prostheses for primary total hip replacement.

12 **Waiting lists:** Health Minister John Denham launched a new initiative to develop pre-booked hospital appointments and operations to around 5 million people by March 2002. It is intended that at least two specialties at every acute trust in England will have introduced booking systems, while some areas will work towards booked appointments for all their patients. £40 million will be invested in programmes that will allow GPs to book out-patient consultations while the patient is in their surgery. Hospital doctors will be able to book admission dates while the patient is with them in their clinic.

Diabetes care: Audit Commission report, *Testing Times*, found that:

- one-third of patients are very dissatisfied with waiting times for consultants – some patients have to wait over three months to get seen in the first place
- half of patients from minority ethnic groups (and a quarter of all respondents) did not understand how their diabetes control may be affected by being ill
- four in ten GP practices lack referral guidelines on diabetes
- two-thirds of hospitals do not know how many of their diabetes patients have received full health checks, although regular checks are essential to spot complications at an early stage and prevent them becoming more serious
- half of health authorities do not have district-wide eye screening programmes – although diabetes is the most common cause of blindness in people of working age.

14 **Mental health:** Professor Louis Appleby appointed to the post of National Director of Mental Health for the NHS in England. He is currently Professor of Psychiatry at the University of Manchester and Director of the National Confidential Inquiry into Suicides and Homicides by People with Mental Illness.

18 **NHS Survey of Patients:** first results of the second national survey covering coronary heart disease announced. The findings included the following:

Access

- 43 per cent of patients admitted as an emergency had to wait more than ten minutes for assessment after arriving in hospital
- 55 per cent of patients admitted to hospital from a waiting list or planned admission reported that they had to wait more than three months

Information and communication

- 89 per cent of patients considered that their doctors' explanations of their condition, treatment or tests were easy to understand
- 14 per cent of patients – but 19 per cent of patients under 55 – said that on at least one occasion they felt that doctors

and nurses deliberately withheld information

- 67 per cent of patients did not know that they could ask to see their medical records. When asked whether they looked at their medical records, 1 per cent of patients reported that they did, 42 per cent did not, but would have liked to, and a further 47 per cent did not want to

Patient involvement

- 80 per cent of those patients who had worries or fears about their condition or treatment were able to discuss them with the hospital doctors and nurses as much as they wished
- 82 per cent of all patients felt that they were sufficiently involved in decisions about their care and treatment
- 9 per cent thought that family members or friends had been given too little information about their condition or treatment, but 42 per cent thought that their family/friends had been given a chance to be involved in decisions about their treatment

19 **Hip replacements:** National Audit Office report, *Hip replacements: getting it right*, found that while most patients receive an excellent service, there are marked variations in the extent to which patients are followed-up after surgery and also scope to reduce costs. It also recommended new procedures for the introduction of hip prostheses.

20 **Generic drugs prices:** Health Minister Lord Philip Hunt announced Government proposals to cut the cost of generic medicines. Under the proposals, the maximum prices for the main generic medicines used in NHS primary care will be reduced to their level of 15 months ago. Prices will be reduced to their average level over the period November 1998 to January 1999. This will correct the effect of the steep price increases last year, which are likely to have cost the NHS around £200 million.

23 **Critical care:** following a report from the Expert Group on Critical Care Services, health authorities and trusts are required to review and update services, supported by extra funding of £145 million.

Winter pressures: health authorities required to reconvene local winter planning groups by month-end and to link plans with waiting list planning, Health Improvement Programmes and NHS Direct.

28 **Variant CJD:** a scientific committee chaired by Professor Borysiewicz of the University of Wales College of Medicine met on Thursday 20 April to review the results of analyses undertaken from 3000 specimens of human tonsil/appendix tissue. These were preliminary results from a survey that will eventually examine tissue of around 18,000 samples. None was found to show the presence of the abnormal prion protein associated with variant Creutzfeldt Jakob Disease but the possibility of an epidemic of new variant CJD cannot yet be dismissed.

MAY 2000

5 **NICE guidance on Taxanes for ovarian cancer:** NICE issued its guidance on the use of Taxanes in the treatment ovarian cancer. The guidance, which has been made available to the NHS in England and Wales, recommended that the drug Paclitaxel (Taxol) should be used to treat women with ovarian cancer as a standard initial therapy. It also recommended that Paclitaxel should be used to treat women who have not previously received Paclitaxel, whose cancer has recurred or been resistant to other forms of treatment.

Primary care: Health Minister Lord Hunt announced a third wave of Personal Medical Services (PMS) pilots, which go live on April 2001, and primary care trusts (PCTs), to begin work on 1 October 2000.

9 **NHS National Plan:** the Secretary of State for Health set out a comprehensive strategy to ensure that every member of NHS staff, together with patients and the public, will have an opportunity to join in and have their say in the National Plan for the NHS.

The strategy included:

- a 'Census Day' for the NHS on 31 May to gather as many views as possible from the public, patients and staff
- a leaflet allowing members of the public and patients to have their say
- a dedicated web site for the public and patients to express their views
- two one-day 'Public Fora' in Leeds and London
- patient representation on each of the Modernisation Action Teams
- patient organisations meeting ministers and taking part in in-depth interviews.

10 **Charges for domiciliary care:** a report by the Audit Commission, *Home Care Charging*, found wide variations in the fees levied by local authorities for disabled and older people to receive support services in their own homes. The Government announced its intention to make the system fairer and more consistent in future.

15 **Heart disease:** 22 new local strategies to cut deaths from coronary heart disease are announced by Health Minister John Denham. He promised a total of £10 million to 22 communities that have demonstrated the most progress in implementing their HImPs and produced the best plans to tackle CHD – with more money to follow over the next two years.

Projects that will receive funding included:

- schemes to help save the lives and reduce the impact on people vulnerable to CHD now, such as:
    - primary care heart disease registers to track 'at-risk' patients
    - helping GPs tackle inequalities in heart care
    - rapid access chest pain clinics
    - community volunteer defibrillation scheme
    - improving access to cardiac rehabilitation.
- schemes to reduce the level of CHD in the future, such as:
    - exercise and stress reduction schemes
    - tackling obesity
    - food co-operatives and healthy living cafés
    - nurse-led programmes to identify and support patients with a family history of heart disease.

17 **Waiting lists:** the waiting list target of 100,000 below the level in May 1997 achieved at the end of March 2000, when there were 121,000 fewer people on the waiting list than there were in March 1997. At the same time, the number of people waiting longer than 13 weeks for an appointment to see a hospital specialist fell by 94,000 in the three months between December 1999 and March 2000.

Fraud: Royal College of Nurses signed the Counter Fraud Charter, committing nurses to support Government action to counter fraud and corruption. Similar charters were signed by the BMA, the BDA, the Pharmaceutical Services Negotiating Committee, the Association of Optometrists, and the Federation of Ophthalmic and Dispensing Opticians in December 1999.

26 **Efficiency:** Public Services Productivity Panel published *Sold on Health*, which proposed ways to improve both disposal of the existing estate, including regional overviews within a national framework, and a radical overhaul of existing methods of hospital procurements drawing on recommendations made in the Egan report,

Rethinking Construction. In another report, *Working in Partnership*, the panel set out proposals for the integration of care at local level through computer-based systems.

Pay: new agreement announced for junior doctors. A maximum 56-hour week is to be included in all junior doctors' contracts and pay increased for high out-of-hours commitments.

POLICY COMMENT

The consultants' contract: does it matter?

Will the controversy surrounding the consultants' contract lead to a sensible debate about the role of private health care in the UK?

Justin Keen

There has been a flurry of press comment recently on the NHS consultants' contract. In May, Health Secretary Alan Milburn spoke at the Royal College of Surgeons[1] and asked:

> *Why is it that despite large increases in consultant numbers over the last few decades the average time people have to wait has remained pretty constant? ... Does the fact that consultants employed on 'maximum part time' [contracts] earn nearly as much from the private sector as they do from the NHS act as a perverse incentive? ... it is clear too that the consultant contract has not sufficiently rewarded the hardest working doctors.*

In June, the Health Committee of the House of Commons began a short inquiry into the contract.

The media took up the theme. Commentaries in newspapers such as *The Guardian* and *Financial Times* and on television programmes including *Newsnight* and *Tonight* have pointed to the odder aspects of the contract. It allows consultants to work privately as well as for the NHS – for two rival firms. Consultants working on full-time contracts can in fact earn up to 10 per cent on top of their incomes from other sources and those on the maximum part-time contracts noted by Mr Milburn have no limit on their extra-NHS earnings. John Yates has argued that the arrangement distorts clinical priorities, conferring advantages on those who can pay to access care.[2] The contract is also couched in very general terms and it has proved difficult for general managers to hold some consultants to account for the work that they do for NHS trusts. All of these features were built into the terms of consultants' work from the start of the NHS in 1948 and have survived relatively unscathed for over 50 years.

So too have consultants' rights to admit patients to NHS pay beds – private beds within the NHS.

Furthermore, while the Health Act 1999 placed a duty of quality on trust chief executives and boards, there is, as yet, no equivalent formal duty for consultants. Given all of this, it is easy to arrive at the conclusion – along with the Government and the British Medical Association – that the contract needs to be reviewed.

Before going too much further, though, it is worth dwelling on two questions. First, how important is the contract? It may actually be more appropriate to start with the behaviour of consultants. The Secretary of State acknowledged that most consultants work hard, or very hard, for the NHS.[3] It is only because of their goodwill – along with that of everyone else working in the NHS – that the Government can propose and implement its policies. More generally, there is research evidence that suggests that if people enter into any contract in the right spirit, the details written on paper are irrelevant – the work will get done.[4]

It may, therefore, be more fruitful to consider all of the influences on the work of consultants – including the extent to which resources have constrained them in the past – before acting on the contract. The Government has already prompted a review of professional self-regulation, which has led to proposals for revalidation and changes in procedures by the General Medical Council; published the Chief Medical Officer's proposals for management and accountability of consultants working in the NHS; and introduced clinical governance and other policies, which are designed to influence consultants' work patterns.

Viewed in this way, the issue is more to do with incentives to good clinical practice. The practical policy question is about how the quality of patient care and their experiences of the NHS as a whole can be maintained and improved. Part, but only part, of the answer might lie in changes to the contract. The introduction of clinical governance, the establishment of the Commission for Health Improvement, the introduction of revalidation of clinicians must all have a part to play. Otherwise, what are they for?

The second question is how do Mr Milburn's comments[5] square with his own and the Prime Minister's[6] statements about private health care over the last few months? The Health Secretary's comments at the Royal College of Surgeons hint at a desire to reduce the amount of private work undertaken by surgeons. But clear messages have been sent out that NHS managers should consider using the private sector if the circumstances are appropriate – for example in dealing with a 'winter crisis'. If the capacity of the private sector is reduced, how can it also be there to respond when needed?

This highlights the difficulties that the Government faces, having indicated its support for private health provision, in balancing the needs of the NHS and its new friends in the private sector. The boundary between NHS and private provision is complex, and the interests that benefit from it are entrenched. Asking questions about the private work elements of the consultants' contract leads quickly to questions about the status of NHS pay beds, and about the differential pay rates in the two sectors. While private pay rates vary between specialty – and consultants in some specialties do not have the option of private work – many of those who do it can earn at between three and six times their NHS rates.[7] The contract is more usefully viewed as a key piece in a complicated jigsaw than something that can be negotiated in isolation from other developments.

The consultants' contract is an oddity, the sort of arrangement that reminds us that the past really is another country, and it does need to be changed. But perhaps the commentary on the contract tells us that something else is happening. We seem to be witnessing the emergence of a sensible debate about the role of private health care in the UK and its relationship with the NHS.

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Appraising NICE appraisals

With five appraisals under its belt, how is NICE faring in a world of rapid change?

John Appleby

NICE is starting to hit its stride with – at the time of writing (a necessary phrase given the gathering speed with which the Institute is publishing appraisals) – five published appraisals. This does not include the pre-NICE guidance on Viagra, although in many ways the process followed was very NICE-like. All five assessments have been completed since last autumn. Another five are in the pipeline, and 12 are scheduled to start this year. Table 1 summarises some key aspects of the Institute's guidance so far.

In many ways NICE is a major breakthrough in attempts to impose some clinical and economic consistency on the difficult job of deciding what technologies the NHS should adopt. There are also some positive 'externalities': in Canada, for example, NICE's recommendations on the influenza drug Relenza were widely reported on television and Canadian health care agencies justified their reluctance to fund the drug partly on NICE's appraisal. But is the remit and scope of NICE wide enough, and what lessons seem to be emerging from the assessments carried out so far?

The Institute's work programme is set by the Department of Health and the National Assembly for Wales. Health care technologies are selected for appraisal on the grounds of one or more of four criteria:

- that the technology will have a significant impact on health
- that it will impact on government policy ...
- ... and/or NHS finances or resources
- and lastly (the somewhat redundant criterion) that there is a possibility that NICE can provide some useful guidance to the NHS.

The technologies selected for NICE to appraise so far have tended to be fairly straightforward health care interventions – new drugs, surgical techniques/procedures, etc. All can be justified on the rather flexible selection grounds set out above. However, the phrase 'health care technology' could (or perhaps should) be interpreted more widely. For instance, primary care groups (PCGs) satisfy at least the first three selection criteria. Primary care groups will (we are told) have a significant impact on health, government policy and, no doubt, on NHS resources. The problem with PCGs as an 'intervention' for NICE is that PCGs not only impact on government policy, they *are* government policy. Also, the clinical and economic evidence base as to the effectiveness of PCGs is small.

NICE clearly recognises the difficulties in evaluating single technologies in isolation from other technologies and the expertise of staff involved in the clinical procedure. For example, their guidance on the use of coronary artery stents – the small mesh tubes inserted into 'ballooned' arteries to prevent them collapsing – emphasises that the expertise of the unit and staff carrying out operations is crucial to the success of stents.

In addition, variations in expertise, equipment and after care procedures combine to make it difficult to accurately estimate the financial impact of NICE's stent guidance on the NHS.

Table 1

COMPLETED ASSESSMENTS BY NICE

Technology	Guidance	Economic and financial impacts	More research needed?
Relenza	Although prescribable on the NHS, NICE recommends that it is not used.	Annual cost to NHS of Relenza: *£9.9m–£15 million* p.a., depending on severity of influenza outbreak.	Yes. More trials needed to investigate benefits to 'high-risk' patients.
Removal of wisdom teeth	Stop extractions of healthy teeth.	Savings/resource deployment of up to *£5 million* for England and Wales.	Yes. Two on-going RCTs in the USA and Denmark will be reviewed when published.
Prostheses for primary hip replacement	Use devices with <10% revision rate at 10 years. Also, consider using prostheses with minimum of 3 years revision rate experience if on target for <10% revision rate.	Potential savings of up to *£8 million* if less expensive cemented prostheses used.	Yes. More clinical and cost-effectiveness evidence called for. Hip registry should be established.
Use of Taxanes for ovarian cancer	Paclitaxel (Taxol) recommended as standard treatment.	Additional cost to NHS of Taxol estimated at *£7 million.*	Yes. NHS should continue to support trial of Taxanes in treatment of ovarian cancer.
Guidance on coronary stents for ischaemic heart disease	Stents recommended for certain patients.	Impact on the NHS difficult to estimate: for example higher costs of stents may be offset by lower volume of repeat percutaneous coronary intervention (PCI).	Yes. Over 20 RCTs currently on-going.

Many of these evaluative difficulties could be clarified by research, of course. But a lack of relevant and accurate evidence has been a recurring theme in all the appraisals conducted so far. The appraisal for Relenza, for example, rejected its use within the NHS because not enough 'high-risk' patients had been treated in trials to give any sound indication of the scale of benefits. Similarly, for hip prostheses, many newer makes of prosthetic have not been evaluated to NICE's 'benchmark' of less than 10 per cent needing revision at ten years. And NICE's guidance in terms of cost-effectiveness and financial impact on the NHS appears even more stymied by lack of information for all five assessments carried out. As has also been pointed out by Hutton and Maynard,[1] NICE faces a dilemma when it comes to cost-effectiveness studies of new technologies carried out *before* the technology is in general use. Such evaluations are unlikely to reveal the true costs (or, indeed, health effects – though evidence from clinical trials is more readily accepted as a reflection of evidence in the real world). But it is precisely before a new technology is adopted that NICE's guidelines will be most useful – an example of Professor Martin Buxton's adage that it is always too early to evaluate until, suddenly, it is too late!

Two further issues also seem to be emerging. First, the sheer scale of NICE's task in the face of rapid change: no sooner has a technology been appraised then the intervention changes or further evaluative trial evidence is published. Also, while NICE is getting up to some speed over the rate at which it conducts the co-ordination of appraisals, the potential number of evaluations to carry out makes painting the Forth Bridge seem like a small weekend DIY job! The NHS carries out thousands of different procedures, in many different settings and involving numerous medical technologies and devices. The volume of work for NICE should not be a reason not to do the job but if it is to make any appreciable dent in the amount of guidance needed, the Institute is likely to need an enormous boost in resources.

Second, as the successful appeals from Bristol-Myers Squibb and Cancer BACUP over NICE's guidance on Taxanes (specifically, Taxol) for breast cancer show, there is much at stake for both manufacturers and patient groups, both of whom will demand absolute rigour from NICE in its appraisals. One challenge out of five may not be the long-term appeal rate – it could be higher or lower – but when company profits and patients' health are on the line, NICE could increasingly find itself bogged down in dealing with appeals.

Finally, it has been suggested that NICE may face legal challenges over guidance decisions involving any denial of treatment (e.g. Relenza) when the European Convention on Human Rights is brought into UK law in autumn 2000. Although there may be some cases brought to court, on past experience of similar cases, it seems unlikely they will succeed. Perhaps more interesting is the possibility of the Human Rights Act being used when clinicians fail to implement guidance issued by NICE.

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Breast cancer: why are deaths falling?

The debate over reductions in breast cancer mortality reveals the need for a truly whole systems approach to combating breast cancer.

Jo-Ann Mulligan

On 19 May 2000, the *Lancet* published a letter by Richard Peto and colleagues, which suggested a reduction in breast cancer deaths in the UK and USA of 25 per cent in the year 2000.[1] Breast cancer is the commonest cancer in women in Britain, with around 30,000 women newly diagnosed each year. After a winter of gloomy news about the state of cancer care in the UK, there at last seemed a reason for optimism.

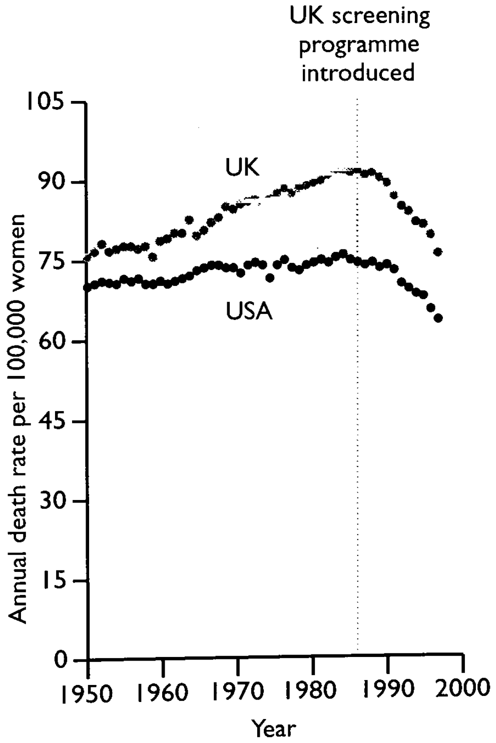
Several explanations for the fall in mortality were put forward by the authors. First, during the 1980s there was increasing use in the UK of hormonal and cytoxic treatments for early breast disease and randomised controlled trials have shown that such adjuvant treatment substantially reduces the ten-year overall mortality. There was also increasing encouragement of prompt investigation of breast lumps and of mammography to detect impalpable tumours, which further reduce mortality. This led the authors to conclude that:

> *This substantial reduction in national mortality rates has come not from a single research breakthrough, but from the careful evaluation and adoption of many interventions, each responsible on its own for only a moderate reduction in breast cancer mortality.*

The way in which the same findings were subsequently reported in the press took a different slant. Both *The Guardian* and *The Times* (following a press conference held by the *Lancet*) ran stories, under the headlines 'Breast cancer drug helps to

Figure 1

RECENT DECREASE IN UK AND US BREAST CANCER MORTALITY AT AGES 50–69 YEARS



Mean of rates at ages 50–54 years, 55–59 years, 60–64 years, 65–70 years. 1998 and provisional 1999 rates of 76.6 and 73.2 are for England and Wales only, where the 1997 rate was 79.2.

Graph adapted from Peto *et al.*

cut deaths by a third' and 'Breast cancer drug saves 20,000'. In other words, there was only one explanation for the fall in deaths – the increasing use of Tamoxifen. In fact, according to *The Guardian* article, the USA's hesitance to adopt the drug (in favour of early screening and radiotherapy) explained why their death rates had not dropped as quickly as the UK's.

The response from the Department of Health, however, was more circumspect, emphasising the original message that the reduction was likely to be 'the result of a number of improvements in both treatment and early detection, including screening'.[2] So which is it to be: the modest contribution of several interventions or the dramatic impact of Tamoxifen?

Media reactions to cancer (and developments in medicine more generally) are often one-dimensional. It can be easier to run a story around the impact of a life-saving drug (which also happens to be a British invention) than one which deals with the real world complexity of health care. But the way in which this story was handled by the *Lancet*, together with the subsequent response from the Department of Health, highlights a wider question to do with how improvements in health outcomes are attributed.

In particular, the question of the effectiveness of breast cancer screening continues to stimulate passionate debate. Because the recent fall in breast cancer mortality is across a wide age range, some researchers acknowledge that it is unlikely to be the result of the UK National Screening Programme (which is routinely offered only to women aged 50–64).[3] A recent systematic review, however, questioned whether a screening programme was justified at all given serious biases in several of the randomised controlled trials that had shown beneficial results.[4] The response from screening enthusiasts, and the Department of Health in particular,[5] was typically vigorous:

> *The NHS Breast Screening Programme is a success … Figures published by ONS in November 1999 show a drop of 14 per cent in female mortality from breast cancer between 1989 and 1998 … There is no new evidence in the report published today in the* Lancet. *The data has already been considered by expert committees on breast screening who found significant beneficial effects from screening.*

Yet, neither the evidence presented by researchers nor the Government response provides a clear picture as to *how* the various developments over recent years have contributed to the fall in breast cancer mortality. And while it is perfectly possible that better treatment, more rapid access and better identification have all helped, unless the contribution of the different components are known, there is a risk of double counting the same benefits. Moreover, without a more accurate picture of the contribution of various interventions along the care pathway (both separately and in combination) it is difficult to assess where to direct scarce resources to achieve further improvements.

In principle, this vacuum in the knowledge base ought to be dealt with by the Calman-Hine proposals for cancer and, more generally, by the new National Service Frameworks. Yet, within both there is still no attempt to link specific proposals to the benefits that are hoped for in general. Instead, a great deal of effort is spent on detailed recommendations on how various bits of the service should be provided.

There is also the additional issue of how the health service operates within the wider social, economic and physical environment. Breast cancer mortality is not just dependent on the impact of health service interventions – it is also influenced by factors outside the health service, but which, for example, encourage (or discourage) people to seek early medical attention. Despite Government rhetoric on the obvious importance of non-health service determinants of health, there has been little attempt to quantify their relative impact alongside health service interventions.

If the Government is serious about adopting a whole systems approach to breast cancer, a more explicit model of health gain is required that, among other things, describes how the interaction between population-based characteristics, the care system and the wider policy environment is expected to improve health outcomes. The prospects of this happening look bleak if (in the face of uncertain evidence) the Department of Health continues to repeat the mantra that falling death rates automatically equate to a successful screening programme.

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POLICY ANALYSIS

National Service Frameworks: overview

Although National Service Frameworks are a significant attempt to design and deliver effective health services, doubts remain about the way they are being developed.

Anthony Harrison

The introduction of the National Service Frameworks (NSFs) represents a belated acknowledgement of the need for the NHS to think carefully and rigorously about the way in which services are designed and delivered. As virtually every report from the Clinical Standards Advisory Group and the Audit Commission have shown, the NHS has not been good at this. Major issues, such as the appropriate degree and focus of specialisation among the clinical workforce and the balance of work between different hospitals, have been systematically neglected, as have the relationships between the various services contributing to a 'whole system of care'. Policies such as the R&D initiative and the drive for clinical effectiveness in the 1990s, while desirable in themselves, continued to focus on specific intervention rather than the system of care of which they formed part.

The Calman-Hine report[1] on cancer care published in 1995 represented the first step at national level towards remedying a deep-seated deficiency. As we have argued elsewhere,[2] the Calman-Hine proposals suffered from a number of weaknesses, some of which the expert committee could not be blamed for. The limited nature of the evidence underpinning its proposals, e.g. for greater specialisation, reflected a longstanding failure in the research community that could not quickly be remedied.

Other weaknesses stemmed from less fundamental but still major problems in NHS accounting, for both resources and staff and the information base for both. Drawing on other King's Fund studies,[3] we pointed to lack of information about the staff currently involved in cancer care and serious gaps in information needed to plan and manage an individual patient's treatment. Our overall conclusion was that, viewed as a bid for major service development, the Calman-Hine report did not stand up. The links between the proposals it made and the benefits assumed were not demonstrated, still less the costs of implementing them.

We therefore argued that proposals for NSFs should identify:

- training requirements
- cost implications

- the full range of tasks to be tackled
- the impact on other services of implementing their proposals.

These weaknesses have in part been recognised. The NSFs for Mental Health and Coronary Heart Disease contain extensive recommendations for training, research and other technical developments such as performance indicators across the service as a whole. In respect of coronary heart disease (CHD), for example, a core data set has been devised by the British Cardiac Society and the Clinical Effectiveness and Evaluation Unit of the Royal College of Physicians, to monitor the care given and enable performance to be compared across the NHS.

And the NSFs themselves set out five areas of work covering:

- finance
- human resources
- R&D
- clinical decision support systems
- information for health.

As the Frameworks indicate, however, developments in these related areas are at an early stage, so it will be some time, perhaps a very long time, before they make an effective contribution.

We concluded in our 1998 review[4] that progress was likely to be slow and that the Government would be wise not to commit itself to such an ambitious programme as that envisaged by the White Paper. The scale of the agenda set out here confirms the need for a cautious approach. The Government, however, has remained ambitious in its aspirations. More NSFs are on the way, for care for elderly people and diabetes. As they increase, the case for thinking about their overall significance becomes all the greater.

IS THIS THE RIGHT TRACK?

Given the findings of successive audit reports, it is very hard to argue against the current approach. There are major weaknesses in service delivery and there are much greater variations in access to effective care than a national health service should tolerate. The NSF process itself has many desirable features, particularly a broad vision of the service comprising all the relevant providers embracing the wider context in which health care is provided.

Despite these features and many other desirable technical proposals contained in the NSFs reviewed here, doubts remain about the process as a whole.

First, there are issues of priority both within and between NSFs and other services. Within NSFs, there is no attempt, as we pointed out with reference to Calman-Hine, to link the proposals to the benefits that are hoped for in general or the achievement of the national targets for each disease covered by the Frameworks. The key failure is one of methodology. The NSFs take a comprehensive view, but not a systems view that emphasises the interdependence between the various elements of the service. For example, the CHD Framework spells out in great detail how the service should be provided but the links between change and benefit are obscure and consequently what really matters is not identified. Rather, it gets lost in the mass of detailed recommendations contained in the Framework.

The dangers of not looking at the care system as a whole have emerged very clearly in recent weeks in respect to breast cancer. Crude death rates are falling rapidly, but no clear picture emerges from the presentation of the evidence by researchers or by the Government response as to how the various developments over recent years have contributed to the process. As David Kerr and Brian Edwards admit below, in relation to the implementation of the Calman-Hine proposals, the whole process is by way of an experiment, the nature of which does not allow the contribution of specific elements of change to be evaluated.

While it is perfectly possible that better treatment, more rapid access, better identification, etc., have all contributed, the fact remains that there is a risk of double or treble counting of the same benefits. For example, if treatment is becoming much more effective, then the benefits from formal screening programmes must be reduced (see Jo-Ann Mulligan's article elsewhere in this issue).

Furthermore, the relative importance of care, prevention and promotion will vary from area to area; perhaps even the relationships between intervention and outcome will themselves vary. Both will change as new ideas, research findings and practical experience become available.

Between NSFs and other services, the priority issue is essentially the same: what evidence is there that a switch to these services will produce greater benefits than in their existing uses? While some interventions are well evidenced and highly effective (e.g. aspirin and thrombolysis) others are not. In other instances, for example the eight-minute standard for defibrillation set in the CHD Framework, the costs of ensuring this may be enormous and the returns meagre at the margin. Getting CHD 'right' may therefore be at the expense of patients with more pressing needs in other areas. Such issues may be apparent at local level where decisions on the prioritisation of resources have to be made, but not at national level, where standards are actually set.

Second, and following from this, the Frameworks are unclear about the respective roles of the national guidelines and the local NHS. This lack of clarity arises in part from sheer lack of drafting skill: the Framework for Mental Health in particular appears more like a list of good things than a coherent account of what is likely to work best. A more fundamental factor, however, is a lack of clear thinking about what is appropriately prescribed by a single central source, and what is appropriately determined locally. In the case of mental health, for example, the Framework suggests that the examples of good practice it cites are service models that localities should follow. But good practice in one area is not always readily transferable to another. Furthermore, many of the examples arise from local experiment: laying down models to be followed risks stifling that form of innovation even where the evidence for those models being effective is sound. The less well based they are, of course, the weaker the case for national models. But the Framework does not systematically evaluate the strength of the evidence in favour of the models it cites.

Third, the organisational and financial framework is neglected. The proposals rightly stress the need for different parts of the NHS and other agencies to work together, but they fail to acknowledge the issues that this raises for the management, clinical governance and audit of the organisations concerned. The stronger the service-based links, the greater the tension between existing formal organisations and the quasi-organisations that the service focus throws up. Essentially, the NSFs embody a different view of what a health service comprises from the traditional view based on existing organisations such as hospitals, general practice, etc. In many respects, it is a superior one. But the traditional building blocks still exist, so the two approaches have to be knitted together. The notion of managed clinical networks has started to gain currency, particularly in Scotland, but while it emphasises the benefits of clinicians working across organisational boundaries, it fails to make clear how this can be reconciled with existing lines of accountability. But the natural development of a strong service focus running across organisations is that those lines will be confused. There may be a case for recognising this and creating new lines of accountability that reflect more accurately how services are delivered.

Finally, as the Frameworks accumulate, how will they all fit together? The services covered by the Frameworks are not independent of each other: many clinicians will work in or contribute to more than one. At some stage, interactions between them will have to be allowed for. In a sector as complex as health, there can be no master plan. But if the Government takes its own whole systems rhetoric seriously it will have to begin to take interdependence seriously, not only between policies but also between services. As we suggest above, the Department of Health should assess all the factors making for change in health care delivery, including its own policy interventions (see pp.3–6). Within that, it needs to focus on those areas where initiatives taken for particular services impinge on others. Only on that basis can it pretend to be setting out the strategic direction for each.

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The Mental Health NSF: the challenge of implementation

The Mental Health NSF has the potential to greatly improve services, but change requires long-term commitment from government as well as practitioners.

Matt Muijen

BACKGROUND

The National Service Frameworks (NSFs) are a central plank in the Government's strategy to improve the quality of health care, and were first mentioned in 1997 in the NHS White Paper *The New NHS: modern, dependable*.[1] The key statements were that 'patients will get greater consistency in the availability and quality of services' and 'the Government will use them [NSFs] as a way of being clearer with patients about what they can expect from the heath service'. In 1998, a consultation document, A *First Class Service: Quality in the New NHS*,[2] announced that the programme of NSFs would begin with mental health and coronary heart disease. The objective of NSFs as stated in this document was 'to provide the NHS with explicit standards and principles for the pattern and level of services required'. A table on page 27 of the document showed the anticipated layout of NSFs, including the evidence base, timescale, cost, supporting programmes and the performance management framework.

The work on the Mental Health NSF (MHNSF) started in July 1998. An External Reference Group of about 40 people was established, comprising a mixture of experts and representatives from professional organisations, chaired by Professor Graham Thornicroft. This group met three times. Eight subgroups operated independently, addressing key areas ranging from needs assessment to long-term care and workforce issues.

A long draft was submitted to the Minister in January 1999. This was edited by the Department of Health to bring it into line with the intended format, with the involvement of the chairs of the subgroups. The final MHNSF, after some frenetic activity, was launched in September 1999 by the then Secretary of State for Health, almost six months after the intended but wholly unrealistic deadline.

THE NSF

The NSF for Mental Health[3] sets out values, standards, an implementation and support programme and a set of proposed performance indicators and milestones for mental health services for the next ten years. It covers the full range of services responsible for the mental health care of people of working age spanning the NHS, social services and the independent sector. The first priority is services for people with severe and enduring mental illness, but common mental health problems are also covered.

A well presented folder was distributed widely, containing the full NSF of 146 pages and an executive summary of 31 pages. Both contain the standards, a range of performance indicators and milestones, and a description of the national support programme. The full document also offers the evidence base and many examples of good practice.

The MHNSF has generally been well received and it has created a high level of activity. Whether it will be perceived as having been successful in three or ten years' time will depend on, first, whether values, targets and service models are worthwhile and, second, on whether they have been achieved.

VALUES OF THE NSF

Values and principles are important, since they represent the foundations of what mental health service users, carers, the community and its staff can expect. Unless they can be translated into action they are merely ideals and, therefore, it should be expected that the values of the NSF are directly related to standards and targets, which in turn determine service models.

The values and principles are stated very early, on the second page of the full NSF, and are shown in Box 1 below. They are rather squeezed in, between paragraphs describing how the NSF was developed and its scope, and are never referred to again.

Most of the values are general and order seems random. It is difficult to identify a theme, or even priorities. Contradictions are never confronted, for example between 'the promotion of safety of users, carers, staff and the wider public' and the need to 'offer choices which promote independence'. On the one hand, one can probably make too much of this, looking for meaning where none was intended; on the other, this might be precisely the point. Mental health services could benefit from a cohesive set of values agreed between government, services, users and carers, considering the stigma and pressures all those involved are consistently facing and the tension between autonomy and public safety. The subsequent consultation papers on Severe Personality Disorders[4] and the Mental Health Act[5] are cases in point. Clear values might identify whether the proposed community treatment orders are primarily introduced to offer an alternative to hospital, i.e. offer choice, or to protect communities from patients refusing to accept medication.

BOX 1

People with mental health problems can expect that services will:

- involve service users and their carers in the planning and delivery of care
- deliver high quality treatment and care that is known to be effective and acceptable
- be non-discriminatory and well suited to those who use them
- be accessible so that help can be obtained when and where it is needed
- promote their safety and that of their carers, staff and the wider public
- offer choices that promote independence
- be well co-ordinated between all staff and agencies
- deliver continuity of care for as long as this is needed
- empower and support staff
- be properly accountable to the public, service users and carers.

The document is of course loaded with values, inevitably so in mental health, but they are not identified in a single box and they need some pulling together from across the document. The key aims from *Modernising Mental Health Services*[6] remain central, namely:

- safe services, to protect the public and provide effective care for those with mental illness at the time they need it
- sound services, to ensure that patients and service users have access to the full range of services that they need
- supportive services, working with patients and service users, their families and carers to build healthier communities.

To these should be added the scope of the NSF to 'drive up quality and remove the wide and unacceptable variations in provision' and the consistent emphasis on cost-effectiveness.

In combination, the implicit value base of the NSF is very similar to that of New Labour in many other policy areas: safe and healthy communities, equitable access and quality and value for money, ensured by rigorous performance management. The issue is how these values have been translated into standards, and how they will produce better practice.

STANDARDS

At the heart of the NSF stand the seven standards covering five areas: mental health promotion, primary care, care of people with severe mental illness, carers, and suicide reduction (see Box 2). Each standard is followed by supportive evidence, service models and examples of good practice.

The material brought together supporting the seven standards is impressive. It provides a good overview of the present state of mental health care in England and what good practice should look like. The gap between the two is depressing in all seven areas. It is clear that mental health promotion, covering topics including stigma, unemployment and homelessness, is facing massive problems. Considering that 23 per cent of the burden of disease in high-income countries is due to neuro-psychiatric conditions[7] and also the correlation of mental illness with deprivation and poverty,[8] the social exclusion agenda has to be a top priority. The prevalence of mental health problems is three times higher among children in the poorest households than among children in well-off families, and depression is twice as high in unemployed people as in those at work.[9] Nevertheless, this seems to be perceived as a soft area supported by little concrete and targeted action by health authorities and local government.

Although other areas covered by the standards are more directly related to mental health services, this does not mean that the picture is reassuring. Anti-depressants are often prescribed by GPs in too low a dosage,[10] and ineffective non-directive counselling is often the only available form in primary care.[11] Equally, specialist services offer a worrying picture. For example, after a good review of the potential roles of Community Mental Health Teams (CMHTs) to prevent hospitalisation, we learn that around 66 per cent of health authorities do not provide 24-hour access to them, and 50 per cent do not offer immediate home support.[12] Less surprising is the shortage of hospital beds reported, particularly in London, and the over-representation of minorities, particularly the African-Caribbean population, in secure beds. However, it is not just the availability or inequity of provision that is of concern – equally worrying is the poor quality, such as the lack of safety and therapeutic interventions in hospital.[13]

These challenges are matched by the seven standards (see Box 2). In isolation, they are rather generalised and the overall impression is of a superficial overview of standard good practice. Most service providers would give a response that many are already available locally. If read together with the paragraph on service models and performance assessment, the task is daunting, and it is doubtful that any service in the country is near the achievement of such a comprehensive and high quality system of care.

SERVICE MODELS

Originally, the hope was that a prescriptive structural model might be produced, like a mould that can be replicated in every locality. In the end, a functional approach was taken, describing the elements a good service should offer but allowing local variation in the implementation of the service model. This is a helpful approach, since mental health services have to be owned by local communities and need to take account of history, culture and circumstances. A deprived inner city area with high levels of deprivation and a population comprising many minority groups will have different needs and demands to an affluent small town in the counties.

However, the descriptions of service models state implicitly what the priorities are. The heart of the NSF – the service models for standards four and five, which address effective services for people with severe mental illness – covers many elements of services associated with risk, such as risk assessment, engagement of service users at risk and a balance of hospital beds, including secure beds. This not only reflects the concern for public safety following all the publicity concerning incidents

BOX 2: THE SEVEN STANDARDS IN THE NSF

Mental health promotion
1. Health and social services should work to promote mental health and combat discrimination against people with mental health problems

Primary care and access to services
2. Common mental health problems should be identified and assessed in primary care and effective treatment offered

3. People with common mental health problems should have 24-hour access to local services and to NHS Direct

Effective services for people with severe mental illness
4. All services users on the CPA [Care Programme Approach] should receive care that optimises engagement, prevents or anticipates crisis and reduces risk. They should have a copy of a written care plan, with a minimum content requirement, and should have 24-hour access to care

5. All service users requiring care away from home should have access to a hospital bed or alternative in the least restrictive setting possible and as close to home as possible, and should have a written care plan agreed on discharge

Caring about carers
6. All carers providing care for someone on the CPA should have annual assessment of their needs and a written care plan

Preventing suicide
7. Local health and social care agencies should prevent suicide by implementing a nine-point action list

involving mentally ill people, but also the concern with risk in general. The NSF is a product of its time and, therefore, risk could not have been ignored.[14] It is to be hoped, though, that risk will be considered as best addressed by the development of a comprehensive service dealing with the needs of patients, rather than a priority that can be addressed in isolation and in adversarial style, for example by setting up an assertive outreach team without considering the whole service system.

People posing a risk are a small minority of those in contact with mental health services, even among those with a severe mental illness.[15] This poses the challenge to planners and clinicians of how to reconcile the need to address gaps in current services for people with severe and enduring mental illness, the first priority of the NSF, with the many other demands. For example, there are also requirements to offer round-the-clock access to any individual with a common mental health problem and to produce a written care plan for carers. It is doubtful whether the capacity exists to meet all these standards, and the proposed configurations and underpinning programmes have to deliver greater efficiency in addition to the new resources if the NSF is to succeed.

SERVICE CONFIGURATION

The NSF has some important messages on the configuration of services. A preference is expressed for specialist mental health trusts, especially in inner cities and some metropolitan areas. Combined acute NHS and mental health trusts are specifically rejected. Much of the country is already experiencing reconfiguration into large specialist trusts, often covering populations of over a million people.

An important development is that primary care trusts (PCTs) may be given responsibility to run local specialist mental health services up to and including in-patient care, provided they satisfy criteria to guarantee ability and commitment. Although not explicit in the NSF, it has been confirmed by Ministers since its publication that this configuration is primarily aimed at rural areas.

In combination with the new Health Act freedoms, a likely model to emerge is joint commissioning between PCTs and local government, and integrated provision between specialist trusts and PCTs on the one hand and social services departments on the other. This also shows potential future faultlines: the overwhelming size of specialist trusts relative to PCG/Ts and many SSDs, and the small scale of

PCTs to take on commissioning or to deliver a comprehensive service. Of most concern to specialist providers will be the boundary between people with common and severe mental health problems potentially shifting towards the former as a consequence of the large burden of this group to primary care. Whether this is a problem in its own right depends as much on values, such as whether severity of an illness the best way to categorise need, as on resources.

UNDERPINNING PROGRAMMES

National programmes are planned to deal with key problems such as workforce and clinical decision support systems. Several different funds and grants have already been distributed as part of the £700 million over three years invested in mental health, most as part of the NHS Modernisation Fund (almost £40 million in 1999/2000) and the Mental Health Grant for social care (£106 million).

It is implied in the NSF that service improvements beyond the Modernisation Fund and Mental Health Grant will have to be achieved through local efficiency savings, for example by avoiding duplication. A review of the cost-effectiveness of key interventions has been commissioned, informing local investment decisions. If the comprehensive service modernisation is expected to be largely self-financing, expectations should not be too high. The recently announced funding to the NHS as part of the Budget suggests that more realistic perspectives are gaining ground, provided mental health gets its fair share.

Particularly important is the Workforce Action Team, asked to determine the staff numbers and skill mix required to implement the NSF. The group has to tackle some complex issues, such as the range of competencies flowing from the standards, supply and demand of the various staff groups, appropriate training provision and the most effective combinations of staff groups to deliver user-focused and evidence-based care in a range of treatment settings. This has to be linked to broader agendas such as the NHS-wide consultation document on the review of workforce planning, *A Health Service of all the Talents*.[16] This identifies the key problem for the NSF and mental health in general: how to manage its own priorities without constantly being redirected by wider agendas.

IMPLEMENTATION

In the short term, the implementation of the NSF is the responsibility of a network of groups operating at several levels. Nationally, there is the NSF Implementation Team supported by the NSF Implementation Group. Each regional office has a regional implementation team, and at health authority level there are local implementation teams, consisting of representatives from local agencies. Progress is closely monitored through a set of High Level Performance Indicators.

A balance has to be reached between fostering local initiatives and central performance management. The amount of paperwork health authorities are expected to return is daunting and may stifle the capacity to work creatively. On the other hand, unless the Centre has some handle on progress and variation, equality and efficiency – core aims of the NSF – cannot be validated. Again, this is an issue wider than mental health, involving many government departments and public sector organisations.

CONCLUSION

The Mental Health NSF is a document that poses a number of challenges to the field, but also to government itself. If the challenges can be met, mental health care will be improved beyond recognition. This requires a thorough review of service provision, changes to the workforce and shifts in attitude, such as a reduction in stigma linked to standard one. A sustained improvement will require long-term commitment from government, including realistic funding levels.

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The Calman-Hine plan and a framework for improving cancer services

Those charged with putting into action National Service Frameworks can learn much from the implementation of the Calman-Hine plan.

David J Kerr and Brian Edwards

INTRODUCTION

Cancer is a common and still stigmatising disease. The lifetime risk of cancer is about one in three and it accounts for approximately 25 per cent of all deaths. There is evidence of significant variation in cancer survival across different levels of the health care system. McArdle and Hole demonstrated that individual surgeons working in the same teaching hospital in Glasgow had a wide range of post-operative morbidity, recurrence and overall survival rates.[1] Sainsbury examined the quality of breast cancer care and survival in district general and teaching hospitals and found in favour of the teaching hospital system, which was better placed to deliver site-specialised and multidisciplinary care.[2] There does appear to be a survival shortfall when we make international comparisons with our European neighbours and American cousins. These data require cautious interpretation for a whole range of reasons (differential quality of death registration, failure to take account of potential bias, e.g. deprivation scores). Much of the discrepancy in survival rates occurs in the first year, which suggests that delayed presentation with more advanced cancer or suboptimal treatment could be contributory factors.

These data are cause for real concern and an expert advisory group was formed in 1994 to advise the Chief Medical Officers of England and Wales, thus formulating the so-called Calman-Hine plan for cancer services. This report did not define explicit standards, but it did set out principles and a framework to promote investment in cancer services to deliver high quality patient-centred care with the involvement of primary and palliative services. This report predated the National Service Frameworks proposed in *A First Class Service*, but had similar aims to reduce unacceptable variation in care and standards of treatment using the best evidence of clinical and cost-effectiveness.

IMPLEMENTATION OF THE CALMAN-HINE PLAN: A VIEW FROM ONE REGION

The principles underpinning the Calman-Hine plan are laudable when simply enunciated, but what of the approach taken to implement them? Remember, the initial report was published in 1995 and although it served as a precursor to the current National Service Frameworks, there was no concerted national drive to deliver the plan or any thought given to national standards, workforce planning or funding. The management philosophy of the day was devolution. This meant that the different Regional Health Authorities (and latterly the Regional Offices of the NHS Executive) pursued different implementation policies with varying degrees of urgency.

In the West Midlands, for example, there were four components of Calman-Hine that were considered likely to deliver most health gain:[3]

- site specialisation by surgeons and oncologists
- multidisciplinary team working and formulation of care plans
- adherence to jointly agreed disease management guidelines
- creation of IT networks and improved cancer registration data.

In order to pursue these objectives, the Regional Director raised a levy, agreed by chief executives of the local health authorities, to fund the formation of a team of senior managers and clinicians to implement the cancer plan. The team consisted of an administrative core supplemented by a Professor of Clinical Oncology, the Regional Director of Public Health, the Regional Chief Nurse, the Director of the West Midlands Cancer Intelligence Unit and the Regional Director of Planning and Performance.

Following dissemination of a regional version of the Calman-Hine report, the cancer team invited outline business cases based around a question and answer framework. This preparatory step served the dual purpose of warning the respective trusts of the structure of the business case that would be required as the first step in the accreditation process, and of alerting the cancer team to those trusts that wanted to be considered as cancer centres or units. Final business cases were submitted to the RHA in July 1996.

The team devised a system that would allow some sense of 'badging', or accreditation, such that each of the trusts that applied would undergo a critical evaluation of their current cancer service delivery and agree a timetable to rectify observed weaknesses or marked variation from the regional plan. An accreditation document was produced, based on a series of questions, each within broad subject headings (degree of surgical site specialisation, transparency of links between centres/units, existence of and adherence to clinical guidelines, etc.). It was decided to visit each of the putative centres/units during the autumn of 1996 so that reports could be relayed back to provider trusts and purchasers to inform the 1997/98 round of contract negotiations.

Each site visit lasted one day. The teams fielded by visiting and home sides are summarised in Table 1. Similarly, given temporal constraints, a structured timetable was followed (see Table 2). It was impossible for an identical team to visit each trust, but uniformity was aided by the mandatory presence of the Regional Cancer Co-ordinator and his administrative team, prior training for all health care professionals and the use of a structured site visit checklist.

The clinicians invited to participate in the accreditation programme came from around the region and most had been previously involved in peer review (on behalf of Royal Colleges, academic institutions, etc.). The exception was the Regional Cancer Centre in Birmingham, where leading clinicians with national reputations in the field of cancer medicine from elsewhere in the UK were invited to participate. In all, 24 site visits were completed by the middle of September 1996. Issue of the site visit report (allowing for comments on matters of fact by both sides) took an average of six weeks. Individual trusts and their local purchasing authorities then received a written report of the site visit, outlining strengths, weaknesses, a timetabled action plan and a date for the next site visit (this varied from 6 to18 months depending on

Table I

MEMBERS OF SITE VISITING TEAMS

Visiting team	Home team
Senior clinicians • Surgeons • Non-surgical oncologists • Public health specialists	Clinicians • Clinical directors • Lead clinicians involved in site-specialised management of cancer
Nurses and PAMS • Senior specialist nurses • Chairwoman, National Cancer Alliance (patient advocacy and information)	Nurses and PAMS • Nurse manager • Clinical nurse specialists • Senior pharmacists • Dieticians
Managers • Regional Cancer Co-ordinator (Chair) • Director of West Midlands Cancer Intelligence Unit • Senior member of Regional Performance Management Team • Director of Planning and Performance (NHS outpost) • Secretarial/administrative support	Trust Management Team • Chief Executive • Medical Director • Directorate of Strategic Planning • Information Technology Officer • Purchasers – senior representatives of local purchasing authorities

relative amounts of work required and the sense of underlying urgency).

This process was refined and systematised on subsequent site visits to increase transparency, include evidence-based endpoints and give a clearer sense of how much work the trusts had to do to gain 'full accreditation'.

MEASURING AND MONITORING PERFORMANCE

The process has been exhaustive – but has it made any difference to the quality of cancer services in the West Midlands?

Investment in and improvement of the cancer IT network will allow us to monitor changes in age standardised, stage-specific cancer mortality over the next five years, and we regard this as the greatest prize. In this sense, implementation of the regional cancer plan can be seen as a large-scale, public health experiment in which we are testing the hypothesis that a linked, multidisciplinary cancer service that depends on inter-trust co-operation will improve our cancer survival figures.

Given the disparities in survival that we have highlighted between different health authorities within the region and, at a macro level, between different regions and nations, we would expect to see a reduction in the intra-regional and international variation in disease-specific, standardised cancer-site-specific mortality rates. The size of our population and predicted cancer incidence rates suggest that it will be possible to detect an improvement in five-year survival of 2–3 per cent with 90 per cent power. There are 14,000–15,000 cancer deaths in this region every year – an improvement in survival of a few per cent could therefore mean several hundred lives saved per annum.

Table 2

TIMETABLE FOR CANCER TEAM SITE VISITS

Time		
09.30	Appraisal Team Pre-visit Meeting	
10.00	Appraisal Team meets with Trust representatives (Chief Executive/Trust Lead Cancer Clinician and Nurse)	
10.15	Appraisal Team meet cancer-site-specific teams* Team A Breast	Team B Gynaecology
11.15	Team A Lung	Team B Urology
12.00	Team A Skin	Team B Colorectal
12.45	Lunch	
13.15	Any visit to specific facilities, e.g. pharmacy, chemotherapy unit	
13.45	Team A Haematology	Team B Upper GI/Hepatic and Pancretico-Biliary
14.45	Team A Head and Neck (where appropriate)	Team B Palliative Care
15.30	Team A Ophthalmic/CNS (where appropriate)	
16.00	Team review findings and complete marking forms	

* Cancer-site-specific teams should include representatives of the following groups: surgery, oncology (medical and radiation oncology), palliative medicine, pathology, radiology and nursing.

Programmes aimed at reducing cancer incidence rates through education, prevention and screening require prolonged follow-up over many years to be able to discern the positive effects of intervention, but because much of Calman-Hine is aimed at improving the quality of treatment delivered to established cancer patients, it should be possible to detect survival improvements over a period of five years. If mortality rates do decrease, how much of this could we attribute directly to the implementation of the cancer plan? Clearly, in the face of introduction of innovative cancer treatments and the application of novel research findings over the same period of time, it will be difficult to show the precise contribution of service reorganisation. However, what use are new treatments if they cannot be delivered effectively, safely and to the majority of eligible patients – a scenario that would have been extremely unlikely prior to the introduction of the cancer plan?

There are a number of surrogate endpoints that could be assessed through audit, which would allow monitoring of continued implementation of the cancer plan. Ideally, these should correlate with the primary endpoint – cancer-associated mortality

– and should illustrate those processes of care that are likely to return most health gain.[4] We have shown significant changes over the past four years in each of the following parameters:

- increasing surgical volume undertaken by nominated site specialists rather than general surgeons
- documented attendance and register of multidisciplinary meetings
- reduction in time from referral to first definitive and subsequent therapy
- enhanced fraction of eligible patients recruited into nationally peer-reviewed trials
- adherence to peer-reviewed clinical guidelines.

PROBLEMS AND PITFALLS

The implementation of Calman-Hine has highlighted a range of problems and pitfalls, which we note below.

VARIATIONS IN ROLL-OUT

The Calman-Hine report was not prescriptive as to how it should be rolled out. This has led to significant variation in the mechanisms adopted by the different regions, from the well-funded and stringent to a much more piecemeal approach. This means, some five years after the report was published, that there has not been as much uniform progress nationally as might have been expected. This represents a major strategic error given the scale of the potential benefits for patients.

STAFF AND EQUIPMENT SHORTAGES

There are also issues around the concept of site specialisation and staffing levels. We found that surgical colleagues embraced the concept of site specialisation with relative vigour. Using cancer registry and Finished Consultant Episode (FCE) data sets, we demonstrated a clear shift towards fewer surgeons developing a larger tumour-specific volume of work.[5] However, this was not matched to nearly the same extent by clinical and medical oncologists. There simply are not enough non-surgical oncologists to meet the minimum of five sessions per cancer unit, attend multidisciplinary team meetings and properly develop a significant degree of tumour-specific specialisation.

Staff shortages abound across a range of other specialities – radiographers, specialist nurses, pathology technicians, etc. Some sense of workforce planning at the inception of the Calman-Hine report would be starting to bear fruit now and hence ease staffing problems.

Shortages of up-to-date equipment have also proved problematic. The Royal College of Radiologists published an audit that indicated that there were not enough radiotherapy machines to deliver the quality of service mandated by the Calman-Hine report. Resources have been released by the New Opportunities Fund to help resolve these inequities and provide modern equipment.

THE NHS AND THE PRIVATE SECTOR

A further issue concerning tumour site specialisation is the role and responsibilities of the private health care sector and consultants' private practice. We believe that complex, team dependent care like cancer therapy is better delivered from an NHS environment than by the private sector, but at some stage there will undoubtedly be a move for those private sector hospitals engaged in cancer care to be accredited to the same extent as NHS trusts and there may be a tension here for those clinicians who are site-specialised in the NHS but support a rather more general practice in private hospitals.

GUIDELINES AND CLINICAL FREEDOM

There is strong support for the multidisciplinary approach to defining optimal care plans. However, these need to be more precisely defined in terms of membership, frequency of meeting, mode of working (should a register and minutes be recorded?) and recognition of their importance by inclusion in consultant job plans.

The Clinical Outcomes Group provided a series of evidence-based guidelines for different disease types, which have been widely distributed. These should inform the work of the multidisciplinary team but there are few data to show that the guidelines are actively used, and it is uncertain as to how frequently they will be updated or modified in the light of new trial results. There may be a residual debate about stifling clinical freedom by imposing guidelines, but the process of developing these was consensual, bottom-up and evidence-based. Therefore, at one extreme, those who continue to plead that guidelines negate clinical freedom would appear to be supporting a case for anecdotal care. It is uncertain if any penalties are being imposed on clinicians who do not follow the guidelines or whether patients treated outside of the guidelines have mounted any legal challenges. Clinicians who stray outside the guidelines without due cause will be at significant risk. When the guidelines are ignored altogether, the chief executive of the trust will be at risk under the new rules of corporate governance.

ADVANCES IN CANCER HEALTH TECHNOLOGIES

A further area of concern that needs to be resolved is the backlog of novel anti-cancer drugs that have been licensed and shown to be of worth in well designed clinical trials, but which have not yet been evaluated by NICE. This is a source of real clinical tension and has led to postcode prescribing. Patients and their carers come increasingly armed with data downloaded from the Internet and are made to feel worthless if the attendant clinician cannot prescribe a drug of proven worth because the local health authority refuses to consider funding applications until NICE has pronounced. Improved co-ordination between the licensing authorities and NICE should see a more rapid turnaround time for active, new drugs.

CENTRALLY IMPOSED TARGETS

The Government, keen to drive the modernisation agenda through the NHS, has set a series of ambitious targets for the cancer treatment community. Some of these are big-ticket items, reducing the overall number of cancer deaths by 100,000, whereas others are more process-driven, e.g. the two-week wait for cancer referrals. The latter has caused a fair degree of debate. The initial target of no woman suspected of breast cancer waiting longer than two weeks from GP referral to being seen by a hospital consultant seems reasonable. Given the heightened media coverage of health matters, most women finding a breast lump would assume cancer until proven otherwise. Therefore, rapid access to a diagnostic unit would seem rational, even if only from the viewpoint of reducing the anxiety associated with a long wait to be seen. However, the two-week wait is to be extended to patients suspected of all other cancers and this is causing problems. Despite production of GP guidelines to help improve the likelihood of those referred rapidly having cancer, these are necessarily vague, given the Protean manifestations of cancer, and may well lead to outpatient departments being swamped with increasing referrals with few extra cancers being detected at an early stage. Perhaps a more rational approach is to develop an educational programme that takes patients earlier to their GPs and the measurement of effective delivery of care by the hospital that could be assessed by the time from GP referral to first definitive treatment, for which there is rather more evidence of a correlation with cancer outcome figures.

THE WAY AHEAD

A number of strands have been woven together since the Prime Minister hosted a cancer summit in Downing Street in the summer of 1999. There was a sense that the Calman-Hine plan needed to be co-ordinated centrally in order to reduce variations in the rate of spread and methodologies used by the different regions. Professor Mike Richards has been appointed National Cancer Director and charged with writing a costed cancer plan by the end of summer 2000. It is not, however, certain that any funds allocated nationally will be targeted on this basis. If they are simply included in baseline allocations, cancer will have to compete with other specialties on a local basis, leading again to patchy and ill co-ordinated development. This is an extraordinary opportunity to guide investment in cancer services to return optimal health gain. The Cancer Services Collaborative (CSC) funds 43 projects in nine cancer networks covering a population of 15 million. Its objectives are to examine and redesign cancer care pathways such that multidisciplinary care is delivered in a timely, patient-centred manner, and that bottlenecks in the system are identified and reduced by matching capacity and demand. The Collaborative, which works closely with the Institute for Health Improvement in Boston, Mass., has already produced a number of initiatives that have significantly reduced waiting times between GP referral, hospital appointment and definitive treatment. The philosophy of change management underpinning the CSC is being applied to the other National Service Frameworks and will be rolled out to include additional cancer networks.

The Commission for Health Improvement (CHI) will undertake a joint review with the Audit Commission of the progress made towards implementing Calman-Hine and will help inform the National Cancer Plan. So, it is a period of intense activity that should result in an equitable service of high quality and see a new beginning to the end of this rather prolonged phase of introducing the managerial and clinical changes that are prerequisite to the success of Calman-Hine.

The next priority must be a plan focused on early detection and the enhancement of cancer skills in primary care.

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The King's Fund response to the report of the National Beds Inquiry

The report of the National Beds Inquiry is welcome, but much work is still to be done.

PREAMBLE

The King's Fund welcomes the report, which, as the first study of hospitals to emerge from the Department of Health for 20 years, is long overdue. But as the report itself makes clear, there remain substantial areas of uncertainty and gaps in knowledge that will not be removed even if the questions set out for consultation receive helpful and substantive answers.

The report should, therefore, be seen as just the first step towards a properly structured process of planning the pattern of service delivery against a background of continuing change, the nature of which is hard to predict. Our focus, therefore, is on what should follow next.

THE KING'S FUND VIEW

We believe that it would be unwise for the Government to commit itself to new investments in the physical capacity of hospitals before the need for that capacity has been properly established at local level. The report itself does not do this – rather the series of questions it poses for consultation indicates that the Department itself is uncertain as to what is required.

We believe that the presumption should be that the number of acute hospital beds – and the time people should spend in them – will continue to decline, that people should be cared for as much as possible at home, or closer to home, and that better preventive – and other – policies can reduce the need for hospital admissions. We acknowledge that the evidence is limited. However, what evidence there is on balance supports the view that users themselves would prefer to spend less time in hospital and that outcomes are very similar; the evidence on costs, however, is more ambivalent (see Note 1, pp.51–52).

In the case of mental health, hospital care remains the usual approach to treatment for people who are suffering from acute mental illnesses. Increasingly, the aim is to provide hospital beds in facilities close to the communities where individuals live and there is decreasing reliance on older and more remote psychiatric hospitals.

There are effective alternatives to hospital-based care and it is our view that effort should now be concentrated on developing these alternatives. However, although there is now an extensive literature on these alternatives and a good deal of practical experience, there remain, as we argue below, a great many issues to be resolved before they can be developed on a proper basis at the local level.

The creation of more acute beds to relieve current pressures will result in greater investment in relatively inflexible and expensive fixed facilities, at the expense of investment in alternatives. However, some additional bed capacity for general acute admissions and enhanced low secure and psychiatric intensive care may be needed in some areas to provide sufficient flexibility and a range of facilities within the overall care system (see Note 2, pp.52–53).

NEXT STEPS

In considering what the next steps should be, it is helpful to distinguish the tasks that fall to the Department of Health/NHS Executive and those that are the responsibility of the local NHS and local authorities, and also between the immediate and the long term.

THE SHORT-TERM AGENDA

The original stimulus to the National Beds Inquiry was the apparent lack of hospital capacity to deal with the peaks in demand for beds during the winter months. As the events of the past winter – a mild one as it turns out – indicate, the NHS still appears to be short of capacity to deal with these inflows.

This may mean that some degree of 'slack' has to be built in to cope with variations in demand. The main factor, however, is not so much physical capacity as the availability of staff and of services and facilities outside hospitals, which reduce the need for hospital admissions. These include better preventive and anticipatory care to avoid the crises that give rise to admissions, and better after care including more rehabilitation facilities, community nursing and beds in other settings such as privately owned nursing homes. Until these options are fully explored, the NHS should avoid committing itself to a large number of new hospital beds.

The Emergency Services Action Team[1] has done a lot of good work in this area already and, as the National Audit Office[2] has shown, there is still scope for hospital trusts to learn from existing good practice bearing on the management of their beds. The Inquiry did not address short-term issues directly, but the way that the service responds to the immediate pressures upon it should be seen as a source of learning for the longer term. The Centre itself should promote and support pilots of radical and innovative ideas – on the lines suggested below – and ensure the lessons learned from them are disseminated throughout the service.

THE MEDIUM- TO LONG-TERM AGENDA

Although a great deal can be done to improve the NHS response to pressures on its bedstock within the existing framework – by developing a wider range of community services, which may reduce the need for admissions and which make more rapid discharge from hospital a safe alternative to longer stays – for the medium to long term, radical options need to be considered. The implementation of these may change the financial, organisational and professional rules that circumscribe current practice.

Such options might include:

- critically assessing the skills of the existing workforce to consider whether new role definitions are required and making a more fundamental attempt to break down the barriers between hospital and community professional roles, which make whole system working hard to achieve and which make it hard to redeploy staff according to where the pressures of demand are greatest
- developing more flexible contractual arrangements to allow a better match between staffing levels and demand for services
- developing more systematic ways of prioritising elective and emergency admissions. Many elective admissions are in fact urgent, but there are no nationally agreed guidelines or criteria for determining which fall into this category
- piloting different ways of managing hospital beds by, for example, putting part of the existing bedstock under the control of community-based organisations
- creating an effective planning and management framework for the whole of the emergency care system, thereby effectively bringing together community-based out-of-hours services,

hospital emergency facilities, ambulances and NHS Direct.

These items form part of a familiar agenda, which has proved hard to move on in the past. The proposals that follow are aimed at making progress in these complex and difficult areas.

THE POLICY FRAMEWORK

The report gives very little consideration to the policy framework within which services and facilities are planned. There is a need to:

- bring together all the relevant strands of policy, including National Service Frameworks (particularly for older people and for mental health); the Private Finance Initiative and the capital planning process in general; and workforce planning, including the current review as well as the funding and organisation of long-term care. At the moment, these interconnections are not being made. The capital investment strategy[3] published last year fails to do this and the workforce planning consultation document[4] does not give systematic attention to the likely trends in service delivery nor to the particular problems identified here. The Private Finance Initiative remains focused on the individual trust rather than the local health economy
- identify and, where possible, remove the obstacles to whole system working where these arise from the existing pattern of responsibilities and incentive structures. This is particularly important at the boundaries between hospital and community-based services and between health and social care, but, for elderly people in particular, housing and the benefit system also need to be taken into account. Some steps have been taken, e.g. the duties and powers provided for in the Health Act 1999, but more needs to be done. For example, ways need to be found of encouraging hospitals – including intermediate facilities – to discharge patients at the clinically appropriate time. Similarly, the incentives for private and not-for-profit providers not to discharge people to the home environment also need to be considered – particularly if, as the Secretary of State has recently suggested, such facilities are used more extensively for patients who would normally expect to return to their homes after a hospital stay
- develop a human resources strategy that will support changes in professional roles and in the way different professional groups work together at local level to plan and deliver services for vulnerable people. This would involve not only better training and support for existing staff but also the development of new roles and, more fundamentally, an examination of the scope of all the professions involved. New roles are required to ensure effective co-ordination of care as people with complex needs enter and move through the health and social care system. Staff who take on responsibility for the management of these care pathways can come from any professional background, providing they have the knowledge and skills required of co-ordinators of care across primary, community and secondary sectors. The exercise of these new co-ordinator roles will ensure that people with complex needs are in the right care setting at the right time – rather than lingering unnecessarily in hospital beds or being admitted prematurely to long-term care beds. The recruitment, education and training of these 'care co-ordinators' needs to be spelled out in any NHS human resources policy
- recognise the ways in which rising expectations in general and the development of the expert patient in particular will impact on 'the market' for which services are to be planned. Service planning will have to take into account the existence of a more vocal clientele ready to challenge professionals and their organisations, both on the type of services that ought to be available and on what is appropriate for the individual user.

TECHNICAL ISSUES

The report of the National Beds Inquiry and particularly its supporting annexes contain a great deal of interesting analysis. However, in many key areas they are far from conclusive. The failure of the report to come to more definite conclusions reflects a long history of neglect of the issues with which it has had to grapple. A great deal more effort must be put into developing the knowledge base in these areas. In particular:

- the Centre should take the lead in ensuring that as far as possible the knowledge gaps identified in the report (particularly in the list of questions) are filled by relevant pilots/experiments, research and improvements in the sharing of information and experience within the service
- although the report is intended to be for the medium to long term, in fact it does not consider in any detail the long-term context, particularly how the characteristics of the elderly population will change during the next 20 years. The Centre should consider how the care needs of elderly people and mentally ill people (and hospital users generally) are likely to change in the next 10–20 years and the extent to which these needs can be influenced by policy interventions, including those outside the NHS itself. This will involve taking a very broad look at likely economic and social developments, possibly building on the work carried out by and for the Royal Commission on Long Term Care[5]
- the Centre should support the development of methodologies for the design and planning of services. If lessons learned in this developing field are to be useful throughout the NHS, then it is important to be able to distinguish from any new scheme the salient features that might be transferable to other places. It will be particularly important to transfer learning bearing on joint working between managers and clinicians when developing new intermediate services. Furthermore, service innovations are complex interventions, which require new research methods to evaluate involving a multidisciplinary approach, qualitative and quantitative methodologies and appropriate outcome measures. None of this will be possible without reliable and comprehensive systems and processes for collecting and collating relevant information
- the Centre should also develop methodologies for evaluating service innovations – i.e. complicated rather than simple forms of intervention, which identify what works and why. This will require the development of new research techniques, possibly blending qualitative methods with simulation models for whole systems of care. The establishment of the new R&D programme into service delivery and organisation is a step in the right direction. This needs to be closely linked to the programme of experiment and innovation suggested above
- although the report acknowledges the value of the 'whole systems' approach, in fact it contains little analytical work of this kind. The work reported in Annex 9 of the report represents a useful starting point. But it needs substantial development, both in terms of data analysis/modelling and the interactive processes between organisations that are required to make this approach work.[6] The Centre also needs to develop further the required methodology to support local planning and service development and to explain its value to localities.

SUPPORT FOR LOCAL ACTION

Because of differences in geography, existing health buildings and local preferences, there should not be a 'one size fits all' approach. Hence, the main task is to devise strategies in the light of local circumstances.

This task is primarily for the local NHS. As well as the areas set out above, the Centre can support local action by:

- clarifying and developing the notion of whole system working. Although the notion of whole system working is becoming widely accepted as a concept, there remains a long way to go before it is a reality
- avoiding over-prescriptive norms or guidelines, which would have the effect of limiting the scope for local experiment. Rather, as with the Primary Care Act 1997, it should encourage on a selective basis local experiments with, for example, new professional roles
- encouraging local innovation by using pump-priming funds to help local health economies develop cross-boundary services and experiment with new forms of contracts and new organisational structures.

As noted above, the results of such work should be disseminated widely to other localities and used to inform the Centre in relation to its responsibilities for the policy framework.

CONCLUSION

The King's Fund welcomes the publication of the report of the National Beds Inquiry. We have aimed to build on it in this response.

In the immediate future, the main focus should be on developing the ability of hospitals, along with other providers, to cope with winter pressures and demand variations in general.

In the medium to long term, a much more ambitious and complex agenda needs to be addressed, the nature of which we have outlined above.

Although the report of the Inquiry promises that guidance will be issued once the results of the consultations have been evaluated, the gaps in the report and the tentative nature of its conclusions mean that it will not be possible to issue authoritative guidance except in the most general terms.

Instead of trying to provide definite answers to what are very complex issues, the Department should seek to define a process that will enable all the issues set out above to be considered, and their inter-relationships allowed for. It should support a programme of innovation and experiment, possibly within the service development and organisation programme, combined with a continuing assessment of the world-wide literature bearing on the role of the hospital as well as practical experience of dealing with the same issues in other countries.

While some of the elements of such a process naturally fall to the Department itself, there is no reason why it should not be an open and public process involving the NHS and its users. Our final recommendation, therefore, is that the Department should establish a forum for developing the knowledge and skills required for strategic service development across hospital and community, comprising not only research expertise but also expertise in service development and organisational change. The resulting knowledge should be linked into training programmes for both managers and professionals.

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NOTES

NOTE 1

Wilson *et al.*'s work[1] showed that length of stay in care and total days in care were about 45 per cent less for patients receiving hospital at home care, whereas the work of Richards *et al.*[2] suggests length of stay in hospital was 62 per cent of length of stay in hospital at home schemes, although the authors caution against these length of stay interpretations because the organisational characteristics of the two services are very different. Shepherd and Iliffe[3] found in their systemic review of five schemes that there was insufficient evidence to determine the effect of hospital at home on patient outcomes, or the cost to the health service. Again, in contrast, Coast *et al.*'s[4] work shows clear cost gains to the NHS. None of the evidence seems to suggest any difference in health outcome for patients in hospital or receiving hospital at home.

There is limited information available concerning patients' views as to where they should receive treatment. Richards *et al.* showed that only one of 11 measures of patients' satisfaction was significantly different: hospital at home patients perceived higher levels of involvement in decisions made. Shepherd and Iliffe's systemic review of five schemes found that patients discharged early from hospital to hospital at home following elective surgery expressed greater satisfaction with care than those remaining in hospital. Family carers, however, expressed less satisfaction with hospital at home compared with hospital care. Most patient surveys have tended to concentrate on their views on being discharged from hospital – i.e. how the discharge was handled (for example, whether information was provided to older patients on discharge following stroke or fractured neck of femur[5]) and problems facing patients once discharged back home.[6]

As with hospital at home schemes, intermediate care schemes have proved difficult to evaluate. However, the existing evidence, albeit small-scale and qualitative, suggests intermediate care, offering timely mental and physical therapeutic services, is an effective way of achieving health gain and reducing re-admissions to hospital. Rehabilitation and a rehabilitative approach to care can also be highly effective in reducing the number of permanent admissions to residential care and keeping low the level of care needed by people at home, as well as reducing hospital admissions – as work by the Audit Commission and the King's Fund[7,8] has shown.

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NOTE 2

Johnson and Lelliot reported on a growing 'bed crisis' in acute mental health services, particularly in London during the 1990s.[1] They examined the work of Guite *et al.* in their 1995 report to the London Task Force and London Commissioners, and the work of Conrane and colleagues. Both reported high levels of bed usage in many areas of London. Whilst occupancy rates were high, rates were found to be very variable between areas with similar characteristics. Johnson and Lelliot also considered the findings of the 1994 Thames bed survey, in which it was found that 23 per cent of patients in acute beds appeared to no longer require acute care. Such evidence, taken together with the long lengths of stay of some patients using acute care, suggests that beds might be 'silted up'[2] with people who could be discharged if alternative provision were available.

More recently, the Sainsbury Centre for Mental Health examined the quality of care in acute psychiatric wards.[3] They found a number of problems with the kind of care provided. However, they also found that alternative forms of care could better meet the changing needs of people experiencing acute mental illness. Further work by the Centre suggests that these alternatives should include provision for people in crisis, to prevent admission to hospital and/or reduce the number of admissions experienced by individuals. An enhanced range of accommodation and community support can also facilitate earlier and more appropriate discharge.[4] Alternative forms of provision, for instance home treatment and crisis services, remain relatively underdeveloped in Britain and should now be expanded to augment hard pressed bed provision.[5]

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NOTE 3

It will also be important to consider how team working can be encouraged and supported. Specialist teams focusing on particular groups of vulnerable people (frail older people, those with learning disabilities or mental health problems) are needed to arrange or provide integrated programmes of care and support. They also have the potential to achieve more efficient use of community and hospital services. This has been evident, for instance, in the case of some community mental health teams that have managed use of acute hospital beds as well as the full range of community services. Teams like this have succeeded in reducing hospital admissions while also maintaining good quality services to people in their own homes. An expansion in this type of team working would be consistent with good practice guidance associated with National Service Frameworks. Any expansion will require investment in leadership development among nurses, therapists and social workers who are most likely to become leaders of teams comprising staff from medical and non-medical backgrounds.

NOTE 4

Within the short term, it is both desirable and possible to glean far more than is currently known about older patients. For example, whilst data is collected on age and the type of bed occupied, little or nothing is known about family and living circumstances or income. The existing patent information systems can be, and sometimes are, used to collect information about social circumstances. John Appleby and Andrew Perkins' article on pp.64–71 below reports analysis of these data, which found that length of stay was on average 30 per cent longer for those without support at home.

Any real attempts to consider how older patients' care needs might change over the next 20 years must be based on significantly more complete knowledge about current older patients' needs. In terms of considering longer-term care needs, a useful starting point would be to concentrate on those who will reach or exceed the age of 75 over the next 20 years. This section of the population is likely to become more, rather than less, disparate over the next 20 years as existing pension inequalities seem set to widen and may in turn become more closely associated with widening health inequalities in old age. The anticipated impact of the Government's public health strategy must be taken into account, particularly in terms of which sections of the population are expected to survive into older age as a result of decreased rates of mortality from stroke and coronary heart disease. Expectations about living and family circumstances for the next 20 years also need to be taken into account. In short, some profiling of the future older population is required. This should give policy-makers and others more realistic information from which to plan, and also provide a template from which any future adjustments in service provision can be identified.

NOTE 5

Evaluation of an intervention requires answers to the questions: can it work? Does it work (in real life)? How does it work? And is it worth it? In biomedical technical evaluation, the 'how does it work?' question is usually addressed theoretically in the design process. Service delivery and organisation research needs to derive theory to support the planning process. This critical stage is often missing in service development, which makes the work difficult to generalise because the part played by local factors in the design, execution and the effect of the environment are imperfectly understood.

It is therefore important that the design and evaluation of new services include careful modelling of all components – structural, functional and human agency, the rationale for the inclusion of these components, estimates of their likely effects and the effects of the environment in which they will operate.

3 May 2000

Private finance and service development

Investment in hospital building runs contrary to current whole systems thinking. Future solutions should be pooled and under public sector control.

Seán Boyle and Anthony Harrison

The Private Finance Initiative (PFI), introduced to the NHS by the Conservative Government in 1992 and subsequently enthusiastically endorsed by the Labour Government, was very slow to take effect. By May 1997, however, some 70 major hospital schemes were in preparation, much more than it was feasible to fund. By 2000 there was clear evidence (see Box 1) of a rapid increase in new hospital building. Although some schemes continue to be financed from public sources, the PFI is now the main route for financing major hospital schemes.

Whether the right hospital schemes are being produced is another matter. In this article we argue that the framework within which both private and publicly financed schemes are considered is wrong, focusing at it does on the individual hospital or trust, and that it is not compatible with other parts of government policy, which emphasise the 'whole system' of which hospitals form only part. We consider whether the PFI has produced benefits to offset these disadvantages and conclude that it has not. We therefore put forward an alternative approach to hospital procurement.

BOX 1

Since May 1997, three waves of schemes have been announced. The result is a potential of over £3.4 billion of investment in hospital infrastructure. However, many of these schemes have yet to reach financial close. Twenty-two schemes over £10 million had reached financial close by April 2000, of which 18 are funded through the PFI.[1] The total construction value of these schemes is £1.46 billion.

Table 1 lists those schemes over £10 million in value that are on site, with an expected delivery date where this was available.[2] Most of these are for new hospitals – sometimes on an existing site – but some are additions or rationalisations of existing infrastructure. Four of the schemes are in community or mental health trusts. The earliest that any of these schemes is expected to be completed is mid-2000, and the latest is April 2002.

The scale of this response on the part of the NHS reflected the history of capital spending in the service. The NHS inherited a large stock of badly located and unsuitable capital assets, which reflected the piecemeal and unco-ordinated development of hospital services before the Second World War. The 1962 Hospital Plan set in train a process of capital development around the concept of a district general hospital (DGH) serving most of the needs of its local population. In the 40 or so years since then, capital budgets were often cut back in the interests of the overall management of the economy.

Table 1

PFI AND PUBLIC SCHEMES ON SITE, APRIL 2000

NHS trust	Value of scheme (£ million)	Expected delivery*
Barnet & Chase Farm	54	April 2002
Bromley Hospitals	118	January 2002
Calderdale Healthcare	65	April 2001
Carlisle Hospitals	65	May 2000
Dartford & Gravesham	94	July 2000
Greenwich Healthcare	93	January 2001
Hereford Hospitals	64	
King's Healthcare	64	
Leeds Community	47	
Norfolk & Norwich Health Care	158	January 2002
North Durham Health Care	61	November 2001
North Staffordshire Combined Healthcare	19.2	
Oxleas	15	October 2000
QMC, Nottingham University Hospital	16.6	March 2001
St George's Hospital	49	
South Buckinghamshire	45	January 2000
South Durham Health Care	41	
South Manchester Hospitals	66	September 2001
South Tees Acute Hospitals	122	
Sussex Weald & Downs	22	
Swindon & Marlborough	96	
Worcester Royal Infirmary	87	March 2002
Total PFI finance	*1462*	
Central Sheffield University Hospitals	24	July 2000
Guys' & St Thomas'	50	
Rochdale Health Care	24	July 2000
Royal Berkshire & Battle Hospital	74	November 2001
Total public finance	*172*	

* As at March 1999 according to House of Commons Health Committee, 1999, HC629.

Note

A bewildering array of figures is available describing the value of the various PFI schemes at different times. Often these differ in what is included in the overall cost calculation. However, there have also been genuine changes in the cost of schemes over time. There has been no attempt by the Government to put consistent sets of figures into the public domain, or to explain differences in official figures.

According to the Audit Commission,[3] at the beginning of the 1990s NHS capital stock was valued at some £25 billion and the rate of investment was about £400 million in new schemes and £500 million on maintaining premises and associated services. Despite this, the supply of capital to the NHS has been widely perceived as insufficient to maintain the quality of the existing assets. Again, according to the Audit Commission, the NHS faced a maintenance backlog of some £2 billion.

Thus, by the time that the PFI began to emerge as a source of capital finance, NHS capital stock was often in poor physical condition and was inappropriate to the tasks it was required to perform. However, despite the general view that the level of NHS capital spending was low, there were no satisfactory measures of the return on capital investment on which this view could be based. The formal procedures for appraisal were designed to identify the nature of the benefits that the schemes were expected to produce, but many of the benefits were not readily quantifiable in monetary terms. Even where in principle benefits might have been calculated, for example lower maintenance costs from newer assets, the means of calculating them were often missing because very little analytic work had been done on the impact of new investment on these and other costs.

TRUST FOCUS

NHS trusts were established in the first half of the 1990s, as free-standing bodies encouraged to develop business plans for expanding their own activities. The framework for planning services that had been developed from the mid-1970s onwards, particularly within Regional Health Authorities, was run down.

Because the PFI in health has been primarily focused on individual hospital trusts, it has been almost entirely concerned with the provision of major capital assets and their associated services. It has not focused on the way that services, for example for older people, might be provided, taking the health care system as a whole, including nursing homes, small community hospitals and health centres.

The weakness of this stance was made clear by the publication of a BMA discussion paper, *Leaner and Fitter*,[4] which looked at the investment options in an anonymised part of the country covering a number of trusts. As it indicated, a number of options were available – ranging from massive consolidation to more widespread but still selective development. However, even this report did not fully consider the scope for investment in complementary facilities that might have further reduced the need for spending on hospitals themselves.

Furthermore, because the PFI was seen as the key to new hospital building, the majority of the private sector interest was initially made up of construction companies, thereby reinforcing the emphasis on 'bricks and mortar'.

STEPS TOWARDS PRIORITISATION

The Capital Priorities Advisory Group (CPAG) was formed in 1997 to meet the criticism that there was no basis for deciding between schemes once their financial viability was determined (see Box 2). However, CPAG did not have available to it a hospital development strategy. As noted in Anthony Harrison's article above (pp.3–6), the Department of Health issued no substantive statement on the future role of the hospital during the time the PFI was coming into operation. Thus, by the time that the report of the National Beds Inquiry was published in March 2000, the Department of Health had sanctioned some £1.4 billion worth of investment in hospitals without the benefit of any strategic view of their future role.

The report itself, however, did not provide that either. Although the 'whole systems' context was acknowledged, the report did not attempt to forecast either the total demand on hospitals in the future or how that demand ought to be allocated between different sorts of hospitals, or between hospitals and community services. Instead, it put forward a number of possible scenarios representing different patterns of investment, none of which was costed or evaluated in systematic terms.

This omission reflected the long-running neglect of hospitals already noted. While the report did not provide 'answers', it did succeed in identifying a large number of key questions about the role of the hospital and the proper balance between hospital and community. It made clear that for the largest user group of hospital in-patient facilities – older people – the workload of the hospital depends critically on the facilities available outside it.

It also acknowledged that the future was highly uncertain, not only because of lack of knowledge about what could be achieved with current technology but also because no means were available of forecasting future demand levels. It therefore recommended maximum possible flexibility but offered no clear advice as to how that was to be achieved.

BOX 2

For all schemes with an expected capital cost over £25 million, trusts – in collaboration with Regional Offices and commissioners – have to produce a Strategic Outline Case (SOC). This should contain sufficient information to enable CPAG to consider the national priority of a scheme. CPAG recommendations are then considered by ministers who determine the final prioritisation on the basis of health service need. Affordability, deliverability and PFI ability of schemes (how likely the project is to attract private finance) are also taken into account. The SOC should be made publicly available within one month of the decision of the national prioritisation exercise being announced. Although the guidance seems fairly clear, in practice it has proved difficult to obtain copies of strategic, outline or full business cases. The issue of commercial confidentiality often arises. Also, there is no time limit for a response to private individuals. All of this has added to the perception that PFI schemes are secretive and exclusive, a perception recognised by the latest NHS Executive guidance.[5]

THE STRATEGIC CONTEXT

Since the early 1990s, it has been apparent that the place of the hospital in the health care system as a whole is undergoing significant change. Several factors have been at work. These include:

- an increase in the proportion of surgery and investigatory procedures done on a day case basis, which has reduced the need for beds
- a drive for greater efficiency, which has reduced lengths of stay and further decreased the need for beds
- greater clinical specialisation and increased concern about quality, which have created pressures for the closure of smaller units
- changes in medical staffing and training arrangements, which have also made it harder for smaller hospitals to provide a full range of services
- developments in primary care, which have allowed the transfer of some care to other settings.

As a result, there has been pressure to:

- reduce the number of hospitals providing the full range of hospital care
- reduce bed capacity across hospitals as a whole.

But at the same time, the demand for hospital services as measured by the number of patients seen as out-patients, admitted as medical emergencies or receiving surgery has risen steadily.

The current situation can be summed up as follows:

- the acute hospital is likely to continue to have a major role to play in the overall health care system
- it is not clear how large that role will be and how it should be discharged
- there is very limited capacity at national or local level to evaluate strategic options covering the whole health care system.

The obstacles to a 'whole systems' approach to hospital planning stem only in part from lack of knowledge and analytic capacity. The financial framework and the system of incentives it creates are also important. The report of the National Beds Inquiry brought out the critical importance of care for older people to hospital capacity planning. As successive reports from other bodies have revealed,[6,7] the financial and organisational framework for planning care for older people is bedevilled with inappropriate incentives and professional and other barriers to effective working across organisational boundaries.

HOSPITAL PLANNING – THE UNDERLYING ISSUES

Before considering possible changes to the way that hospitals and other major health care capital investments are obtained, we set out the factors that make hospital planning and commissioning inherently difficult and which any form of procurement must attempt to deal with:

- the buildings are physically complex in terms of the engineering services they comprise. Hospitals represent the kind of buildings ideal for disputes during construction, particularly if the timescales for planning and building are long. The PFI has shortened these – but that only means that the factors making for change in design will emerge later
- the activities they house are subject to rapid technical change. This is true for hospitals as a whole because of the pace of medical advances in treatment and, more particularly, diagnosis. For the individual hospital, the share of that total activity is also hard to forecast. Furthermore, in any given location the share of activity going to a specific hospital is subject to 'competition' from smaller community sites or from other, larger hospitals offering more specialised and higher quality services
- technical changes also affect the buildings themselves – particularly information technology but also other engineering services
- the knowledge base available to the NHS on the use of hospital buildings and the connections between the built form and the cost of providing clinical services within them is limited. The total activities that hospitals comprise are poorly recorded – particularly in the growing areas of out-patient and ambulatory care
- the scope for alternative uses of large hospital buildings – at least as currently designed – is generally limited
- finally, unlike other forms of investment, new hospital buildings do not appear to offer significant cost savings, in part because redesign of clinical activity falls outside the scope of the current schemes, in part because they embody quality- rather than revenue-yielding improvements.

Overall, hospital investment is risky but the main risks are not well understood or are not forecastable – they amount to strategic uncertainty. All reviews of the future of hospitals conclude that they must embody flexibility but the scale of the effort devoted to determining how that flexibility should be provided is tiny.

The uncertainties and the problems identified above arise irrespective of the way that hospital building is financed. The question we consider next is what the use of the private finance route has contributed to reducing them.

THE CONTRIBUTION OF THE PFI

The contribution of the PFI could lie:

- in assisting in the process of deciding what should be built
- in helping to produce what has been decided on more efficiently.

The earlier discussion suggested that the overall planning framework in which the PFI – as well as publicly financed schemes – has been developed has not been conducive to effective hospital planning. Indeed, as has been argued by other commentators,[8] the PFI may have made matters worse as trusts have cut back their capacity (including both beds and staff) in order to stay within financial limits.

As far as the buildings themselves are concerned, we have shown elsewhere[9] that the contribution of the PFI to better hospital design is very limited. To take one example of recent professional assessment, one brief review of hospital design over the last 30 years[10] claimed, 'a recent review ... of a number of PFI proposals revealed a rather too disappointing palette of familiar ideas restyled for the commercial scene'. The author saw this as '... hardly surprising given the low status of design in the PFI process'.

As far as costs are concerned it is clear (see Table 2) that the PFI only appears more cost-effective than the public alternative once the value of risk transfer is included in the calculations. But the valuation of risk is an imprecise science. Other equally reasonable valuations would have produced precisely the opposite result.

Nevertheless, whatever value is put on the risk that has been transferred, it is only a small fraction of the overall risk involved in building hospitals. The rest, as we explain, remains with the public sector.

BOX 3

The PFI in the NHS has differed from other sectors: the PFI has been confined to the provision of buildings and related activities, such as maintenance and hotel functions. These functions had already been subject to competitive tendering from the mid-1980s onwards and, although competition had not always been intense, it does appear to have had some impact, albeit mainly on the pay of the workers affected.[11] However, only about 30 per cent of the revenue expenditure of hospitals falls into these categories – the professional staff providing services were not affected. Hence, even major gains in the areas that were affected could represent only a small proportion of total costs.

Three types of risk can be distinguished. Two concern the supply of the building and its services and the third is associated with the eventual demands on the use of the building. The risk transfer element of the PFI process has focused on the first two, construction delay and cost overrun, i.e. the risk that some parts of the hospital might not be available in time, and the possibility that facilities management may fail to meet contract standards or exceed the costs assumed at the time the schemes were proposed.

In PFI schemes, the public sector retains the third category of demand-side risk, which the factors discussed above suggest may be very large. Moreover, by taking on a 30-year contract for services, there is an additional risk for the public sector. If the demand for hospital services were to decline dramatically, then the NHS trust is tied into an agreement for maintenance and facilities management services over and above any cost of producing the building itself. If this were a public sector procurement then, in the worst case scenario, the facility could be allowed to run down at no expense to the trust other than the continuing capital charges – in PFI terms, the availability fee. This is a potential risk that has not been factored into the equation when comparing the two options. There are examples – Dartford & Gravesham is one – where the contract allows for the charge to be reduced in the event of lower utilisation, but only if the consortium is able to reduce costs.

In the schemes now on site there has been considerable variation in the nature of risks included and the treatment of those risks – whether the public or the private partner has been assumed to be best at dealing with particular risks, and what value should be attached to these. The latest NHS Executive guidance[12] deals with some but not all of these issues. As Table 2 shows, one constant is the substantial part that the value of risk transferred played in deciding that the PFI was the best option. In the case of Dartford & Gravesham, £22.3 million was added to the PSC to take account of the risk of variation in the cost of delivering the building, which was transferred to the private sector under the PFI.

This was 50 per cent of the total risk transfer element of costs added to the public sector comparator, with £12 million added for service cost increases and £7 million for the costs of maintaining the hospital. The Andersen report,[13] in looking at construction cost overrun risk in general, expressed concern that different assumptions are being used within the same sector in relation to risk, which in the majority of cases accounts for over 50 per cent of the total risk transfer valuation.

In its report on Dartford & Gravesham,[14] the National Audit Office noted that the use of a cost variation provision of 24 per cent in the PSC was compatible with the range of actual variations in other projects reviewed by NHS Estates. This is a figure – based on NHS Estates data – somewhere between a 34 per cent average cost overrun on traditionally procured projects when the final out-turn is compared to the estimate in the outline business case and an 11 per cent overrun on full

Table 2

COMPARISON OF COSTS UNDER PFI AND PSC OPTIONS

NHS trust	**Capital value of scheme**	**Net present cost**		**PSC minus PFI**	**Net risk added to PSC**
		PSC	PFI		
	£m	£m	£m	£m	£m
Barnet & Chase Farm*	54	198.2	193.2	5	15.5
Bromley Hospitals*	117.9	1179	1166	13	30
Calderdale Healthcare*	64.6	1362	1342	20	37
Carlisle Hospitals**	64.7	174.3	173.1	1.2	21.8
Dartford & Gravesham**	94	944	928	16	42
Greenwich Healthcare*	93	1427	1410	17	46
Norfolk & Norwich Health Care**	143.5	1682	1642	40	76
North Durham Health Care**	61	180.9	177.0	3.9	20.4
South Buckinghamshire**	45.1	169.2	162.1	7.1	9.3
South Manchester Hospitals*	65.6	2126	2124	2	20
Worcester Royal Infirmary*	86.6	1098	1095	3	10

Notes

* From House of Commons Health Committee. *Public expenditure on health and personal social services.* London: HMSO, 1999.The figure for Dartford & Gravesham does not reflect the subsequent correction to the public sector comparator (PSC), which resulted from the National Audit Office's review.[15] A substantial inconsistency was uncovered relating to the estimation of building cost inflation.This reduced the estimated savings under the PFI from £17.2 million to £5.1 million.

** From House of Commons Health Committee. *Public expenditure on health and personal social services.* London: HMSO, 1998. For consistency, we use the values for Norfolk and Norwich, which were reported then.

business case figures for the same project. The precise choice of figure, though crucial to the value for money calculation, is a matter of fine judgement.

In evidence to the Health Committee in 1998,[16] Colin Reeves, the NHS Director of Finance and Performance stated, 'Traditionally there have been substantial time and cost overruns in the 1960s and 1970s [on Exchequer schemes]. That has diminished in recent years. On average now we are saying that a time overrun would be approximately 9 per cent and a cost overrun would be about 5 per cent'. But it is unclear what implications to draw from this for future estimates of the risk of cost overrun. The National Audit Office suggested that, 'On future PFI projects, there may be benefits in exploring whether the data on cost overruns for traditional procurements can be refined to be consistent with the status of the cost estimates used in the public sector comparison under review'.[17] By implication, therefore, this is not currently the situation.

We conclude that there is considerable uncertainty around the estimation of the value of risk associated with the PFI and PSC options. Yet, as we have demonstrated, this is the crucial factor determining the choice between the two options on a value for money basis. If, as we have suggested, the main risks continue to lie with the public sector, then by implication these risks – implicit in the current round of building – must be very large indeed if they exceed those that the private sector is willing to take on. But they have never been systematically assessed or valued. Put another way, if the public sector attached a risk premium to its own retained liabilities, it may be doubted whether some of the schemes being built now should proceed – at least in their present form and under current treatment of risk – since the risk premium would make them unaffordable or bad value for money.

THE WAY FORWARD

We have argued that investing in hospital building is inherently risky. The emphasis on private finance has diverted attention from the main issues without offering significant benefits of its own. Yet it is also apparent that the public sector planning process is itself deficient. The Department has not yet defined an adequate strategic framework for investing in hospitals and other assets that are both complementary and competitive with them. The 'whole systems' approach that the report of the National Beds Inquiry outlined remains to be developed as a practical planning mechanism. Indeed, as noted elsewhere in Anthony Harrison's article above (pp.3–6), the policy framework for hospital planning has yet to be created.

This will take time. In the immediate future, the Department of Health should conduct a review of the schemes now in the pipeline, whether financed by the private or the public route. The review should take into account the findings of its National Beds Inquiry as well as its on-going work on hospital configurations, together with the emerging findings of the National Service Framework for elderly people. This review should in particular consider whether each local health system is likely to have sufficient overall capacity and, if not, whether the necessary processes are in place to design and install that capacity.

At the same time it should assess for these schemes and those that have attracted public finance during the same period what aspects of the procurement process have proved to be beneficial and what can be learned from other parts of the public sector. NHS Estates have recently put forward proposals of this kind.[18]

For the medium to long term, three changes need to be made.

First, our analysis suggests that the proper locus of responsibility for commissioning health buildings does not lie with individual NHS trusts. It should be placed directly on commissioners (that is health authorities and PCGs or PCTs as they emerge) or the Regional Offices of the NHS Executive, in association with these. Our preference would be for the latter. This is partly a matter of scale: for most capital planning purposes, PCGs are too small. Accordingly, we would prefer that the overall framework was the responsibility of organisations covering larger areas – in line with the systems of care being developed within National Service Frameworks. That means Regional Offices or possibly, in an area such as London, specified subdivisions.

This is also a matter of how properly to deal with risk. If demand-side risks are large, some degree of pooling may be desirable, however schemes are financed. The question, essentially the same as for the division of roles between private and public sector within PFI schemes, is which agency is best placed to manage these risks? The main risks facing hospitals stem from considerations larger than the individual hospital. In large urban areas in particular, the issue is whether the system as a whole has adequate capacity, not the individual hospital. Furthermore, some of the risks, for example those arising from uncertainties as to the appropriate scale and catchment areas for services such as cancer, trauma and emergency surgery, are greater for individual hospitals than for the system as a whole.

Second, the issue of innovation in design needs to be tackled directly. This is also a matter of risk for both public and private sector. Trusts are naturally unwilling to take design risks, as are private sector consortia, when they run the risk of being undercut on price. One solution may be design competitions, where the NHS as a whole accepts some of the risks. These might be run for individual hospitals but, following the 'whole systems' logic, local health economies would be a better focus. One of the merits claimed for the PFI in its present form is that it encourages a more efficient balance between capital spending and maintenance costs. While capital planning is focused on the hospital, however, the same trade-off between capital-intensive hospital options and less capital-intensive community solutions are excluded from consideration. This can only be taken into account within a framework covering the whole of a local health economy.

Third, the NHS as a whole requires a much better intelligence function relating to service development. At the moment, existing expertise is widely scattered and poorly integrated and there is virtually no experience of planning and designing the physical infrastructure for a whole local health economy. It makes sense to consolidate what expertise there is so that it can be deployed effectively wherever projects affecting local health economies are being considered.

More fundamentally, the service must ensure that this expertise is developed through research and learning from international experience. When the report of the National Beds Inquiry is reviewed, as it should be, in five years time, that review should be able to answer the questions it posed the first time round.

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18. See Department of Health web site: http://www.doh.gov.uk

100 years of solitude* (and other ICD codes)

The non-medical codes of the International Classification of Diseases may provide hidden gems for health care researchers.

John Appleby and Andrew Perkins

This year is the centenary of the international Paris conference at which 26 countries adopted a standard classification of diseases. Since then, the International Classification of Diseases (ICD) has been through a number of revisions, is now in use world-wide and is a fundamental source of information on the patient record.

The latest (tenth) revision of the International Classification of Diseases (ICD-10[1]) contains 12,427 codes, which can be used to record diagnoses for patients admitted to hospital. In England and Wales, ICD-10 superseded ICD-9[2] in 1994/95. The latter had been in use since 1975 and followed a long line of revisions stretching back to the first attempts in the 19th century to compile a comprehensive disease/mortality classification system.

The ICD-10 codes are arranged in disease chapters and, within chapters, by sub-categories. The codes provide not only a classification of the medical reasons for admission to hospital based on diseases and symptoms, but also *non*-medical reasons. Whilst the former fit in with the notion that health and health care is about disease, the latter include references to the *determinants* of disease and ill health.

ICD-10 – along with other information contained on patients' records and collated through the Hospital Episode Statistics (HES) – is an important source of research data. But the extent of health service researchers' awareness of the existence of ICD non-medical categories is unclear. Our own anecdotal experience would suggest that most researchers are ignorant of the extent of the ICD classifications or, when knowledgeable, are dismissive on the grounds of accuracy or completeness. However, the non-medical ICD codes would appear to be a potentially useful source of data for exploring a range of health service research issues.

Here, we detail the background to the inclusion of non-medical codes within the ICD; discuss how they have changed between ICD-9 and ICD-10; describe some broad national (England) and regional non-medical diagnostic trends; explore some potential uses and drawbacks of the non-medical ICD codes; and finally detail two example

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*'Living alone': ICD-10 code Z602.

BOX 1: A BRIEF HISTORY OF THE ICD

Attempts to compile a comprehensive classification of the causes of death stretch back to the 18th Century. Francois Bossier de Lacroix (1706–77) – known as Sauvages – was one of the first to compile such a classification (*Nosologia Methodica*). Linnaeus (1707–78) (*Genera Morborum*) and William Cullen (1710–90) (*Synopsis Nosologiae Methodicae*) also grappled with classifications.

Cullen's classification was still in use by public services when William Farr (1807–83) started work as the first medical statistician for the General Register Office of England and Wales, founded in 1837. Together with Marc d'Espine, Farr was asked by the first International Statistical Congress in 1853 to prepare a uniform classification of causes of death for potential international use.[3] However, following further revisions and amendments (led by Jaques Bertillon (1851–1922), Chef des Travaux Statistiques de la Ville de Paris), it was not until 1900 that the first International Classification of Causes of Death was adopted at a conference in Paris attended by delegates from 26 countries. Decennial revisions to the ICD have since followed.

From 1946, the World Health Organisation took over the responsibility for the ICD, and since then there have been revisions in 1948 (sixth), 1955 (seventh), 1965 (eighth), 1975 (ninth) and 1989 (tenth). The sixth revision was the first to include causes of morbidity and contain a supplementary classification for prophylactic inoculations, impairments, blindness and deafness.

The scope of the codes used to classify people who came into contact with health services *but who were not necessarily sick* was subsequently extended by the eighth and ninth revisions. The vast majority of the ninth revision's codes were disease- or symptom-specific (e.g. cholera, fractured neck of femur). Those codes relating to contact with health services by people who were not necessarily sick were contained in a supplement to the main codes, the *Supplementary Classification of Factors Influencing Health Status and Contact with Health Services*.[4] The majority of these codes related to medical or health conditions (e.g. screening, adjustment of prosthetic devices). A few, however, referred to non-medical problems or circumstances, such as 'Economic problem' (V602), 'Lack of housing' (V600) and 'Unemployment' (V620).

The number of diagnostic codes in ICD-10 has been expanded to nearly 12,500, and a number of the non-medical (ICD-9 'V') codes were split into more specific categories and given a new prefix ('Z'). For example, ICD-10 contains codes for 'Extreme poverty' (Z595), 'Lack of adequate food' (Z594), 'Homelessness' (Z590) and 'Living alone' (Z602).

Note: Analyses reported later are based on ICD-9 'V' codes (see Table 1).

analyses using recent data from an English health authority – looking at the relationship between length of stay in hospital and the home circumstances of patients.

THE STATE OF THE DATA: CONSISTENCY, ACCURACY AND COMPLETENESS

While there are international differences in the coding process (e.g. in Finland, clinicians code medical records, whilst in the UK this is done by medical records clerks[5]), patient records in all countries allow for one main or primary diagnosis, a secondary or subdiagnosis and up to five additional diagnoses to be recorded. Variations in coding practice (reflecting differences in coding training, culture and clinical practice) will exist between and within countries, hospitals, clinicians and between medical records staff. As the background information to the 1989 (tenth) revision makes clear,[6] while the information contained in patients' hospital records is generated as part of clinicians' direct care and treatment of individual patients, it also notes important (and traditional) uses (epidemiological and other statistical research, health service planning and administration) and that any disease/diagnostic classifications have to strike a balance between such varied uses. Given the primary function of

Table I

SELECTED ICD-9 AND ICD-10 NON-MEDICAL DIAGNOSTIC CODES

ICD-9	Description	ICD-10	Description
V623	Educational circumstances	Z550	Illiteracy/low level literacy
V623	Educational circumstances	Z551	Schooling unavailable/unattainable
V623	Educational circumstances	Z552	Failed examinations
V623	Educational circumstances	Z553	Underachievement in school
V623	Educational circumstances	Z554	Educational maladjustment & discord with teachers
V623	Educational circumstances	Z558	Other problems related to education
V623	Educational circumstances	Z559	Problem related to education, unspecified
V620	Unemployment	Z560	Unemployment, unspecified
V622	Occupational circumstances	Z561	Change of job
V622	Occupational circumstances	Z562	Threat of job loss
V621	Adverse effect: Work envt	Z563	Stressful work schedule
V621	Adverse effect: Work envt	Z564	Discord with boss and workmates
V621	Adverse effect: Work envt	Z565	Uncongenial work
V621/2	Adverse effect: Work envt	Z566	Other physical/mental strain re: work
V621/2	Adverse effect: Work envt	Z567	Other physical/mental strain re: unemployment
Undefd		Z570	Occupational exposure to noise
Undefd		Z571	Occupational exposure to radiation
Undefd		Z572	Occupational exposure to dust
Undefd		Z573	Occupational exposure to other air contaminants
Undefd		Z574	Occupational exposure to agricultural toxic agents
Undefd		Z575	Occupational exposure to industrial toxic agents
Undefd		Z576	Occupational exposure to extreme temperature
Undefd		Z577	Occupational exposure to vibration
Undefd		Z578	Occupational exposure to other risk factors
Undefd		Z580	Exposure to noise
Undefd		Z581	Exposure to air pollution
Undefd		Z582	Exposure to water pollution
Undefd		Z583	Exposure to soil pollution
Undefd		Z584	Exposure to radiation
Undefd		Z585	Exposure to other pollution
Undefd		Z586	Inadequate drinking water supply
Undefd		Z588	Other problems related to physical environment
V600	Lack of housing	Z590	Homelessness
V601	Inadequate housing	Z591	Inadequate housing
V608	Housing/economic circs	Z592	Discord with neighbours, landlord and lodgers
V606	Person in residential inst.	Z593	Problems related to living in residential institution
V602	Economic problem	Z594	Lack of adequate food
V602	Economic problem	Z595	Extreme poverty
V602	Economic problem	Z596	Low income
V602	Economic problem	Z597	Insufficient social insurance/welfare support
V602	Economic problem	Z598	Other problems: Housing/econ. circs
Undefd		Z600	Problems of adjustment to life cycle transitions
Undefd		Z601	Atypical parenting situation
V603	Person living alone	Z602	Living alone
Undefd		Z603	Acculturation difficulty
Undefd		Z604	Social exclusion and rejection
Undefd		Z605	Target of perceived adverse discrimination
Undefd		Z608	Other problems related to social environment

disease/diagnostic classifications and their source (clinician/medical records clerk) the *a priori* presumption would be that codes are used only when it is felt by the clinician that these are important to record for purposes of treatment, or more generally a patient's episode of care, including discharge and post-treatment care and recovery. Non-medical coding is therefore incomplete: not all unemployed patients admitted to hospital will be coded as such.

While coding is likely to be inconsistent, and certainly incomplete, it could also be expected to be inaccurate to some (unknown) extent in the case of some particular codes, which rely on a patient's own reporting of circumstances and which may be difficult or impossible for clinicians to validate (e.g. low income, unemployment).

Overall, therefore, there are potential problems with the accuracy, completeness and consistency of the non-medical diagnostic dataset.

NATIONAL AND REGIONAL TRENDS

Out of a total of 539 diagnostic codes contained in ICD-9 under the 'V' chapter, six refer to situations or circumstances that could broadly be described as being related to economic problems (such as unemployment or lack of housing). A further three refer to a lack of care for patients in their homes (e.g. person living alone). Figures 1 and 2 illustrate trends in the numbers of Finished Consultant Episodes (FCEs) for ordinary and day cases combined for these groups of non-medical diagnostic codes for England since 1991.

Given the relatively small numbers involved and potential problems with coding accuracy, it would be unwise to draw any robust conclusions about these national trends. As Figure 3 illustrates, for two codes combined ('person living alone' and 'no family able to care'), there are significant regional variations that can only be partly explained by population differences. It seems unlikely that East Anglia, for example, has such a relatively large number of people who live alone and/or have no family able to care for them. Part of the explanation for the regional variations probably lies in coding practice.

Figure 1

AVAILABILITY OF HOME-BASED CARE: ICD-9, ENGLAND

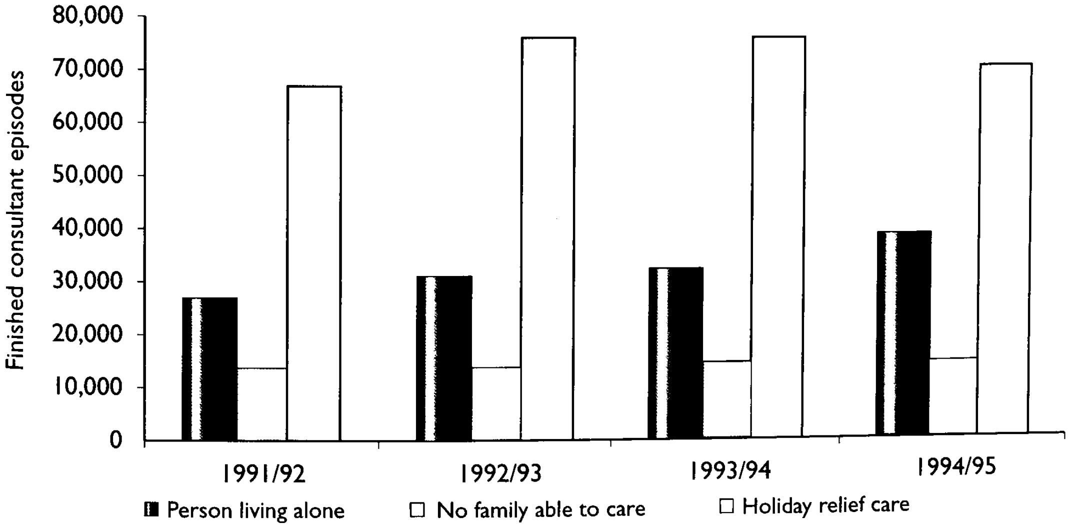
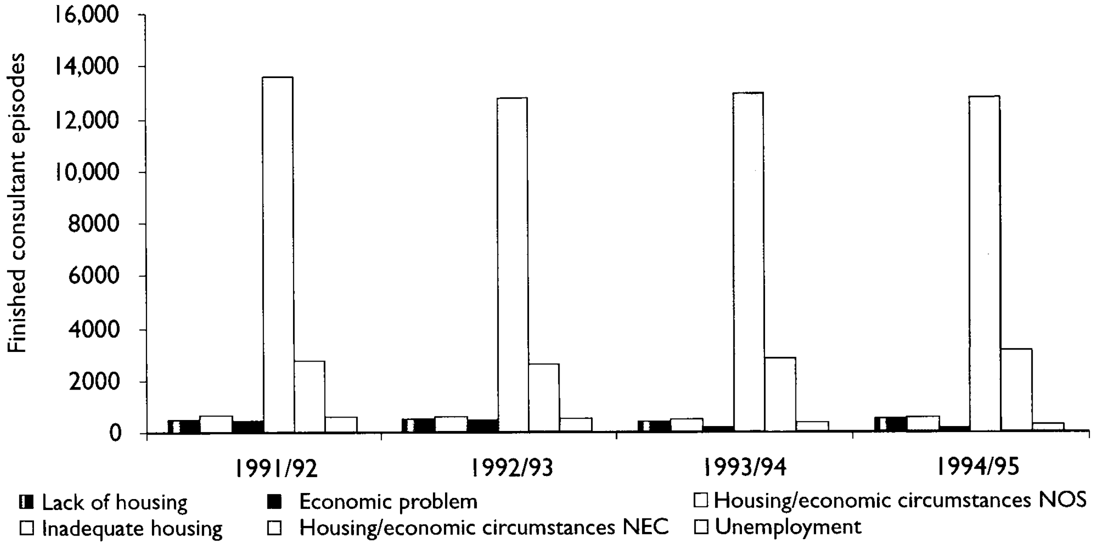


Figure 2

ECONOMIC CIRCUMSTANCES: ICD-9, ENGLAND



POTENTIAL USES OF NON-MEDICAL DIAGNOSTIC CODES

The potential value of the non-medical ICD codes derives from the fact that they are directly linked to all the other forms of data captured by individual patient medical records (including other medical and non-medical diagnostic classifications). This information, which forms the basis for the Hospital Episode Statistics (HES) in the UK, includes data on a patient's personal characteristics, place of residence (including postcodes), his or her time in hospital (operations, length of stay, specialty, etc.), time spent awaiting admission and destination on discharge.

This linkage is important when one considers other, similar data used in conjunction with health service records. For example, although there are important differences between (and problems with) the collection, recording, definition and comprehensiveness of the non-medical codes and similar items recorded by the Decennial Censuses, the data bear a resemblance. There are many examples of analyses of patient records, which, via the mediating geographical variable of the postcode, have used data from the Census to explore factors that influence health service utilisation and spatial inequalities, as well as providing information to inform resource allocation formulae at national level.

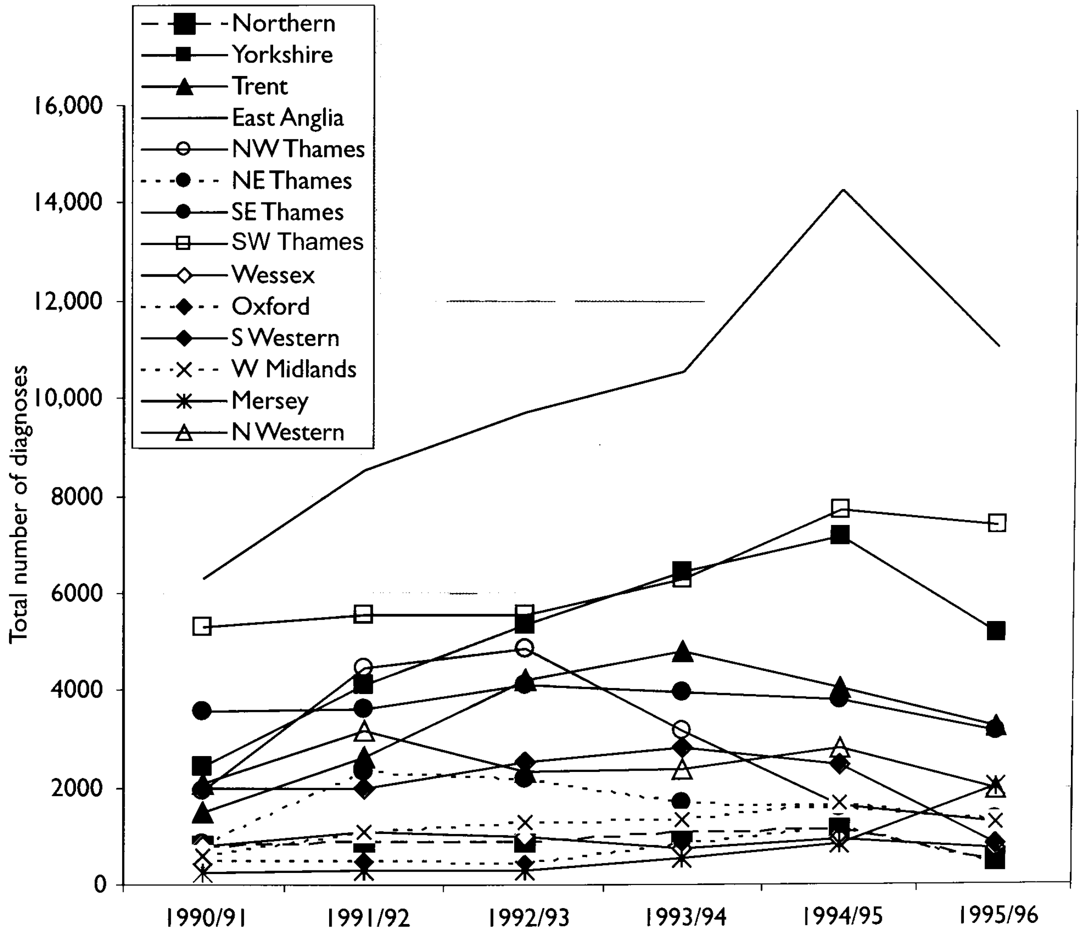
Census data has its drawbacks – primarily that it is not patient-based and is only collected every ten years. There is potential, therefore, for ICD codes to complement routinely used data such as Census returns.

USING NON-MEDICAL DIAGNOSTIC CODES

To illustrate the potential use of non-medical diagnostic codes, we present below two simple analyses. These examine the straightforward hypothesis that hospital patients recorded as 'living alone' are more likely to spend longer in hospital than others. It could be expected that 'living alone' indicates a potential lack of convalescent support at home and that therefore patients with this non-medical diagnosis will on average have longer

Figure 3

ICD 'LIVING ALONE'/'NO FAMILY ABLE TO CARE' CODES: 1990/91–1995/96: ENGLISH REGIONS



lengths of stay than those without this additional diagnosis.

Data on two primary diagnoses – 'fractured neck of femur' for the years 1995/96–97, and a group of diagnoses included under 'cerebrovascular disease' (ICD-9: 430–439) for the years 1993/94–95 – were examined for one English health authority.

FRACTURED NECK OF FEMUR

In one year, in one health authority, 8.3 per cent of all patients with a primary diagnosis of fractured neck of femur were also recorded as 'living alone' (it should be noted that not all patients living alone will actually be recorded as living alone). Figure 4 shows that, overall, those with the code of 'living alone' had average lengths of stay of 16.6 days – four days (32 per cent) longer than those without this coding. The difference in lengths of stay was statistically significant for all age groups except those aged 60–69.

CEREBROVASCULAR DISEASE

In two years, again in one authority, 8.5 per cent of all patients with a primary diagnosis of cerebrovascular disease were also recorded as

Figure 4

COMPARISON OF AVERAGE LENGTHS OF STAY OF PATIENTS WITH FRACTURED NECK OF FEMUR

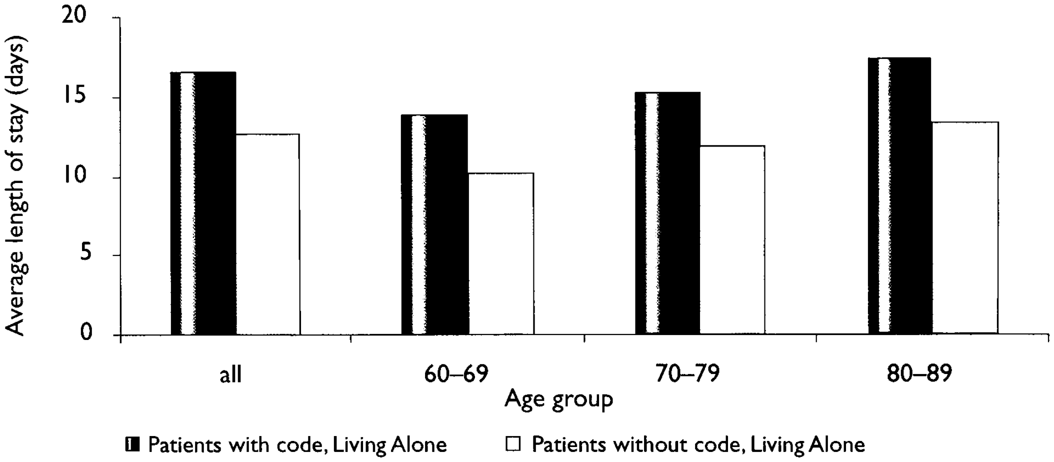
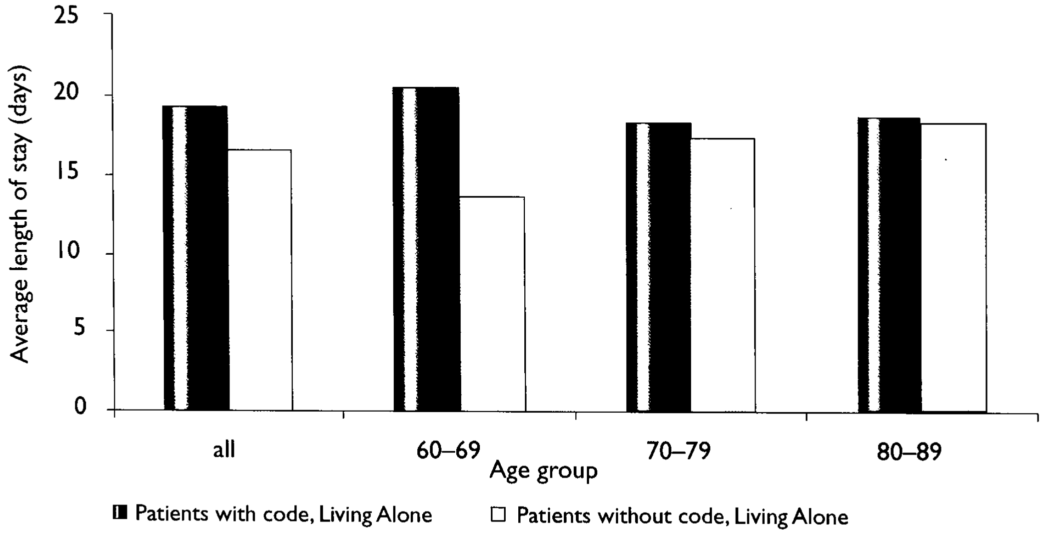


Figure 5

COMPARISON OF AVERAGE LENGTHS OF STAY OF PATIENTS WITH CEREBROVASCULAR DISEASE



'living alone'. Figure 5 shows that, overall, those with the additional diagnosis of 'living alone' had average lengths of stay of 18.4 days – two-and-a-half days (16 per cent) longer than those without this coding. Differences in lengths of stay were statistically significant for all groups except those aged 80–89.

CONCLUSIONS

While it is clear that variations in coding practice lead to inconsistencies in the recording of non-medical diagnoses, which, in turn, will tend to hamper its usefulness in research, it is not necessarily the case that this will completely invalidate its use. Given the potential use of non-medical diagnostic codes, it could be argued that greater effort should be made to improve coding accuracy and consistency in order to realise this potential and to help fulfil some of the original research (as opposed to clinical) reasons for their introduction.

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Average length of stay (days)

Average length of stay (days)

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ISBN 1-85717-414-3
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