

Future physician

Changing doctors in changing times

Report of a Working Party

May 2010



Royal College
of Physicians

Setting higher medical standards

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The Royal College of Physicians is a registered charity that aims to ensure high quality care for patients by promoting the highest standards of medical practice. It provides and sets standards in clinical practice and education and training, conducts assessments and examinations, quality assures external audit programmes, supports doctors in their practice of medicine, and advises the Government, public and the profession on healthcare issues.

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Foreword

The future is not a place like the Isle of Wight awaiting our arrival. It is more like the Great Western Railway, something that we have to imagine, design and build. If we do not build it other people will.

Sir Muir Gray, director, National Knowledge Service and chief knowledge officer to the NHS

We want to build the future. We believe that the medical profession has been too passively awaiting its fate in a rapidly changing world, a profession that has much more control over its future than it realises. And there could not be a more important time to do this. Lord Darzi created a vision for the direction of healthcare in England that puts quality and clinical leadership at its centre – not targets and central control. Also, the economic crisis that has engulfed us means that either we forge our destiny by developing innovative ways of delivering patient care more efficiently, with doctors leading change, or we return to the days of short-term and ill-directed cuts to patient services. We should not waste a good crisis.

The Royal College of Physicians is well placed to lead this work. Our 2005 report *Doctors in society: medical professionalism in a changing world*¹ set out a definition and wider description of medical professionalism that was intended to help revitalise the profession – a profession that at the time, rightly or wrongly, felt itself to be under siege from a number of forces, some of which were outside its control, and others that were arguably generated from within. In the four years since its publication, *Doctors in society* has played a pivotal role in raising the profile of medical professionalism, and has made a major contribution to what has become a wider debate about the role doctors will play in the health service of the 21st century. The debate was further progressed in the medical professionalism roadshow report *Understanding doctors: harnessing professionalism*,² which spoke of a need for enhanced medical engagement on a number of fronts, crystallising around a need for greater clarity in the role of the doctor, and a large measure of ‘medical leadership’ to make this vision for harnessing professionalism a reality. The debate has also been carried forward by government, by the medical profession in its various guises, and by doctors’ supporters and detractors. The debate is a healthy one: society has to draw on a broad range of opinion if it is to get a service that meets the needs of people when they are at their most vulnerable.

It is on the foundations of medical professionalism that we look forward to the future role of the doctor – looking at the likely context in which healthcare will

be provided 15 to 20 years hence; at the likely roles and responsibilities of doctors in the environment we envisage; at the challenges we anticipate; and at the steps which society and doctors will need to take. In doing this, we ensured a major contribution from the young – on a vision from young doctors and medical students about what sort of doctor they wish to become, how they can maintain and strengthen the altruism that first brought them to medical school, and how they can continue to put the needs of patients first.

What has inhibited doctors from seizing the future before now? Has it been factors such as professional tribalism, institutional inertia, and political cowardice? We do not look back, but want to take the opportunity to reject such negative influences. It also provides an opportunity to reassert medical values in a way that supports patients, not in a way that protects the status quo, or worse, contributes to a further decline in medical influence through lack of action.

Scoping the future is an art in itself. Our four sections on demography, science and technology, the economy, and social trends, map the external forces that will necessitate change, providing the context for our later chapters. Much of the information in these sections is known, but bringing it together in one place makes a compelling read. The sections that follow explain in greater detail where we believe most controversy rests, and where most progress can be made. In moving from treatment of disease through prevention to aiming for a ‘good life’, are we straying into areas of economic inequity and happiness – unfamiliar territory for doctors? How are we to determine the myriad partnerships that will need to be forged in order to provide excellent care? These are two issues that the report tackles and on which it sets an agenda for the future. And who should lead our endeavour to realise our vision for the future? The Working Party concluded that for too long the medical profession has stayed silent on matters critical to the provision of excellent healthcare and the protection of public need. We believe that the second decade of the 21st century provides a unique opportunity for doctors to lead on the things that matter to them most: high standards of care and service to patients. Doctors will not be able, in all cases, to realise this on their own – but if doctors do not accept the challenge, they do not deserve to lead.

Much of the challenge for the future is based around the gap between the richest and poorest in society. We acknowledge the importance of early childhood opportunities in this, but leave the details of that for others. The implementation of policies to tackle the stark inequalities in health have been recently outlined by Sir Michael Marmot in his review for government, and we see social justice as key to building a more sustainable future.

This report must be a catalyst for change. Our calls to action, which fall out of our anticipations in three areas, are aimed at several parties but are unashamedly often directed at the medical profession itself. To make change happen effectively, doctors will need to enter into partnership with many constituencies, but the commitment to change must come from within. We hope, therefore, that this report will encourage doctors to be at the forefront of shaping the future of healthcare.

May 2010

Julia Cumberlege
Chair, Working Party

Ian Gilmore
President, Royal College of Physicians

Acknowledgements

The content of this report has been greatly enriched and influenced by a series of formal oral evidence-gathering sessions, together with more informal meetings with representatives of organisations, lay and medical, with a strong interest in the role of the doctor in the future (see Appendix A). The Working Party wishes to thank all those who gave their time in providing the evidence on which much of the thinking behind this report is based.

A seminar held in June 2009 provided an important opportunity for the Working Party to test its emerging ideas, and the outputs from that meeting have helped to shape this report. Those who attended are listed in Appendix B.

The Working Party is grateful to the Health Foundation for its financial support.

Working Party members are grateful to Baroness Cumberlege for her chairmanship. This report is a logical continuation of the Royal College of Physicians' work on medical professionalism. The College is therefore particularly grateful to Baroness Cumberlege for agreeing to chair this group with the same skill and insight with which she chaired the work which preceded this and culminated in the report *Doctors in society: medical professionalism in a changing world*.¹

The Working Party owes a particular debt of gratitude to Dr Susan Shepherd for coordinating and documenting the activities of the Working Party; to Candace Imison and Rebecca Ashton, and to Christopher Exeter for their contributions to the work of the health services subgroup and health information and communication technology subgroup; to Julie Beckwith for her help with the references; to Stephen Atkinson for additional help with drafting; and to Judy Oliver and Alister Wilson in helping to formulate thoughts.

This report was written by David Brindle, public services editor, the *Guardian*, and revised by him in discussion with Working Party members. The final document is an agreed consensus of the Working Party.

Gathering the evidence

In order to gather material to write this report, the Working Party adopted a comprehensive method of consultation, beginning in June 2008 and finishing in June 2009. During this time, the Working Party took oral evidence from 17 witnesses and took additional soundings from a broad range of medical and lay opinion. Many of those who gave evidence provided documents and quoted references to support their statements. The Working Party considered this material along with other reference documents when formulating its conclusions.

Throughout the text of this report, the Working Party has selected quotations from its witnesses to illustrate and amplify points made and conclusions drawn. The Working Party believes, therefore, that this report is informed by the evidence it received as well as by the collective wisdom of its membership.

Working Party remit

To define the contours of society within which healthcare will be delivered over a generation.

To identify the influence on the roles and responsibilities of doctors of substantial demographic change, technological advance, economic trends, and greater patient involvement – with doctors as part of a complex team at the heart of the healthcare system.

In carrying out its task, and in line with its remit, the Working Party convened four subgroups to look in greater depth at social trends, technological advance, the health service of the future, and economic trends. These groups were chaired respectively by Professor David Armstrong, Mr Harry Cayton, Mr Niall Dickson, and Professor Peter C Smith. Membership of the subgroups was made up from other Working Party members. The information gathered by the subgroups is largely integrated into the main body of the report. Individual reports from the health information and communication technology, health service, and economics subgroups can be found in Appendix C. The social context is a theme running through the whole report.

1 | Introduction

1.1 In 1990, the poll tax was introduced in England and provoked a riot in Trafalgar Square, the first ‘self-governing hospitals’ were approved in the NHS, and Tim Berners-Lee wrote the first page for something he called the World Wide Web. It is difficult to look forward another 20 years from now and imagine the precise context within which healthcare will be delivered. But it is possible to identify some likely trends over that period, and to hazard some conclusions about how the role of the doctor will need to change as a result.

1.2 Such was the brief accepted by the Working Party, and what follows is our ‘best guess’ at an agenda for the medical profession between now and 2030. It is not a detailed agenda and we make no claims for its comprehensiveness: we do not, for example, explore how the profession may change from within. Rather, our focus is on the external forces that may buffet the profession unless it anticipates them and prepares accordingly.

1.3 We group these forces into four: demography, science and technology, economy, and social trends. Globalisation and the challenges it poses, not least in issues such as the greater mobility of patients, transmission across borders of infectious diseases, and workforce planning beyond domestic control, we take as a determining factor in all of these. Likewise, the constant struggle to combat health inequalities: there are, indeed, the dangers of deeper inequalities lurking within all four of our chosen forces.

1.4 With the context thus established, we identify three themes that doctors should consider, embrace and act upon if they are to seize the initiative. The first is well-being and the idea of a ‘good life’: how should the profession respond to a broadening understanding of what is meant by health and its maintenance? The second is partnership: the doctor–patient relationship is evolving fast and leaving paternalism behind, demanding new skills and sensitivities. The third is leadership and opportunity: at this critical juncture in the development of the NHS, facing as it does unprecedented financial pressures, doctors have the chance to step forward and shape decisively the course of events. We believe that they should do so.

1.5 Our firm impression is that the medical profession has for too long been on the back foot. This may be traced back to implementation of the Griffiths general management reforms of 1983,³ which the profession broadly regarded with suspicion, but it has certainly been the case under the Labour government. In our view, this has been to the detriment of doctors and of healthcare.

1.6 We have also been struck by the fact that many doctors seem unhappy. There are some obvious reasons for recent and current discontent: the fiasco surrounding the Medical Training Application Service in 2007; the handling of implementation of the European Working Time Directive with respect to junior doctors; the perceived threat to continuity of patient care in hospitals and in general practices presented by this and by the development of so-called polyclinics; anxiety over the prospect of revalidation of fitness to practise. However, we are also aware that discontented doctors are by no means a breed exclusive to these shores.

1.7 We suspect there is a deep-seated malaise in the UK profession. It is hardly indicative of a strong and healthy profession that the most-viewed article on a trainees' website carried the title 'Should I give up medicine?'⁴ It may be putting it too strongly to suggest that doctors have come to see themselves as victims, but there is a clear sense that they feel at the mercy of extraneous forces.

It seems to me that a lot of doctors seem to be pretty discontented in one way or another and I think this is partly because what they were trained for, and how they find themselves practising, seems to be very discordant and creates some displeasure for them.

Dr Richard Smith, former editor, BMJ

1.8 The Working Party believes that there is a singular opportunity to dispel the malaise. The confluence of change in the forces of demography, technology, economy and society cries out for leadership that doctors are ideally placed to offer. Within the NHS in England, meanwhile, the working through of the Next Stage Review reform programme⁵ offers the chance to fashion a health service that could truly promote and reward quality of care. Doctors should grasp this opportunity, but they should do so mindful of the timeless values of the profession as expressed at the June seminar by Krzysztof Rakowski, a medical student and member of the Working Party.

The core values of medicine cannot change: trust, consent, care, competence, confidentiality, professionalism. Not only is this a personal hope; I believe it to be an imperative for the future.

Krzysztof Rakowski, medical student

2 | Contours of society

Demography

2.1 Of all known factors, our ageing population will probably have the single biggest influence on healthcare over the next 20 years. We are living longer, but living longer with long-term conditions and disabilities that require care and support. This will inexorably change the nature of healthcare delivered by doctors.

2.2 At some point in the middle of this decade, the proportion of the UK population aged 65 or over will, for the first time, exceed the proportion aged 16 or under.⁶ The trend will keep on going: by 2033, it is projected, there will be 3.2 million people aged 85 or older, accounting for 5% of the total population. In 1983, the equivalent number was just over 600,000.⁶ The effect on longevity may be seen vividly by looking at what has already changed in average age of death: in 1968, just 20% of men and 38% of women survived to age 80 or older. By 2008, the equivalent proportions were 42% and 61% respectively.⁷

2.3 Older people are heavier consumers of healthcare: people aged 65 or over consult their GPs on average more than twice as frequently as people aged 15–44.⁸ People aged 85 or over are 14 times more likely to be admitted to hospital for medical reasons than young adults aged 15–39.⁹ Three in five of those aged 65 or older have one or more long-term conditions, such as diabetes or arthritis, compared with fewer than one in five of those under 40.¹⁰

2.4 Many older people will be living with dementia. An estimated 700,000 people in the UK have the condition, almost all aged 65 or over, and two in every three of them living in the community. Over the next 30 years, the number is expected to double.¹¹

2.5 Increasing numbers of older people, and others with a long-term condition, will be living alone. Driven by trends including rising incidence of marital breakdown, smaller families and growing labour mobility, the proportion of all households that comprise only one person increased from 18% in 1971 to 29% in 2008, with more than half of single dwellers being over state pension age.¹² The contribution of informal family carers, traditionally women, is already

under pressure: growth of paid employment opportunities has meant that the proportion of women of working age considered economically inactive, in other words having no paid work, fell from more than 41% in 1971 to 26% in 2008.¹² Raising the state pension age – to 68 for both men and women by 2046 under existing plans – will further affect the capacity of the ‘young old’ to act as carers.

2.6 Taking a broader view of the epidemiological landscape, doctors face the challenge of dealing with the consequences of a rising tide of obesity – we have already seen a significant increase in levels of diabetes, hypertension and musculo-skeletal problems. The number of obesity-related hospital admissions in England rose almost fivefold in the five years to 2008/09.¹³ According to one estimate, the share of NHS costs attributable to obesity could grow from 2.9% in 2001 to 11.9% in 2025.¹⁴ Although some analysis indicates that the rate of growth of prevalence of obesity among children may be slowing down, by 2020 more than one in five children aged 2–11 is predicted to be overweight, and more than one in 10 obese.¹⁵

2.7 Growing alcohol misuse will similarly lead to greater morbidity over time. One study suggests that treating alcohol addiction is costing the NHS more than £2.7 billion a year, and that the increasing burden is becoming unsustainable.¹⁶

2.8 In respect of communicable diseases, the threat of pandemic flu will not recede following the 2009 outbreak of H1N1 (swine flu). The risk remains of new diseases such as SARS, West Nile fever and *ebolavirus*, as well as higher incidence of multi-drug resistant tuberculosis, heterosexually transmitted HIV and hepatitis, fuelled by international air travel and migration (written evidence from the Faculty of Public Health). The number of international flights to and from the UK increased 44% in the 10 years to 2007,¹² and the number of migrants arriving from other countries rose 73%.¹²

I think humans are going to get some extremely nasty surprises over the next 20 to 30 years from new zoonotic infections.

Professor Sir Mark Walport, director, Wellcome Trust

2.9 Since 2004, immigration to the UK has been running steadily at about 575,000 a year, and this shows no sign of significant change. In 2008, that figure represented a net population gain of 163,000.¹² Around 11% of UK residents were born overseas, the leading countries of foreign birth being India, Poland and Pakistan, in that order. At the last census, in 2001, 5.4% of people said they followed a non-Christian religion and 2.8% declared themselves Muslim. According to official analysis, Muslim families are the largest and youngest,¹⁷ so we can expect their numbers to grow both absolutely and proportionally.

2.10 Growth of non-Christian faiths has important implications for healthcare delivery, not least at the end of life. The population profile means that doctors must prepare for a substantial rise in numbers of deaths over the next 20 years. Official projections suggest that the mortality count, which has fallen by about 80,000 a year in England and Wales since the mid-1970s, will bottom out in 2012 before rising back sharply by 16.5% (at least 80,000) by 2030.¹⁸

2.11 Where will people die? Many of us imagine we shall be able to pass away in our own beds, surrounded by family and friends, but the proportion of people dying at home is calculated to have fallen from more than 30% in 1974 to just over 18% in 2003.¹⁸ Nearly three in five deaths occur in hospital. If we are to reverse this trend, which would seem to be the popular wish, and if we are to deal adequately and sensitively with dying, then there must be a greatly enhanced focus on the resourcing, setting, and practice of end-of-life care. Some health providers are setting excellent examples of this.¹⁹

2.12 One workforce issue that is likely to have a profound effect on the medical profession's response to these challenges is the changing composition of the profession itself. Women now represent a consistent majority of annual intakes to medical school (57% in 2007, though down from 62% in 2003), and it is forecast that they will become a majority of practising GPs by 2013, and of all NHS doctors at some point after 2017.²⁰

2.13 Currently, only about 15% of all NHS doctors are on part-time contracts. However, more than four in 10 women doctors are aged under 35, and many are yet to have children.²⁰ It seems certain that there will be a steep rise in demand for part-time working and career breaks, necessitating a much more flexible approach to workforce design, and with serious implications for continuity of patient care.

Science and technology

2.14 As we cast forward 20 years, the direction of scientific and technological advance appears to be one of the biggest areas of uncertainty. This may be less the case for procedures and treatments used by doctors (where there is likely to be greater emphasis on applying existing knowledge in new ways than on major scientific breakthroughs), but much more the case for forms of communication between doctor and patient. This holds exciting prospects for the patient's personal involvement in their care.

2.15 That is not to say that there will be no progress in our understanding of disease. The government's Delta Scan²¹ and Sigma Scan²² projects, looking at

potential developments in science and technology, suggest that in the next five years there will be significant advances in drug treatments, particularly for cancer. As a result of greater understanding of the biology of cancer, more targeted treatments are enabling cancer cells to be killed without damaging healthy cells. However, in written evidence to the Working Party, the Faculty of Pharmaceutical Medicine has cautioned that developments in pharmacology are likely to be 'incremental rather than step-change'.

2.16 Nevertheless, proton therapy, enabling much higher doses of radiation to be used in cancer treatment, would represent a step-change. Professor Sir Mike Richards, the national clinical director for cancer at the Department of Health, told the Working Party: 'The thing about proton therapy is that the equipment costs about £100 million and you have to be very sure that you have got a need and a demand for it. I believe we will have proton therapy in this country within a matter of a few years because the evidence for certain, selected patients is very good.'

2.17 Within 10 years, there are likely to be advances in nanotechnology, robotics and genetic screening and manipulation; within 20 years, in biotechnology drugs, electromedical implants and stem-cell technology. The rate of learning about the biological basis of health and disease is accelerating, and it is possible that this will present opportunities undreamed of just a decade ago.

At the Wellcome Trust Sanger Institute, they are sequencing more DNA in a week than they were capable of sequencing in a year just last year. It took approximately 10 years to sequence the first human genome; now every week the Sanger Institute is sequencing completely about 10 human genomes, and so we are really moving into a future where it is realistic that whole genome sequencing will be something that will be available for each of us.

Professor Sir Mark Walport, director, Wellcome Trust

2.18 Will this research be translated into innovation? For a variety of reasons, the UK record is not uniformly encouraging. Many breakthroughs in imaging – computed tomography scanning, magnetic resonance scanning, ultrasound – were achieved in the UK, but were picked up elsewhere before being put into practice here. Even where the technology has recognised benefits, there may be other constraints on its widespread adoption. The electronic patient record, for example, has the potential to free the patient–doctor encounter from the hospital environment, and offers the prospect of safer, more patient-focused and integrated care. However, ethical problems and concerns about risks of data-sharing have highlighted the potential social costs of the technology, despite its clear clinical value.

2.19 In one sense, as American writer William Gibson has observed, ‘the future is already here, it’s just unevenly distributed’.²³ Wireless and Bluetooth technology are currently being used to enable patients to monitor their own health. In Cornwall, 1,000 people have biometric equipment installed in their home so that they can measure their own blood pressure, blood sugar and blood oxygen levels.⁵ Broadband internet technology, used in two out of every three UK households in September 2008,²⁴ offers huge scope for patients to access the healthcare system and elicit information for themselves. But we are not yet reaping anything like the full benefit.

2.20 The Working Party sought evidence from the USA on developments there in health information and communication technologies (HICTs). The comparison suggests that a form of authoritarianism is holding back utilisation of such technologies in the UK. In the words of the Working Party’s HICT subgroup: ‘HICTs are still seen as ways of doing things to people, rather than as ways of letting people do things for themselves.’

2.21 The message that Working Party members heard time and time again in the US was that the future was about new therapeutic relationships rather than new therapeutic technologies. In these, communication will be key. At the Medicine New Media Lab, at the Massachusetts Institute of Technology, members saw the ‘I’m Listening’ system, which uses an avatar (digital human replica) to take a patient’s history in their own home prior to a consultation. At the Laboratory of Computer Science, Harvard University Medical School, they met a patient representative who told them: ‘I am no longer the focus of the care team; I am now a member of the care team.’

2.22 In this emerging environment, data sharing will be a given. This raises obvious, still unresolved issues about patient confidentiality and personal preference. ‘Cloud computing’ (the hosting, sharing and synchronising of data in cyberspace) will offer new possibilities for secure storage of medical records. Access could be simply via a mobile phone.

In 20 years’ time, everything will be on your phone. Your whole life will be on your phone.

Clay Bavor, senior product manager, Google

2.23 Health information and communication technologies are already changing relationships and power balances, and have the potential to transform them completely in the next 20 years. For the doctor, the emphasis will be less on trying to know all the answers and more on knowing how to help the patient find them out.

In a profession like medicine which is moving forward with tremendous rapidity ... you really are going to have to be constantly educating and re-educating the profession, so that ... they do not fall behind the current relevant standards.

Lord Woolf, House of Lords (Master of the Rolls, 1996–2000, Lord Chief Justice of England and Wales, 2000–2005)

Economy

2.24 At the best of times, no attempt to sketch the future context for the work of doctors would be complete without an assessment of the country's economic prospects. But these are far from the best of times. As a result of the world economic and banking crisis which began in 2007, the outlook is one of public-sector debt of a scale not seen since the 1960s, and public-sector borrowing of a scale not seen since the second world war.²⁵

2.25 To restore equilibrium, the Labour government calculated that it would have to bridge a £90 billion gap between public spending and anticipated tax revenues when the UK economy returns to full health.²⁵ If the pain of this were to be shared equally across all government departments, the Institute for Fiscal Studies estimates that each would face a cut of 2.3% in its budget for the three years on the next spending review from 2011/12. But the two main political parties have both promised to protect NHS spending, with the Conservatives committed to annual 'real-terms growth',²⁶ and Labour offering 'guaranteed minimum real-terms increases' until 2013,²⁷ implying that other departments will face a heavier cut. It should be noted that healthcare systems in some other countries are not being similarly protected from the ravages of global economic turmoil. In Latvia, for example, the budget for healthcare was cut by more than 20% from 2008 to 2009.²⁸

2.26 Even so, the NHS faces a period of austerity, possibly as long as 10 years. This follows a decade of unprecedented growth during which health spending, expressed as a proportion of GDP, has risen to almost 10%. This figure is very close to the European average, and within striking distance of the goal set by Sir Derek Wanless in his influential report for the government in 2002.²⁹ In 2010/11, the planned NHS budget for England will be £102.3 billion.

2.27 From 2011/12, however, any further growth will be very limited for at least three years. The NHS chief executive has ordered 'efficiency' savings of between £15 billion and £20 billion over that three-year period. The Conservatives have said they will cut the running costs of the NHS by a third over four years from 2010, releasing up to £1.5bn a year to be reinvested in patient care.²⁶

The overall outlook is therefore less than clear, but the King's Fund calculates that the health service as a whole faces real-terms cuts in funding in each of the two years from 2011.³⁰ Taking even the most optimistic of Wanless's yardsticks, there could be a shortfall of up to £21 billion a year by 2013/14, the closing of which would require not only a pay freeze for NHS staff but also productivity gains of 5% a year for three years.³¹

2.28 What will this mean for the service? There will be a period of starvation of capital investment in the fabric of the service and equipment, certainly from public funds, combined with pay constraint, rationalisation and privatisation of 'back-office' functions, and growing plurality of care provision. The NHS is already funding more than one in three elective procedures carried out by independent hospitals,³² a striking growth over the past decade, and doctors (especially, but by no means exclusively, hospital doctors) can expect to find themselves employed increasingly by non-NHS care providers. Meanwhile, employers within the NHS may look for their own solutions to the challenge of recruiting and retaining medical staff. For doctors' leaders, there will be some tough decisions on whether, when, and how to stand up to what may be judged as creeping privatisation, and these decisions may need to be made in the context of growing numbers of doctors working on short-term contracts for a range of employers.

2.29 The drive to economise may lead to consideration of more co-payments, or user charges, for aspects of healthcare judged to be non-core. Government of whatever political hue will go to great lengths to insist that NHS care remains free at the point of need, but the principle of a comprehensive system may start to fray at the edges. Defending the concept of a universal NHS dentistry service, for example, may prove increasingly difficult. Politicians may have to reassess their inclination to dismiss any local variation of service as a 'postcode lottery'.

The increasing pressure on resources is likely to drive a tighter definition of the NHS benefits package. This could result in a gradual erosion of the 'comprehensive' nature of NHS provision.

Health services subgroup report

2.30 There is likely to be more variation of NHS provision among the UK's constituent nations. Devolution has already led to differences on issues such as prescription charges and hospital parking fees, which have caused controversy, but on a more fundamental level the scope for policy initiatives may be a strong positive. If Scotland can be seen to have nudged England forward on smoking and alcohol controls, England can equally be seen to have prodded Scotland and Wales to do more to bring down treatment waiting times.

2.31 But this time of uncertainty should become a stimulus to innovation. Also, there will be still greater focus on the role of the National Institute for Health and Clinical Excellence (NICE), the independent organisation set up by the government a decade ago to determine and issue guidance on public health, clinical practice and health technologies in the NHS in England, Wales and Northern Ireland. Although NICE's work has proved controversial in respect of its perceived rationing of costly drugs, it has won international admiration for the way it tackles two underlying challenges facing all health systems: inappropriate variation in the quality of healthcare, and the optimal use of finite resources. Politicians will inevitably look to defer to NICE in respect of many of the difficult decisions that will need to be taken as NHS funding tightens. Its role may even be expanded to embrace the independent healthcare sector, immunisation and screening policies, patient safety and social care practice.

2.32 Will spending reductions hit medical research and training? Research budgets are already coming under pressure, with the Russell Group of leading universities warning of cuts of £2.5 billion in higher education and science.³³ On training, some commentators believe there may be room for savings as, they maintain, the current output of medical schools will inevitably lead to an over-supply of doctors. But workforce planning has never been a strong suit of the NHS, and we are entering the uncharted waters of a profession with a female majority. Moreover, the full impact of the European Working Time Directive on doctors' available hours has yet to be felt. If many younger women doctors opt to work part-time, or take career breaks, premature action to cut training places could cause a skill shortage.

The number coming through [medical training] has essentially doubled in the last 10 years, but in 20 years' time will we want these trained doctors? Can the economy pay and does it want to pay?

Professor Roy Pounder, emeritus professor of medicine, University of London

2.33 The public spending squeeze is likely to put a strain on efforts to counter both climate change and social and health inequalities. Already, there has been a reported widening of income inequalities since 2005, although the overall record of the Labour government on this is broadly neutral.³⁴ Any erosion of core NHS services would threaten to exacerbate health inequalities.

2.34 Above all, however, the squeeze will call into question our ability to pay for the ageing population. Before the economic crisis broke, the government was planning for an increase of 5% in total public spending over the next 50 years to pay for the pension, health and social care needs of older people.²⁵ Most of that

growth was scheduled for after 2017/18, so it may still be possible if the fiscal picture returns to balance in the meantime. If it does not, as seems increasingly likely, the outlook becomes very much more problematic.

Social trends

2.35 The government's NHS Choices website now enables patients to rate their local hospital and their GP. Within a fortnight of this opportunity being offered, one north London hospital marked 'excellent' in official rankings had been assessed by 14 contributors to the site. Only six of them said they would recommend it to a friend.

2.36 This is a vision of the future: the involvement of people in the public services they use; respect and weight accorded to their views; the end of deference to professionals and bureaucracy. Independent websites such as Patient Opinion and iWantGreatCare have pioneered feedback of this kind (indeed have taken it further by enabling patients to rate individual doctors), but NHS Choices' entry into the field takes matters to a new level.

2.37 It is the sort of facility that consumers in other areas have come to expect as a matter of course. Book a hotel through an online agency and, after your visit, you will be invited to say what you thought of it for the benefit of others. Buy a product on eBay and you will be asked to rate the seller. That this approach has come to public services should be no surprise.

2.38 Online engagement around services brings the potential for creating new communities. Much has been written about the demise of traditional models of social solidarity: trade unions, mass political parties, clubs, churches, community groups, having neighbours round for drinks, even the family mealtime. In his influential book *Bowling alone*,³⁵ American political scientist Robert Putnam takes these indicators as barometers of the decline of social capital. While such conventional indicators do suggest that society is becoming more fragmented and individualised, even if there may be more informal, unmonitored community support than is commonly supposed, technology is sowing the seeds of different kinds of networks.

2.39 We see these networks emerging already among people living with long-term conditions. The internet has enabled those sharing diagnoses, symptoms and treatments to commune in a new and powerful way, and has added greatly to the effectiveness of voluntary groups representing their interests. The growing strength of such groups adds a fresh dimension to the health policy equation. But the full impact of the digital communications revolution has yet to be felt.

How can we get information about chlamydia to every teenager just becoming sexually active? The ability to use the technology that is out there now to get a message to that entire group is very powerful.

Dr Neil Bacon, founder, Doctors.net.uk and iWantGreatCare.org

2.40 It is the so-called Generation Y, born between 1982 and 2000, that will pioneer and be most comfortable with the new networks. This is the first generation of ‘digital natives’ who, in the words of Dr Paul Redmond, a leading exponent of generation theory and head of careers at the University of Liverpool, ‘spent their childhoods in cyberspace and their teenage years in MySpace’ and for whom ‘computers are not technology but furniture’.³⁶ Generation Z, now in primary school, will be wedded even more to a digital lifestyle.

2.41 These new networks will inform and sharpen choices about services. Do people want choice? According to a number of surveys, they do: 75% of those questioned for the British Social Attitudes report in 2009 said that they felt people should be able to exercise ‘a great deal’ or ‘quite a lot’ of choice about which hospital they attend.³⁷ As performance data become more narrowly focused, and necessarily more robust, such a desire may well translate into an expectation of choice of doctor at every level of care. But these are early days and, in practice, patients seem yet to have developed the habit of shopping around. Of 2,000 out-patients questioned by the King’s Fund, only 4% of those who recalled being given a choice of hospital had consulted NHS Choices, 13% had asked the advice of their GP, and 56% said they had relied on their own experience.³⁸

2.42 There is an important issue here concerning health inequalities: as the Post-2010 Strategic Review of Health Inequalities led by Professor Sir Michael Marmot has indicated,³⁹ choice may appear a secondary matter for people failing to access basic care services. Further, desire to have choice does not necessarily mean that patients want to exercise that choice on their own. In many instances, patients are likely to look to their doctor for help, whether in translating the complex probabilities of potential benefits and harms of a particular course of treatment, or in offering direct advice. Indeed, in circumstances provoking great uncertainty and fear, patients who otherwise value choice may want their doctor to take control. Healthcare choices are often difficult, and a conversation with a trusted professional can be as valuable as the treatment itself. Judging a situation correctly will require great sensitivity on the part of the doctor, especially where preferences are influenced by cultural beliefs and understanding, or where inequalities are a factor.

2.43 We may in many respects be in a transitional phase between patients accepting unquestioningly what the doctor says and them acting as demanding

and well-informed consumers. Certainly the age of deference to doctors, as to other professionals, is passing – even though respect for the medical profession remains very high.

The golden age of medicine was probably the middle third of the 20th century to the 1970s, when the ‘rot’ began to set in, and people began to challenge, and doctors’ words were no longer law and they were scrutinised by people who were not just their peers any more – and patients did not necessarily assume that doctors were right.

Professor William Bynum, emeritus professor of the history of medicine, University College London

2.44 Beyond choice, however, people are now increasingly seeking control of their services. This is seen most clearly in social care, where the idea of ‘self-directed support’ is challenging the traditional model of care planning by a care manager. In practical terms, self-directed support is manifest either through direct payments or a personal budget controlled by the service user, enabling them to purchase whatever care and support they believe best suits their individual needs.

2.45 Personal budgets are being extended into other areas of public services, including the NHS, where pilots are being run with people living with long-term conditions. This poses challenges to an evidence-based service such as health-care, and to the principle that NHS funding should not be topped up by the patient. But advocates of the approach have great ambitions. Charles Leadbeater, a leading authority on innovation, has said: ‘The self-directed services revolution, which began in social care with young disabled adults designing and commissioning their own packages of support, could transform public services used by millions of people with budgets worth tens of billions of pounds.’⁴⁰

2.46 Enthusiasm for personal budgets is shared by a number of think tanks and all the main political parties. But this may change. Policy-making in the UK system of government has become characterised increasingly by short-termism and political fashion, accelerating the speed of change. Doctors are well placed to offer the long view, urging from a position of knowledge and experience the retention of what is good and the adoption only of what is likely to be better. In a sociopolitical environment that fosters rapid change, the medical professional offers continuity and a cool head.

2.47 In this and in some other ways, the fundamental role of the doctor in society is a constant. But that is not to say that the portrayal of the profession does not merit review. In evidence to the Working Party, Dr Richard Smith, former editor of the *BMJ*, reminded us of the image that still evokes the essence of

medicine: *The doctor*, the 1891 painting by Sir Luke Fildes of a practitioner ministering to a sick child in a humble home, the distraught parents in the background. As Smith said, the picture remains powerful, but is now starting to feel out of time. Do we need a new image for the doctor in 21st century Britain?

3 | Good care for a good life

3.1 Rising longevity, a growing focus on healthy lifestyles and mounting concern about climate change are all contributing to reassessment of what we mean by ‘a good life’. This, in turn, is prompting reflection on the role of the doctor in helping us to live a good life, maximising years of good health, but also assisting us to make choices to benefit ourselves and the wider community.

3.2 It is more than 60 years since the World Health Organization defined health as ‘a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity’. While this has been criticised by some as hopelessly utopian,⁴¹ recent debate has reaffirmed the appropriateness of such a broad vision for medicine’s mission in the early 21st century.⁴²

There is a biomedical component to health, but it exists in a setting that includes biological, personal, relational, social and – of course – political factors.

Dame Carol Black (submitted paper)

3.3 This revival of interest in the idea of well-being and quality of life (a concept recognised in research only in the past 25 years) is being seen in health policy and planning. New Horizons, the new mental health strategy for England, marks a clear shift from diagnosis and treatment of mental illness towards a psychosocial approach;⁴³ and *High quality care for all* concluded that ‘for the NHS to be sustainable in the 21st century, it needs to focus on improved health as well as treating sickness.’⁵ While the NHS has always had an interest in health maintenance and improvement, through vaccination and screening programmes for example, what is being suggested under the Darzi reforms would represent a step-change towards a more proactive service.

3.4 At the same time, increasing attention is being given to well-being in public policy generally. A vogue for policy-making that makes people’s flourishing or happiness its primary goal has revived interest in the work of the 18th century philosopher Jeremy Bentham,⁴⁴ and local authority leaders have seized on the idea of ‘place-shaping’ to redefine their role, in partnership with other local

agencies, in creating communities that enhance quality of life.⁴⁵ This fed through into the regulation and inspection regime in December 2009, with publication of Oneplace, the first comprehensive area assessment ratings for England, seeking to gauge how well public bodies work together to improve quality of life in local authority areas.⁴⁶

3.5 What does this mean for the role of the doctor? The Working Party concluded that the biggest single change facing the profession was the shift from a routine dominated by making interventions to treat patients' episodic illness to one dominated by working in partnership with the growing numbers of patients living with long-term conditions, helping to maintain stability in their lifestyles.

3.6 This implies partnership with the individual, but also with communities of patients with common diagnoses. Such communities – typically formed and sustained online and via social media – will be increasingly important for the self-management of long-term conditions and for mutual support. Doctors will need the 'soft' skills to engage with these communities and to feel comfortable sharing their chosen media.

3.7 A second challenge for the profession will be a growing focus on the health of people in and out of work, and on healthcare in the workplace. Again, this was a theme of the next stage review⁵ and, separately, of *Working for a healthier tomorrow*, a 2008 report to the government by Dame Carol Black, national director of health and work.⁴⁷

3.8 The two main groups of conditions contributing to unemployment have been identified as mental distress (but not severe mental illness) and musculoskeletal disorders (but not long-term debilitating conditions such as rheumatoid arthritis).⁴⁷ So, there is a ready opportunity for healthcare to play a key part in effecting relatively modest improvements in people's well-being that would yield major economic and social gains. A series of Fit for Work pilots has been launched in response to *Working for a healthier tomorrow*, engaging GPs as key players but taking a holistic and non-medicalised approach, and targeting health inequalities as a primary cause of economic inactivity. The Working Party sees this approach as one of great potential.

3.9 To make a significant and lasting contribution to this agenda, however, doctors must be prepared increasingly to interact with patients in the workplace, in collaboration with employers who must, in turn, be prepared to open their doors to healthcare. In evidence given to us, Clare Chapman, who joined the Department of Health as director general of workforce from the Tesco super-

market chain, recalled how Tesco had turned to the private healthcare sector for help in improving the well-being of its workforce after NHS doctors questioned the company's credentials for leading such an initiative.

3.10 In arguing for doctors to play a part in helping people to lead a good life, it is important to be proportionate. While the individual practitioner has a clear role in advising the individual patient on diet, exercise, work–life balance and relationships, as appropriate, they cannot be expected to take primary responsibility for a general quality-of-life agenda. They have no magic wand. Moreover, the very notion of a good life is subjective: where some would see this as a weakness in its discussion in public policy, in the evolving climate of personalised services, the individuality of the concept is its great strength.

3.11 All doctors should think in terms of health promotion and disease and disability prevention as part of their daily routine. That is not to say that all doctors should be required to see themselves as public health specialists, at least not in a formal sense, but all doctors should consider themselves 'societal doctors', with responsibilities beyond the health of the individual patient. On the one hand, this might mean doctors using their position and authority to lead debate on the boundaries of clinical and ethical practice; on the other, it might mean ensuring that good health is promoted for all groups in society.

The doctor really is an advocate for health and health development, and the doctor is a leader in terms of health and health development and that may be in a broader social context than simply within a surgery somewhere.

Sir Kenneth Calman

3.12 Equally, practitioners should not dictate lifestyle choices to their patients. Certainly they must not in any way disadvantage individuals for making 'wrong' choices. But the profession has not been as confident as it might have been, nor as strong as it ought to have been, in making authoritative information available to patients. Others, often less well placed and without evident clinical credentials, have stepped in to fill the void.

3.13 Online technology and social media present great opportunities for doctors to be more proactive in informing patients about developments in the treatment and management of their conditions. In other fields, this would be called 'customer service'. Some would balk at use of such terminology in healthcare, but the principles behind it – particularly responsiveness and follow-through of a transaction – have relevance for a profession still dogged by the sense that 'the doctor will see you now'.

We have got to make people aware. That is very different from saying they have all got to lead a healthy life and punishing them if they do not, but I think they should at least be aware of what risks they are running, both of cancer and of other conditions.

Professor Sir Mike Richards, national clinical director for cancer

3.14 Consideration of a good life must include the end of that life. Doctors have a particular responsibility to ensure that their patients have the best possible care in their last days and hours, and that their wishes are respected and acted upon within the proper limits of the law. Ambitious plans have been laid in both England and Scotland to ensure better end-of-life care and, with sharply rising numbers of deaths projected over the coming 20 years because of demographic trends, this is certain to become a bigger part of the healthcare agenda. Doctors face a key task in helping people to confront the reality of death: a century ago, it has been said, a 16-year-old would have already seen six people die; today, a typical 50-year-old may never have seen a corpse.⁴⁸

3.15 Debate about so-called assisted dying has been intense in recent years and seems set to continue. Amid the understandably high emotions generated, the medical profession has a singular part to play in informing and moderating that debate and, at an individual level, in helping people to engage in difficult discussions and arrive at often difficult decisions. In doing so, it must act with authority, composure and sensitivity.⁴⁹

Forecasts

3.16 We anticipate that medicine will rest more than ever on scientific foundations. We believe that everything possible should be done to preserve and enhance the scientific basis for medical training and practice, including sustaining current levels of investment in research, and that doctors must continue to express the values of science in society.

3.17 We anticipate that digital communication will continue to transform relationships, dominate transactions, and break down boundaries of time and place. We believe that doctors should actively support the use of new technologies to improve communication in healthcare, speed up transactions, and provide care and treatment online.

3.18 We anticipate that delivery of healthcare and well-being advice will increasingly be associated with other services. We believe that doctors should

consider working in the community alongside and integrated with not only other public services, but also wider civil society.

3.19 We anticipate growing demand for increasingly specialist clinical expertise. We believe that training programmes must enable doctors to avoid specialising too early, and that specialism must not be at the expense of a sufficiently broad medical education. We must support and continue to develop what is some of the best primary care in the world, delivered by our GPs.

3.20 We anticipate a continuing and growing demand for doctors. A rich society will want more; a poor and unequal society will need more. We believe it would be detrimental to react to short-term economic constraints by reducing numbers of training places in medical schools. Although there may be grounds for reviewing the numbers of doctors in some specialties, we see no case for reversing the overall increase in numbers of recent years.

3.21 We anticipate that women will represent a majority of the medical workforce by 2020, and a majority of GPs far sooner. We believe that medical workforce design and planning must be adapted in anticipation of this change, and will increasingly depend upon flexible working arrangements that accommodate different patterns of family life. The impact of this may be felt more in some specialist fields than in others.

3.22 We anticipate increasing debate over end-of-life choices, including where, when, and how people die. However, the public is becoming more distant from the reality and practicality of death. We believe doctors must engage more with society to improve understanding of death and lead better palliative care so that more people may die at home if that is their wish.

Calls for action

We call on government to deliver health policies that recognise the following:

- The future of health services will depend on electronic communication and data collection, and proper integration of both resources is required.
- Optimal patient care will depend increasingly on sharing data held in electronic health records, within the bounds of ethics and confidentiality.
- A modern healthcare system must allow patients to access and contribute to their health records.
- Partnership and self-management will depend on patient access to information.

- Choice will depend on openness with the public.
- Quality depends on the responsible use of data for audit and research.

We call on the NHS and other employers to adopt a more flexible approach to continuing education and career development. This should be aligned with the accelerating changes in medical practice.

We call on employers of doctors and on medical royal colleges and faculties to work with the General Medical Council to fashion a healthcare system in which every doctor is supported to reflect on and improve their performance. **We call on doctors** themselves to demonstrate that they are competent and fit to practise within this system.

We call on doctors to embrace new information technology, to ensure that its potential to deliver safer, more effective and efficient care is fully realised, and to commit to realising the enormous research potential of nationally coordinated electronic records.

We call on doctors to develop a clear vision of the best way to engage with other partners in dealing with health inequalities, the prevention of disease, and the broader social determinants of health. **We further call on** them to take their place in civil society by engaging with those areas of public policy that seek to reduce health inequalities, improve well-being, and promote public understanding of health.

4 | Personal partnership – the doctor and the patient

4.1 Judged on viewing figures, by far the most popular recent incarnation of the doctor in popular culture has been House, the flawed genius of the eponymous US television series. An aloof, deeply sarcastic loner, his brilliant flashes of insight make him the very Sherlock Holmes of the emergency room.

4.2 The public appears to like its TV doctors to be difficult and elitist. But we want our own doctors to be accessible, relaxed and considerate. Above all, we want them in the 21st century to be our trusted partners in the management of our healthcare and well-being, advising us on available care and lifestyle choices.¹ We no longer attend the GP surgery so much to be dispensed wisdom and prescribed medicine as to discuss our options.

Patients want people to fit in with their lives and not for them to fit in – they do not want their time wasted.

Janet Davies, director of nursing and service delivery, Royal College of Nursing

4.3 This is in part a function of a wider decline of deference towards professionals in all sectors. Yet doctors retain the highest levels of trust among the public. Although it would be unwise to take such figures as a heavy vote of confidence in all aspects of doctors' work, an Ipsos MORI survey in September 2009 found that 92% of people trusted doctors to tell the truth – a figure unchanged on 2008 – compared to 80% for judges, 71% for clergymen, 44% for civil servants, 22% for journalists and 13% for politicians. Most professions showed a fall in trust on 2008.⁵⁰

4.4 The relationship between doctor and patient may be changing more because of people's greatly enhanced access to information about health and well-being, particularly via the internet. Department of Health research suggests that almost eight in 10 people have directly sought information on health and social care in the past 12 months.⁵¹ That the information may not always be wholly impartial, or of high quality, serves only to underscore the case for doctors to act as reliable and independent advisors.

Patients are much less deferential towards any kind of professional. They also want to be much more involved in decisions that affect them and they expect more accountability. They will expect higher standards – not just the information they are given, and the way they are treated, but also customer care standards.

Angela Coulter, former chief executive, Picker Institute Europe

4.5 ‘Personalisation’ is the clarion call across the public services. Through partnership with medical professionals, patients should increasingly be able to choose and even design healthcare and well-being services that are personal to them. The advent in 2009 of personal health budget pilots, by which people with long-term conditions are allocated NHS funds to spend in ways that best suit them,⁵² takes this approach a significant step further.

4.5 Personal health budgets do, however, throw into sharp relief the concern that many patients will not welcome or respond positively to the idea of taking more personal responsibility. The danger is that health inequalities could worsen if blanket assumptions are made about patients’ ability and willingness to seek information, interact with their doctor and co-design services. For at least the lifespans of current adult generations, and perhaps longer, doctors must expect to deal both with informed and engaged patients, and with others who are neither. We need a health service that meets the needs of all.

One thing that we have got to prepare doctors for is on the one hand, the *Guardian* reader who comes in with their internet printout and who gives you a cross-examination, and on the other hand the people that you and I both know still exist who say: ‘Whatever you say, doc.’ We have got to be able to produce doctors who can switch between those two requirements.

Professor Peter Rubin, chairman, General Medical Council

4.6 Nor will those patients who do embrace this shared decision-making necessarily want to do so at all times. Afflicted by a medical emergency, or potentially life-changing diagnosis, many people may prefer to be treated with the peremptoriness and decisiveness of a TV doctor like House rather than be invited to consider a menu of treatment alternatives. Moreover, there will be occasions when the doctor needs to tell the patient that a medical intervention would not be in the best interests of their overall health. In this sense, there are clear limits to a consumerist approach.

4.7 The essence of personalisation is that the professional shapes their approach to the client according to individual characteristics and circumstances. In some

contexts, and with some patients, a very traditional approach that might be judged, in isolation, as paternalistic, might still be appropriate. Appropriate and selective use of technology is part of this: many patients will be increasingly comfortable to have a substantial degree of online contact with their GP or specialist; others will not.

If using technology we can decrease by 50% the time we need to spend with 50% of our patients, so that two-month appointments become four-monthly etc, then that frees up time to focus more on the people who cannot, will not or should not be asked to use that.

Dr Neil Bacon, founder, doctors.net.uk and iWantGreatCare.org

4.8 In many instances, delivery of care will move closer to the patient's home. Just as care of diabetes has moved over the years from the hospital to the GP surgery and now, under self-management, to the home, fewer people living with other long-term conditions will require regular hospital attendance. The traditional hospital outpatient department is likely to disappear in many specialties as the need for hospital consultations diminishes. Where consultations are still required, they may be undertaken remotely, using new technologies, or in primary care units (although the NHS tariff payment system at present acts as a perverse incentive to continue summoning patients to hospital). They will not necessarily be done by a specialist.

4.9 Some aspects of primary care may, in some settings, start to look more 'industrial' both in scale and remit. But the core role of the GP will persist. It is important to remember that primary care is, and has always been, far more than general practice, embracing nurses, midwives, pharmacists and all care providers who act as a first point of contact for the patient. What is developing now has been described in *Teams without walls*, the report of a Working Party of three medical royal colleges, as 'an integrated model of care where professionals from primary and secondary care work together in teams, across traditional health boundaries, to manage patients using care pathways designed by local clinicians.'⁵³

Instead of having a rigid primary–secondary interface, you have to have a more permeable boundary.

Martin Roland, director, National Primary Care and Development Centre, Manchester

4.10 For such a model to succeed, however, involvement of doctors is crucial. To make the most of this changing landscape of care delivery, GPs must be engaged fully in deploying their key skills of interpreting complex choices for patients.

4.11 Science will act as a partial countervailing force to the ‘closer to home’ trend, with hospitals continuing to house high-cost equipment and accommodate senior specialists in increasingly narrow disciplines. The traditional district general hospital will thus find itself pulled two ways: towards the community but also towards specialist tertiary care – although its demise has been predicted before. But patients should not be surprised to find themselves going through a predictable care episode without direct contact with a doctor. And, at least in England, procedures will increasingly be undertaken by a range of healthcare providers working for the NHS, as well as by NHS teams themselves, but with overall clinical responsibility continuing to rest with a senior NHS doctor when such a doctor is part of the team providing clinical care.

4.12 This growing diversity of provision is reflected in new, uniform arrangements for registration of providers of health and social care, coming into effect in England during 2010 and based on proven outcomes rather than policies. Similarly, a new Information Standard launched by the Department of Health in November 2009 aims to award a quality mark to organisations that meet criteria for producing safe and reliable information and advice on health and social care.⁵⁴ There will be many more initiatives to mediate the wealth of material accessible via the internet, and there is a debate to be had about whether such a role is appropriate for the state.

4.13 For doctors, the implication of these trends is that their role is shifting: in future, they must expect to be interpreter and advisor as well as diagnostician, communicator as well as technologist. This will demand a skill set significantly different to the one produced by traditional medical training. To take one example, advances in the identification and management of risk factors, as distinct from diseases, mean that the 21st century doctor will need an ability to understand, quantify and communicate effectively to the patient the probabilities of risks. As Angela Coulter said in evidence to the Working Party, ‘there is an assumption that this is all just ‘basic stuff’ – it is about being nice to people, breaking bad news well, and that is about it – and that it is taught well in medical schools, but actually there is a lot more to it than that’.

4.14 Moreover, this is not just about interpersonal skills. Bearing in mind the doctor’s stake in community well-being, it is also about broader civic virtues. Practitioners will need to approach this enhanced task with an instinctive feel for concepts of citizenship, justice, tolerance, rights and responsibility. They will need also to reflect on their profile in the community: where they sense they have become remote, or out of touch with local people and local issues, they may need to take ameliorative measures.

4.15 There will be concerns, and we have heard them, that the training curriculum is already overloaded and that factoring in more teaching of ‘advisor’ skills will squeeze out essential biomedical learning. But this assumes that training is finite. Career-long learning, flexible in form and including secondments and experience of other sectors, would expand both the capacity and ambit of the training function. And as Professor Rubin told us: ‘The first reference I can find to concerns about the curriculum being overloaded because of the massive expanse of medical knowledge is in the archives of the GMC for 1882.’

Forecasts

4.16 We anticipate that the internet will continue to transform the way we access and use knowledge, thereby challenging notions of authority and expertise. We believe that doctors must become skilled in the use, application and interpretation of online clinical knowledge, and the mediation of it, to enable patients to make informed choices.

4.17 We anticipate that levels of patient engagement with sources of information about health and well-being will vary widely, at least for current adult generations. We believe that doctors will need the skills to provide a stronger steer to some patients than to others, and to make judgements accordingly.

4.18 We anticipate that accurate data about health and health systems will become essential to the maintenance of patient safety, the improvement of quality, the management of performance, and the conduct of science and research. We believe that doctors have a duty to consider themselves part of a national health research framework, and to make an active contribution to this framework.

4.19 We anticipate that electronic patient records will play a key role in modern healthcare. We believe that doctors should actively support patients in evaluating such records, encourage their adoption, and endorse the patient’s right to hold their own records if they wish.

4.20 We anticipate that delivery of healthcare will increasingly be in the community, rather than in hospitals, and in integrated care settings. We believe that doctors should seize the opportunity to lead this trend, shaping services along integrated care pathways to suit patient preferences.

4.21 We anticipate that patients will become accustomed to seeing different practitioners at different times in both primary and secondary care settings. Often, they may not see the same doctor twice (or even see a doctor at all). We believe, notwithstanding that registered healthcare practitioners are responsible for their own practice, that an individual team member must at any one time

assume overall clinical responsibility for an individual patient. When trained doctors are part of the team, clinical responsibility will fall to the doctor in the most senior position.

4.22 We anticipate that society will become increasingly risk-averse and that there will be a growing emphasis on patient safety. We believe that doctors must engage with systems that minimise human error, and must support a culture of learning from mistakes, but they must also be willing to explain to society that adverse events and outcomes will remain inevitable in the complexity of health interventions and do not necessarily imply fault.

Calls for action

We call on the leaders of patient organisations and on patients themselves to be more assertive in demanding patient-centred care. This care, which is characterised by respect, choice, engagement, access and information, is a central commitment of the NHS and the medical profession. **We further call on** medical and political leaders to encourage and support patients in this assertiveness.

We call on government and the NHS to ensure that health services are fully equipped to deal with increased demands from patients and carers for the delivery of personalised health services, often in settings outside the hospital, and particularly at the end of life.

We call on doctors to embrace fully their roles in multidisciplinary teams that include health service managers, and to develop methods to ensure that the team works to maximum effect without diminishing clinical accountability for the patient's well-being.

We call on the Academy of Medical Royal Colleges to review the role of generalism in medicine and how it can be enhanced alongside the development of increased specialisation.

We call on the General Medical Council, with its new responsibility for the whole life cycle of medical education and training, in association with medical royal colleges and faculties and medical schools, to work with doctors to:

- review the contents of medical training so as to create a flexible medical workforce capable of responding rapidly to new demands
- equip the physicians of the future with the skills and capabilities to meet the individual needs of their patients
- engage effectively in new partnerships with patients and the public
- realise their value beyond medicine.

5 | Leaders in troubled times

5.1 In the words of Sir David Nicholson, NHS chief executive, the health service stands at a critical juncture in its history.⁵⁵ After a decade of unprecedented growth in investment, it now faces unprecedented cutbacks. If history repeats itself, cuts will be conceived poorly and implemented arbitrarily, and patient care will suffer. But if doctors take a lead in influencing policy and planning, the outcome could be less damaging.

5.2 Our clear view is that doctors have for 25 years, perhaps longer, been failing to give the leadership of which they are eminently capable, and which society rightly expects of them. There are complex reasons for this, but never was there a greater opportunity to put it right. In a metaphor that came up repeatedly during the course of our deliberations, the profession can remain a back-seat passenger for the difficult journey ahead, or it can take the wheel.

If you look at most other organisations other than medicine, people who are directing the organisations tend to come from within the skill set of that organisation. The medical profession has been very lax at pushing itself forward into areas of decision-making that are national and affect the whole delivery of healthcare.

Dr Ashley Fraser, medical director, NHS Employers

5.3 What could doctors change? A simplistic approach to making best use of resources would invariably stress efficiency. But clinicians would focus on effectiveness. NESTA, the independent innovation forum, has asserted that the NHS in England could achieve its entire savings target of £20 billion between 2011 and 2014 by changing the way in which healthcare is delivered, making services more patient-centred, and influencing patient behaviour. In particular, it has identified ways of saving 10% of the £69 billion cost of treating people with long-term conditions.⁵⁶ There is also emerging evidence from social care that personal budgets, now being trialled with NHS money, may in some circumstances yield net savings. Such thinking may as yet be more aspirational than grounded in hard evidence, but these are agendas ripe for doctors' involvement.

5.4 Doctors' voices should also be heard clearly in the Total Place experiments being developed in England, whereby state agencies are collaborating to re-shape public service budgets around local priorities.⁵⁷ We endorse this approach, but are anxious to ensure that decisions about spending on healthcare and well-being are made with appropriate clinical input.

5.5 More broadly, doctors have the potential, along with others, to create values-based and principled leadership in the fields of health and well-being. This will be essential not only to tackle health inequalities, and to prevent them from worsening in a spending squeeze, but also to respond to global environmental and health crises. Doctors, more than any other group or agency, enjoy levels of trust that put them in a position, if they so choose, to seek to influence people's choices in respect of sustainable diet, decarbonisation of lifestyles, and responsible behaviour in pandemics.

We need more doctors to be in policy positions. We need more doctors to be in leadership positions. We need more doctors to be in political positions.

Clare Chapman, director general of workforce, Department of Health

5.6 There is an opening here for the medical royal colleges and faculties, acting together, to create the conditions for a national conversation about such choices. But consideration of ethical leadership also throws up questions about the profession's regulation. Response to *Doctors in society*¹ showed strong support for regular and robust testing of fitness to practise. Such testing should of course cover clinical matters, but there is an arguable case for also considering the individual's performance in respect of wider responsibilities: appropriate use of resources; contribution to public health; perhaps even, through advocacy, ensuring justice in healthcare.⁵⁸

5.7 None of this emphasis on the individual physician is to undermine the central importance of the healthcare team. Strong, multidisciplinary teams will be the cornerstone of care delivery in both hospital and community settings over the next 20 years, leading patients along integrated care pathways and working seamlessly with social care provision. No doctor can any longer regard themselves as a sole provider of care to the individual patient.

5.8 Implicit in this approach is the sharing of tasks among professions, and also the passing of tasks to others capable of fulfilling them just as competently but more cost-effectively. Pressure on doctors' time, and the importance of rapid, accurate diagnosis for optimal use of resources, mean that doctors are likely to find themselves focusing rather more on care planning and rather less on administering

treatment. But this will mean accepting that some traditional roles, such as the follow-up of patients with long-term conditions, must be surrendered. Other health professionals may indeed be better placed to carry out certain protocol-based procedures.

5.9 Doctors must accept also that they will not automatically be leaders of the multidisciplinary team. The role of lead coordinator will often be the right answer for optimal patient care. Patients will often assume that the doctor is in the lead, but other professionals may in some circumstances be better suited to a day-to-day leadership role.

A team has got to have a leader and that leader has to be accountable.

Sir Bruce Keogh, NHS Medical Director

5.10 However, the Working Party believes that, when the team includes them, trained doctors should always bear ultimate clinical responsibility, whether or not they are the team leader. This is what distinguishes the profession from other caregivers. In this, we stand four-square with the consensus statement on the role of the doctor, issued in December 2008 by the Medical Schools Council, the General Medical Council and the Academy of Medical Royal Colleges.⁵⁹

Doctors alone among healthcare professionals must be capable of regularly taking ultimate responsibility for difficult decisions in situations of clinical complexity and uncertainty, drawing on their scientific knowledge and well-developed clinical judgement.

The Consensus Statement on the Role of the Doctor

5.11 In urging doctors to step forward and reclaim a lead role in healthcare policy and management, we recognise that this will require a widespread change of attitude. Many doctors, particularly in the hospital sector, have settled into a mindset where they regard themselves as ‘super-technicians’, reluctant either to take responsibility for the overall patient experience or to take an active interest in issues of cost and efficiency. We heard more than once the jibe that medical management was seen as ‘the dark side’. This prejudice must be challenged and squashed. We need an all-round change in attitude, so that doctors and managers recognise and value each others’ strengths. There is need for change by both: managers, for their part, must remove any barriers to doctors becoming more involved in managing the service, giving them power as well as responsibility.

5.12 We recognise, too, that taking a lead role carries risks. Doctors are uniquely situated to shape public understanding of the need to use limited resources to best

effect, to set treatment priorities and, where the evidence supports it, to stop carrying out certain procedures and decommission certain facilities. But there will always be a temptation to defend the status quo. In discussion at our one-day seminar, a participant asked: 'If the evidence shows that something would actually be done better elsewhere, are we going to run back into our departments and defend the castle?'

5.13 This will be a key test for the profession in the years ahead. Arguing for change may not be the easiest course to take, and will certainly risk alienating some patients and some vested professional interests. But we believe doctors have an obligation to set aside narrow, 'trade union' thinking, and to take a system-wide view.

To put it bluntly, what part do you play in rationing to get maximum health gain for the population you serve and yet marry that with this unique relationship you have with the patient? For me, that is the toughest dilemma. As doctors become more explicitly leaders and managers of service provision, I think that is going to become a significant point of tension.

Professor Sir John Tooke, vice provost (health) and head of the School of Life and Medical Sciences, University College London

5.14 Fortunately, there are some excellent role models to point to. The national clinical directors at the Department of Health have given outstanding leadership in their spheres, often in controversial circumstances. One example is the part played by Professor Sir Mike Richards, national cancer director, in brokering a solution to the vexed issue of patients having both NHS and private healthcare simultaneously. Similarly, Professor Sir Bruce Keogh, now NHS medical director, has long argued for, and helped to create, a culture of far greater openness about outcomes data in the cardiothoracic sector.

5.15 Above all, the role of Lord Darzi as a health minister and architect of the Next Stage Review of the NHS has offered a prime example of medical leadership at the heart of government. This leading surgeon's contribution, made while continuing to practise, has won widespread respect. We look to others to follow in his footsteps.

Forecasts

5.16 We anticipate a fundamental need for strong and informed leadership in the coming years of unprecedented fiscal pressure. We believe that doctors are uniquely placed to provide that leadership, but that links between local and national medical leaders need to be strengthened.

5.17 We anticipate that competition, contestability and choice will become ever more important in healthcare delivery. We believe that this may be a spur to improved care quality and efficiency, and that doctors should both use and contribute to comparative information as it becomes available. At the same time, the essential value of collaboration among care providers must be recognised, and collaboration within a competitive system must be protected, incentivised and strengthened.

5.18 We anticipate growing pressures to apply blunt productivity measurement to healthcare procedures and personnel. We believe that current techniques for such measurement are far from perfect and fail to take proper account of the quality of care. Doctors must engage fully with patients and the service to develop clinically meaningful measures.

5.19 We anticipate that teamwork will become increasingly central to the delivery of healthcare and well-being advice and support. We believe that doctors should support this fully and embrace the potential of technology to create clinical networks and teams that need no longer be co-located. Healthcare professional education needs to develop the necessary skills that will enable participation in such teams and networks, together with the ability to use relevant technology to do so.

5.20 We anticipate that spending pressures will place greater responsibility on regulatory and advisory bodies, particularly the National Institute for Health and Clinical Excellence (NICE). We believe that health technology assessment, as practised by NICE, has a key and growing role to play, and that it should be supported by doctors, but that its work must at all times be clinically driven and scientifically rigorous, responsive to medical needs, and transparent.

5.22 We anticipate a need for informed and evidence-based discussion of ethical issues arising from spending constraints in healthcare. We believe that doctors must play a lead role in such discussion, and we look to the medical royal colleges and faculties, acting in concert, to create the conditions and the space for it to take place.

Calls for action

We call on doctors to recognise that medical professionalism in a changing world looks beyond the boundaries of medicine.

We call on doctors to commit to leadership – in health, policy and politics – in order to accelerate improvement in health outcomes. Doctors should be

prepared to come forward to take up leadership roles in public life where their skills can bring wider benefit.

We call on the NHS to continue to drive quality improvement through regional and local networks of medical and clinical directors.

We call on medical royal colleges and faculties, together with other **health professional organisations**, to ensure that appropriate collaboration among care providers is protected and encouraged within future models of care delivery that rely on competition.

We call on doctors to engage fully with patients, their organisations, and the service to develop valid measures (including patient reported outcome measures) that are clinically meaningful and that improve patient care.

6 | Calls for action

Based on the evidence we have gathered, and on our forecasts at the ends of Chapters 3, 4, and 5, these are our calls for action.

These are the actions we believe are necessary in order to equip future physicians for the changing times ahead, so that they can continue to meet the needs and expectations of patients and the public for the provision of excellent healthcare.

Good care for a good life – Chapter 3

We call on government to deliver health policies that recognise the following:

- The future of health services will depend on electronic communication and data collection, and proper integration of both resources is required.
- Optimal patient care will depend increasingly on sharing data held in electronic health records, within the bounds of ethics and confidentiality.
- A modern healthcare system must allow patients to access and contribute to their health records.
- Partnership and self-management will depend on patient access to information.
- Choice will depend on openness with the public.
- Quality depends on the responsible use of data for audit and research.

We call on the NHS and other employers to adopt a more flexible approach to continuing education and career development. This should be aligned with the accelerating changes in medical practice.

We call on employers of doctors and on medical royal colleges and faculties to work with the General Medical Council to fashion a healthcare system in which every doctor is supported to reflect on and improve their performance. **We call on doctors** themselves to demonstrate that they are competent and fit to practise within this system.

We call on doctors to embrace new information technology, to ensure that its potential to deliver safer, more effective and efficient care is fully realised, and to

commit to realising the enormous research potential of nationally coordinated electronic records.

We call on doctors to develop a clear vision of the best way to engage with other partners in dealing with health inequalities, the prevention of disease, and the broader social determinants of health. **We further call on** them to take their place in civil society by engaging with those areas of public policy that seek to reduce health inequalities, improve well-being, and promote public understanding of health.

Personal partnership – the doctor and the patient – Chapter 4

We call on the leaders of patient organisations and on patients themselves to be more assertive in demanding patient-centred care. This care, which is characterised by respect, choice, engagement, access and information, is a central commitment of the NHS and the medical profession. **We further call on medical and political leaders** to encourage and support them in this assertiveness.

We call on government and the NHS to ensure that health services are fully equipped to deal with increased demands from patients and carers for the delivery of personalised health services, often in settings outside the hospital, and particularly at the end of life.

We call on doctors to embrace fully their roles in multidisciplinary teams that include health service managers, and to develop methods to ensure that the team works to maximum effect without diminishing clinical accountability for the patient's well-being.

We call on the Academy of Medical Royal Colleges to review the role of generalism in medicine and how it can be enhanced alongside the development of increased specialisation.

We call on the General Medical Council, with its new responsibility for the whole life cycle of medical education and training, in association with medical royal colleges and faculties and medical schools, to work with doctors to:

- review the contents of medical training so as to create a flexible medical workforce capable of responding rapidly to new demands
- equip the physicians of the future with the skills and capabilities to meet the individual needs of their patients
- engage effectively in new partnerships with patients and the public
- realise their value beyond medicine.

Leaders in troubled times – Chapter 5

We call on doctors to recognise that medical professionalism in a changing world looks beyond the boundaries of medicine.

We call on doctors to commit to leadership – in health, policy, and politics – in order to accelerate improvement in health outcomes. Doctors should be prepared to come forward to take up leadership roles in public life where their skills can bring wider benefit.

We call on the NHS to continue to drive quality improvement through regional and local networks of medical and clinical directors.

We call on medical royal colleges and faculties, together with other **health professional organisations**, to ensure that appropriate collaboration among care providers is protected and encouraged within future models of care delivery that rely on competition.

We call on doctors to engage fully with patients, their organisations, and the service to develop valid measures (including patient reported outcome measures) that are clinically meaningful and that improve patient care.

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Appendix A: Those who gave oral evidence to the Working Party

Posts stated were held at the time of giving evidence. Witnesses and those attending informal meetings gave evidence in a personal capacity and not on behalf of the organisations set out.

Monday 9 June 2008

Angela Coulter, Chief executive officer, Picker Institute Europe

Monday 30 June 2008

Professor Peter Rubin, *Chair, General Medical Council Education Committee; chair, Postgraduate Medical Education and Training Board*

Janet Davies, *Director of nursing and service delivery, Royal College of Nursing*

Tuesday 29 July 2008

Professor Sir Bruce Keogh, *NHS medical director*

Clare Chapman, *Director, workforce, Department of Health*

Tuesday 9 September 2008

Professor Sir John Tooke, *Chair, Medical Schools Council; dean, Peninsula Medical School*

Dr Neil Bacon, *Founder, Doctors.net.uk; renal physician*

Thursday 30 October 2008

Professor Martin Roland, *Director, National Primary Care and Development Centre, Manchester*

Professor Sir Mark Walport, *Director, The Wellcome Trust*

Wednesday 17 December 2008

Professor William Bynum, *Professor (emeritus), The Wellcome Centre for the History of Medicine, University College London*

Dr Richard Smith, *Chief executive officer, United Health Europe*

Tuesday 20 January 2009

Professor Dame Carol Black, *Chairman, Academy of Medical Royal Colleges*

Lord Woolf, *House of Lords (Master of the Rolls, 1996–2000; Lord Chief Justice of England and Wales, 2000–5)*

Tuesday 17 February 2009

Dr Ashley Fraser, *Medical director, NHS Employers*

Professor Sir Mike Richards, *National cancer director*

Professor Sir Kenneth Calman, *President, British Medical Association; chancellor, University of Glasgow*

Wednesday 18 March 2009

Professor Roy Pounder, *Emeritus professor of medicine, University of London*

Those who attended informal meetings

Monday 8 December 2008

Sheila Leatherman, Dame Carol Black, David Colin-Thomé

Wednesday 21 January 2009

Sir Graeme Catto, Finlay Scott, Paul Buckley, Paul Philip, Sally Hawkins,
Peter Reader

Tuesday 17 February 2009

Dame Sandra Dawson, the Reverend Dr Michael Moynagh, Mr Richard Worsley

Wednesday 18 February 2009

Julian Thompson, Rachel Clough, Felix Greaves, Claire Lemur, Oliver Mytton,
David O'Reilly, Paul Rutter, Eddie Guzdar

Wednesday 4 March 2009

Dinesh Bhugra, David Sowden, Stephen Thornton, Nigel Edwards,
Patricia Hamilton

Wednesday 18 March 2009

Sir Gordon Duff, Ian Roberts, Mark Maslin, David Pencheon, Tim Lang,
Oliver Mytton, Felix Greaves

Appendix B: Those who attended the Working Party seminar

Maria Ahmed	Ashley Fraser	Christopher Pavitt
Mary Archer	Peter Furness	David Pencheon
Neil Bacon	Todd Gifford	Katie Petty-Saphon
Mary Baker	David Goodhart	Michael Phillips
Maureen Baker	Patricia Hamilton	Jill Pitkeathley
Robert Boyd	Amelia Heaford	Jim Platts
Andrew Brittlebank	Alastair Henderson	Roy Pounder
Nigel Brooksby	Peter Hockey	Peter Reader
Luke Bruce	Judith Hulf	Trudie Roberts
Iain Cameron	Philip Hurst	Rebecca Rosen
Karishma Chandaria	Candace Imison	Jane Salvage
Steve Churton	Nathan Jacobs	Marcia Saunders
Myron Ciapryna	Peter Johnson	Finlay Scott
Jonathan Cohen	Ron Kerr	Claire Severgnini
Alan Cribb	Peter Kopelman	Sue Slipman
Ian Curran	Andrew Langford	Richard Smith
Christopher Davidson	Peter Lees	Jonathan Steel
Janet Davies	Stephen Linton	Gerard Sullivan
Sally Davies	M Mahendran	David Taylor
Simon Denegri	Jane Maher	Tina Taylor
Mike Durkin	Jan McCall	Marian Thomas
Nigel Edwards	Kathy McLean	John Tooke
Martin Else	Pippa Medcalf	Andrew Vallance-Owen
Sam Everington	Hamish Meldrum	Susanna White
Paul Farmer	Mike O'Donovan	Phil Willan
Steve Ford	Elisabeth Paice	

The Working Party is grateful to: Julie Dent, Samantha Gibbs, Chris Ham, David Halliday, Kate Jenkins, Elizabeth Lawlor, Laurie McMahon, Amanda Simonds, and Vicky Vickers, for helping to organise and facilitate this event.

Appendix C: Subgroup reports

I Health services subgroup report

1 Introduction

This report of the health services subgroup describes the implications of potential changes in the healthcare system for the role of the future doctor. These are explored in the context of the broader drivers for change, as neither can be seen in isolation. The quotations included in the report are taken from comments sent to the health services subgroup by faculties and royal colleges in response to an invitation to send in views on predicted changes in the provision of health services over the next 15 to 20 years.

The health system can be broken down into a number of levels (Fig 1):

- funding system and resources
- regulatory framework
- provider–commissioner relationship
- provider configuration

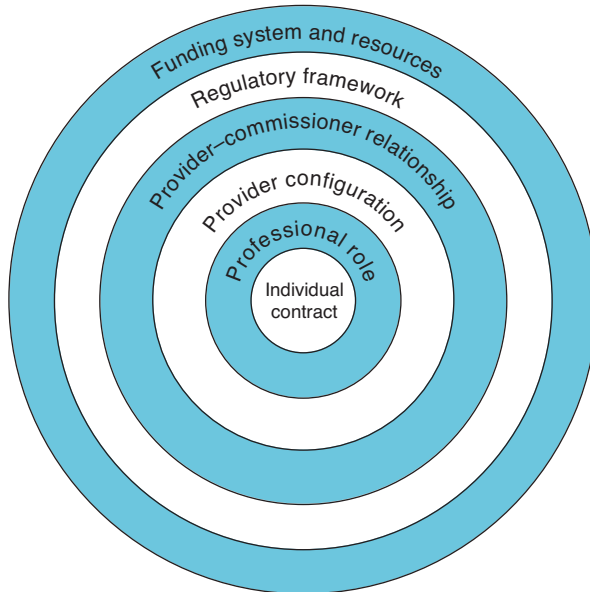


Fig 1 The health system.

- professional role
- individual contract.

At each of those levels, a number of external drivers will have effect:

- public expectations and demand
- new medical and information technologies
- rate of economic growth
- changes in population
- changes in political leadership
- changes in professional practice
- changes in training and working hours
- professional aspirations
- diversity of provision.

In section 2 the external drivers are explored, while section 3 looks at their impact on the health system at each of the different levels, and the consequent impact on the role of the doctor. Section 4 concludes by drawing out the overall implications for the doctor of the future.

2 Major drivers of change

The relative impact of the trends mapped out here will be different over time. The times at which particular trends will have the greatest impact are estimates, but when reading this, it should be borne in mind that predictions of the future are frequently right about the type of change but are often wrong about the pace. When reviewing the last 20 years, it is striking to see how little has changed in the way in which doctors relate to patients. A timeline showing when some of the major external drivers are expected to have an impact is shown in Fig 2.

Economic trends

The collapse of wholesale credit markets, the global economic downturn, and subsequent government support for the financial services sector will have significant implications for healthcare. In contrast to the past decade, during which health-care funding enjoyed continuous expansion, the prospects now are for a period of low growth if not real reductions. After taking account of debt, interest payments and social security and tax credit payments, the Institute for Fiscal Studies suggests that if the pain were shared equally across government, there would have to be a

The system faces a number of challenges

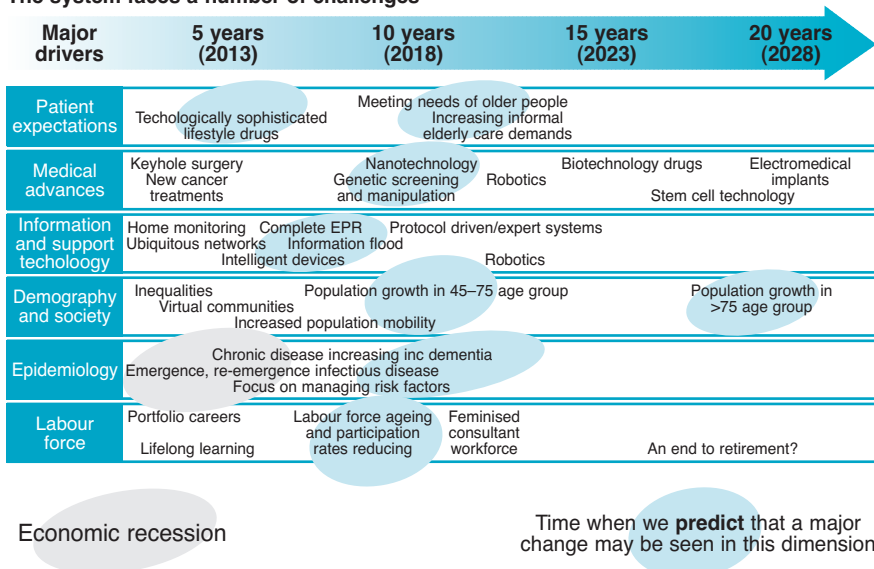


Fig 2 External health drivers – a timeline. Evidence: Foresight; Government Office for Science; Horizon Scanning Centre; Sigma Scan (public policy trends) and Delta Scan (science and technology trends).^(1–5)

2.3% cut in all spending departments for the three years of the next spending review (2011/12 to 2014/15).⁽⁶⁾ Aside from the immediate impact of the economic downturn, there are longer term issues for healthcare. Health spend on the NHS (in common with other developed countries) has grown faster than the economy, and as a consequence has taken a growing percentage of GDP – growing from 4% to nearly 10% in the last 40 years. If the current trends continue, by the end of the century, most of the Organisation for Economic Co-operation and Development (OECD) countries would be spending half of their GDP on health. This is not sustainable.

Politics

Based on current polling evidence, the chances of a change of government in the near future are high. While government policy is an evolving process with any administration, there is no evidence to suggest there will be a major change of direction from that being pursued by the current administration – that is a move towards localist challenge involving markets incentives and enhanced patient choice.

It is less clear that the current level of agreement will survive a prolonged financial crisis – for example, if public spending had to be significantly reduced because of a shortfall of tax revenues, or charges raised to maintain NHS spending.

Patient expectations

The population has increasing technological sophistication and capacity to access information on health and healthcare – such as comparative patient reported outcome measure (PROMs) data, which the NHS started collecting from April 2009 for selected operations.

Patients not only expect to be free from disease, they also expect to feel a sense of well-being. However, a significant proportion of the population have lifestyles which threaten both their health and their sense of well-being, as seen in the rising rates of obesity, drug and alcohol misuse, and among some groups, persistently high rates of smoking. Moreover, as the ‘baby boomers’ (those born in the demographic post-World War II) age, there will be greater demands on services for the elderly, not just as a result of issues of lifestyle and greater numbers, but also because this cohort of older people will have higher expectations of what services should deliver.

Medical advances

The government’s Delta Scan of science and technology trends suggests that, in the next five years, the most significant medical advances are likely to be new pharmacological treatments, particularly for cancer.⁽⁵⁾ The last 10 to 20 years have seen unprecedented developments in drug treatments for cancer. As a result of greater understanding of the basic biology of cancer, new targeted treatments are enabling cancer cells to be killed without damaging surrounding healthy cells, meaning more successful treatment with fewer side effects. However, looking forward, the Faculty of Pharmaceutical Medicine has suggested that ‘the future development of new medicines will result in incremental rather than step change benefits in many areas and newer types of biologic therapies such as those that are gene or stem-cell based’.

Advances in genetics are likely to trigger increased use of genetic screening with potentially significant social consequences.

Genetic screening will become increasingly available, possibly even from birth. It might become compulsory and impact on housing insurance and employment.

Royal College of General Practitioners

Information support and technology

In the next five years, technologies such as automated analyses – medical devices that can self monitor and call upon expert/professional help automatically – are likely to play an increasing role in care. Professionals will almost certainly make much greater use of software to support clinical decision making. While the NHS has invested significantly in new information technology through the programme ‘Connecting for Health’, progress has been slow and there are challenges to its current governance. The key issue in this area is not the lack of new, cutting-edge ideas and inventions, but the failure to diffuse and implement knowledge and technologies.

Demography

The population of England is expected to rise by just under 3 million (5%) by 2015, to 54.3 million.

Other demographic trends include the increasing proportion of economic migrants from new accession countries in the EU and refugees and asylum seekers from areas of oppression, conflict or natural disaster.

Faculty of Public Health

The over-75 population is expected to grow by 500,000 to 4.5 million (+13%) over the same time period. Figure 3 shows the predicted changes in the population’s age profile to 2016.

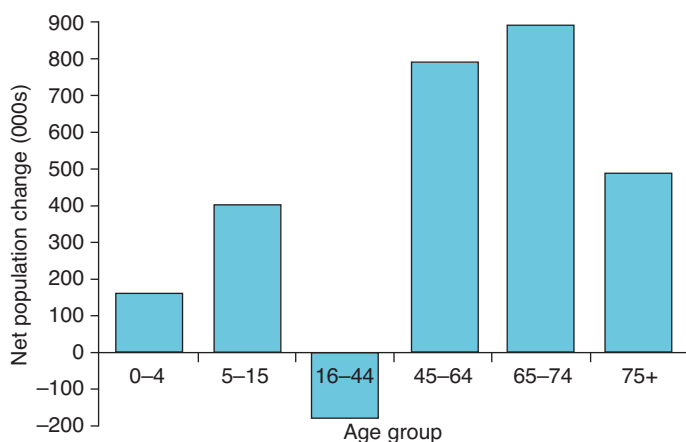


Fig 3 Population change by age group 2008–15, England. Source: Office for National Statistics. Population projections 2008.⁽⁷⁾

Epidemiology

In addition to age-related disorders and disabilities (including mental health disorders such as dementia and depression), we will be facing the consequences of the rising tide of obesity – more diabetes, more hypertension, more musculoskeletal problems. We also face the alcohol-misuse time bomb of increasing liver disease and alcohol related injuries. In sexual health, we will see more subfertility linked to undetected and untreated chlamydia infection.

On the communicable disease front, there remains the ever present threat of pandemic flu, plus the emergence of new diseases such as SARS, West Nile fever and *ebolavirus*. The steady increase in air travel and migration means we will see in the UK more multi-drug resistant TB, heterosexually transmitted HIV and hepatitis.

The effects of global warming will precipitate more frequent heat waves in the UK, with health impacts particularly on vulnerable older people. We can also expect an increase in the frequency of catastrophic flooding, with a variety of health consequences including the disruption of healthcare services.

Faculty of Public Health

Labour force

The current recession will increase unemployment and reduce competition for labour in the short term. However, the specialist nature of the healthcare workforce means that until the NHS faces reductions in funding growth, probably from April 2011, the skilled workforce will be relatively insulated from the wider labour market. Increasing professional mobility is likely to be sustained. Forecast shortages in healthcare in other English-speaking countries may attract skilled staff from England in the medium term.

There is considerable uncertainty over the size of the medical workforce – some commentators believe that the current output of medical schools will inevitably lead to an oversupply of doctors and the spectre of medical unemployment, which has rarely been a feature of the British healthcare system, although it has been a significant factor in other parts of Europe.

Overall impact of trends

Changes in the wider environment suggest some significant risks for the future healthcare system, alongside significant opportunities. It is difficult to assess where the net balance of these lies.

Rising rates of obesity, an ageing and more informed population, and the impact of the recession, alongside new treatments, are likely to create significant additional pressure on healthcare resources. This would be magnified by a major health crisis such as a flu pandemic.

However, engaging patients more in managing their own care, effective anticipatory care and harnessing the capacity of new technologies could be used to reduce demand. The impacts of these drivers on the healthcare system and the future role of the doctor are explored in more depth below.

3 Impacts of drivers on the healthcare system and the role of the doctor

Our analysis on the prospective impact of all drivers, including economic drivers, on the healthcare system is set out below.

Funding system and resources

This covers the level of funding and method of allocation of resources for the health system.

There is currently a consensus across the main political parties that supports a national health system funded through general taxation. This is in spite of a vocal lobby which argues that the current system is not sustainable, and that the UK should move towards a system of hypothecation, or a form of social insurance-based system.

It is now certain that after the current comprehensive spending review settlement runs out (April 2011), if there is any growth in healthcare funding it will be very limited for at least three or four years. However, the governments will face demands for more investment driven by, among other factors, rising public expectations. This in turn could fuel debate about moving towards a social insurance-based system. However, given current political commitments and the unpopularity of undermining the NHS, any change over the next parliament (about four to five years) looks very unlikely.

More radical change would be possible, of course, if there were to be a sustained economic downturn or a major political shift. In any event, the increasing pressure on resources is likely to drive a tighter definition of the NHS benefits package. This could result in a gradual erosion of the 'comprehensive' nature of NHS provision. There is also likely to be a challenge to the current social care system.

Clinical decision making and the thresholds for treatment are likely to be subject to increased scrutiny and more tightly controlled by guidelines, such as those produced by NICE. There may well be increasing pressure for doctors to take on more budgetary responsibilities in addition to their clinical decision-making role.

We must brace ourselves for a stall in the spending on healthcare and a corresponding increase in the scrutiny of how we utilise our budgets.

Chairman of Council, Royal College of General Practitioners

All doctors will require a sound understanding of current health economics and the healthcare marketplace. Depending upon their role, they will need to be able to select, from a range of tools, the appropriate methods to assess and monitor the benefit-risk of medicines and use the outcomes, alongside their clinical knowledge and experience, to inform their decision making and recommendations and to communicate these effectively.

Faculty of Pharmaceutical Medicine, Royal College of Physicians

Regulatory framework

In the last 10 years, there has been an increase in the regulation of both providers and professionals. Given that there are significant reported variations in the quality of care delivered by professionals and organisations, there will be political pressure to maintain this regulatory grip.

However, this could be a source of tension in the system. There is growing disquiet about the regulatory burden and degree of central direction. Within the professions, there are demands for greater alignment of professional, organisational and system regulatory frameworks. Doctors are likely to face a need to account for individual as well as team performance and clinical outcomes, and an increasing emphasis on patient experience and patient-reported outcomes.

The arrival of revalidation, combining licensing and recertification, means that the professional regulator and the employer will be much more directly and closely involved in the monitoring of the career development of individual doctors. It is not clear whether these developments will precipitate those professionals who do not want to be subjected to assessment and scrutiny of this kind to either leave medicine or move to countries with less exacting standards.

Recent work led by the Medical Schools Council, published in December 2008 in the *BMJ*, has led to a redefinition of the role of the doctor. Significantly, it pointed to the doctor's wider role.⁽⁸⁾

There will need to be ... more leadership and managerial skills to ensure multi-professional teams deliver quality for patients safely, keep up date, are efficient etc.

Royal College of Ophthalmologists

There will also be more emphasis on continuing professional development and re-accreditation.

The introduction of the revalidation process will introduce a requirement for increasing mentoring of small numbers of doctors whose practice or performance has given rise for concern.

Royal College of Surgeons, Edinburgh

The role of the EU in healthcare, which has grown significantly in recent years, most notably around the European Working Time Directive, could grow further, particularly as the NHS in England becomes more of a mixed economy of private and state provision. The government has set up a Co-operation and Competition Panel as one way of ensuring that the NHS stays on the right side of the law, but it is possible that the EU will push for the UK to open up its healthcare market.

Provider–commissioner relations

In England, the World Class Commissioning programme has increased the focus on commissioning as a driver of quality improvement in healthcare. It is therefore assumed that the commissioner–provider demarcation will be retained – though there is an emerging debate about this. If resource pressures increase significantly, this could add further challenge to the commissioning role and a market-based approach within a cash-limited system. An alternative structure with integrated provider–commissioner organisations would bring a significant shift, particularly in secondary care. As yet though, no clear or agreed alternative model has emerged and it is unlikely that a future Conservative government would countenance a re-establishing of a monopoly-based system. On the other hand, it is possible that new models for commissioning care will emerge.

Local authorities are likely to commission more and more health services, and may become the predominant commissioner, perhaps even replacing PCTs.

Faculty of Public Health

Assuming that commissioning is retained in England, it is likely that commissioning will become more stratified and, at higher levels (for more specialist services), more technical, with a drive for greater clinical involvement in commissioning structures. In the other UK countries, more integrated approaches to health planning are also likely to require this input.

There will be a continuing need for doctors to engage in commissioning and planning of health and social care services – their holistic view being a vital ingredient in effective joining up of primary and community care, social services, acute and mental care and the voluntary sector.

Faculty of Public Health

Rising demand but a limited budget will pose more ethical issues for commissioners in their priority-setting role. There is likely to be a need to strengthen accountability for their decision making to local people, with doctors playing a key part in the ethical decision-making process. Ethical issues are also likely to be raised by genetics.

The need to demonstrate added value from commissioning is likely to mean an increased focus on outcome measures, and on adherence to clinically designed care pathways.

Provider configuration

Changes in working hours, training patterns and advances in technology are likely to result in greater centralisation of 24/7 services and a decentralisation of office-based services. The pressure upon doctors' time and the importance of rapid accurate diagnosis for efficient use of resources mean that doctors are likely to focus on their role as diagnostician and care planner rather than an administrator of treatment.

The role of the doctor is that of accurate diagnosis and effective management, whereas clinical assistants have different skill sets in order to carry out triage and operational follow up.

Royal College of General Practitioners

Technological and medical advances will provide more care options in more places. The electronic patient records and the miniaturisation of diagnostics, for example scanning machines and blood analysers, will free clinicians and patients from hospital buildings, and offer the potential for more patient-focused and integrated services. We may see larger, multidisciplinary primary care teams working out of

traditional health centres, while others may move to more community-based facilities as part of an integrated health, social and education community resource.

If the current drive for ‘care closer to home’ is sustained, there may be changes in the demarcation of primary and secondary care, which may result in a rebalance of specialist and generalist skills.

As the population ages...there will also be an ever increasing need for generalists. Rather than dying from disease, patients will be living with disease – typically multiple diseases. Generalists, who must be expert in the complex human beings with the conditions, will be ever more important...These generalist physicians will need to understand their patients in physical, psychological and social terms, acting as advocates and guides through the massively complex world of health and social care.

President, Royal College of General Practitioners

Specialist hospital care is likely to become more differentiated and diverse. Doctors may begin to work in new types of organisations, for example more clinically specialised organisations or integrated provider organisations for office/community care.

There will, inevitably, be significant reconfiguration of some obstetrics and gynaecological services – with the formation of clinical networks to provide the full range of increasingly specialised, complex and expensive care that women and babies require and deserve.

Royal College of Obstetricians and Gynaecologists

The traditional divisions in the UK between the private and public healthcare are being broken down.

In England, the mixed-market health economy of the NHS is likely to expand with more provision by commercial organisations.

Faculty of Public Health

The hospital will no longer attempt to be a comprehensive provider of care, but will see itself as part of a broader network of health and social care providers. This will increase the need for collaboration. As a consequence, doctors and their clinical teams will actively need to help patients navigate their way and support them in their transition between one provider and another.

We envisage that GPs will increasingly assist patients navigate through a care pathway that has been specifically tailored to them.

Royal College of General Practitioners

Individual contract and role

The increased access to healthcare information will change the nature of the doctor–patient relationship.

GPs will increasingly work in partnership with patients. Patients' expectations of their involvement in their healthcare will increase and the idea that 'doctor knows best' will continue to be challenged.

Royal College of General Practitioners

Professional demarcations and interdependencies will continue to affect the role of the doctor.

Many areas of practice that currently reside within surgery may be taken over by non-doctors, as is already the case in certain endoscopic and radiological work.

Royal College of Surgeons, Edinburgh

A reduced service contribution by junior doctors due to changing training is likely to increase demand on trained doctors to provide 24/7 cover.

The oncologists of the future will be delivering care 24 hours a day and more of it will be in the community and close the patient's home.

Faculty of Clinical Oncology, Royal College of Radiologists

Medical and technological advances are likely to continue to drive increasing professional subspecialisation, but the rise in the proportion of older people requiring treatment for multiple conditions will increase the demand for skills to treat multi-pathology disease.

There is a growing demand for doctors to promote health as well as treating illness. This will increasingly include dialogue about the relative risk generated by an individual's genetic make-up. The tension between the generalist and specialist role may also lead to a drive to create 'hospitalists' (hospital-based generalists) working alongside specialists and office-based specialists working alongside GPs in the community, as is seen in the US.

The role of the generalist will become increasingly important. The changing demography of the population will increase the complexity of treatment as more and more patients experience comorbidity.

Royal College of General Practitioners

As team working becomes the norm, there will be a greater focus on team-working skills for doctors and a need to define their unique contribution to that team.

Team working will be the norm and doctors will increasingly find themselves acting as medical advisors and/or coordinators with ultimate responsibility for clinical elements of the services provided.

Faculty of Public Health

Increasing resource pressures may result in tighter contractual frameworks with incentives to improve productivity, and expectations that doctors take more of a leadership role in service improvement. More clinicians may set up their own organisations where they can set their own terms and conditions, such as a chambers arrangement.

No longer through large departments of radiology... but via group practices of radiologists and perhaps others working outside the hospital environment, bidding to provide specialist services on a fee for item basis.

Faculty of Radiology, Royal College Radiologists Response

4 Summary of the key implications for doctors of the future

Individual role

- The increased access to healthcare information will change the nature of the doctor–patient relationship.
- There is a growing demand for doctors to promote health as well as treat illness. This will increasingly include dialogue about the relative risk generated by an individual’s genetic make-up.
- Clinical decision making, and treatment thresholds, are likely to be subject to increased scrutiny and within defined guidelines.
- There will be growing pressure for doctors to be accountable for budgetary spend.
- Changes are likely in the demarcation of primary and secondary care, which may result in a drive to rebalance specialist and generalist skills.
- We may see a drive to create ‘hospitalists’ to work alongside specialists and new office-based specialists working alongside GPs in the community.
- There will be more emphasis on continuing professional development and re-accreditation.

Team working

- A greater focus on team-working skills for doctors is needed, and there is also a need to define their unique contribution to that team – their role as diagnostician and care planner.

- There is a growing need to account for team as well as individual performance with an emphasis on patient experience and patient-reported outcomes.
- There is likely to be an increasing need for doctors and their clinical teams to be expert at clinical pathway navigation and support.

Organisational structures

- Doctors increasingly work in multiple or new types of organisations, for example, more clinically specialised organisations or integrated provider organisations for office/community care.

Role in commissioning and priority setting

- In the context of a drive for greater clinical involvement in commissioning and priority setting, doctors are likely to face an increasing range of ethical issues. The commissioning role may become an alternative career path for clinical as well as public health doctors.

5 Summary of the views of the royal colleges

The subgroup received 11 responses from faculties and royal colleges in which they outlined their views on the future for their relevant specialty. Inevitably, there were differences in their responses, but there were also areas of common agreement.

- An increasingly ageing population will result in more people living with concurrent conditions.
- Increasing subspecialisation of hospital medicine will leave general practitioners as the only real generalists.
- Generalists will become increasingly important in coping with those with multiple conditions.
- Services will in general be moved closer to home with more emphasis on self care, with doctors needing to develop skills as mentors, advisers and coordinators.
- Hospital-based services will become more subspecialised and centralised.
- Clinical networks will be needed to provide the full range of increasingly specialised complex and expensive care.
- There will be a need to increase horizontal integration with social care and community services.

- Technical advances mean people with complex conditions will live longer with their condition, and more children will be kept alive who would previously not have survived or had a limited lifespan.
- An increasingly female workforce will necessitate more flexible working.
- Hospital services will be predominantly consultant-led (there was little support for a subconsultant grade).
- There may be a trend towards the globalisation of healthcare, with a consequent rise in communicable diseases.
- There will be more emphasis on team working, with other professions taking on roles previously undertaken by doctors.
- Doctors will need to develop skills in management and leadership, with an understanding of health economics.

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II Health information and communication technology subgroup report

1 Introduction

The health information and communication technology (HICT) subgroup considered the way in which digital communications are developing, how they might change the delivery of healthcare, and the impact that this would have on the behaviour of doctors and patients. All predictions are suspect, but in digital developments we concluded that unpredictability was an inbuilt feature of HICT. To give some obvious examples: photocopying, which became widely available in the 1970s, is still used (and greatly improved) 30 years later, while fax machines, which seemed transformational in the 1980s, were rapidly superseded by email. The ability of computers to analyse vast amounts of data has transformed health research but email, ubiquitous in every other aspect of our social and business lives, has hardly dented the way in which doctors and patients communicate.

So the reflections presented here are cautious; we do not try to predict the unpredictable, but we aim to identify themes and variations in the way HICTs are taken up, rejected and absorbed into healthcare practice.

Our key proposition is that utility is the most important aspect of when and why a particular technology is adopted. This utility is defined by the purchaser/user, not by health outcome or patient benefit. So for rapid uptake, the health information or communication technology must meet the needs of managers, doctors or commissioners, although of course there may be perceived or actual patient benefit. The potential of a newer technology to supersede an earlier one is also driven as much by utility to the user as by health benefit. In other words, people choose and use technologies in healthcare as in other aspects of their lives.

Our expectations are expressed as the following five themes.

- Digital technology is about relationships.
- You can do old things in new ways or do new things in new ways.
- The financial and organisational structures of healthcare discourage the rapid adoption of HICTs.
- The internet is changing the nature of knowledge.
- Patients are the most underutilised resource in healthcare.

2 Digital technology is about relationships

HICTs are already changing relationships, and will transform them significantly in the next 20 years. The HICT working group was told consistently by experts that the future was about new therapeutic relationships rather than about new therapeutic technologies.

People are barking up the wrong tree if they are looking for significant changes in technology in relation to treatments or the therapeutic process. The most difference will come from ICT's impact on communication, workflow and relationships because they have the most potential to engage the patient in the process of creating reliable healthcare.

Dr Geordy Schiff, Brigham & Women's Hospital, Boston, USA

The internet allows, and indeed encourages, new ways of forming and expressing relationships, creating and interacting with knowledge and carrying out clinical transactions. In the next 20 years, it is not new hardware or software, but new utilisations such as apps* or cloud computing† that will change the future.

3 Doing new things in new ways

Digital technologies can be treated either as a new medium for communication – email replacing letters, texts replacing email – or can be transformative, using technology to do things you couldn't do before: flash mobs‡ for example, or more seriously, collaborative enquiry. Collaborative enquiry has huge research potential; it uses large numbers of people brought together through the web to investigate a topic and share data. It is self-directed and participant-led. So the real potential for HICT is in doing new things in new ways. However, we must not underestimate the unrealised value of existing communication technologies. These opportunities include the use of email communication between patients and doctors, electronic prescribing, ordering and delivery, consultations using webcams, or viewing electronic records online. We take all these activities for granted in daily life but fail to introduce or use them in healthcare. Older technologies have unrealised, cost-effective potential.

Not only is the adoption of existing technologies in healthcare slower than in other businesses, but there is also still a gulf between those who understand that

* Apps (short for applications): small digital programmes downloaded onto the computer or phone with an extensive range of functions.

† Cloud computing: delivers applications online which are accessed via the web, while the software and data are stored on the servers.

‡ Flash mob: the sudden gathering of a crowd brought together by digital messaging.

HICTs enable us to do new things in new ways and those who see them merely as a way to do old things in new ways. Digital imaging, for instance, was invented in the UK but was much more rapidly put into clinical practice in other countries. Originally websites were used to provide existing information in a new medium but Web 2.0* is interactive, allowing people to create their own information.

HealthMap is a website which draws continuously on multiple sources of information, the majority of them informal and invalidated, to create a live, real-time picture of the global distribution and spread of diseases. Swine influenza, meningitis, cholera, malaria and more than 30 other diseases are monitored. Some 16 main sources are used and users are invited to contribute their own information. All sources are clearly identified allowing the user to make their own judgement about authoritativeness. www.healthmap.org

4 The financial and organisational structures of healthcare discourage the rapid uptake of HICTs

Rapid uptake of ICTs in sectors such as banking and retail has been driven by consumer choice and benefits to business. Consumer choice is weak or non-existent in healthcare in the UK and the financial benefits are not easily realised through existing payments systems. In the USA, electronic medical records have made better progress than in the UK because they underpin payments systems. This has sometimes distorted the clinical usefulness of the record, as what an insurer wants recorded for costing and payment may not be the same as what the doctor wants to record for clinical value. It is interesting to note that the greatest advance in the UK has been in GP record systems where the Quality and Outcomes Framework provides a clear business incentive to data collection and reporting rather than in hospital systems where the financial incentive is much weaker.

Our observation is that, in the UK, doctors or managers drive change in seeking technologies which assist them in carrying out their clinical or administrative activities. In the USA, a more dynamic tension exists between doctors and patients and purchasers for competing or mutual benefit.

The benefit of a universal health service in England is that we can build universal systems. HICT in England aims to be equitable and coordinated. HICT in the USA is inequitable and fragmented.

* Web 2.0: the use of the internet as an interactive and transactional virtual space.

The creation of the electronic patient record in England has had a controversial reception and is considerably delayed in implementation. A range of conflicting commercial, clinical, political and ethical interests have resulted in the original ambitions being much curtailed and the potential benefit to patients reduced. Recent decisions by the government to limit its national potential seem very short-sighted.

President Obama's announcement of \$9 billion for federal expenditure on HICT has focused attention in the USA in a new way. The debate is currently polarised around two issues: universality and compatibility versus locality and innovation, and data sharing versus privacy and confidentiality.

5 The internet is changing the nature of knowledge

The epistemology of the internet has yet to be understood. Knowledge on the internet is distributed rather than hierarchical, mediated rather than authoritarian, demotic rather than expert. This presents a challenge to conventional ideas of accuracy, certainty, reliability and authority of knowledge. Attempts to codify and regulate knowledge on the internet, such as the Department of Health's Information Standard, seem unlikely to have any long-term impact, as the internet is about enquiry not certainty.

Knowledge on the internet is distributed because it is accessible from multiple access points and draws on multiple sources; the information on the internet is infinite and undefined. The nature and accessibility of distributed knowledge means possessing knowledge, that is actually knowing all you need, is no longer necessary. Information management is the necessary skill. Transparency of information is the step beyond access to information. Access to information is already ubiquitous. In the future, how doctors and patients sort and assess information will be more important than what they know.

We should give more thought to the new knowledge economy. Knowledge should be free – in a dispersed network mostly it is. Providers should differentiate themselves by competing on service.

Blackford Middleton MD, director, Clinical Informatics Research & Development Group, Partners Healthcare, Boston, USA

It takes 16 years to move new clinical discoveries from research to general practice. We need to do more to accelerate knowledge uptake. Patients and clinicians are equally scared of the freedom that knowledge brings. We need to package knowledge and make it accessible, and integrate decision-making tools; doctors should be map readers not cartographers.

6 Patients are the most undervalued resource in healthcare

I am no longer the focus of the care team, I am now a member of the care team.

Wynn Hodges, patient representative, Harvard Medical School.

The Working Party recognises that patients are increasingly seen as active partners in their health and healthcare. Engagement is a social change but it is also a necessary change if disease and disability are to be prevented and if costs are to be contained. Only about 10% of health derives from what health systems do. The rest comes from the environment, our genetics and our behaviours. Patient engagement is essential if behaviours are to change.

HICTs provide a rich opportunity for engagement because, as argued earlier in this subgroup report, they create new kinds of relationships. The New Media Medicine Lab at Massachusetts Institute of Technology (MIT) has an explicit commitment to partnership with patients:

We are at a unique time in history. People have a heightened interest in taking a more active role in their healthcare. Encouraging this interest, using fresh ideas and new technologies, can fix our currently overtaxed system – benefiting society, individuals, and businesses alike. Our work offers many opportunities to advance healthcare.

New Media Medicine Lab, MIT, Cambridge, USA

What are the things influencing the patients of the future? Patients are now more accountable for their own healthcare, patients might be networked – or not. Active, self-managing patients reinforce effective behaviours in clinicians because they are rewarding of good care.

Health 2.0 (the use of interactive technology to support health) does not readily accept a hierarchy of knowledge, preferring ‘the wisdom of crowds’. Patients online are self-directed; searching does not mean getting the ‘right’ answer, but is rather a continuous quest for a solution which is personal and personalised. In Health 2.0, people are looking for trustworthiness of information, not rightness of information. Thomas Jefferson said, ‘If the people are well informed, they can be trusted to govern themselves.’

We have not even begun to realise the power of patients to contribute to clinical research through collective discovery. As a greater number of people use technology to communicate, the more it will become ingrained as a social habit. Web 2.0, for instance, allows widely distributed groups of individual patients across the world to combine forces, exchange ideas, combine research and improve their own healthcare. It also, of course, allows doctors to interact with them, and to act as mediators of the mass of health information which already exists and continues to grow.

7 How might digital technologies develop in healthcare?

As we stated in the introduction to this report, digital technologies are surely one of the most difficult areas to predict – driven as they are by serendipity, many false starts and consumers as much as by providers. We can anticipate both new uses for older technologies such as the application of mobile phones to remote healthcare in developing countries or ultrasound in surgery, as well as of new technologies such as cloud computing.

A leapfrog technology is one that allows an intermediate stage to be missed out. In India, for instance, a poor-quality fixed telephone system was only available to the very rich a decade ago, whereas now mobile phones are ubiquitous and cheap. A project in the Philippines is testing out the use of basic phone technology to provide clinical support to remote healthcare workers, using texts and multimedia messaging where phone signals are weak.

One thing seems certain: data will drive health systems financially, clinically and managerially. Accurate real-time data is needed for patient safety, clinical improvement, audit, finance, administration and research. The demand for data will not be satisfied unless we have fully functional and integrated or compatible patient record systems.

In summary, our key proposition is that utility is the most important aspect of when and why a particular technology is adopted, and that the real difference will come from HICT's impact on communication, workflow and relationships because they have the most potential to engage the patient in the process of creating reliable healthcare.

Rapid uptake of information and communication technologies in sectors such as banking and retail has been driven by consumer choice and benefits to business. Consumer choice is weak or non-existent in healthcare and the financial benefits are not easily realised through existing payments systems. So the business case for HICT in the NHS remains undeveloped.

Knowledge on the internet is distributed, mediated and demotic rather than expert. Health 2.0 is a participative patient- and consumer-led movement using interactive technologies, blogging,* social networking tools and wikis† to create knowledge out of the experience of others. Knowledge is the only part of the

* 'Blogging' is the term for a web log – a public diary or commentary published by an individual on a website.

† A 'wiki' is a website that allows the easy creation and editing of any number of interlinked webpages via a web browser. The most famous 'wiki' is Wikipedia – a constantly evolving free encyclopaedia created, edited and revised by thousands of volunteers.

health information and communication technologies that is within the control of patients and the public and that is where change is happening most rapidly.

People have a heightened interest in taking a more active role in their healthcare. Encouraging this interest, using fresh ideas and new technologies, can help to promote safety, efficacy, efficiency and better healthcare utilisation by citizens.

III Economics subgroup report

This report relays the findings of the economics subgroup, which examined economic trends likely to influence the environment in which doctors will have to practise in the next twenty years. Wherever possible, our approach has been to seek out long-term trends in relevant indicators, to consider whether such trends are likely to continue in the future, and to examine the impact on the future doctor. The two major sources for the data presented are the annual series OECD Health Data and the Office of Health Economics Compendium of Health Statistics.

The subgroup could not ignore the recent economic downturn, and its implications for the health system. There is therefore a section that discusses possible implications of the financial constraints within which the health services are likely to operate over the next ten years.

This report does not directly examine trends in the economics of health policy, such as health technology assessment by the National Institute for Health and Clinical Excellence, provider payment mechanisms, practice-based commissioning, top-up payments, user charges, personal budgets, and provider competition, some of which are examined in the health services subgroup report.

The report examines economic trends under four broad headings: the demand for healthcare; provision of healthcare; health system productivity; and the downturn.

1 Demand for healthcare

The prime driver of healthcare expenditure is the size of the population, and the proportion of the population in age groups likely to use high levels of healthcare. In common with most OECD countries, the UK will, over the next 20 years, have an increasing proportion of population aged 65+ (Fig 4). However, it is likely to be less seriously affected than many other countries (notably Japan). Of course, a major largely unknown factor is the extent to which the future older population will be healthier than hitherto, reducing the apparent impact of an ageing population on demand for healthcare.

The dependency ratio gives an indication of the extent to which the working population (generally low healthcare costs) has to subsidise young and old dependants (generally higher healthcare costs). It is expected to increase in all countries beyond 2020 (Fig 5).

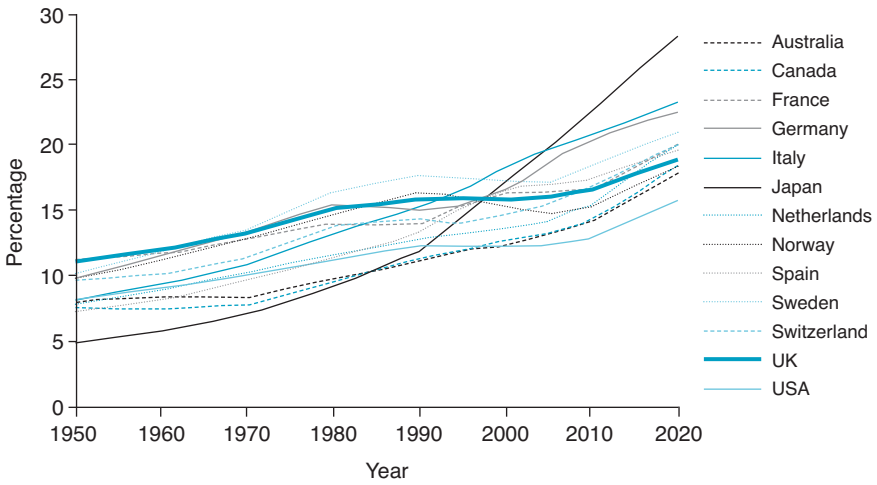


Fig 4 Proportion of people aged 65 and over. Source: OECD Health Data.

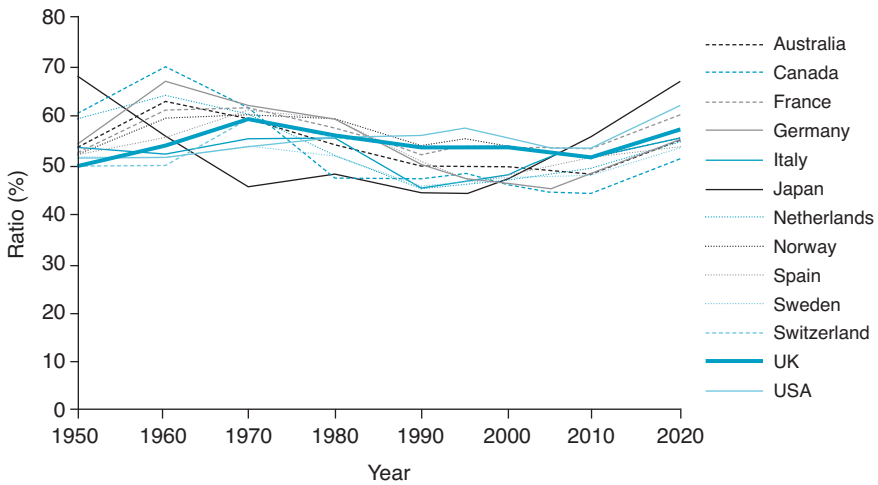


Fig 5 Ratio of working population to dependants (children and older people). Source: OECD Health Data.

An important consideration in examining future demand for healthcare will be the pattern of chronic disease. Unfortunately, satisfactory trend data do not exist. However, it is possible to examine current patterns. By some distance, the two main causes of chronic illness are musculoskeletal problems and circulatory disease, especially amongst older people (Fig 6).

Annual days off work caused by ill health are reducing. Latest estimates suggest averages of 13.5 (men) and 10.8 (women) per year. The two main causes are bone, joint or muscle problems and stress, depression or anxiety (Fig 7).

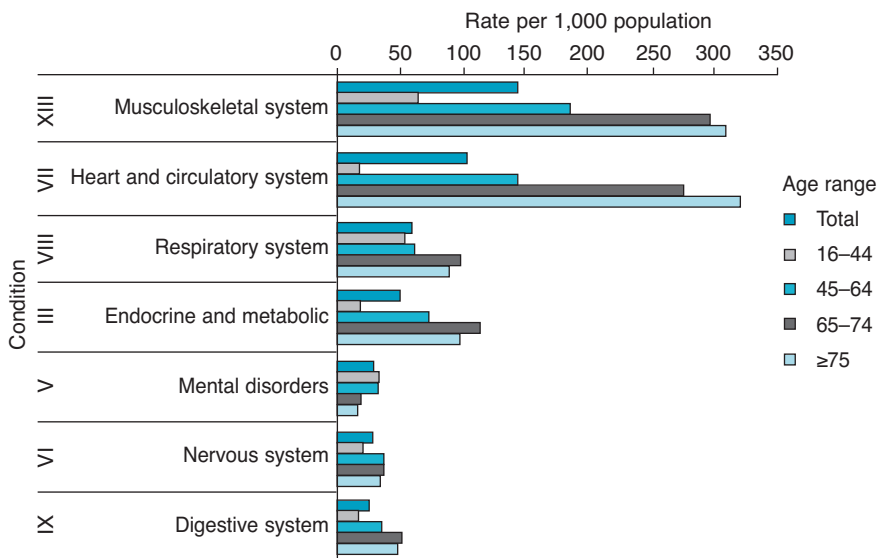


Fig 6 Long-standing chronic sickness rates by age and condition. Source: Office of Health Economics Compendium of Health Statistics.

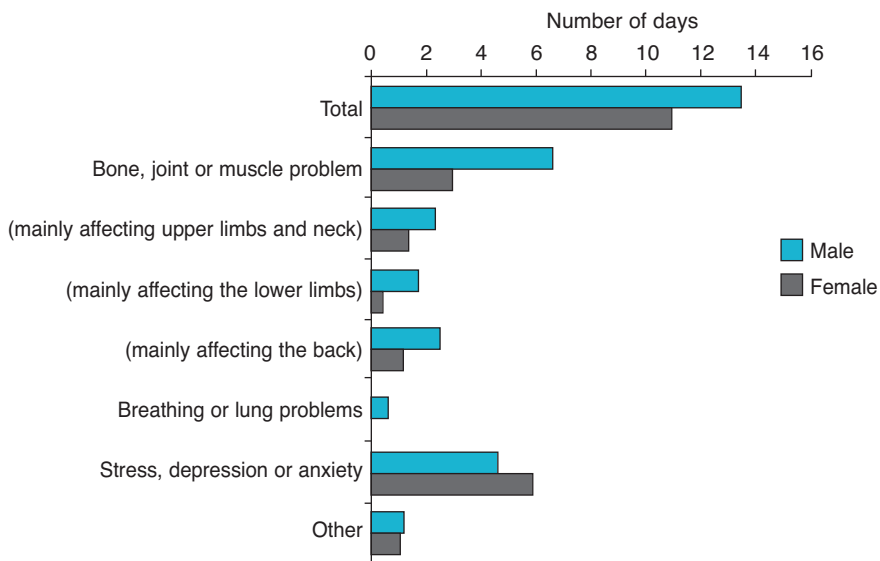


Fig 7 Estimated days off work due to self-reported illness caused or made worse by work, Great Britain, 2005. Source: Office of Health Economics Compendium of Health Statistics.

Healthcare tends to be what economists call a ‘luxury’ good, in the sense that increased personal and national income leads to disproportionate increases in spending on healthcare. In common with other developed countries, total UK

healthcare expenditure as a percentage of GDP has grown strongly, but until recently grew at a systematically slower rate than most. Even with recent increases, it remains below most countries' levels (Fig 8).

A distinctive feature of the UK is that, compared with other OECD countries, a greater proportion of healthcare expenditure is in the public sector (at about 85%) (Fig 9). Appleby, Crawford and Emmerson estimate that over the period 1950/1 to 2010/11 the NHS has enjoyed average real expenditure increases of 4.04% per annum, rising to 6.56% over the last 10 years.⁽¹⁾

The propensity of citizens to visit physicians has risen in many OECD countries, but the UK figure has remained relatively stable at about five visits per annum (Fig 10).

Consistent with this finding, the numbers consulting a GP in the past two weeks has remained stable over recent years (11% of males and 16% of females) (Fig 11).

2 Provision of healthcare

Hospital services remain the biggest element of NHS spending, but have steadily decreased as a percentage of the total since 1970 (Fig 12).

Nursing and midwifery remain the biggest single staff group in hospital and community services, although – with the exception of domestic and ancillary – all other groups have also been increasing (Fig 13).

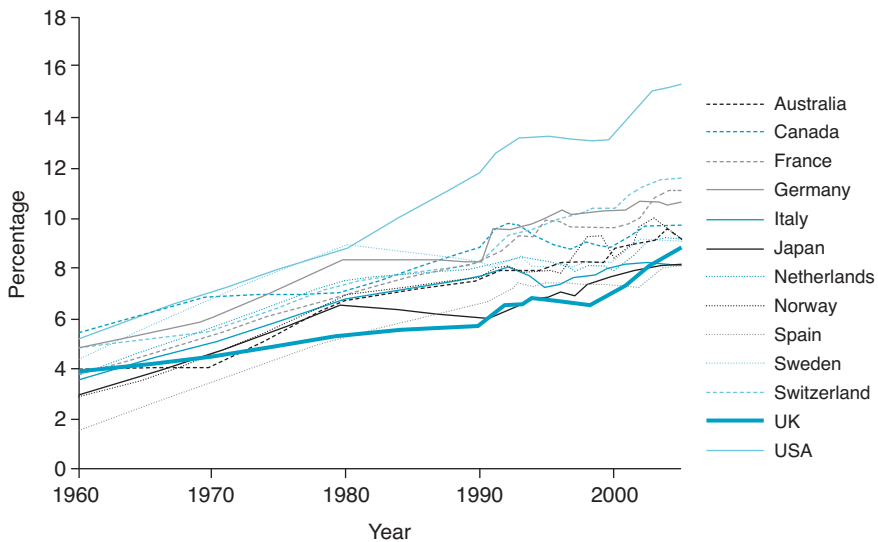


Fig 8 Total healthcare expenditure as a percentage of GDP by country, 1960–2005.

Source: OECD Health Data.

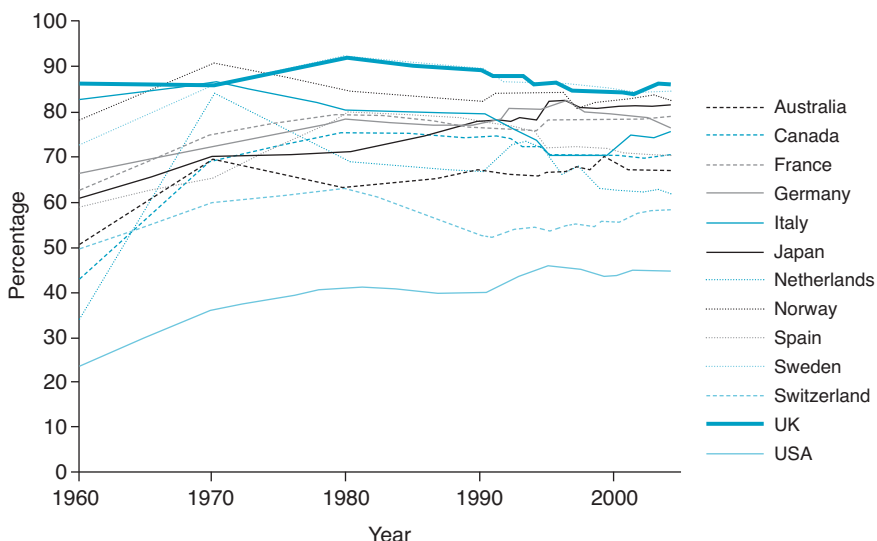


Fig 9 Proportion of healthcare expenditure in public sector, 1960–2005. Source: OECD Health Data.

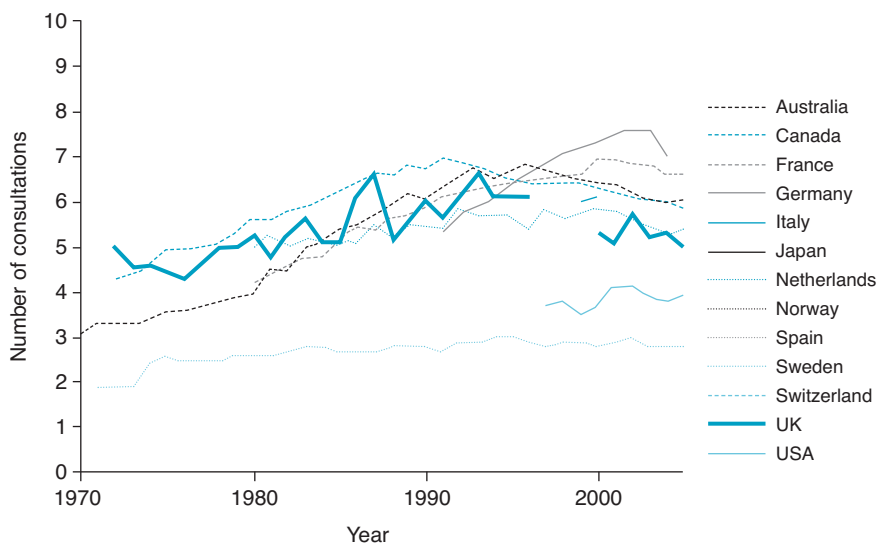


Fig 10 Average numbers of doctor consultations per annum, 1970–2005. Source: OECD Health Data.

Although numbers are rising, the UK still has a low number of practising doctors relative to other OECD countries (Fig 14).

The number of doctors (full-time equivalent) in hospital and community services has increased at a much higher rate than the number in general practice (Fig 15).

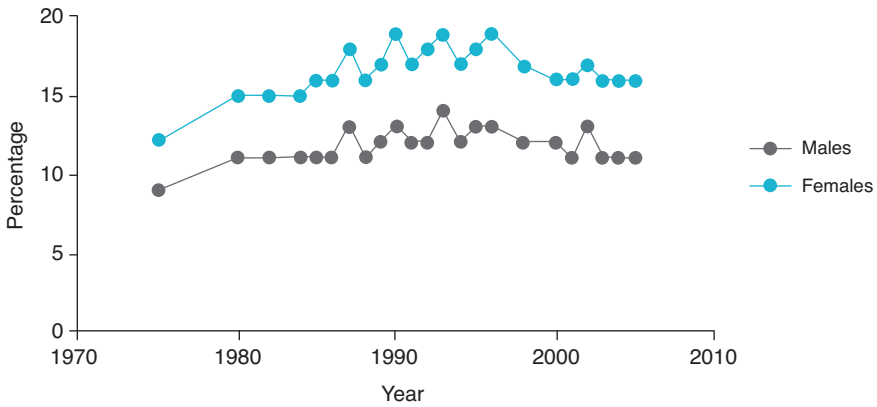


Fig 11 Percentage of population consulting a general practitioner in last two weeks. Source: Office of Health Economics Compendium of Health Statistics.

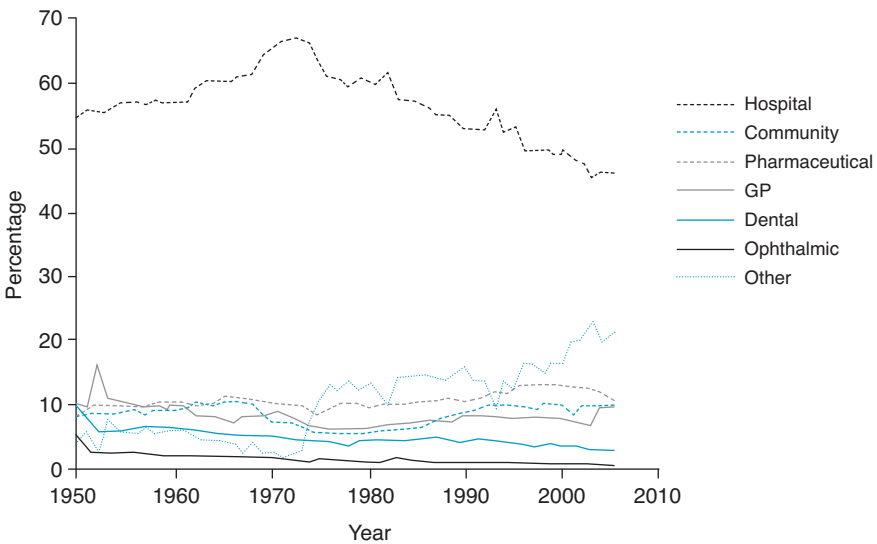


Fig 12 NHS expenditure: proportion spent on each service.

Since 1990, there has in the hospital sector been a remarkably uniform increase in numbers amongst most of the major specialty groupings. Some of the ‘general medicine’ specialty was divided into smaller specialty groupings in 1994 (Fig 16).

UK medical graduate numbers have been rising relative to other countries, even before the latest increase in training numbers takes full effect (Fig 17).

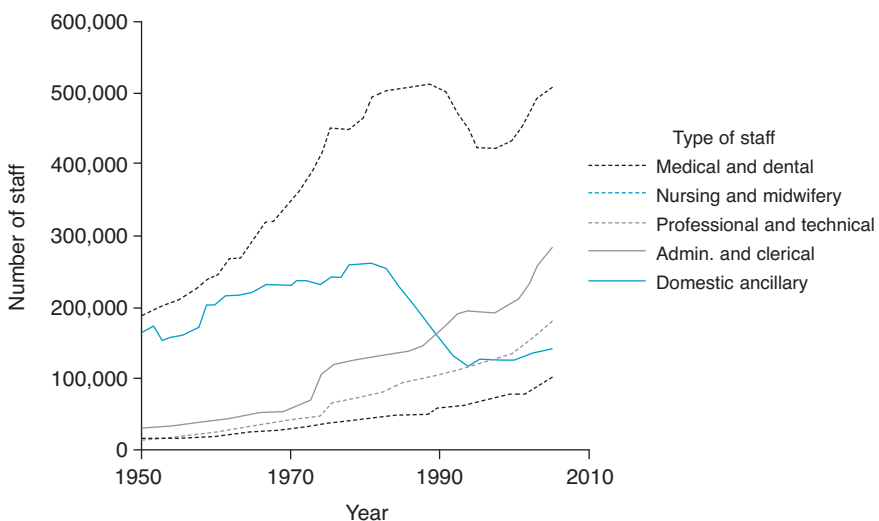


Fig 13 Number of staff employed in NHS hospitals and community services, UK, 1951–2005. Source: Office of Health Economics Compendium of Health Statistics.

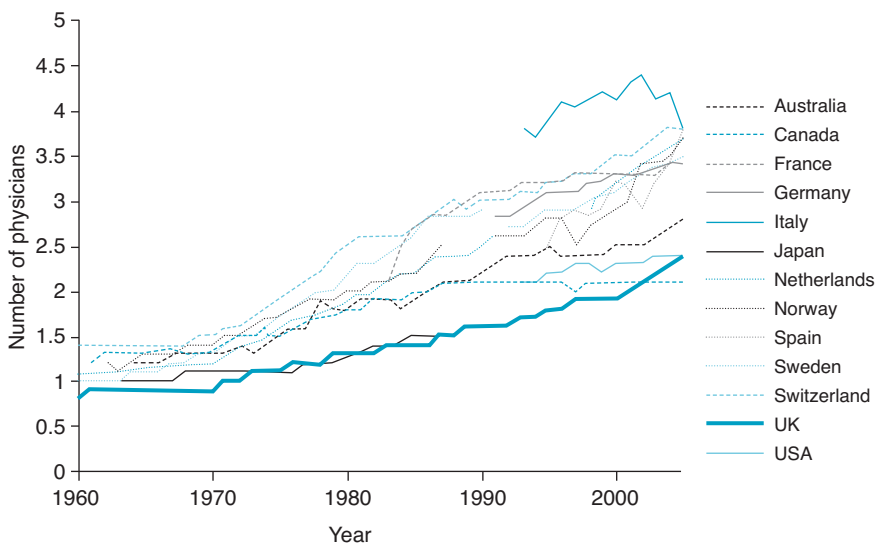


Fig 14 Numbers of practising physicians per 1,000 population. Source: OECD Health Data.

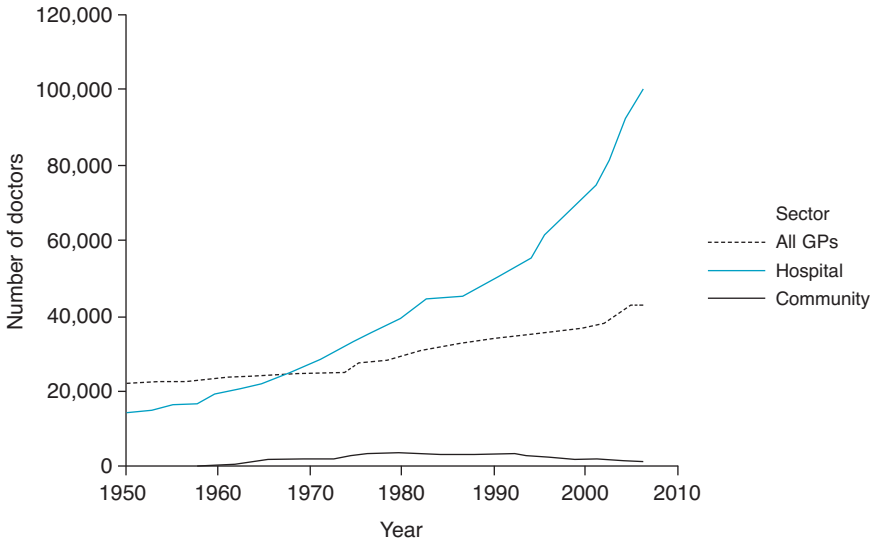


Fig 15 Numbers of doctors by sector in the UK. Source: Office of Health Economics Compendium of Health Statistics.

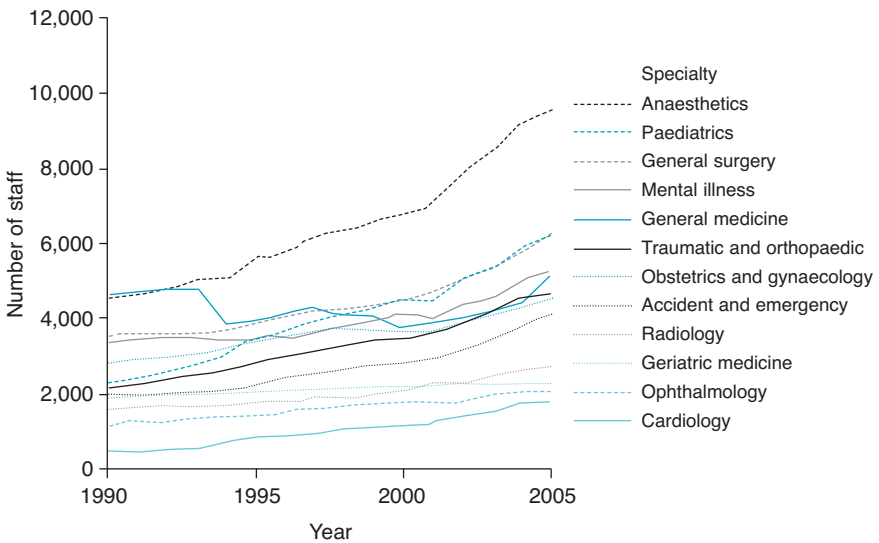


Fig 16 Number of full-time equivalent hospital and community medical staff by selected specialty in England. Source: Office of Health Economics Compendium of Health Statistics.

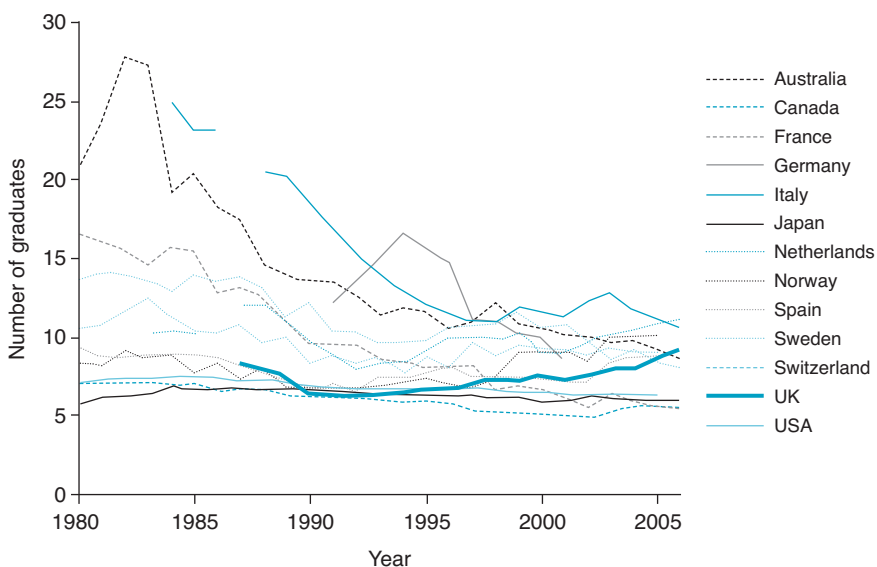


Fig 17 Numbers of medical graduates per 100,000 population. Source: OECD Health Data.

3 Health system productivity

International comparisons of health system productivity, as attempted by the WHO in its World Health Report 2000, are fraught with difficulty.⁽²⁾ Historically, relative to OECD comparators, the UK healthcare system incurred low spending but secured mediocre outcomes in many domains. More recently, outcomes have improved, but they still, on balance, tend to lag behind comparators. The OECD has recently estimated that the UK health system achieved life expectancy levels in 2003 that were roughly as expected, given spending levels and other national circumstances such as income and educational attainment.⁽³⁾ In other words, after adjusting for external conditions, productivity of the UK health system is close to the OECD average.

The Office of National Statistics has published estimates of productivity growth that seek to track changes in the inputs and outputs of the NHS over time. The most recent indicate that – without any adjustment for the quality of care – the quantity of health services grew by about 4.3% per annum between 1997 and 2007 (Fig 18).⁽⁴⁾ The estimate of outputs is based on a cost-weighted index of activities, such as hospital acute services, community health, GP appointments and GP prescribed drugs. Inputs grew by 4.8% per annum over the same period as much of the period involved heavy investment in the NHS. The ONS estimate of annual

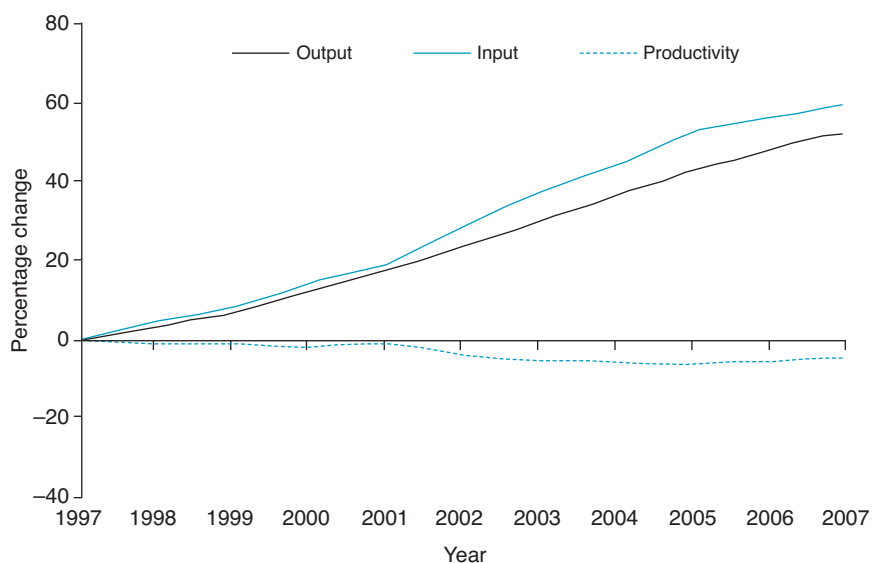


Fig 18 Components of healthcare productivity, 1997–2007 in the UK. Source: Office for National Statistics 2009.⁽⁴⁾

productivity change (the ratio of outputs to inputs) was therefore a decline of 0.4% over the period.

In 2002 Sir Derek Wanless published a review of NHS ‘futures’ for HM Treasury, in which he projected long-term trends in spending on healthcare from 2002 to 2022.⁽⁵⁾ He considered three scenarios, depending on future NHS performance and success in public health: (a) ‘solid progress’ (the central estimate); (b) ‘slow uptake’ (a pessimistic scenario); and (c) ‘fully engaged’ (an optimistic scenario) (Fig 19). The ‘fully engaged’ scenario includes an ambitious assumption about productivity gains.

In 2007 Wanless prepared a detailed five year progress report.⁽⁶⁾ He found that, overall, progress has been somewhere between ‘slow uptake’ and ‘solid progress’, and in particular that rates of change in ‘lifestyle’ had been disappointing. Also, National Service Frameworks were not systematically updated or rolled out, so he could not estimate costs of new treatments, and there are no clear plans or targets for productivity improvements. Spending over the five-year period has been in line with his recommendations. If current trends continue, Wanless judged that

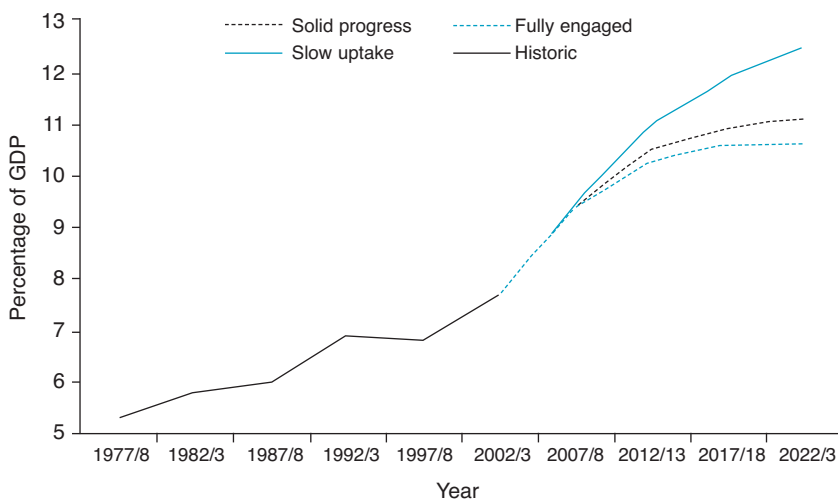


Fig 19 2002 Wanless review: UK healthcare fund scenarios, 1977/8–2022/3.

Reproduced from Wanless 2002⁽⁶⁾ with permission of HM Treasury. Reproduced under the terms of the Click-Use Licence.

future resources required will tend towards the ‘slow uptake’ scenario, raising questions about the financial sustainability of the NHS. He concluded that the need to improve prevention and productivity has become even greater.

Other countries, notably the USA, have made efforts to forecast future spending levels. Nobel prize winner Robert Fogel estimates that spending is likely to rise from a current level of about 15% to about 29% of national income by 2040.⁽⁷⁾ If anything, the predictions of Congressional Budget Office are even more apocalyptic, suggesting that (in the absence of any policy changes) total spending on healthcare would rise from 16% of the economy in 2007 to 25% in 2025, 37% in 2050, and 49% in 2082.⁽⁸⁾

The RAND Corporation has sought to model future healthcare technologies and illness in some detail.⁽⁹⁾ In summary, they judge that reductions in spending resulting from better health will be outweighed by the costs of new technologies, and by additional health expenditures during the additional years of life that the technologies make possible. They claim that eliminating chronic diseases will not save money because chronically ill people do not live as long as people without chronic illness. The one exception may be obesity, because obese people appear to incur high healthcare costs over a relatively long lifetime. In the context of the Wanless Review, this suggests that tackling obesity may be the main policy priority for securing a ‘fully engaged’ scenario and reducing future demands on the NHS.

In the UK, Health England, the advisory body of the public health minister, has examined options for preventative measures, at www.healthengland.org. Its fifth report, 'Prioritising investments in preventative health' lists a range of interventions, most of which seem highly cost-effective, although there are clear gaps in knowledge relating to obesity and mental health preventative interventions.⁽¹⁰⁾

It is important to note the potential for health services to contribute to the broader national productivity and prosperity. Dame Carol Black's review of the working population estimated that around 175 million working days were lost to illness. It suggested that the annual economic costs of sickness absence and worklessness associated with working age ill-health are estimated to be over £100 billion, on a par with the annual budget for the NHS. Dame Carol commented that 'A lack of understanding about the relationship between work and a patient's health, and the omission of this evidence from professional training, has meant that despite the best intentions, the work-related advice that healthcare professionals give their patients can be naturally cautious and may not be in the best interests of the patient for the long term.'⁽¹¹⁾

4 The downturn

The banking crisis in October 2008 was a severe shock for the world economy, and has led to a fundamental reassessment of prospects for health systems over the next 10 years. Public services are likely to face particularly severe consequences, in the light of increased demand for services, reduced tax revenues, and higher levels of public debt. The high reliance of the UK health system on public expenditure makes it especially vulnerable to the new economic climate.

The King's Fund and the Institute for Fiscal Studies have undertaken an assessment of the financial prospects for the NHS up to 2017.⁽¹⁾ They have developed three scenarios: 'tepid' (annual real increases of 2% for the first three years, increasing to 3% for the final three years); 'cold' (zero real change); and 'arctic' (annual real reductions of 2% for the first three years, falling to 1% for the final three years). These scenarios should be viewed in the context of average real growth of 4% per annum over the lifetime of the NHS, and even 'tepid' would represent the most sustained restraint in growth in its history.

The report estimates that – based on existing expenditure levels of about £100 billion per year – demographic pressures up to 2017 are likely to cost the NHS between £1.1 billion and £1.4 billion extra each year, and would therefore require average real annual funding increases of around 1.1% in order to maintain existing quality. Only the optimistic (tepid) funding scenario would provide enough

money to cover this. However, under the two less optimistic funding scenarios, the ‘gap’ from the Wanless projections – even under his most benign ‘fully engaged’ future – would be £21 billion per year, and this could rise to £40 billion at 2010/11 prices under less favourable futures.

The implications of this analysis are clear. If future governments seek to implement such budgetary constraints, the NHS will either have to find massive productivity gains, greatly in excess of historical achievement, or there will have to be substantial changes in the nature of the NHS, for example in the form of service reductions or increased user charges.

5 Concluding comments

The main purpose of this subgroup report has been to set out the long term economic trends relevant to the Working Party, and the inferences for the future doctor have been drawn out in the main report. However, below we summarise some of the immediate implications of our findings.

- Long-term trends are for spending on health to increase faster than the growth in national income. Healthcare will form an increasingly large part of the economy. Demand for doctors is likely to remain very strong.
- The growing proportion of older people, and those with chronic diseases, will amplify these trends, and generate increasing pressure to seek out cost-effective approaches to disease prevention.
- Public finances will come under intense strain, and UK healthcare has a particularly heavy reliance on public expenditure. It is likely that there will be policy pressure to draw on more diverse sources of finance, such as employers, local government, and private individuals.
- There will be increased diversity in the way that healthcare will be delivered, both in the setting (hospital, community, intermediate care) and the nature of the provider (NHS, private sector and the third sector).
- Doctors will be asked to play a central role in ‘doing more with less’ and addressing preventative issues.

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The Royal College of Physicians 2005 report *Doctors in society: medical professionalism in a changing world* set out a definition and wider description of medical professionalism. The report's pivotal role in raising the profile of medical professionalism provides a background to *Future physician: changing doctors in changing times*, which looks at the likely context in which healthcare will be provided 15 to 20 years hence; the roles and responsibilities of doctors in this future context; the anticipated challenges; and the steps needed to make the most of the opportunities ahead.

This report is a charter for change and should be read by doctors, patients and the public, healthcare organisations, employers of doctors, and those involved in medical education and training. To make change happen effectively, doctors will need to enter into partnership with many constituencies. But the commitment to change must come from within the medical profession itself and be driven by doctors. This report, therefore, aims to encourage doctors to be at the forefront of shaping the future of healthcare and the doctor's role in it.

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