"Who are the doctors of tomorrow and what will they do"

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9th International Medical Workforce Conference

Melbourne, November 2005

This is a discussion paper only. It is not a statement on Department of Health policy.

Acknowledgements: Many thanks for contributions from Liz Kidd, Ashley Moore, Andy Knapton, Bryan Kessie and Naomi Sang, and to all those who read, reviewed and amended this paper.

Abstract

The National Health Service in England is a publicly funded service providing treatment and care free at the point of delivery. From the late 1990s there were significant shortages and gaps in England's healthcare workforce, particularly within the nursing, medical and allied health professions. To address this, the NHS has engaged in a programme of workforce expansion and encouragement of new and flexible ways of working.

England's medical workforce has increased in size, particularly by recruiting more women. It has become clear that flexible training and working are crucial to maintain and develop staffing levels. But it is also an aging workforce with a significant predicted increase in retirements. While we address this issue by increasing training numbers and continuing ethical international recruitment programmes, other developed countries are also dealing with the problems of demography and we are increasingly fishing in the same pool – and increasingly in the UK.

Taking account of current trends and policies in healthcare in the UK, the doctors of tomorrow will be,

- Better trained through a competency-based training system
- More likely to be female and from an ethnically diverse background
- More interested in maintaining a healthy work/life balance
- Working more flexibly across their whole career
- Working within multi-disciplinary teams
- Working for a range of public, private and voluntary organisations
- Delivering more primary care services within the community, and
- Working for longer with more flexible approaches to retirement

The proportion of women within England's medical workforce has increased. Changes in social attitudes are driving the desire of both men and women to work flexibly. The medical workforce generally and in specialties, such as surgery and academia, will need careful attention to avoid workforce shortages. Furthermore, strategies to ensure flexible training, working and retirement need to run in conjunction with schemes to change workforce practices. There needs to be investment in the establishment of new roles and multi-disciplinary teams based on skills and competences rather than traditional professional classifications.

The expansion of the Independent Sector in NHS care needs to drive change.

More flexible working policies on their own will be insufficient to fill the gap created by an impending retirement bulge of the post-war generation, reduced participation in the workplace over a typical medical career and increased part-time working.

The workforce we train must learn to work differently: to shake off old biases towards gender and hierarchy and to adopt greater team working and technological solutions.

Background: Policy

The National Health Service (NHS) was established in 1948 and is now the largest organisation in Europe, employing a workforce of over 1.3 million. Financed by general taxation, the NHS is founded on the principle that healthcare will be provided on the basis of clinical need and not the individual's ability to pay. The Department of Health (DH) sets the overall national policy for the NHS and allocates funding for the provision of local health services in England.

Though the NHS has continued to develop and modernise since 1948, the Government acknowledges that there needs to be comprehensive reform to meet the current and future needs of the population. The Government set out an extensive reform programme for the NHS in England in 2000 called the *NHS Plan*. This re-affirmed the core principles of the NHS but added that the NHS would provide a comprehensive range of services, shaped around the needs of the patient, within an organisation that supported and valued its staff.

The Government recognised that the levels of workforce capacity within the NHS in 1999/2000 were insufficient to meet the growing demand for healthcare and the need to reduce waiting times. Therefore, specific national targets were set for increases in the workforce size to deliver NHS services in the future. This was accompanied by proposals for better pay and working conditions that acknowledged this major redesign of the way NHS staff delivered treatment and care.

The DH for England developed a workforce strategy to support delivery of these objectives and set it out in *HR in the NHS Plan* (DH, July 2002). The strategy was predicated on achieving a major expansion in staff numbers and a fundamental people and skills in the NHS. In other words, we will train more doctors but this will not in itself provide the answer. We are looking at what doctors do and questioning why they do it. With redesigned roles and competences and greater participation from other non-medical members of the team we will be better equipped to meet the demands of the future.

The 'Demography is Destiny' (2003) research explains that there has been a shift in populations and workforces within developed economies. Particular factors are the likely longevity of the post war population and a decrease in the birth rate within industrial societies. This will result in a smaller percentage of the population being of working age compared to the 20th century. This decrease in workforce balance is exacerbated by the impending retirement of the "baby boom" generation that added significantly to the workforce numbers in the 1960s. It concludes that the key to maintaining a sufficient workforce is to retain and recruit both young and mature workers but also to embrace flexible work arrangements. To meet these challenging objectives, the DH for England developed a wide-ranging recruitment and retention strategy and a radical modernisation of clinical role design.

Delivering the NHS Plan [2004] and *Creating a Patient Led NHS* [2005] provided updates for the NHS plan. There were some significant developments. Perhaps the most relevant were that there would be three paradigm shifts:

- From a monopoly NHS to a monopsony, with a stated aim that up to 15% of elective care would be provided by the Independent and Voluntary Sectors;
- From a focus on secondary care interventions to a focus on primary care and prevention; and
- From a clinician led to a patient-led service.

This brings with it significant challenges in developing strategies that work in a pluralistic, primary care focused, patient led service. We are developing the workforce strategies that map onto these challenges.

Background: Workforce

In comparison to many other healthcare systems, working in multi-disciplinary teams and skill mix are functions of NHS culture. We experience the reality of this clearly when preparing overseas recruits to work in the NHS. For example, consultants from the US and India and GPs from Spain, are surprised by the advanced role nurses take in supporting NHS care and the autonomy they can enjoy.

The factors that have led to this fall into five broad categories. **Firstly**, the rising demand for NHS care and constraints on staffing levels promote “making do with what you’ve got”. It is clearly the case that we have proportionately fewer medical staff than in other developed countries. **Secondly**, there is a clinical desire to drive change, where many clinicians have welcomed the opportunity to work differently. This is often backed by Royal Colleges [but sometimes blocked by them]. **Thirdly**, there have been some incentives in the system – for example, the Department of Health has given pump-priming funds to all Strategic Health Authorities in the NHS in England to support workforce change. **Fourthly**, there has been a general drive towards greater inclusion and diversity in health and across the public services. **Finally**, we have taken direct action through the Changing Workforce Programme to drive change.

The NHS has often embraced new ways of working and role redesign, however, there have been and continue to be significant barriers to change. These have prevented us from fully realising the benefits of workforce reform. Examples:

- **A culture that reinforces professional roles and “status”**. The Royal Colleges and professional bodies recognise this issue. The cultural norm is often to seek specific regulation to ensure that specific groups are considered “unique” and gain status..

- **Planning and education systems built around professional silos.** Until recently, workforce planning has been a top down, professionally driven system, based on the planning requirements of the profession specific groups. New workforce planning arrangements and clinical directors are helping to break this down but data are largely collected on professional groups, and staff still lobby for growth in numbers in their own association.

- **The Power of the Medical Lobby**. The results of workforce planning have fed assumptions on medical staff that were then fed into discrete funding arrangements for training for specific groups, with little or no local flexibility. This reinforced a doctor-led model with little or no local prioritisation on where staff needed support to change. The upshot has been a system where doctors are guaranteed training but around 40% of NHS staff receive two days or less formal training per year.

- **A regulatory regime that reinforces the status quo**. Regulation is largely based on professional groups and qualification, not competence or ability to do the job. This fails to recognise overlaps in the skill bases between professions. The earlier development of clinical governance networks has helped introduce new roles by providing a framework that enables the safe delegation of clinical roles – for example, the GPs with a special interest operate within national frameworks to local clinical governance rules.

- **A lack of appropriate incentives.** Pay and funding systems had until recently almost exclusively been designed to reward professional groups.

- **The fragmented nature of the NHS** has meant that there have been pockets of excellence and best practice but little ability to spread this. A number of DH led measures have helped to break down this culture, make significant gains in developing new roles and develop an evidence base to demonstrate how system redesign really benefits patients. But the link between these developments and delivery has not been exploited fully.

- **HR Management Capacity.** HR managers in the NHS have delivered significant changes, however, there is anecdotal evidence that managers have focused on the transactional side of HR [recruitment, appraisal, discipline] and not the transformational [organisational development, role redesign].

As we look forward, we need to consider that the changing demography in the UK and a continued increase in participation in higher education will increase the competition for skilled staff. This makes a flexible and adaptable approach to the workforce more pressing. The Government –commissioned report into health sector workforce led by Wanless contends that the only way we can plug potential gaps in the system in future will be to work from the bottom up, starting with the patient, then working through Healthcare Assistants through nursing/therapists to medical professionals.

The NHS is changing the way that staff work to deliver better productivity and better patient care but could we go further? The NHS is well placed to deliver a step change in the way care is delivered. We now have

- **leading developments in role redesign**, such as GPs with a special interest, emergency care practitioners and nurse consultants;

- **a significant number of staff in these roles** with good evidence of effectiveness and patient confidence;
- in many places, **the clinical will to change practice** – building on a culture of local team working and innovation – often backed by Royal Colleges and professional bodies;
- the development of **a Career Framework for the NHS** based on competence not professional group, backed by a **skills escalator** and **Changing Workforce Programme**;
- a new programme to **widen the participation in learning of staff** at all levels, to enhance skills and improve productivity;
- **revised pay systems** that link knowledge and skills [or competence] to reward;
- **New financial levers and incentives**, particularly in primary care; and
- **A bigger workforce**

In addition, we are:

- **Reviewing our system of regulation** to ensure maximum flexibility **and** patient safety
- **Reviewing the way we use the £4bn fund for education and training**, to ensure a targeted and focused approach to supporting staff, with competence based learning and assessment;
- Using the **Independent Sector** to push new ways of working;
- **Placing skill mix and workforce reform at the heart of our delivery strategy on efficiency**; and
- **Developing information systems** that will allow staff access to accurate patient information quickly, to facilitate new ways of working.
- **Communicating these changes effectively to patients.**

This will enable us to continue to break down some of the barriers mentioned earlier that have persisted in some places, despite progress elsewhere.

Background: Summary

This all adds up to a very challenging agenda for change across the UK health service. The demand for better, more cost-effective services that are built around the patient and their needs, and the need for a more flexible and well-trained workforce to deliver those service, set the context for the doctors of tomorrow.

1. Changes in England's medical workforce and factors influencing career choice and vocational decision making

Changes in England's medical workforce

Table A shows the considerable changes to the medical workforce between 1994-2004. For example the number of all staff, from all countries and qualifications making up England's medical workforce increased by 33,387, or 42%, between 1994 and 2004. Breaking down the increases in England's medical workforce Table A shows that the number of men qualifying in the UK increased between 1994-2004 by 5,406, or 13% and the number of men qualifying outside the UK, but working for the English workforce increased over the same time by 10,483, or 70%. The number of women qualifying in the UK increased between 1994-2004 by 11,555 or 59%, and for those qualifying outside of the UK the increase was 5,943, or 116%.

Table A: Qualified Doctors

							numbers (headcount)
		Male			Female		
	All doctors	All Countries of qualification	Qualified In United Kingdom	Qualified Elsewhere	All Countries of qualification	Qualified In United Kingdom	Qualified Elsewhere
1994	79,797	54,958	40,066	14,892	24,839	19,706	5,133
1995	82,848	56,330	40,608	15,722	26,518	20,891	5,627
1996	84,640	57,080	40,566	16,514	27,560	21,594	5,966
1997	87,926	58,773	41,323	17,450	29,153	22,750	6,403
1998	90,115	59,584	41,825	17,759	30,531	23,812	6,719
1999	92,256	60,558	42,407	18,151	31,698	24,579	7,119
2000	94,692	61,512	42,987	18,525	33,180	25,607	7,573
2001	97,556	63,120	43,828	19,292	34,436	26,553	7,883
2002	101,626	65,018	44,088	20,930	36,608	27,746	8,862
2003	107,162	67,823	45,101	22,722	39,339	29,625	9,714
2004	113,184	70,847	45,472	25,375	42,337	31,261	11,076
% increase 1994/04	42%	29%	13%	70%	70%	59%	116%

Source : NHS Health and Social Care Information Centre medical and dental workforce census

NHS Health and Social Care Information Centre medical and dental workforce census
Notes:
(1) Excludes Medical Hospital Practitioners and Medical Clinical Assistants, most of whom are GPs working part time in hospitals
(2) General Medical Practitioners (excluding retainers) includes Contracted GPs, GMS Others, PMS Others and GP Registrars. Prior to September 2004 this group included GMS Unrestricted Principals, PMS Contracted GPs,

Table B: England's Medical workforce by age and ethnicity

			All Staff										
			All Ages	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 +
1994	Earlier Ethnic Group Categories	All Earlier Ethnic Categories	56,114	12,786	10,268	8,871	6,993	6,517	4,725	3,645	1,879	368	62
		White	37,780	9,504	6,685	5,970	4,705	4,103	2,957	2,356	1,224	237	39
		Black	2,571	505	665	494	339	251	154	108	44	10	1
		Asian	7,940	1,592	1,631	1,119	801	1,051	820	604	282	38	2
		Any Other Ethnic Group	4,799	865	877	821	666	656	438	292	152	29	3
		Not Stated	3,024	320	410	467	482	456	356	285	177	54	17
1997	Earlier Ethnic Group Categories	All Earlier Ethnic Categories	63,269	14,229	11,553	10,278	8,284	6,914	5,835	3,767	1,981	355	73
		White	41,727	9,655	7,461	6,752	5,798	4,543	3,669	2,323	1,253	228	45
		Black	2,247	353	536	469	327	232	179	105	39	7	-
		Asian	10,261	2,433	2,146	1,608	944	953	1,016	728	386	42	5
		Any Other Ethnic Group	5,188	978	820	841	696	699	599	357	160	38	-
		Not Stated	3,846	810	590	608	519	487	372	254	143	40	23
2001	All Staff		70,314	15,173	12,202	11,633	9,800	7,731	6,637	4,593	2,054	415	76
	2001 Population Census Ethnic Group Categories	All 2001 ethnic Groups	26,716	8,347	4,992	4,094	3,052	2,310	1,889	1,290	601	126	15
		White	16,767	5,304	2,790	2,421	2,024	1,644	1,261	854	375	82	12
		Black or Black British	877	162	198	203	128	82	59	28	13	4	-
		Asian or Asian British	5,729	1,742	1,355	956	540	325	351	275	156	26	3
		Mixed	467	182	111	79	51	19	10	11	3	1	-
		Chinese	522	281	109	53	38	18	12	6	3	2	-
		Any Other Ethnic Group	1,428	342	248	236	185	158	144	74	36	5	-
		Not Stated	926	334	181	146	86	64	52	42	15	6	-

	Earlier Ethnic Group Categories	All Earlier Ethnic Categories	43,598	6,826	7,210	7,539	6,748	5,421	4,748	3,303	1,453	289	61
		White	29,216	4,433	4,466	4,961	4,786	4,026	3,238	2,181	886	189	50
		Black	1,847	231	322	401	326	219	178	115	49	5	1
		Asian	8,231	1,524	1,815	1,484	993	652	772	595	333	59	4
		Any Other Ethnic Group	3,636	465	499	588	548	464	500	367	168	34	3
		Not Stated	668	173	108	105	95	60	60	45	17	2	3
2004	All Staff		83,144	18,043	15,096	13,199	11,323	9,174	7,013	5,785	2,755	650	106
	2001 Population Census Ethnic Group Categories	All 2001 ethnic Groups	74,448	17,441	14,248	11,958	9,703	7,615	5,774	4,795	2,284	541	89
		White	43,540	9,599	7,118	6,683	5,989	5,193	4,032	3,132	1,398	326	70
		Black or Black British	2,547	319	515	543	463	305	206	129	52	12	3
		Asian or Asian British	20,383	5,406	5,037	3,455	2,282	1,320	981	1,079	651	161	11
		Mixed	1,322	400	288	249	151	121	50	38	18	7	-
		Chinese	1,412	551	343	213	137	86	43	26	9	4	-
		Any Other Ethnic Group	3,637	571	623	625	530	462	370	308	124	23	1
		Not Stated	1,607	595	324	190	151	128	92	83	32	8	4
	Earlier Ethnic Group Categories	All Earlier Ethnic Categories	8,696	602	848	1,241	1,620	1,559	1,239	990	471	109	17
		White	6,317	364	522	852	1,256	1,252	972	693	314	77	15
		Black	386	43	51	55	68	56	50	42	18	3	-
		Asian	1,435	163	219	250	203	167	146	167	96	22	2
		Any Other Ethnic Group	510	19	43	73	86	83	69	88	42	7	-
		Not Stated	48	13	13	11	7	1	2	-	1	-	-

Table C
UK MEDICAL SCHOOL INTAKE BY GENDER

YEAR	TOTAL	MALE	% MALE	FEMALE	% FEMALE
1960/61	2020	1528	76%	492	24%
1961/62	2103	1572	75%	531	25%
1962/63	2192	1669	76%	523	24%
1963/64	2281	1739	78%	542	22%
1964/65	2407	1871	78%	536	22%
1965/66	2478	1937	77%	541	23%
1966/67	2502	1933	76%	569	24%
1967/68	2560	1940	75%	620	25%
1968/69	2693	2007	74%	686	26%
1969/70	2695	1987	74%	708	26%
1970/71	2878	2066	72%	812	28%
1971/72	3032	2084	69%	948	31%
1972/73	3123	2149	69%	974	31%
1973/74	3276	2212	68%	1064	32%
1974/75	3281	2160	66%	1121	34%
1975/76	3468	2249	65%	1219	35%
1976/77	3654	2362	65%	1292	35%
1978/79	3773	2373	63%	1400	37%
1980/81	4010	2390	60%	1620	40%
1981/82	4072	2336	57%	1736	43%
1982/83	4154	2331	56%	1823	44%
1983/84	4108	2307	56%	1801	44%
1984/85	4125	2311	56%	1814	44%
1985/86	4093	2224	54%	1869	46%
1986/87	4119	2258	55%	1861	45%
1987/88	4125	2249	54%	1876	46%
1988/89	4186	2237	53%	1949	47%
1989/90	4219	2212	52%	2007	48%
1990/91	4311	2216	51%	2095	49%
1991/92	4320	2190	51%	2130	49%
1992/93	4449	2132	48%	2317	52%
1993/94	4531	2217	49%	2314	51%
1994/95	4778	2305	48%	2473	52%
1995/96	4699	2359	50%	2340	50%
1996/97	4833	2251	47%	2582	53%
1997/98	5062	2322	46%	2740	54%
1998/99	5069	2268	45%	2801	55%
1999/2000	5302	2313	44%	2989	56%
2000/01	5610	2405	43%	3205	57%
2001/02	6115	2515	41%	3600	59%
2002/03	6752	2679	40%	4073	60%
2003/04	7596	2972	39%	4624	61%
2004/05	7932	3140	40%	4792	60%

Age profile

Table B breaks down the workforce by age and ethnicity and shows that the numbers of staff across all age ranges is increasing. For example, the numbers of staff aged under 30 has increased between 1994-2004 by 5,257, or 41%. Furthermore the number of staff aged 40-44 has increased by 4,330, or 61%, between 1994-2004 and for those aged 50-54 by 2,288, or 48%, for the same time period.

Labour market demographics in the UK suggest levels of participation in the workforce by older people will increase. This trend is likely to be reinforced by government policy, proposed changes to pension arrangements and imminent legislation on age discrimination. Doctors have typically worked for longer than most other groups in the healthcare workforce. There is increasing interest in more flexible approaches to retirement to enable a change of direction or intensity job so that there can be a more gradual wind down towards full retirement. It is likely that on current trends the medical workforce of the future will work for longer but not follow the traditional route of full-time employment until retirement.

Gender profile

Table C shows the trend in medical school intake by gender and the steady increase in the proportion of medical students who are women. A complementary increase in women at all levels and in all specialties can be tracked through the years, though there is a disproportionate concentration of women in particular branches of medicine.

In summary, the medical workforce in England is growing, is ageing, is ethnically diverse and will be increasingly female.

Factors influencing career choice and vocational decision-making

The UK Medical Careers Research Group is commissioned by DH to undertake cohort studies of doctors to understand career choices, career progression and views of doctors on issues such as work life balance and training. The Lambert, Goldacre and Turner (2003) study into career choices found that whilst those choosing general practice had increased, the numbers choosing hospital medical specialities, surgical specialities, paediatrics and obstetrics and gynaecology declined considerably. The Goldacre, Turner and Lambert (2004) study into the career choices of newly qualified doctors from the UK, of 1999 and 2000, showed that speciality choices and factors that influenced their career choices varied by medical school. For example, it was found that the percentage of respondents who expressed the choice of general practice was much lower amongst the graduates of Oxbridge than Leicester and Birmingham. Goldacre, M, J. and Turner, G. (2004) concluded early career advice and support during medical school and immediately after graduation may help doctors to be confident in pursuing shortage specialities to which they were originally attracted.

The British Medical Council represents doctors in the UK and commissions surveys to investigate the needs and interests of members. The 1995 cohort study highlights that whilst three quarters of the cohort were satisfied with their career choice, one fifth was lukewarm. The study went on to explain, "A key factor in the morale and motivation of cohort doctors is achieving an acceptable work life balance" (BMA 1995 Cohort: p4). 15 % of the cohort described that their career choice had changed over time. One quarter of this 15% said that the hours worked and working conditions had changed their minds, nearly a fifth of the 15% explaining that domestic circumstances had altered their mindset.

The BMA cohort study highlights the need for a work life balance as a key factor in doctors' career and vocational decisions. This links to the increasing number of doctors choosing to become General Practitioners, where flexible working patterns have traditionally been more prevalent [a trend that was also found in the UK Medical Career Research Group]. The number of women choosing to become GPs increased from 23% in 1995 to 45% in 2004 and for men the increase was 12-24%. A further indication of the trend towards careers with a better work-life balance is demonstrated by the numbers choosing to work as a locum because of the flexible hours (one in five of the 1995 cohort). Furthermore whilst the number choosing to become GPs increases, within the 1995 cohort the numbers choosing a career in general medicine and surgery has halved (18% in 1995 to 9% in 2004 chose surgery and over the same time period 20% to 6% chose General Medicine). Work life balance seems to be a key reason to driving career aspirations though competition for training opportunities may mean that some medical trainees will revise their plans in order to maintain career development.

The study noted that career choice varies somewhat according to gender with women more likely to become GPs whilst men are inclined to choose hospital medicine and research/academia. It was also found that male doctors were more likely to specialise in surgery, anaesthetics or radiology.

Whilst 30% of the cohort currently worked less than full time, a further 40% would consider doing so in the future. This indicates that both men and women are seeking to work flexibly. As the BMA cohort study concludes, "It is argued that the NHS must change working patterns and conditions for doctors, particularly those working on the hospital specialities, if it is to attract and retain the medical workforce" (BMA 1995 Cohort: p41).

With a workforce that is increasingly female and increasingly interested a healthy, work-life balance, it will be important to offer more flexible working and training arrangements throughout a medical career from early training through to retirement, to maximise participation and secure a sufficient medical workforce.

2. Implications of speciality preferences

Significant investment has been made in extra medical school places and new medical schools. Between 1999 and 2001, plans for some 2,150 more medical school places in England were announced. Latest figures show that in 2004-05, the intake of medical school students in England rose to 6,326, a rise of 2,577 (69 %) since 1997.

Table C shows that, as a percentage, the number of women entering medical training has increased, with just over 60% of students in 2004 being female. This increase in the proportion of women within the English medical workforce together with the growing importance of work-life balance considerations in choosing a specialty have implications for shortage specialties and for the future distribution of doctors. Encouraging women to specialise in traditionally male dominated specialities and developing more consistent and encouraging career guidance will be crucial.

The Oxford Medical Career Research group 2001 report into the medical specialities of women convened by the Federation of Royal Colleges of Physicians, concluded that changes were needed in order to attract and retain women in traditional acute medical specialities, as well as into academia and in positions of seniority. It suggested that maximising the contribution of women in the medical specialties would be critical for the delivery of medical services in the future.

Two specialties illustrate the issues. General practice already attracts a disproportionate number of women, drawn by the facility for part-time and flexible working patterns that general practice offers relative to hospital specialties. By contrast surgery has typical attracted and recruited few women and offered little by way of flexible working patterns in either training or employment. Tables D and E show the impact on gender choice on the distribution of men and women in these branches of medicine now and over the next five years.

Interest in the surgical specialities has been declining. If women's attitudes to their career options remain the same, the rise in women graduating from medical school may further reduce the pool from which surgery specialists can be recruited. The pool may shrink still further if increasing numbers of men find work/life balance an increasingly important factor in their career choice. Some secondary care based specialities have a more balanced gender splits, for example, paediatrics, psychiatry and obstetrics. These tend to be specialties where part-time and flexible working and training arrangements have made greatest progress and where there is greater tolerance for doctors who do not work in traditional, full-time patterns.

Typically those specialties that embrace flexible working tend to provide increasing opportunities for working and training flexibly that both men and women can take advantage of as their careers develop.

Conversely the attractiveness of general practice to women and men seems set to continue as the importance of work/life balance grows, but the increasing numbers of women in medicine is likely to fuel an increasing feminisation of general practice. The net effect is that if these trends continue the medical workforce will become increasingly polarised in terms of its gender spit between primary and secondary care sectors.

Table D

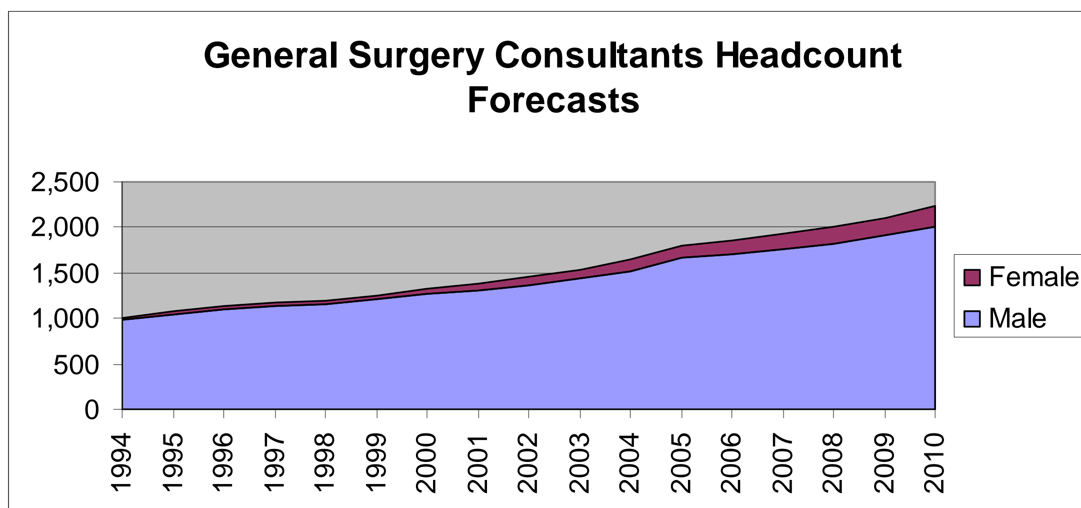
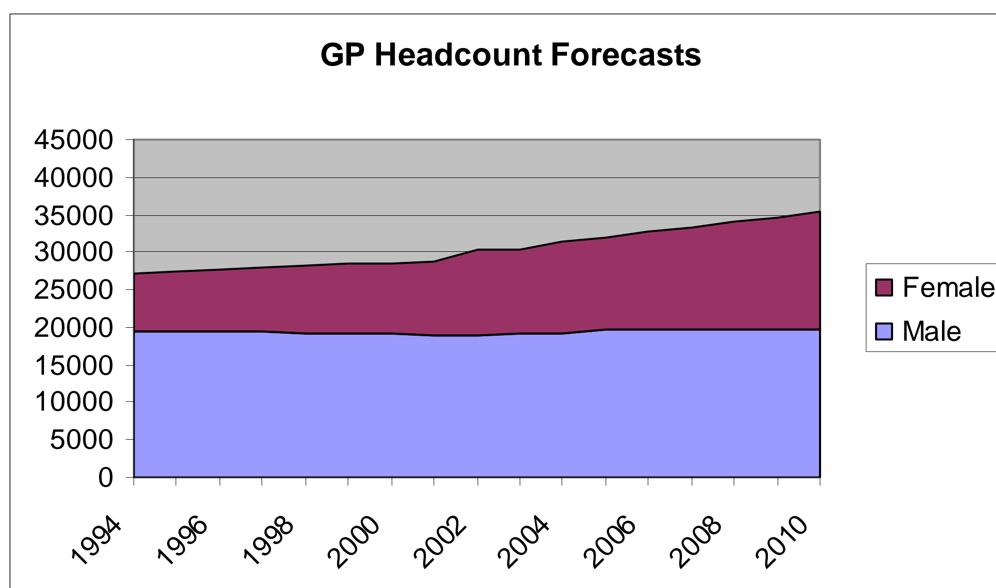


Table E



If present trends continue the implications of specialty preferences are that general practice will become an increasingly a female preserve and that men will continue their dominance in surgery, anaesthesia, radiography and other acute specialties. To make these specialties more attractive will require greater access to flexible working and training arrangements and support for a greater variety of working patterns and a better work/life balance,

3. International Mobility

It is also clear from Table B that international recruitment will continue to be an important short-term solution to England's medical workforce shortages,**. I**ncreased demand across the developed world and competition for staff means that international migration of healthcare professionals is a global phenomenon. Though the NHS aims to employ a home grown and more diverse workforce that reflects local communities, the demand for additional NHS staff in the short term is such that international recruitment has made a key contribution to the expanding workforce. This activity is underpinned by an ethical code of conduct designed to prevent the exploitation of foreign recruits and at the same time protecting the healthcare economies of developing countries.

In a global free market we must be prepared for a tough recruitment and retention arena where countries like Australia, New Zealand, Canada and the US A compete to attract UK trained doctors to fill their own shortages. Progressive HR policies at home, such as Improving Working Lives and the opportunities for doctors to choose portfolio careers, will be a tool to help doctors weigh up the advantages and disadvantages of emigration.

At the same time that the UK is attracting larger numbers of international medical graduates, the UK is increasingly exporting staff, including doctors, to other developed countries. The UK is particularly vulnerable as there is already an established tradition of working outside the UK.

4. The Multi-disciplinary team

One way of creating more flexibility across all medical specialities and enabling more satisfying, flexible careers is to develop new roles for healthcare professionals and increase the scope for team working. Role redesign involves expanding the depth and breadth of roles, moving tasks up or down, crossing traditional boundaries, resetting professional skill mixes and organisation. This covers the entire healthcare team from support workers to the medical workforce.

The foundations for this were laid in four key strategy documents: *Making a Difference*, (DH, 1999) set out plans to extend the roles of nurses, midwives and health visitors. This was followed by *Meeting the Challenge* (DH, 2000), A Health Service of all the Talents (DH, 2000) and *Making the Change* (DH, 2001) which set out strategies for the allied health professions and healthcare scientists respectively. All four strategies stressed the importance of using the skills of staff to the maximum extent possible. Further developments include

a) A new grade of assistant practitioner developed to help improve cancer services,
b) Development of the GP's role with special interests. GPs with special interests have started taking referrals from fellow GPs in areas such as ophthalmology, orthopaedics, dermatology and ENT,
c) Development of roles such as Anaesthetic Practitioners and Surgical Care Practitioner.

However, modernising jobs goes beyond simply creating new roles. It needs to start with assessing needs of patients and the public at large and then identify the necessary skills to meet these needs, rather than starting from traditional professions and roles. Central to this is the National Practitioner Programme. The NPP is a national workforce modernisation programme, which is supporting the NHS and other health and social care organisations to test and implement role redesign.

In primary care, there has been rapid growth in nursing roles and numbers. This was fuelled by specific incentives in the old GP contract on funding nurses in general practice. These nurses are now well placed to deliver care for patients with long term conditions, which is being promoted through the quality framework in the contract. Nurses working in walk-in centres have mirrored most of the GP role and now provide first contact diagnosis and treatment. GPs have also been encouraged to develop special interests and offer secondary care services. We now have over 1,400 GPs who specialise in areas such as ENT, endoscopy, CHD and Mental Health. These GPs provide more convenient access for patients and reduce waiting. New primary care contracts have moved away from rewarding the provision of service by GPs to rewarding the provision of services to patients against quality outcomes.

In **emergency care** we now have Emergency Care Practitioners working in most major A&E departments and across 17 Ambulance Trusts. These posts combine nursing and paramedic skills and can work in primary care, A&E, walk-in centres and ambulance services. Using ECPs to respond to 999 calls has reduced patient transfer to A&E from 77% to 33%. ECPs are referring patients directly to intermediate care, occupational therapy and physiotherapy, and carrying out home visits on behalf of GPs, both in and out-of-hours, bringing down waiting times from 187mins to 54mins.

In **the acute and community sector:** Surgical care practitioners are able to assist in theatre, undertake pre and post-operative care, run clinics and operating lists for minor surgery. We have over 600 consultant nurses and therapists working in hospital and community settings, carrying a clinical caseload and providing nurse and therapy-led services. Nurse specialists offer nurse-led services across the whole spectrum of care: in the assessment of cancer treatment, skin care, obesity management and heart failure services. Anaesthesia practitioners are also being developed to support anaesthetists.

There are also increasing numbers of technicians employed in the acute sector to perform single diagnostic interventions such as endoscopy. Consultant radiographers are replacing consultant-led clinics and reducing delays in out-patient appointments. Healthcare scientists working at the medical scientific interface are increasingly taking on medical roles and functions. For example, over half of biochemistry departments are now headed by clinical scientists who are regarded as lead clinician in specialist areas such as toxicology, drug monitoring, endocrinology and paediatric metabolic biochemistry.

5. Strategies to reshape the health workforce and the role and work of the doctors of tomorrow

Our strategies fall into two broad camps – challenge and support.

5.1 Supporting Strategies

So far the key to reshaping England's health workforce has been through supporting strategies, based on flexible recruitment, training, working and retirement. As discussed in the NHS Plan, HR in the NHS Plan and Delivering the NHS Improvement Plan: the Workforce Contribution a number of strategies have been pursued, which fall into two distinct areas: training and recruitment and Changing Workforce practices.

Training and recruitment:

Modernising Medical Careers (MMC)

The MMC programme aims to improve patient care by delivering a modernised and focussed career structure for doctors through the reform of postgraduate medical education. Key areas are:

- Two year Foundation Training Programme for medical graduates to help improve trainees' communication skills, develop multi-disciplinary team working and ensure exposure to a wide range of clinical areas before specialisation.
- Competency-based training system from graduation through to the completion of training allowing doctors to experience a broader range of specialties before they make a final career decision. Inbuilt into the scheme is career guidance, counselling and the ability to step off the training scheme at certain points. This fundamental change in doctors' training will require careful planning of the workforce. To this end an MMC workforce planning resource pack has been developed by National Workforce Projects and is available at www.healthcareworkforce.org.uk

Fast track Postgraduate degrees

Important to the widening of access routes into medicine is to encourage people who may not have previously aspired to a career in medicine and those from a wider social and ethnic background. This has been partly addressed with the introduction of graduate 4-year Fast Track degree. Of the 2150 more medical school placements announced in England between 1999-2001 almost 600 of these were for new graduate entry four- year courses. Further work, however, is needed to encourage applicants from working class and black and afro caribbean communities and to ensure that applicants are sought from the entire spectrum of faith communities.

Flexible Training

Under new arrangements from 1 June 2005 all doctors in training and equivalents can apply for flexible mode of study. It is expected that the numbers training flexibly will

double in the next 3-5 years. Flexible trainees will still receive basic pay and a supplement to recognise out of hours work. Basic salary will be determined by the actual hours of work done.

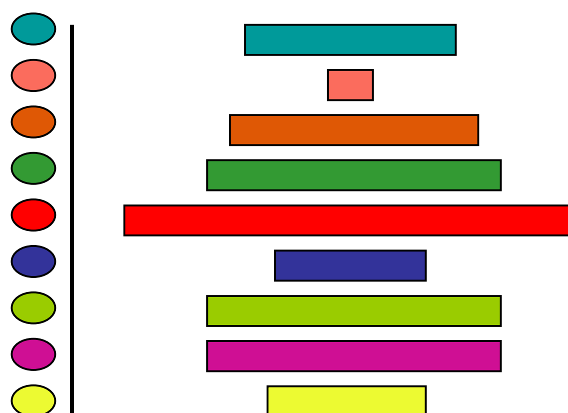
Women in Surgical Training (WIST)

WIST is a national organisation that works to promote surgery as a career for women and to enable women who have chosen a career in surgery to realise their professional goals. It was set up by the Royal College of Surgeons of England and DH in 1991 in response to the serious under-representation of women in the surgical profession (at Consultant level). Table D shows that whilst the number of women in Consultant Surgery grade posts has doubled between 1997-2004 (increase of 142 FTE DN, or 127%) there is a considerably larger number of men at the same grade, 4454 FTE in 2004 (4201 more men than women). Since 1991, WIST has established a membership of nearly 2000 women, a network of 25 consultant regional representatives and an information service on surgical careers for women.

Workforce planning:

The Career Framework

Skills for Health (SfH) works with employers and other stakeholder to ensure that those working in the health sector are equipped with the right skills to support the development and delivery of healthcare services. SfH are leading on the development of frameworks and standards to define and develop competence and a programme to support workforce and career development. As part of the modernising agenda and New Ways of Working a 9 level Career Framework was developed, describing England's healthcare workforce by skills and competencies rather than traditional professional boundaries. When England's NHS workforce was mapped against these 9 levels, the following Christmas tree shape emerges.



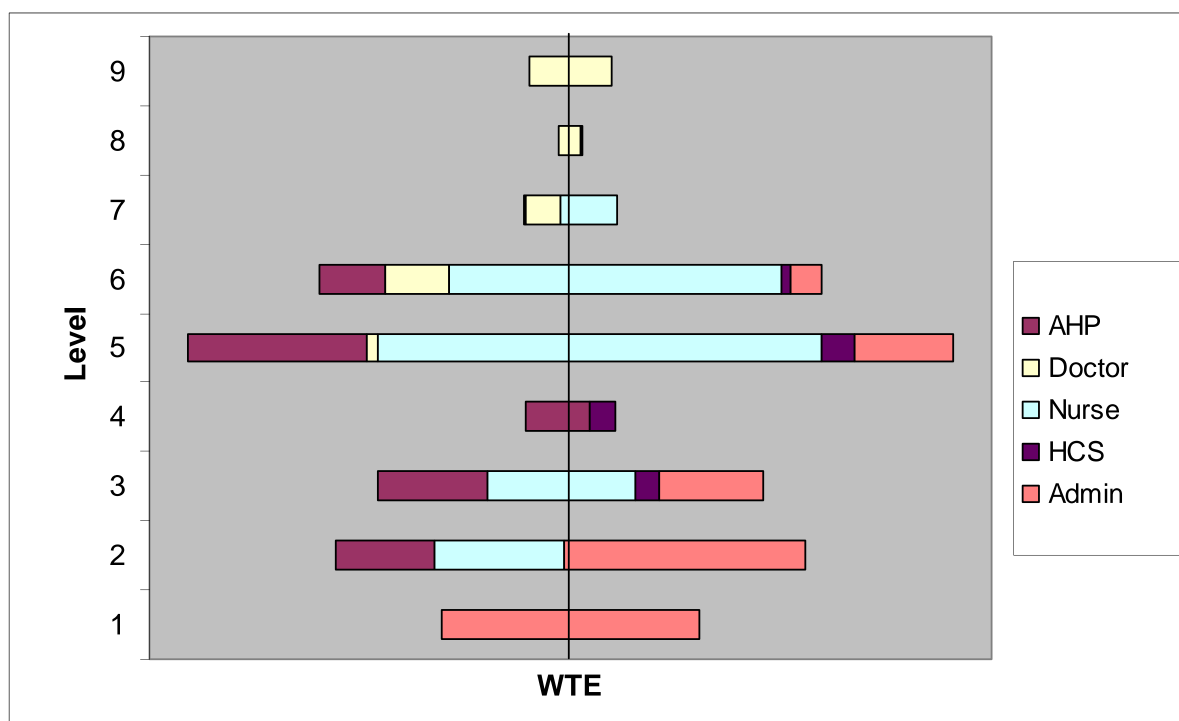
Competency based workforce planning

DH and the Workforce Review Team (WRT) that leads workforce planning across the health care workforce, are now working to develop the 'Christmas tree' model as a generic workforce-modelling tool. This will allow national and local workforce planning by individual, local organisations, to assess skills needs and future

workforce requirements across levels rather than professions. In the long run this will support the development of competency based workforce planning across the whole healthcare workforce: determining the skills and competencies needed to deliver services and defining these by care group and pathways, rather than specific healthcare professions.

This X-tree modelling approach will enable the roles of the doctors of the future to be captured as part of the multi-disciplinary teams serving patients, and planning the medical workforce could then focus on those roles that only doctors can deliver. Below is an early, broad brush use of the X-tree model to map the medical workforce within the overall healthcare workforce of the National Health Health Service. Annex A indicates the roles which map across the 9 levels.

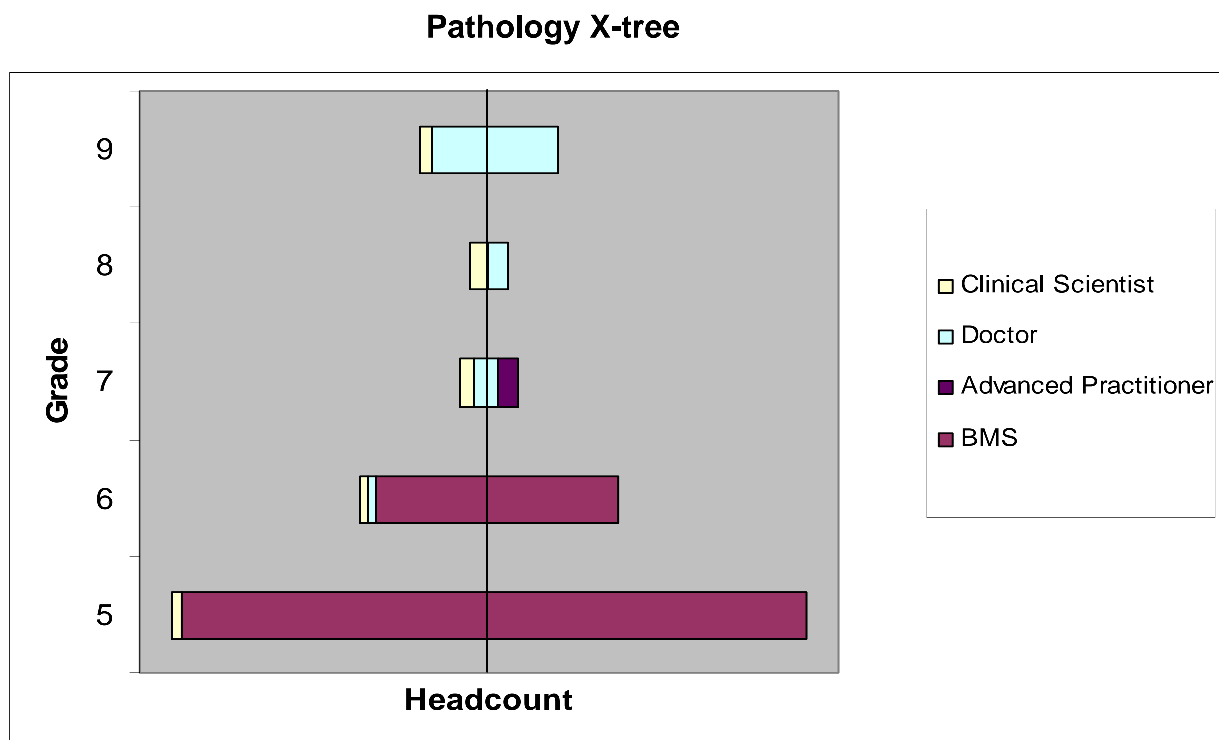
Total NHS Workforce



Level	1	2	3	4	5	6	7	8	9
AHP	0	35700	39634	23072	64621	23927	265	126	0
Doctor	0	0	0	0	4259	22972	13004	8056	30171
Nurse	0	46887	53547	0	161002	120751	20125	0	0
HCS	0	0	9010	9713	12165	3118	0	432	0
Admin	93152	87618	37733	0	35573	11364	0	0	0
Total	93152	170206	139925	32786	277621	182134	33394	8614	30171

Source: WRT

The following X- tree shows the application to a specific service area



[Source WRT - This is a draft of the registered Pathology workforce X- tree]

Influencing recruitment and retention through contractual arrangements:

New Consultant and General Practitioner [Family doctor] contracts.

New contracts for Consultants and GPs were negotiated and agreed with the representatives of the medical profession to reward those who do most for the NHS and so to secure real changes in the way patient care is delivered. The aim is to allow NHS service providers to move forward on a collaborative basis with the profession to support service improvement and at the same time help improve doctors' working lives

Changing working practices:

Improving Working Lives for Doctors

DH and the NHS have introduced and implemented a range of structures to ensure the NHS is a model employer. Modernising the NHS depends upon operating more flexibly and being creative in its working arrangement to maintain an appropriate

work/life balance for its staff. The main plank of this strategy is known as "Improving Working Lives". The goal is to ensure that every doctor who wishes to work and train in the NHS is able to do so and to their full potential, recognising their need to have a fulfilling working life and maintain a balance between work and their lives outside work.

The imperative in developing this strategy was to address "wastage" and by so doing, ensure that the NHS was seen to be the employer of choice, providing the conditions for training and employment which doctors seek.

When doctors who were qualified but not working were surveyed, the following reasons emerged:

- Part-time work was not easy to find. There was a tendency for employers not to perceive part-time trainees and doctors as good value. Moreover, there were particular problems finding part-time work in certain specialties and 37% of female doctors were put off entering some specialties by the lack of flexible working opportunities.
- Another reason for doctors failing to fulfil their vocation is that some are forced into a particular career path merely because "it is OK to train or work part-time" and then drop out.
- Female doctors are often tied to a particular geopgraphical area due to familiy commitments
- Careers advice and counselling are not widespread or easily available.

Another aspect of wastage is early retirement. A DH Consultant Exit survey from 2003 showed that the reasons for not wishing to return to working in the NHS were

- A lack of flexible opportunities providing a work/life balance
- The demands of the post
- Lack of opportunities in general for women unable to relocate due to family commitments

Aspects which would encourage them to reconsider were

- Better career break options
- Reduced workload
- Better opportunities for personal development
- Better pay [but not a significant factor for over -55s

Thus. the key elements of IWL are:

- **Flexible Career Scheme** – enabling doctors to take career breaks or prepare for retirement, whilst retaining their clinical skills and links with NHS.
- **Flexible Retirement** – more creative, flexible approaches to employing clinicians close to retirement, such as part time work and tailored contributions have been developed. . Mature and experienced staff working flexibly in this way can ameliorate pressures on staffing levels at critical times, such as winter months.

- **NHS Childcare** strategy is another part of the basket of IWL policies aimed to provide good quality accessible and affordable childcare. Funding of over £70m in the three years from April 2001 was made available to build 150 on-site nurseries with over 6,000 new places subsidised at a average of £30 per place per week.. Staff also have access to a childcare coordinator to ensure the support required locally is available.
- To provide a response to the reluctance of some doctors who have completed specialist training but who feel unready for a consultant post, we developed the **New Consultant Entry Scheme**. This helps doctors looking for their first consultant post by providing placements, support from a mentor. A structured development plan and continued professional development. It also provides an
- opportunity to experience working in an organisation before making a longer-term commitment.

Team working

Supply to the medical workforce can only be maximised when issues such as this are addressed to enable the recruitment and retention of doctors who increasingly seek improved working lives and a better balance between work and life outside work.

Team working is the glue which holds this together and so leads to improved efficiency from the workforce available. It allows

- Different qualitative contributions
- Different quantitative contributions
- Full contributions from different skill/competency bases
- Development of complementary skills and competencies, rather than replication of existing ones

This is the key to real flexibility of employment, training, qualification and development and the key to making best use of available resources. The outcome should be:

- Real continuity of care
- Better peer support
- Better working relationships
- And, of course, better care for patients

That is the principle but why do doctors seem to have a problem with team working? This may be because traditional medical culture views team working as relinquishing individual responsibility and a loss of control., a belief that a specialist must be in charge and control if continuity of care is to be achieved. There is still a prevalent prejudice that, for example, orthopaedic surgeons need to be male. This gender bias leads to a distrust of proposals to introduce flexible training or flexible working, following the tenet that "the job needs to be done full-time and that flexible training produces a second-class doctor. This will be addressed as part of the implementation of MMC.

5.2 Challenging Strategies

Support is essential in delivering the doctors of tomorrow. But there are three major challenges to the way in which doctors act that will, perhaps bee much greater drivers of change.

European Working Time Directive (EWTD)

In August 2004 theEWTD came into force for junior doctors. The EWTD aims to protect the health and safety of workers by restricting hours worked and imposing minimum rest requirements. Working weeks will not exceed 58 hours, with a maximum of 13 hours worked in any 24 and at least 11 hours between shifts. The next challenge will be the WTD 2009, which takes the maximum working hours down to 48. National Workforce Projects (NWP) has been awarded the contract for developing solutions to this 17% decrease in doctors' hours.

We need to also understand the impact of the **European Working Time Directive** on the productive time of staff. By 2009, we may see a 20% reduction in staff time in some staff groups in some specialties [e.g. trainee doctors in Anaesthetics] and we are beginning to plan for the consequences of these changes now. The survival instincts of organisations is such that we anticipate some significant changes in the way staff are deployed.

The introduction of WTD is evidence of the progress the NHS has made in ending the traditional practice of doctors in training and equivalents working very long hours. Therefore, in order to be compliant with WTD it is suggested healthcare services introduce skill mix and new roles, redesign rotas and reconfigure services. DH funded 20 national pilots and 4 'Hospitals at Night' (H@N) pilots each testing approaches to achieving WTD compliance.

The H@N project aims to redefine how medical cover is provided in hospitals during out of hours period. It introduces a Multi Discipline Night Team that has the competences to cover a wide range of interventions, but has the capacity to call in specialist expertise when necessary, advocating other staff taking on some of the work traditionally done by junior doctors.

Independent Sector Provision

The NHS is in the early stages of opening up the NHS provider market. *Delivering a Patient Led NHS* set out that up to 15% of elective activity would be undertaken in the IS, depending on choice. [Subsequent calculations suggest that this figure wuill be closer to 10%]. A major national procurement has begin to deliver a significant proportion of this by 2008. *Commissioning a Patient Led NHS [2005]* sets out plans that all PCT provided community based services will move to new providers by 2008, with significant expansion of private and voluntary involvement.

These change are expected to bring with them significant reform. Anecdotally, small scale IS diagnostic provision has changed consultant behaviour and working patterns. The IS is expected to bring a level of challenge and competition to NHS providers. The biggest drivers of success in the new system – where patients will have a choice

of care – will be controlling staff costs [greater retention and skill mix] and good patient experience.

In the short term, we are putting controls on the shortage professions and the ability of IS providers to recruit NHS staff. But these controls have been reduced recently and will, in time, probably disappear.

These changes may deliver the greatest benefit, but this will only come if handled very effectively and we are developing strategies accordingly.

Patient Choice and Voice

Creating a Patient Led NHS sets out a plan to allow patients free choice of treatment from any accredited provider. As this concept becomes reality and information systems for patients improve, we expect staff and organisations to respond. Perhaps this will be the biggest driver of change and of what the doctors of tomorrow will do.

Summary

This paper attempts to collate information on how England's medical workforce has changed and will continue to change over time. Whilst the NHS has grown significantly, particularly through increases in the number of women, more has to be done to embed flexible and new ways of working and to ensure that the make up of the NHS workforce is representative of the communities it serves at all levels.

Taking account of current trends and policies in healthcare in the UK, the doctors of tomorrow will be,

- Better trained through a competency-based training system
- More likely to be female and from an ethnically diverse background
- More interested in maintaining a healthy work/life balance
- Working more flexibly across their whole career
- Working within multi-disciplinary teams
- Working for a range of public, private and voluntary organisations
- Delivering more primary care services within the community, and
- Working for longer with more flexible approaches to retirement

The proportion of women within England's medical workforce has increased. Changes in social attitudes are driving the desire of both men and women to work flexibly. The medical workforce generally and in specialties, such as surgery and academia, will need careful attention to avoid workforce shortages. Furthermore, strategies to ensure flexible training, working and retirement need to run in conjunction with schemes to change workforce practices. There needs to be investment in the establishment of new roles and multi-disciplinary teams based on skills and competences rather than traditional professional classifications.

More flexible working policies on their own will be insufficient to fill the gap created by an impending retirement bulge of the post-war generation, reduced participation in the workplace over a typical medical career and increased part-time working.

The workforce we train must learn to work differently: to shake off old biases towards gender and hierarchy and to adopt greater team working and technological solutions.

As the demand in the West for medical care grows in line with an aging population and an increase in long-term health conditions and co-morbidity, there will be a greater emphasis on generalist care and self-care. The places in which patients access healthcare will change and this will affect the shape and makeup of the workforce. There will be much more home and community based treatment backed up by digital technology.

A number of important and beneficial strategies have been introduced by the NHS to help shape and reform the healthcare and NHS workforce. These have proven very successful. The next phase of NHS reform provides new challenges for the NHS workforce. These tried and tested strategies will help. Additionally, the NHS is hoping that Patient Choice, Plurality and the requirements of the Working Time Directive will drive even greater reforms.

NHS Commissioners will need to plan for these changes, integrating workforce planning into business planning in a more comprehensive way. England's workforce planning is assisted by the work of National Workforce Projects and Workforce Reviews Team and resources are available to support the accurate and successful workforce planning needed to ensure delivery of the health care system (www. Healthcareworkforce.org.uk).

Annex A

Level	Classification	Title	WTE	Source
9	Doctor	Consultants	27914	DH Census 2004
9	Doctor	Directors of public health	228	DH Census 20 04
8	Doctor	Registrar Group	8056	DH Census 2004 (modified by WRT; 50% of registrar group put in level 8, 50% in level 7).
7	Doctor	Registrar Group	8056	DH Census 2004 (modified by WRT; 50% of registrar group put in level 8, 50% in level 7).
6	Doctor	Senior House officer	20283	DH Census 2004
5	Doctor	House Officer/Dental House Officer	4259	DH Census 2004
9	Doctor	Associate Specialist	2029	DH Census 2004
7	Doctor	Staff Grade	4948	DH Census 2004
6	Doctor	Hospital Practitioner/ Clinical Assistant	1164	DH Census 2004
6	Doctor	Other CHS Staff	442	DH Census 2004
6	Doctor	Other CDS Staff	1083	DH Census 2004
7	Nurse	All Qualified Nursing, Midwifery and HV Staff	20125	DH Census 2004 (modified by WRT; All qualified nursing, midwifery and HV staff split such that they are 75% of the total workforce, with 5% being level 7, 30% being level 6 and 40% being level 5. i.e. the figure for level 7 is 5/75x"All Qualified Nursing, Midwifery and HV staff").
6	Nurse	All Qualified Nursing, Midwifery and HV Staff	120751	DH Census 2004 (modified by WRT; All qualified nursing, midwifery and HV staff split such that they are 75% of the total workforce, with 5% being level 7, 30% being level 6 and 40% being level 5. i.e. the figure for level 7 is 5/75x"All Qualified Nursing, Midwifery and HV staff").
5	Nurse	All Qualified Nursing, Midwifery and HV Staff	161002	DH Census 2004 (modified by WRT; All qualified nursing, midwifery and HV staff split such that they are 75% of the total workforce, with 5% being level 7, 30% being level 6 and 40% being level 5. i.e. the figure for level 7 is 5/75x"All Qualified Nursing, Midwifery and HV staff").
8	AHP	Consultant Therapists	126	DH Census 2004
6	AHP	Manager	2312	DH Census 2004

5	AHP	Therapist	49251	DH Census 2004
5	AHP	Scientist	11017	DH Census 2004
5	AHP	Scientific Officer	1293	DH Census 2004
4	AHP	Technician	14419	DH Census 2004
6	AHP	Instructor/Teacher	4118	DH Census 2004
6	AHP	Tutor	89	DH Census 2004
8	HCS	Consultant Clinical Scientist (Grade C)	433	DH Census 2004
6	AHP	Managers	265	DH Census 2004 (modified by WRT; total managers split 50% in each between level 6 and 7).
7	AHP	Managers	265	DH Census 2004 (modified by WRT; total managers split 50% in each between level 6 and 7).
6	HCS	Clinical Scientist (Grade A & B)	2776	DH Census 2004
6	HCS	Advanced Practitioner Biomedical Scientist	342	DH Census 2004
5	HCS	MLSO / Biomedical Scientist	12166	DH Census 2004
4	HCS	MTO / Technician	9166	DH Census 2004
4	HCS	Cyto-screener	402	DH Census 2004
4	HCS	Perfusionist	145	DH Census 2004
6	AHP	Qualified Ambulance Staff	16587	DH Census 2004
4	AHP	Ambulance Support Staff	8653	DH Census 2004
3	Nurse	Nursery nurse	3730	DH Census 2004
3	Nurse	Nursing assistant/auxiliary	46887	DH Census 2004 (modified by WRT; Nursing assistant/auxiliary split 50% in each between levels 2 and 3).
2	Nurse	Nursing assistant/auxiliary	46887	DH Census 2004 (modified by WRT; Nursing assistant/auxiliary split 50% in each between levels 2 and 3).
3	Nurse	Nurse learners	2930	DH Census 2004

2	AHP	Healthcare assistants	31777	DH Census 2004
3	AHP	Support worker	24270	DH Census 2004
2	Admin	Clerical & administrative	74205	DH Census 2004
5	AHP	Estates	57	DH Census 2004
2	AHP	Other support staff	910	DH Census 2004
6	AHP	Assistant Practitioner	557	DH Census 2004
5	AHP	Student/trainee	3003	DH Census 2004
3	AHP	Helper/assistant	14389	DH Census 2004
2	AHP	Healthcare assistant	630	DH Census 2004
3	AHP	Support worker	810	DH Census 2004
2	Admin	Clerical & administrative	13140	DH Census 2004
2	AHP	Maintenance & works	51	DH Census 2004
3	HCS	MLA / ATO / Assistant	9011	DH Census 2004
2	AHP	Student / Trainee	2244	DH Census 2004
2	AHP	Healthcare assistant	89	DH Census 2004
3	AHP	Support worker	166	DH Census 2004
1	Admin	Clerical & administrative	93153	DH Census 2004
5	Admin	Estates	10932	DH Census 2004
6	Admin	Senior Manager	11365	DH Census 2004
5	Admin	Manager	24642	DH Census 2004
2	Admin	Healthcare assistant	273	DH Census 2004
3	Admin	Support worker	37734	DH Census 2004

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