

**DEPARTMENT OF HEALTH,
SOCIAL SERVICES AND
PUBLIC SAFETY**

**REVIEW OF THE MEDICAL
WORKFORCE**

Final Report

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CONTENTS

Page

1.	INTRODUCTION AND BACKGROUND	5
1.1.	Introduction	5
1.2.	Terms of Reference	5
1.3.	Report Structure	6
2.	Policy Context	8
2.1.	Overview	8
2.2.	Review of Public Administration	8
2.3.	Comprehensive Spending Review (CSR)	9
2.4.	Regional Strategy for the Health and Personal Social Services 2005-2025	9
2.5.	Programme for Government 2008 – 2011	9
2.6.	Priorities for Action: 2008 - 2009	10
2.7.	Developing Better Services	10
3.	Contractual Changes and Other Developments	12
3.1.	Modernising Medical Careers (MMC)	12
3.2.	Contractual Changes	14
3.3.	NIMDTA	15
3.4.	European Working Time Directive	15
3.5.	Hospital at Night	16
3.6.	Overseas Doctors (Tier One Visa Requirement)	16
3.7.	Summary	17
4.	The Structure of the Medical Workforce	18
4.1.	University Graduates	19
4.2.	Foundation Training	19
4.3.	Specialty Training	20
4.4.	General Practice Specialty Training	21
4.5.	Certificate of Completion of Training	21
4.6.	Fixed Term Specialty Trainee Appointments (FTSTA)	21
4.7.	Flexible Training (Less than full-time Training)	22
4.8.	Specialty Doctor and Associate Specialist Grades (SAS)	22
4.9.	Trust Grade Doctors / Others	22
4.10.	Public Health Doctors	23
4.11.	Clinical Academics	23
5.	Analysis of Current Position	24
5.1.	Introduction	24
5.2.	Total Workforce Numbers	25
5.3.	Consultants	26
5.4.	SAS Grades (Specialty and Associate Specialists Grades)	27
5.5.	Specialty Registrars	28
5.6.	Foundation Level 1 and 2	29
5.7.	General Practitioners (GPs)	30
5.8.	Other Medical Professionals	30
5.9.	Summary	30
6.	Feedback from Consultations	32
6.1.	Introduction	32
6.2.	Shared Themes across all Grades and Specialties	32
6.3.	Supply and Demand Factors by Grade	34
7.	Predicted Supply & Demand	44
7.1.	Introduction	44

7.2.	Supply and Demand Assumptions	44
7.3.	Workforce Models – Trained Doctors	45
7.4.	Workforce Models – Junior Doctors	50
7.5.	Conclusions	53
8.	Conclusions and Recommendations	54

DISCLAIMER

This Report has been prepared solely for the purposes(s) set out in our proposal to the Department of Health and Social Services and Public Safety (DHSSPS). Notwithstanding that a copy of our Report will be published on the DHSSPS website, no-one other than the Report's addressees is entitled to rely on our report for any purpose whatsoever and we accept no duty of care or liability to any other party who is shown or gains access to this report.

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Deloitte would like to thank everyone who contributed to this Review.

1. INTRODUCTION AND BACKGROUND

1.1. Introduction

Deloitte MCS Limited was commissioned by the Department of Health, Social Services and Public Safety (DHSSPS) to conduct a review of the Medical Workforce in Northern Ireland. The review represents the next stage in the DHSSPS' continuing strategic approach to workforce planning. This report presents the findings from the review.

Three years have elapsed since the last Workforce Planning Review of the Medical Profession in Northern Ireland. During this time, the environment in which Health and Personal Services (HPSS) are delivered has continued to change, becoming ever more complex, placing increasing demands on policy makers and delivery bodies to develop services that meet public expectations, increased demand and technological changes. The period has also seen ongoing change in medical training structures and career pathways and a move towards greater reliance on trained doctors providing direct patient care.

Implementation of policies and initiatives highlighted in the 2006 review have given way to further new national and regional policies, efficiency plans and initiatives which are set to create additional challenges for the current and future Medical Workforce.

Successful delivery of these changes depends on Health and Social Care (HSC) staff. The HSC needs a workforce which has the skills and flexibility to deliver the right care at the right time to those who need it – a workforce which has the right number of staff deployed in the right places and working to the maximum of their ability.

The cyclical approach to workforce planning adopted by DHSSPS enables data relating to the workforce to be reviewed on a regular basis, ensuring that it is up-to-date and accurate. It also affords the opportunity to review and assess the validity of the assumptions underlying previous reviews, taking account of policy-driven and demographic changes together with developments in technology and clinical practice that may impact on these.

This review was guided and informed by an Advisory Group representing the medical profession (members are listed in Appendix I). We are indebted to the group for this support and assistance and take this opportunity to thank them for their input.

1.2. Terms of Reference

1.2.1. Purpose of Review

The purpose of this review is to provide the DHSSPS with comprehensive current information on the medical professional group across Northern Ireland. This information will inform the Department's planning in the provision of training to facilitate service continuity and development over the next five to 10 years.

The review investigates, within the context of workforce planning and deployment, current and future supply and demand factors that will impact on the delivery and development of medical services.

A key aim of this work is to enable the development of strategies that can assure the correct numbers of medical professionals are in place and working in the most

effective way to offer a maximum benefit to the overall healthcare team and optimal patient outcomes.

The review takes into account professional issues, developments in service design and provision along with the needs of society in relation to provision of service.

1.2.2. Requirements

The specific requirements set out for the current review were as follows:

Build on the 2006 review; provide an updated analysis of the current medical workforce in Northern Ireland, including:

- size, composition, sectoral distribution, age and gender;
- working conditions and patterns;
- post graduate qualifications/continuing professional development commitments; and
- specialist service commitments.

Provide detailed analysis of future demand based on provision of services taking into account the implications of Modernising Medical Careers (MMC)

- numbers of each medical grade required to meet service demands including areas of new service provision;
- an assessment of the number of medical student places that should be commissioned;
- services demanding the skills of these professionals and the context within which these services will be delivered;
- skill-mix options in the delivery of services;
- the context within which the skills of the various professionals will be delivered and what impact this will have on workforce; and
- areas of particular difficulty/need and those areas where service development is well underway.

Provide an analysis of current and future recruitment and retention issues including:

- pay;
- career development and specialisation issues;
- training and professional development issues;
- priority areas showing difficulties in recruitment and/or retention;
- geographical issues in supply and demand;
- returners; and
- working arrangements.

1.3. Report Structure

The remainder of this report is structured as follows:

- Section 2 – a review of the policy context;
- Section 3 – a review of recent contractual changes and career progression developments within the medical profession;
- Section 4 – an overview of the current training and career structures for medical professionals;
- Section 5 – analysis of the size and shape of the current medical workforce;
- Section 6 – analysis of the key recruitment and retention themes that arose from the consultation exercise;
- Section 7 – supply and demand models setting out estimated requirements for the next 10 years; and
- Section 8 – conclusions and recommendations arising from the review.

2. Policy Context

An important element of this workforce planning review was to understand the context and environment in which the DHSSPS has to plan its medical professional workforce. To do this, we assessed the impact of key policies being implemented, those planned for roll out, and other relevant assessments carried out in the last few years.

2.1. Overview

There is a number of policy and strategic drivers shaping the future in terms of how the public accesses treatments and care such as, Review of Public Administration (2002), The Health and Social Care (Reform) Bill (2008), a Healthier Future – NI Health and Social Care Services Strategy for Health and Wellbeing (2004); Programme for Government and Priorities for Action (2008); Developing Better Services (2002); Caring for People Beyond Tomorrow (2005); Investing for Health; and the Bamford Review of Mental Health and Learning Disability (2006). These and other regional specific policy initiatives have had and will continue to have a significant impact on how health and social care services will be organised and delivered going forward. The over-arching policy environment has also changed since the last review was undertaken with the re-establishment of devolved Government in Northern Ireland in 2007 and the requirement for public service to be more responsive to local needs.

Many of these regional policies highlight a shift in emphasis in the way health services are delivered, from a previously hospital-based model of care to one much more reliant on community-based service provision. This includes a greater emphasis on day-patient and out-patient clinics that provide primary care and chronic disease management services. Personalisation of services is another key theme, with services increasingly tailored to meet the needs of the individual patient.

In addition to meeting the increased demands due to ongoing service changes and developments, the medical workforce faces numerous other challenges to the way it delivers services within the resources available. These include:

- increased pressure to demonstrate greater accountability;
- proactive implementation of clinical governance;
- increased demand for the placement of more specialists in community settings;
- increased role of General Practitioners in the strategic management of health care as well in as its delivery; and
- increased focus on more multidisciplinary / interagency working.

The sub-sections below provide an overview of some of the key policies and strategies impacting on health and social care in Northern Ireland since the last review.

2.2. Review of Public Administration

The aim of the Review of Public Administration (RPA) was to decrease bureaucracy in public administration structures and release resources to frontline services. In health, RPA has resulted in significant structural change beginning with the establishment of five new integrated Health and Social Care (HSC) Trusts (Belfast, Northern, Western, Southern and

South Eastern) replacing the former 19 legacy Trusts on 1 April 2007. The Health and Social Care (Reform) Bill enacted on 1 April 2009, enabled a wide range of other structural change within the health and social care sector including the establishment of:

- a single Regional Health and Social Care Board to replace the previous four Health and Social Services Boards;
- a Regional Agency for Public Health and Social Well-being;
- a Regional Support Services Organisation; and
- a single Patient and Client Council to replace the previous four Health and Social Services Councils.

2.3. Comprehensive Spending Review (CSR)

Under the Comprehensive Spending Review, each of the five new Health and Social Care Trusts across Northern Ireland are expected to achieve 3 per cent savings, for each year over the CSR period until 2011.

These targets are to be achieved concurrently with the targets for improved access to services, reduced waiting times, and a reduction in the period of time spent in hospital. This places significant pressure on workforce resources, especially when considered in the context of other demands such as ongoing service change and development, the shift in services away from a hospital setting and into the community, and increasing demands for working practices that facilitate and encourage work-life balance.

2.4. Regional Strategy for the Health and Personal Social Services 2005-2025

Published for consultation in December 2004, the strategy represented a vision for health and wellbeing in Northern Ireland, providing guidance for the future direction of health and social services for the next 20 years.

Changes to the organisational framework for the delivery of health and social care under RPA will provide an opportunity to create a system for health and social care services and health promotion that can deliver more effectively on the vision, strategic themes and policy directions set out in *A Healthier Future*, in particular:

- developing knowledge and skills across the health and social services workforce;
- utilisation of people's skills to their full potential to meet growing pressures on the service; and
- improved access to flexible working opportunities that promote work-life balance.

2.5. Programme for Government 2008 – 2011

The new Executive's first Programme for Government sets out plans and priorities for 2008-2011 agreed after public consultation, together with some longer term aspirations and intentions. These priorities are encapsulated within 23 Public Service Agreements (PSAs), three of which relate specifically to health and social services:

- PSA 6 Children and Family;
- PSA 8 Promoting Health and addressing Health Inequalities; and
- PSA 18 Deliver high quality Health and Social Services.

Each health PSA is underpinned by a Delivery Agreement that has been drawn up collaboratively but under the leadership of the Department of Health and Social Services (DHSSPS). The Delivery Agreements lay out specific targets to be achieved by 2011 in furtherance of the PSAs.

Achieving many of the targets set will depend on the existence of an efficient, comprehensive health and social care service that has sufficient resource to meet service needs.

2.6. Priorities for Action: 2008 - 2009

In addition to the three-year PSA targets, the Minister for Health, Social Services and Public Safety publishes annual Priorities for Action (PfA) which specify a number of areas with associated targets where the Minister requires particular focus is to be given to improving performance during the course of the year. Priorities for Action 2008/9 emphasises the Minister's expectation, that the public will see continuing and substantial improvement to services.

The PfA document also includes a number of associated Ministerial standards, targets and actions where performance improvement is required during 2008-09 but for which there is no equivalent PSA target.

The 10 priority areas detailed in the PFA document are as follows:

- improving health and well-being;
- ensuring safer, better quality services;
- improving acute services;
- ensuring fully integrated care and support in the community;
- improving children's services;
- improving mental health services;
- improving services for people with a disability;
- ensuring effective financial control and improved efficiency;
- improving productivity; and
- modernising the infrastructure.

2.7. Developing Better Services

Developing Better Services (DBS) is a programme of modernisation and change within the Northern Ireland health service that acknowledges that a high quality service demands modern, fit-for-purpose facilities and equipment that put the needs of the patient first.

A key aim of DBS is the development of a new network of hospitals that will rationalise the number of acute hospitals, encouraging services to be provided, where possible in the community or on an out-patient basis.

Each Trust is responsible for the implementation of its own infrastructure plans. It is envisaged that the following will be in place over the next few years.

- by 2010, Ulster Hospital Phase A due to be completed;

- by 2010, Portadown Health & Care Centre due to be completed;
- by 2010, Gransha Mental Health Crisis Centre due to be completed;
- by 2010, Regional Adolescent Psychiatric Unit & Child and Family Centre due to be completed;
- by 2011, first stage of Altnagelvin Phase 3 due to be completed;
- by 2011, Royal Phase 2 B due to be completed; and
- by 2011, Health & Wellbeing Centres Phase 2 due to be completed

3. Contractual Changes and Other Developments

It is important that this review includes an analysis of the range of recent contractual changes and other developments currently impacting on the medical professional workforce and likely to affect workforce dynamics in coming years. This section focuses on key developments since the previous review was undertaken in 2005.

3.1. Modernising Medical Careers (MMC)

MMC aims to improve patient care by delivering a modernised and focussed career structure for doctors through a major reform of postgraduate medical education. It is underpinned by a policy objective of moving towards a service that is largely delivered by trained doctors, with less reliance on junior doctors, and a greater degree of supervision by trained doctors over their less experienced colleagues.

MMC reform is based on seven key principles of training:

- trainee centred;
- competency assessed;
- service based;
- quality assured;
- flexible;
- coached; and
- structured and streamlined.

The first post graduate reform under MMC was the replacement of the Pre-Registration House Officer year with a two year Foundation Programme consisting of a series of placements in a variety of specialties and healthcare settings with specific learning objectives for each stage, meaning that Junior Doctors now complete a larger number of shorter clinical placements.

In addition to the implementation of the Foundation Programme, MMC revised the structure of hospital specialist and general practice training. Training for general practitioners was also extended. Senior House Officer (SHO) and Registrar grades were replaced by Specialty Registrars. Run-through Training and Fixed Term Specialist Training posts (FTSTA) were also introduced as part of the new structure. Section 4 provides further detail on changes to the structure of the medical workforce under MMC.

A new centralised selection and recruitment system for all Junior Doctor posts was introduced in 2005. Recruitment to foundation posts in 2005 in Northern Ireland and seven other deaneries was carried out via a centralised application process (MDAP) which was subsequently adopted nationally in 2006.

Implementation of the centralised application system (MTAS) in 2006 across the UK, was unsuccessful resulting in widespread concerns about the recruitment process with the validity of eligibility and shortlisting criteria coming under scrutiny. Of particular concern was the potential to exclude more experienced candidates from applying for Specialist Registrar posts because they did not meet the additional exam criteria.

These concerns culminated in a review of the recruitment process being instigated by the Secretary for State for Health (Patricia Hewitt) and in May 2007, an independent inquiry into MMC was requested. This was subsequently undertaken by Sir John Tooke.

The Hayes Report – Review of Recruitment into Specialty Training in Northern Ireland (September 2007)

Subsequent, to the Tooke Report being commissioned the Minister for Health, Social Services and Public Safety, commissioned a Review of the Recruitment Process into Specialty Training in Northern Ireland in May 2007. The aim of the review was to develop a regional recruitment framework for postgraduate doctors in training that charted a local way forward for 2008 and beyond, helping to restore the confidence of the medical profession in the system. The Review commended NIMDTA for its effective handling of the problems that arose with MTAS and provided specific recommendations around the 2008 recruitment process including:

- commencement of recruitment into specialty training to begin in November 2007 and managed locally by the Northern Ireland Medical and Dental Training Agency (NIMDTA);
- appropriate communication by NIMDTA of the revised process and timescales to all trainees;
- ensure that the recruitment process remains part of the national framework as regards timescales so that local Junior Doctors can avail of opportunities to train outside Northern Ireland;
- use of a locally designed application form by doctors in training that is compatible with those used elsewhere in the UK; and
- continued use of the shortlisting and interview process used in 2007.

In formulating its recommendations, the Review Team recognised the need to take account of national reforms resulting from the Tooke Report.

The Tooke Report: Aspiring to Excellence (January 2008)

The Review of Modernising Medical Careers examined the framework and processes underlying MMC and made recommendations to inform improvements for 2008 and beyond.

Specifically the review sought to clarify and strengthen the principles underlying MMC, examining the extent to which it had engaged the medical profession and making recommendations to ensure that it would continue to engage them in the future. The review also sought to examine the implementation processes underlying MMC and the methods used in selection and recruitment, with the overarching aim of developing a flexible response that reflects local needs across the UK as well as safeguarding national standards.

The report addressed issues such as the role of medical professionals, education and training, postgraduate training and workforce planning. In particular the report identified:

- a need for shared understanding of the roles of medical professionals that takes into account service contribution of the respective doctor grades; public expectations, and interagency and multidisciplinary working;

- education and training that supports the development of the redefined roles for each professional grouping;
- a need for better educational links with service in relation to postgraduate training; and
- inconsistent policy objectives regarding self sufficiency in relation to doctor supply and the need for strong professional involvement in this activity to ensure plans are co-owned and supported and to ensure that those with insight into the likely evolution of specialty practice are able to influence policy.

On the back of the Review the Department of Health (DH) England, issued consultative proposals for changes to MMC England processes in 2008. Key proposals are still at consultation stage, with future direction yet to be clarified around potential changes to MMC – for example - increased duration of postgraduate training (including increasing GP specialty training from three to five years), the future of Foundation Level 2 and the structure of core training.

3.2. Contractual Changes

As discussed in the 2006 report, **Consultants** work within the terms of the contract provisions introduced in 2004 which aimed to provide a more effective system of planning and timetabling consultants' duties. The 2004 contract changed the measure of consultant's work, and attaches a time value to programmed activities which is intended to provide greater transparency about the level of commitment expected of consultants by the health service, providing for part-time working where required. Consultants have reported that such planning can often being time-consuming meaning that they have less time to focus on clinical facing activities and suggesting the potential for further development of the contract and the job planning process to meet its original objectives.

A new **GPs** contract was also introduced in April 2004 and was designed to bring about a range of improvements in primary care including:

- improved access to services by local people through Health and Social Services Boards commissioning enhanced services to encourage the development of a wider range of services closer to home;
- fairer funding to remove historic anomalies and reflect the needs of patients and the local community;
- GPs will be better able to manage their workloads;
- better management of chronic diseases through a new framework which rewards improvements in clinical standards; and
- improved organisational standards through rewarding well-maintained records, more effective communication with patients, including patient surveys.

A new contract for **non-consultant grade doctors** was introduced in 2008 following UK-wide negotiations. The new contract introduced a new grade called "Specialty Doctor" and a new contract for Associate Specialists. As a result, the old Associate Specialist grade closed to new entrants from 31 March 2008, although eligible doctors continued to have the opportunity to apply for personal re-grading until 31 March 2009. The new Specialty and Associate Specialist contracts are perceived as providing an opportunity for this group of

doctors to have a rewarding career with progression to the top of the grade over a number of years whilst gaining experience and extending and developing their skill base. A key element of the new contract is the introduction of job planning, appraisal and portfolios to evidence development and underpin progression.

In addition to these contractual changes, reform of professional regulation for doctors means that Consultants, SAS grades and GPs are now required to comply with regular revalidation and training obligations.

3.3. NIMDTA

The Northern Ireland Medical and Dental Training Agency (NIMDTA) is the organisation responsible for ensuring postgraduate training in Northern Ireland meets standards set by the Postgraduate Medical Education and Training Board (PMETB).

Following the abandonment of the UK-wide specialty recruitment process NIMDTA now has responsibility for designing and delivering the regional recruitment process for specialty training and for delivery of the Foundation training programme in Northern Ireland.

3.4. European Working Time Directive

The European Working Time Regulations were introduced into Northern Ireland in 1998 to protect the health and safety of workers by introducing minimum rules for daily and weekly rest periods, rest breaks, annual leave entitlements, length of working week, and night work. From August 2004, legislation limited junior doctors' working hours to a 58 hour week, with strict arrangements for rest requirements. From August 2007, this working week was limited to 56 hours per week and it is envisaged that this will be further reduced to 48 hours by August 2009. Within these hours, doctors in training are entitled to certain rest provisions including, for example, a minimum of a 20 minute break when shift exceeds 6 hours, and 11 hours continuous rest in every 24 hour period.

The reduction in junior doctors' working week poses significant challenges to the medical workforce to ensure compliance with EWTD. Additional duties may fall to other members of the medical workforce or other health professionals. As a result, Trusts will increasingly be required to develop different skill-mix profiles, and in the short-term may rely more heavily on locum staff to provide cover necessary to ensure that service needs continue to be met.

Despite the potential imposition of heavy penalties, non-compliance with EWTD is high across the five Northern Ireland Health and Social Care Trusts (there is no evidence to suggest that any Trust has been penalised to date for non-compliance). Recent research conducted by the DHSSPS Implementation Support Group (ISG Autumn 2008) found that the average level of compliance across the Trusts was 40 per cent, the lowest level of compliance was 24 per cent and the highest was 51 per cent. Despite these figures, the report suggests that levels of compliance could be significantly improved by the implementation of internal measures by each of the respective Trusts. It is anticipated that implementation of such measures could improve compliance to an average rate of 77 per cent across Trusts.

3.5. Hospital at Night

The Hospital at Night concept proposes that the way to achieve effective clinical care at night is to have one or more multi-professional teams who between them have the full range of skills and competences to meet patients' immediate needs.

It aims to redefine how medical cover is provided in hospitals during the out of hours period. Fundamentally, Hospital at Night has been used to help solve some aspects of the EWTD. The essentials are to have a reduced number of doctors, working with other professionals as a team, rather than in their "home" speciality. This team should, with coordination of nursing, medical and paramedical staff, be able to cover nights and secure patient safety overnight, with more senior and expert senior doctors at home and available to be recalled.

In Northern Ireland, Hospital at Night has been piloted for several years in the Daisy Hill Hospital. On the back of the success of this programme, a second programme was introduced to Craigavon Area Hospital at the beginning of February 2009. Further investment in Hospital at Night in the lead up to August 2009 now sees every Trust in Northern Ireland with a Hospital at Night project at various stages of development.

A National evaluation of the approach commissioned by the NHS found that in general professionals had positive experiences around the implementation of key elements of the Hospital at Night programme; patient care was perceived to be improved and its impact on training was also positive. The evaluation also found that less-urgent work was put off until the night-time. In relation to the achievement of national performance targets in the areas of A & E waiting times, cancelled theatre operations and inpatient waiting times, the programme had no noticeable impact.

3.6. Overseas Doctors (Tier One Visa Requirement)

On 6th February 2008, Britain introduced a new points-based immigration system which sets out criteria for entry. This replaced the former Highly Skilled Migrants Programme under which overseas doctors could qualify for entry to work in the UK.

It is anticipated that the new regulations will reduce the number of new non-national applicants for postgraduate medical training across the UK by an estimated 3,000 to 5,000 during 2009. However, this may be counterbalanced by the growth in number of graduates exiting UK medical schools, and by the arrangements in place allowing non-national doctors in training already in the UK under the Highly Skilled Migrant Programme (HSMP) to extend their stay in the UK if they can qualify under the new system.

In relation to Northern Ireland, there is concern that the new regulations will have a significant negative impact on the HSC's ability to recruit sufficient levels of overseas doctors to supplement local recruits and meet service needs. Anecdotal feedback indicates that the new regulations have meant that overseas trained doctors are bypassing the Northern Ireland medical profession in favour of opportunities in the United States, Canada and elsewhere. As regards training posts, while NIMDTA reports that the recent changes in Immigration regulations have had a significant impact on ensuring filling of all training posts, the combined efforts of all stakeholders to attract excellent young doctors to Northern Ireland has ensured fill rates have remained high. As of 15th June 2009 100 per cent of F1 places were filled, 98 per cent of F2 places were filled and 98 per cent of post Foundation places were filled.

3.7. Summary

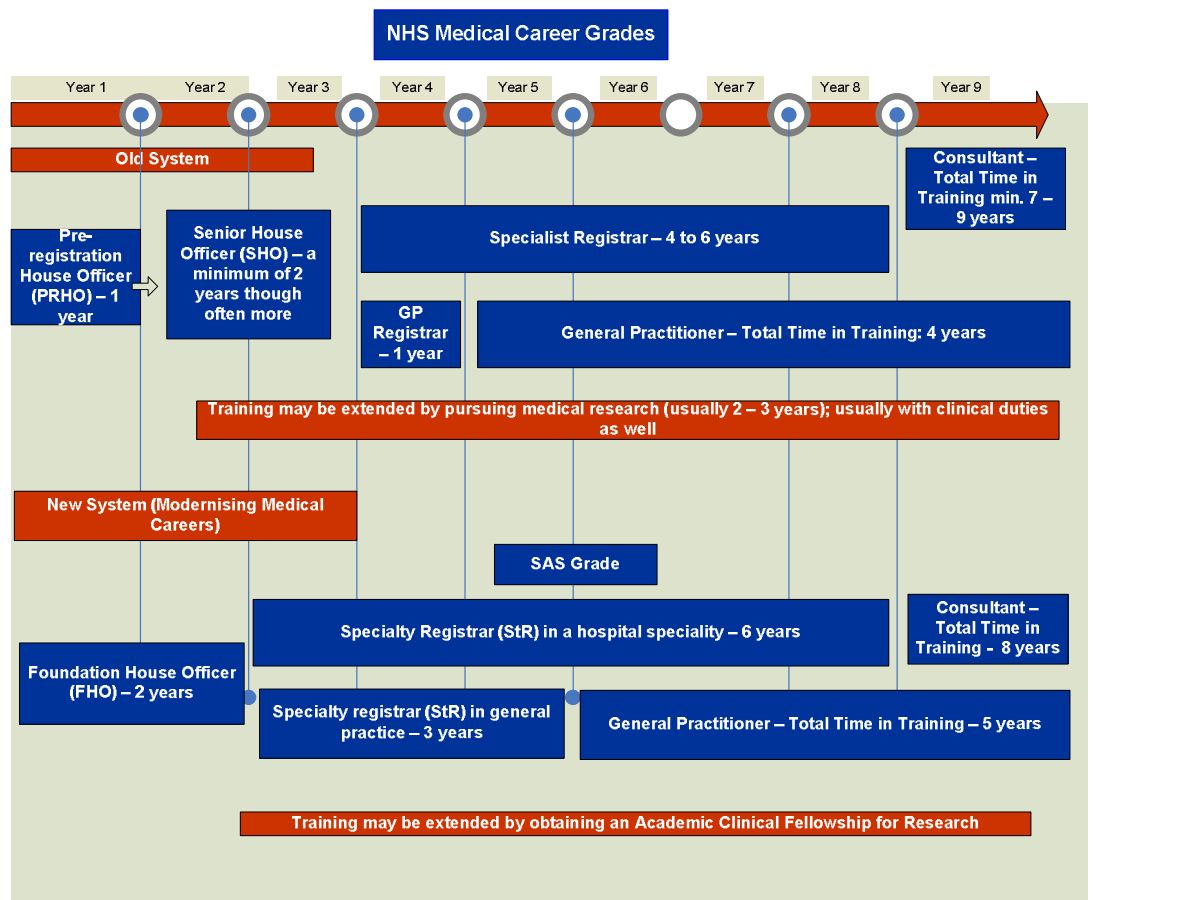
This section has described the key contractual and other changes impacting on the medical profession since the 2006 review. Of particular significance are:

- Implementation of MMC and associated changes to training and workforce structure;
- Introduction of the new Specialty Doctor grade with new contracts for this and the Associate Specialist grade;
- Continued implementation and need for compliance with EWTD especially as Junior Doctors' hours are set to be further reduced post August 2009 and how that will have a knock on effect on functions to be picked up by Consultant and SAS grade staff; and
- The introduction of the new Tier 1 visa system and its potential impact on the ability to recruit overseas doctors into the Northern Ireland HSC system.

4. The Structure of the Medical Workforce

This section sets out the current career structure for doctors as amended under MMC. This section should be reviewed in conjunction with Figure 4.1 which compares the current career structure for doctors and the grades currently used under MMC with those pre MMC (as per the 2006 workforce review).

Figure 4.1
Current Career Pathways for Doctors in Training



4.1. University Graduates

Students require 5 -6 years¹ at University before they are able to commence their Foundation Programme training. The intake of undergraduates into first year Medicine at Queen's University Belfast (QUB) in 2005 increased from 180 to 262. These students are due to graduate and enter the Foundation Programme in 2010.

Figures obtained from QUB (as at December 2008) show the following numbers of undergraduates currently studying medicine by year of cohort:

- fifth year – 200 (due to graduate and enter F1 August 2009);
- fourth year – 214 (due to graduate and enter F1 2010);
- third year – 268 (due to graduate and enter F1 2011);
- second year – 267 (due to graduate and enter F1 2012); and
- first year – 270 (due to graduate and enter F1 2013).

The number of graduates available to enter the Foundation programme each year is difficult to estimate. While attrition rates per year are low at approximately 5-6 per annum, the final number in each undergraduate cohort is impacted by students withdrawing temporarily then returning, those taking up intercalating degrees (QUB is actively promoting intercalation) and those repeating years. For example, there are currently 214 fourth year students due to graduate and enter the Foundation programme in 2010 – this is a significant decrease from the originally commissioned number for this cohort (approximately 250). Conversely there are currently 268 third year students due to complete in 2011 but due to intercalation, repeats and temporary withdrawal, the final cohort may be closer to 280.

Although the projected continued increase in graduate numbers from QUB is demonstrative of a good pool of graduates to recruit from, this may also have implications for students' ability to secure a Foundation level position or place within their preferred area of specialty. There is already evidence of this with involuntary attrition of approximately 21 QUB graduates to outside of Northern Ireland this year, despite 96 per cent of QUB final year students showing a preference to complete their Foundation training in Northern Ireland.

4.2. Foundation Training

Established in August 2005, the Foundation Programme provides a comprehensive grounding in practical primary and secondary care, and in particular the development of core clinical skills required to identify and care for the acutely ill patient. The two year foundation programme requires doctors to demonstrate their abilities and competence against set, common standards, offering doctors the chance to gain insight into possible career options and to build a wider appreciation of medicine before embarking on specialist training.

Foundation training is supported and overseen by the postgraduate medical deaneries (foundation schools), and is structured in a way that brings together medical schools, post graduate deaneries and health care providers to provide training in a variety of specialties and settings (acute, community, mental health and general practice).

¹ Students opting for Intercalated Courses (when a student opts out temporarily of the 5 year program to do an isolated year of research for a BSc thus extending their course to 6 years and deferring graduation).

The Foundation Programme represents the transitional stage between medical school and specialist training. All UK medical graduates are required to undertake foundation training before progressing to specialty or GP training.

The first year of the Foundation Programme reflects the previous PRHO year and is designed to build upon the knowledge, skills and competencies acquired in undergraduate training. The learning objectives for this year are set by the General Medical Council. F1 posts in Northern Ireland consist of a minimum of 4 months medicine and 4 months surgery. Posts are available for 4 or 6 month periods.

The second year of the Foundation Programme builds upon the knowledge, skills and attributes developed in the first year. The F2 year encompasses the generic competencies applicable to all areas of medicine including: team working, the use of evidence and data, time management, communication and IT skills, although the main focus of training is the assessment and management of the acutely ill patient. There are 3 four-month posts in every F2 programme and it comprises of a range of specialities, to include General Practice, Obstetrics & Gynaecology, Accident & Emergency, Paediatrics, Psychiatry and Public Health among others.

Fourteen foundation training programmes were provided by hospitals within the Northern Ireland Deanery in 2007, each programme providing a range of experience in:

- General Medicine and medical specialties;
- General Surgery and surgical specialties;
- Paediatrics;
- Psychiatry;
- Obstetrics and Gynaecology;
- Accident and Emergency; and
- General Practice.

There are currently 234 posts available in total at both Foundation 1 and Foundation 2. These posts are set to increase to 250 in both years by 2011. These additional posts will be fully funded by DHSSPS.

4.3. Specialty Training

Since August 2007, Foundation Training has been directly followed by structured Specialist Registrar / GP Registrar training programmes, which are used to train doctors up to the specialist level needed to become a consultant doctor or GP. Entry to these training programmes is highly competitive particularly within certain specialties such as surgery.

Training in the Specialty Registrar (StR) grade requires steady progress through planned programmes, usually 4-6 years as designed to meet the curricular requirements of the Royal Colleges and Faculties and delivered to standards set by PMETB. These programmes consist of a planned series of posts/placements at three progressive levels - ST1, ST2 and ST3. In Northern Ireland, the number of available training posts required for each specialty is determined by DHSSPS.

Specialty Training may consist of Run-Through Training covering both the early and more advanced years of specialty training, or 'uncoupled' training comprising on average two years of Core Training followed by open competition for higher specialty training.

Successful completion of Core Training provides eligibility to apply for, in open competition, higher specialty training programmes and SAS posts. It contributes to, but does not lead directly to, the award of a Certificate of Completion of Training (CCT), Certificate confirming Eligibility to the Specialist Register (CESR) or Certificate confirming Eligibility to the GP Register (CEGPR).

4.4. General Practice Specialty Training

GP Registrars are doctors training to enter General Practice. Once qualified, GPs can practice as GP Principals or in a salaried capacity working to a Principal.

Trainees can apply directly from the Foundation Programme for vocational training for general practice. NIMDTA figures for those entering GP training show that of the 65 posts filled, 34 trainees came directly from Foundation level. The remainder were trainees already in StR training. All trainees were Northern Ireland based. Attrition within the GP training grade is very low - only one GP Registrar left training last year.

Under MMC, GP Registrars are offered a more comprehensive form of training which aims to provide a better understanding of the broad practice of medical care and, in particular, to provide doctors with a better insight into the relationship between primary and secondary care. Foundation level 2 doctors now have the opportunity for a placement in general practice.

4.5. Certificate of Completion of Training

Successfully completing a specialty training scheme leads to the award of a Certificate of Completion of Training (CCT). The number of years that a doctor spends in training before being awarded CCT varies from programme to programme (most specialties require at least 5 years experience). Once a doctor receives a CCT, they become legally eligible for entry to the specialist or GP register which enables them to apply for Consultant or senior GP positions.

Data provided by NIMDTA demonstrates that 61 trainees satisfactorily completed their specialist training and were awarded the CCT in 2008, enabling them to apply for Consultant posts. Over the last three years, the number of CCTs awarded has been relatively constant.

Of the 61 doctors awarded CCT in the year ending 2008, 40 per cent (24) were appointed to consultant posts, 30 per cent (18) took up fellowship posts, 12 per cent (7) took up locum posts, 16 per cent (10) opted to avail of a period of grace (P.O.G). All trainees who have received their CCT are entitled to a further 6 months before their training contract is terminated to allow them time to apply for consultant, fellowship, and locum posts. Trainees can begin to apply for consultant posts 6 months before CCT so some will not require the full 6 months.

4.6. Fixed Term Specialty Trainee Appointments (FTSTA)

As the name suggests, these appointments are for a fixed term contract (1 year) within a particular specialty, and offer training that broadly reflects the first and second years of specialty training (i.e. ST1 and ST2).

FTSTA posts are predominantly undertaken by trainees who were not successful in securing a specialty training post or feel that they would benefit from further training experience

within a particular specialty. FTSTA posts provide these individuals with an opportunity to further develop their skills and get more experience within a specialty that they are interested in, making them more competitive when applying for subsequent specialty posts.

FTSTA posts must be applied for annually and no more than one year can be spent in an FTSTA post for any given specialty. Doctors are encouraged to undertake no more than 2 FTSTA posts in their career.

4.7. Flexible Training (Less than full-time Training)

All doctors in training can apply for less than full-time training (LTFT) which ensures that doctors who are unable to train on a full-time basis are retained within the health service. LTFT allows doctors to work less than full-time in posts that are fully recognised for training and have the educational approval of the Postgraduate Dean and the Royal Colleges. StRs for example, have worked in flexible supernumerary posts, job shares or working in 'full time' posts but working less than full-time with the agreement of all those concerned.

There are a limited number of flexible training places which are managed by NIMDTA. Candidates must justify that training on a full time basis would not be practicable. During the period 2007 – 2008, 53 doctors were facilitated to work on a less than full time basis; with the highest number of LTFTs recorded within Psychiatry (11) and Anaesthetics (9).² The majority of LTFTs have been women.

The provision of flexible training continues to be difficult. During the MTAS process, demand was assessed to be around 13 per cent. The present rate of 3 per cent is therefore clearly not meeting demand. It is envisaged that demand is likely to continue to increase, not only in GP but also in anaesthetics, obstetrics & gynaecology, paediatrics and psychiatry.

Having said this however, it is envisaged that MMC may better facilitate a 'step-on – step off' approach which could greatly improve the opportunities for women and men to work flexibly or perhaps take breaks in their careers.

4.8. Specialty Doctor and Associate Specialist Grades (SAS)

Formally known as Non-Consultant Career Grades, the SAS grades provide a career path for medical professionals who do not want to necessarily pursue a career as a consultant.

These posts often offer more flexible conditions with regards to working hours and requirements to participate in on-call arrangements. As such, they are seen to be a particularly attractive option for professionals seeking to balance work and other commitments. Women make up 62 per cent of the grade (253 out of a total headcount of 407).

Entrants to SAS grade are primarily from FTSTA and Trust grade positions and historically few enter this route from StR training. NIMDTA figures indicate that only one professional in StR training decided to pursue a career within SAS grade in 2008 / 2009.

4.9. Trust Grade Doctors / Others

Known by several different titles, Trust grade doctor positions sit outside of the core training and career pathway for doctors. They are used as a means by which HSC Trusts can employ additional doctors to meet service demand, above the DHSSPS ceiling on training grade

² NIMDTA Annual Report 1 April 2007 – 31 March 2008

numbers, which exists to prevent a bottleneck at specialist level. As these posts are not training grade posts they are not regulated by the Royal Colleges or the postgraduate deaneries. Trust grade doctors are employed mainly in the acute specialties with a significant number working at specialist registrar level. Their work is often indistinguishable from that of the training grades yet few trust doctors have regular appraisals, and there is typically no organisational strategy for their education and supervision. Consultations indicate that the incidence of Trust Grade doctors has increased since the introduction of EWTD. However, because they are unregulated, it is difficult to ascertain exactly how many there are. It is the intention that Trust Grade posts will be subsumed over time within the new SAS contract to address these career development and regulation issues.

4.10. Public Health Doctors

In Northern Ireland the public health workforce comprises a wide range of professionals including doctors, statisticians, and health promotion specialists and is divided across three distinct streams: Health Protection, Health Improvement and Commissioning. Public Health Consultants are employed under the same terms and conditions as consultants in other specialties following successful completion of specialty training of approximately five years and admission as a Member of the Faculty of Public Health (FPHM).

4.11. Clinical Academics

Clinical Academics are those doctors who not only treat patients, but are also responsible for educating medical students and for carrying out research into all aspects of health and disease. They are vital to educating the doctors and dentists of the future and to providing care at the highest of levels. Medical clinical academic posts in Northern Ireland are funded equally by QUB and DHSSPS.

5. Analysis of Current Position

5.1. Introduction

This section details the current level of provision of medical professionals, namely Consultant, GP, SAS Grade, Specialty Registrar, Foundation Level 1 and Foundation Level 2, GP and Other staff groups. The following characteristics of the current workforce are detailed in this section:

- headcount / whole time equivalent (WTE) by grade;
- age;
- gender;
- vacancies; and
- part-time / full-time working.

All of the information is based either on the HRMS annual return to the DHSSPS as at March 31st 2008, or on information provided by the Central Services Agency (CSA) and Northern Ireland Medical and Dental Training Agency (NIMDTA).

It is recognised that there may be discrepancies in the data due to differences in how information is recorded e.g. HRMS records a higher number of doctors at F1 and F2 than that recorded by NIMDTA because HRMS records all staff on payroll including those on sick leave or maternity leave. However, the overall data is considered robust enough for the level of data modelling required.

For the purposes of our analysis, figures exclude staff with a whole time equivalent of less than or equal to 0.03.

The key workforce trends are outlined overleaf.

5.2. Total Workforce Numbers

Table 5.1 shows the total number of medical professionals by grade as at 31st March grade in 2008 which, excluding GPs, translates into a headcount : WTE ratio of 1: 0.93. The total number of medical professionals employed in Northern Ireland has increased by 5.8 per cent (headcount) since 2006.

Table 5.1
Medical Staff working in the NI HPSS by Grade Group

Grade	Headcount	Foundation House Other*
Consultant	1,290	
SAS	407	345
Specialist Trainee	1,265	1,250
Foundation House Officer 1 & 2	487	483
Other*	200	103
Total	3,649	3,392
GP	1,490	Not Available

*Other includes but is not limited to Clinical Academics, Public Health Professionals and various unregulated medical positions.

Table 5.2 below compares the gender split across the medical profession between 2006 and 2008. The ratio of female to male professionals is now 43 per cent : 57 per cent compared with 40 per cent : 60 in 2006. Given the number of female entrants to QUB medical school, it is anticipated that this trend will continue.

Table 5.2
Medical Staff working in the NI HPSS by Gender (Headcount)

Gender	2006		2008	
	No.	%	No.	%
Female	1379	40	1562	43
Male	2055	60	2087	57
Total	3434	100	3649	100

Source: DHSSPS March 31st 2008. Figures exclude GPs.

Table 5.3 below compares the age profile of the medical profession between 2006 and 2008, which remains largely unchanged. Almost two-thirds of the profession are aged under 40 and a relatively small proportion (17 per cent) are aged 50 or over.

Table 5.3

Age Bands of Medical Staff (Headcount)

Age Band	2006		2008	
	No.	%	No.	%
<30	1026	30	984	27
30 - 39	1077	31	1180	32
40 - 49	746	22	835	23
50 - 59	469	14	520	14
60 - 69	112	3	125	3
70 -79	3	0	4	0
Total	3434	100	3649	100

Source: DHSSPS March 31st 2008. Figures exclude GPs

5.3. Consultants

HRMS data available as at 31st March 2008 showed that there was 1,290 headcount / 1,213.23 WTE Consultants working across the Northern Ireland Trusts representing an increase of 8.9 per cent WTE since March 2006. This reflects ongoing investment in Consultants since 2001 – the Consultant headcount has increased by almost 40 per cent between 2001 and 2008, from 928 to 1,290.

Table 5.4 below demonstrates that the Consultant group remains predominantly male. There are currently 369 female consultants representing 29 per cent of the total consultant workforce compared with 324 female consultants in 2006. This is in marked contrast to the balance of current intake of medical students to Queens University Belfast where 57 per cent of the admissions to first year in 2007/2008 were female.³

Table 5.4

Consultant Grade by Gender (Headcount)

Gender	2006		2008	
	No.	%	No.	%
Female	324	28	369	29
Male	847	72	921	71
Total	1171	100	1290	100

Source: DHSSPS March 31st 2008

³ QUB Medical School Data – January 2009

HRMS data available at 31st March 2008 showed that 43 per cent of the Consultant workforce was aged between 40 and 49 years with 29 per cent between 50–59. Seven per cent of Consultants are aged 60–69. The number of Consultants over 70 years has decreased by 7.25 per cent since 2006. This is consistent with feedback from consultations which indicated that Consultants in general are retiring earlier than would have been the case previously.

Table 5.5
Age Bands of Consultant Staff (Headcount)

Age Band	2006		2008	
	No.	%	No.	%
<30	0	0	0	0
30 - 39	256	22	273	21
40 - 49	491	42	551	43
50 - 59	343	29	371	29
60 - 69	78	7	90	7
70 -79	3.00	0	5	0
Total	1171	100	1290	100

Source: DHSSPS March 31st 2008

The number of Consultants working part-time has increased only slightly – 15 per cent of Consultants were part-time in March 2008 compared with 14 per cent in 2006. The headcount to WTE ratio is 1:0.94. While a trend towards flexible working patterns that better facilitate work-life balance has been anticipated it has not yet emerged at Consultant level. It is worth noting that the information available does not distinguish between those staff who have part-time HPSS contracts due to shared posts, such as with the University, those with “maximum part-time” contracts and those who are “genuine” part-time.

5.4. SAS Grades (Specialty and Associate Specialists Grades)

The SAS workforce covers specialty and associate specialist grades, formerly known as Non-Consultant Grades (NCGs). HRMS data presented in Table 5.4 below shows that the total number of SAS grade professionals has grown substantially, increasing from 277 in 2006 to 343 WTEs in 2008 (24 per cent increase). In headcount terms, the SAS workforce has more than doubled since 2001 (from 188 to 407).

Table 5.5
SAS Grade Staff working in the NI HPSS (WTE)

Grade	2006		2008	
	No.	%	No.	%
Specialty	224	81	267	78
Associate Specialist	53	19	77	22
Total	277	100	343	100

DHSSPS March 31st 2008

The SAS workforce continues to be predominantly female. Table 5.6 below shows that as at 31st March 2008, 62 per cent of doctors employed in this grade were female.

Table 5.6
SAS Grade Staff by Gender (Headcount)

Gender	2006		2008	
	No.	%	No.	%
Female	214	64	253	62
Male	121	36	154	38
Total	335	100	407	100

DHSSPS March 31st 2008

SAS grade doctors are, by comparison with the Consultant workforce, relatively young, with 42 per cent under 40 years and 77 per cent under the age of 50 years as at 31st March 2008.

Table 5.6
Age Bands of SAS Grade Staff (Headcount)

Age Band	2006		2008	
	No.	%	No.	%
<30	18	5	26	6
30 - 39	129	39	147	36
40 - 49	120	36	144	35
50 - 59	57	17	79	19
60 - 69	11	3	11	3
70 -79	0	0	0	0
Total	335	100	407	100

DHSSPS March 31st 2008

Information provided by HRMS shows that part-time working remains relatively common in this group compared with other grades – 36 per cent of SAS Grades work part-time (38 per cent in 2006). The headcount to WTE ratio in 2008 is 0.84 (0.86 in 2006).

5.5. Specialty Registrars

Based on March 2008 data, there are 1,250 WTE Specialty Registrars. This is more than double the number of Specialty Registrar WTEs recorded in March 2006 which can be attributed to the change in structure brought about by the introduction of MMC (re-allocation of former SHOs). Headcount to WTE ratio has stayed the same at 1:0.99. FTSTAs are also included within this figure.

Table 5.9 below shows that 45 per cent (575 HC) of Special Registrars are female compared with 42 per cent in 2006.

Table 5.9

Specialty Registrar Staff by Gender (Headcount)

Gender	2006		2008	
	No.	%	No.	%
Female	261	42	575	45
Male	367	58	690	55
Total	628	100	1265	100

DHSSPS March 31st 2008

Table 5.10 below provides a breakdown by age group for Specialty Registrars as at 31st March 2008. As expected, the majority (95 per cent) of the 1,250 WTE StRs are aged under 40.

Table 5.10

Age Bands for Specialty Registrar Staff (Headcount)

Age Band	2006		2008	
	No.	%	No.	%
<30	116	18	542	43
30 - 39	461	73	658	52
40 - 49	47	7	57	5
50 - 59	4	1	8	1
60 - 69	0	0	0	0
70 - 79	0	0	0	0
Total	628	100	1265	100

DHSSPS March 31st 2008

Information provided by HRMS shows that the percentage of the workforce working part-time has remained constant at 3 per cent in both 2006 and 2008.

5.6. Foundation Level 1 and 2

There are currently 483 WTE doctors working at Foundation Level 1 and 2 (487 by headcount). It is worth noting that there is a discrepancy between NIMDTA figures (449) and those provided from HRMS which reflect all professionals on payroll, including those who are currently on maternity/sickleave (but continue to receive salary) and those who have been employed to fill the resulting vacancies.

Table 5.11 shows that 58 per cent of foundation grade doctors are female – an increase of 12 percentage points since 2006. It is expected that the proportion of females will continue to decrease over the next few years as the majority of medical students currently studying at QUB are female.

Table 5.11

Foundation Grade Staff by Gender(Headcount)

Gender	2006		2008	
	No.	%	No.	%
Female	506	46	284	58
Male	603	54	203	42
Total	1109	100	487	100

DHSSPS March 31st 2008

Only 7 Foundation level staff are currently working on a part-time basis. Headcount to WTE has remained the same during 2006 – 2008 at 1:0.9.

5.7. General Practitioners (GPs)

Based on NIMDTA data sources, there are 1,490 (HC) GP principals in Northern Ireland. WTE data was not available for GP staff.

The age profile for GPs indicates a higher proportion within older age bands than is the case for Consultants – 45 per cent are aged 47 or over, compared with 36 per cent of Consultants aged 50 or over. Of the remainder, 20 per cent are aged 28-35 and 34 per cent are aged 36-46.

Data shows that the proportion of female GPs is similar to that in 2005 (35 per cent compared to 36 per cent in 2005) and that there has been an increase in part-time working (47 per cent report that they work part-time compared to 41 per cent in 2005).

It is known that there are also approximately 303 registered GPs in Northern Ireland who are not working as GP Principals compared with 213 in 2005. Many of these are working on a sessional or locum basis (217) but this figure of 303 includes retired GPs who are undertaking sessions on an ad hoc basis, those who are not working at all, and those who are predominantly working in hospitals but who do some out of hours work on an infrequent basis.

5.8. Other Medical Professionals

The 'Other' group consists of staff classified on the HRMS system as hospital practitioners, general/medical practitioners and medical officers. They mainly work in A&E, geriatrics, dermatology, community and family medicine. They are principally employed on a sessional basis – of the 200 people in this group, 132 (66 per cent) work on a part-time basis. For the purposes of this analysis, it is assumed that this figure includes Trust Grade staff although it is difficult to ascertain how many there actually are given that they are not regulated.

5.9. Summary

Key trends to note are:

- The increase in workforce between 2006 and 2008, in particular among SAS Grades (24 per cent rise) and Consultants (8.9 per cent rise);

- The high proportion of females in training grades - this is much higher than the proportion of women who are within the Consultant grade;
- The limited uptake of flexible working to date – the SAS grade continues to have the highest level of part-time working with low levels of part-time working in other grades. While data available for GPs is more limited, there is a suggestion that there is a growing trend towards part-time working within general practice.

6. Feedback from Consultations

6.1. Introduction

This section details the main themes as expressed through the key stakeholder interviews and focus groups. Most key stakeholders and focus groups were nominated by the Advisory Group to give a broad representation of the key themes that impact workforce planning in the medical professional workforce. Additionally, some individuals and groups were identified to represent a specific specialty grade or topic.

There are common themes that have emerged from the analysis of the interviews and focus groups which are shared across all groups and these are detailed below. The supply and demand issues specific to individual grades / specialties are detailed in Section 6.3.

Key stakeholders and focus group composition is detailed in Appendix II.

6.2. Shared Themes across all Grades and Specialties

6.2.1. Impact of Modernising Medical Careers

During our consultation phase it emerged that consultees continue to have some concerns about the impact on the broader medical workforce of the new Foundation Programmes and the transparency of the recruitment process from F2 to specialist training. Stakeholders noted their concern at the perceived reduced opportunity that Junior Doctors have to gain in-depth practical experience during Foundation training with only short periods of time spent across a limited number of specialties. Stakeholders also noted concerns as to the increased teaching and supervision input required from Consultants (this is despite the increase in numbers of Consultants by around 40 per cent since 2001). As described in Section 4.2 the Foundation programme aims to provide junior doctors with experience across a wide range of clinical settings and not to provide in-depth experience in any particular specialty. This is consistent with the aim of reducing reliance of the service on doctors in training.

6.2.2. European Working Time Directive

From August 2007 legislation limited Junior Doctors' working hours to a 56-hour week, with strict arrangements for rest requirements. From August 2009 the working week will be further limited to 48 hours of work per week. Consultees were of the view that EWTN has, and will continue to have profound effects on the delivery and continuity of medical care, and on doctors in training.

As the service continues to adapt to the EWTN requirements, stakeholders reported that there can be insufficient time for Junior Doctors to comprehensively carry out patient handovers or discharge notes which can lead to inadequate information about patient conditions and care being conveyed. This in turn impacts upon the quality and continuity of care being administered. This feedback highlights the importance of further development of Hospital at Night (see Section 3.5) and similar initiatives that use multi-professional teams to enhance continuity of care and reduce reliance on relatively inexperienced junior doctors.

As EWTD compliant systems are developed there is increasing pressure on Consultants, SAS and other non-consultants to provide extra cover to ensure junior doctor working hours and rota patterns are EWTD compliant (Consultees were of the view that non-compliance is high). Consultants reported that this means providing more service cover during unsocial hours with resulting reductions in availability during the day. Again this is consistent with the move towards a service delivered by trained doctors.

6.2.3. Overseas Recruitment

Consultees have found that there has been an increasing reliance on appointing staff recruited from overseas. What started out as a temporary measure has now become an important element of the workforce. Several consultees were concerned that overseas countries were being depleted of their 'indigenous' medical workforce and raised concerns about issues of social responsibility. The Department notes that recruitment does not take place from countries where this would have an adverse impact on their healthcare systems. In addition since transfer of responsibility for overseas recruitment to NIMDTA, doctors now receive high quality education which would be an asset to their local healthcare system on their return.

The experience of employing overseas doctors has, in the main, been positive. However consultees highlighted the level of difficulty that exists in comparing qualifications and experience with Northern Ireland educational attainment.

Some respondents commented that patient feedback has been mixed and that language barriers remain an issue which impact in some situations on patient care.

In relation to the recruitment of overseas doctors, a key concern among consultees was the potentially negative impact that the implementation of Tier 1 Visa legislation would have on the availability and ability of Northern Ireland Trusts to attract overseas doctors to supplement local workforce needs.

6.2.4. Earlier Retirement Age

A significant number of consultees highlighted the increasing desire across all grades of staff to retire early although this has been somewhat tempered by the impact of the current economic climate. There are a number of issues surrounding retirement that may significantly increase the number of retirees over the next 5-10 years. Factors contributing towards this include high levels of on-call work for consultants to ensure EWTD compliance for junior doctors and support the policy to reduce reliance on junior doctors. The financial implications of new contractual arrangements were also noted as a contributing factor.

A general trend toward retirement at 60 instead of at 65 is predicted by consultees which would shorten the average working life of a consultant by 15-20 per cent. That said, retirement age remains a matter of personal discretion and there are many issues that would affect an individual's choice, most of which are difficult to quantify and predict.

6.2.5. Wider Impacts of Specialty Shortages

There are a number of specialties, such as radiology, anaesthetics, psychiatry and laboratory medicine, where shortages in consultant staff in Northern Ireland reflect those throughout the UK. Within the province, there is a strategic overview as to

where the key shortages are but no strategic overview is taken with regard to which posts are priorities for filling, as appointments continue to be generally managed at an individual trust level. Shortages in one or more specialty area may impact significantly on the delivery of patient services across other specialty groups. For example, the national shortage of medical professionals within radiology greatly impacts other specialty areas such as oncology and further impacts upon patient waiting lists and use of patient beds. The Department notes that the specialities above have been priorities for further investment in specialty training and that the need for continued investment to meet local service demand is recognised.

6.2.6. Demand for Flexible Working / Work life Balance Issues

At present more than 45 per cent of Queen's University Belfast first year undergraduate medical students are female, as opposed to 27 per cent of current Consultants. Given the long timescale for training a doctor to consultant level (approximately 15 years), consultees highlighted that this is a major issue which should now be considered. It is felt that unless there is a concerted effort made to facilitate more family friendly policies, with flexible training and more imaginative working patterns (and in some areas a change in attitude), this will contribute to a significant shortage of consultants across all specialties in the future, and a high proportion of the current investment in undergraduate medical students will be lost. The traditional working life of consultants with long working weeks and a significant responsibility for out-of-hours emergencies may conflict with the lifestyle ambitions of contemporary generations. Consultees reported that more consultants, both male and female, are choosing to train and work flexibly and with the increased emphasis on improving working lives. On this basis, there is likely to be increased demand for flexible, part-time and job-share consultants.

6.3. Supply and Demand Factors by Grade

The tables within this section highlight the key supply and demand factors that were explored during our consultations with stakeholders representing each of the professional grades. Professional grades for the purpose of this review were determined by the Advisory Group to reflect factors currently having the greatest impact upon the medical profession.

Consultants	
Key themes emerging from stakeholder consultation stage	
Key Demand Factors	<p>Transition towards a Consultant delivered service and changing supervision and assessment requirements for junior doctors:</p> <ul style="list-style-type: none"> ▪ Reduced hours for Junior Doctors under EWTD means that consultants are required to provide necessary cover and fill in for unsociable shift patterns. ▪ Junior Doctors are less experienced on the ground as a result of MMC and EWTD; therefore require greater supervision. ▪ As a result of EWTD, the only continuity of care being delivered is by consultants. ▪ Assessment procedures to be carried out by consultants for Junior Doctors now much more complex and time consuming. <p>Non-transferability of skills to other medical staff due to specialist nature of role leaves little scope for development of skill-mix.</p> <p>Introduction of job planning under the new contract places additional pressure on staff and does not provide a true reflection of work being done.</p> <p>Use of e-portfolios is time-consuming and non-effective in terms of monitoring staff.</p>
Key Supply Factors	<p>High proportion of the workforce is female resulting in greater demands for flexible working. A change to male consultant's working patterns has also been noticed with increased requests for flexible working and contracts that reflect better work-life balance.</p> <p>Consultees were of the view that the changes brought about by MMC and EWTD mean there are 'less staff to do the work'. Coupled with new ways of working (e.g. Hospital at Night), the significant growth in Consultant and SAS posts, and increase in training places in recent years should provide additional workforce to help meet these demands.</p>

General Practice	
Key themes emerging from stakeholder consultation stage	
Key Demand Factors	<p>The transition to a more community based health service has resulted in a significant increase to GPs' workload, with many clinics previously hospital based now being facilitated out of GP surgeries. As GPs operate out of a target based system of work, there is pressure on GPs to undertake these additional clinics.</p> <p>Increased regulation and bureaucracy in the form of appraisals for revalidation and clinical governance place additional demands on GPs' time.</p> <p>Although EWTD does not impact directly on GP's, stakeholders reported that a very high percentage of discharge letters issued by Junior Doctors are inaccurate as Junior Doctors don't have sufficient time to complete thoroughly – GPs as a result have to spend time following up so that they have the correct information to provide patients with proper care.</p>
Key Supply Factors	<p>Despite a 30 per cent increase in the number of GP training places over the past year to 65 (NIMDTA Annual Review 2007/2008), this is still below the 75 training places recommended by the 2006 report. Key stakeholders intimated that even an increase to 75 would not now be sufficient to meet service demands, citing 85/90 training places as being more appropriate.</p> <p>According to key informants, the ratio of female doctors entering General Practice continues to increase, with 70 per cent of female currently in GP Specialist training. Consultees highlighted that there has been a growing demand for flexible working and an increased requirement for maternity cover. All of this is placing additional demands on the GP workforce and consultees predict that this will continue to grow as the proportion of females in general practice rises.</p> <p>General Practice continues to be an attractive career path but recent years demonstrate an increase in demand for salaried positions and a decrease in partnerships. This is due largely to the management responsibility inherent in the role of partner which is at odds with why the GP career path is so attractive to many: flexibility and work-life balance.</p> <p>GP practices are increasingly dependent on sessional doctors to provide maternity cover and cover additional workloads. Whilst Registration data suggests that there are a large number of sessional doctors seeking work, consultees would argue that the majority of sessional doctors are fully committed in terms of their capacity to take on work and access to sessional doctors on an ad hoc basis is virtually impossible.</p> <p>Consultees indicated that many doctors were happy to remain within sessional posts as these provide them with flexibility to work where and when they want.</p>

	<p>There are more GPs in their late 40's and 50's than there is within the consultant workforce (as noted in Section 5.7, 45 per cent are aged 47 and over). This combined with an increasingly part-time workforce has significant implications for the workforce going forward.</p> <p>Key stakeholders expect that an increasing number of GPs will opt to retire earlier over the next number of years, bringing the average age of retirement down. Key reasons for this relate to increasing levels of bureaucracy surrounding the profession. However, the current economic climate combined with the change in the retirement age under the new pension scheme may temper this trend.</p>
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Specialty and Associate Specialist Grade (SAS)	
Key themes emerging from stakeholder consultation stage	
Key Demand Factors	<p>Similar to Consultants, SAS consultees raised issues relating to the move towards a service less reliant on junior doctors and implementation of working arrangements compliant with EWTD:</p> <ul style="list-style-type: none"> ▪ reduced availability of Junior Doctors under EWTD and increased demands on SAS Grade doctors to fill in for Junior Doctors and to provide continuity of care and commitment to patients. ▪ Expectation that SAS Grade doctors provide teaching, training and assessment of Juniors Doctors – although consultants are responsible for giving ultimate sign off to Junior Doctors, SAS are typically responsible for providing ongoing supervision. Stakeholders noted that the new SAS contract only allows one supported professional activity (SPA) for learning and development which has resulted in an ongoing conflict between time to deliver patient services and time to deliver training. <p>Stakeholders argued that these factors place additional demands on SAS doctors whose role is likely to expand.</p>
Key Supply Factors	<p>Key stakeholders believe that the new SAS grade provides a more accurate depiction of their role and that SAS grades continue to be an attractive option for professionals (particularly female professionals) who seek flexibility and work-life balance within their careers.</p> <p>However, whilst the new SAS contract goes some way to addressing the issues regarding opportunities for career progression, professional accountability and linkages to the relevant colleges, there are still concerns about the availability and requirements for Continuing Professional Development (CPD) for SAS grade doctors. Consultees reported that there are currently insufficient opportunities for SAS doctors to progress. Opportunities therefore need to be developed, not only within grade but also to allow professionals to access specialist training leading to admission to the specialty register via Article 14. SAS grade doctors consulted with felt that career progression would be greatly facilitated by the development of a dean position specifically to look after this grade.</p> <p>In addition, there are concerns that some of the requirements under the new contract, for example the requirement to complete daily planners, combined with the impact of EWTD will negatively impact on the flexibility associated with the role.</p> <p>Due to increasing demands being placed on SAS grade doctors, an increasing number are availing of opportunities to retire earlier than previously was the case.</p>

Junior Doctors

Key themes emerging from stakeholder consultation stage

Key Demand Factors	<p>Key stakeholders were of the view that the cumulative effect of the Foundation Programme and EWTD is to shorten the time Junior Doctors have available to get the necessary training and concentrating on developing their skill set. As a result, there is a perception that trainees leaving F2 are not as clinically prepared as under the former rotation programme. This places additional pressure on other medical grades and health care professionals to perform functions previously carried out by Junior Doctors. Again, it is noted that this is entirely consistent with the policy to move towards a system where less experienced junior doctors are supervised and supported by more experienced doctors and other health professionals.</p> <p>There is concern that compliance with EWTD is poor and that Junior Doctors' rotas are vulnerable to absenteeism and maternity leave which results in greater reliance on locums to provide cover.</p> <p>Consultees argued that under EWTD, Junior Doctors find themselves dealing with many more patients (1 FHO:200 patients), for whom they have not received adequate handover instructions or case histories due to reduced hours. There is a perception that EWTD provides little scope for patient-centred development of services or continuity of care. This highlights the need for further development of EWTD-compliant working arrangements such as Hospital at Night that rely less on junior doctors and better utilise multi-professional teams to provide continuity and patient care.</p> <p>Prior to EWTD Junior Doctors received banding supplements to go into roles less sought after, e.g. Palliative, radiology, lab-based roles. These largely reflected work beyond 40 hours per week. Under EWTD working over 40 hours per week has decreased so supplements have reduced significantly. Stakeholders argue that this provides no incentive for Junior Doctors to pursue careers within these specialties.</p>
Key Supply Factors	<p>At a time when training places are being increased, Junior Doctors argue that there are now more training places than there are consultant opportunities available upon being awarded CCT. They suggest that training places should instead be determined relative to the expected future need for consultants. This raises the issue of the difference between demand for Consultant posts by Junior Doctors and the number of Consultants required (or that can be afforded) across Northern Ireland Trusts. This highlights the potential need to shape trainee expectations about the future career opportunities likely to be available in terms of the balance between Consultant and SAS Grade opportunities.</p> <p>The process around the implementation of MMC principles aimed at delivering Patient Safe doctors for the population of Northern Ireland and the mayhem that surrounded recruitment under the MTAS centralised national recruitment process system is perceived as having alienated Junior Doctors causing them to leave the NHS</p>

	<p>or emigrate overseas. It is noted that NIMDTA tracking of trainees indicates that only small numbers leave Northern Ireland on a permanent basis – most return to re-enter the medical profession.</p> <p>The Foundation Programme is perceived as being overly prescriptive in nature, not providing sufficient scope for Junior Doctors to make informed decisions, therefore forcing Junior Doctors into specialties where they have no genuine interest in pursuing a career, resulting in high attrition levels at later stages.</p> <p>Within the body of Junior Doctors, there has been a noticeable increase in the proportion that are female with a 80:20 female to male intake ratio at Queens University Belfast. Key stakeholders are concerned that this will have a further impact on compliance with EWTD as they argue that female professionals increasingly seek part-time hours and work-life balance options.</p>
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Clinical Academics	
Key themes emerging from stakeholder consultation stage	
Key Demand Factors	<p>Consultees highlighted the pivotal role of joint appointment consultants in the management and delivery of undergraduate medical education.</p> <p>Since 2000 the Medical Schools Council (MSC) has undertaken a regular survey of clinical academic staffing levels in UK medical and dental schools (annual since 2003). The most recent report, published in May 2009, examines data from 31 July 2008 and shows that apart from South East England, Northern Ireland has consistently had the lowest number of Clinical Academics across the UK despite significant increases in the numbers of medical students. There is currently the same number of joint appointment consultants in Northern Ireland as there was in 2000 despite a 45 per cent increase in medical students, major changes in the complexity of teaching medical students and the increased need to perform research compared to 10 years ago. Clinical Academics in QUB account for 60 WTE compared with 90-120 WTE within similar sized medical schools across the UK. Clinical Academics are the only Consultant group whose numbers have not increased in the past 10 years.</p> <p>Consultations also highlighted that in common with other academics, they are increasingly required to deliver research aimed at attracting funding to the university.</p>
Key Supply Factors	<p>Consultations revealed that there are currently 10-15 clinical academic positions vacant. Key informants highlighted a number of factors which may make the role of a Clinical Academic less attractive to potential candidates:</p> <ul style="list-style-type: none"> ▪ Financial disincentives; ▪ Poor work-life balance due to the demands of the role. <p>In addition to this, consultations indicated that there are also</p>

	<p>retention issues within some of the academic disciplines, particularly surgery which has lost 4 academics in 10 years.</p> <p>Consultees argue that there is a significant need for workforce planning across this group to ensure that sufficient numbers exist to support professional education and that the medical profession is informed by the latest thinking. They also noted strong evidence that clinical care of patients is highest in teaching hospitals. Although some workforce planning is currently performed by a Medical Student Management Group, representing the DHSSPS, the Northern Ireland Trusts and QUB, consultees consider this insufficient and highlighted the need for a more formal process, led by DHSSPS but representative of the Medical Profession as a whole.</p>
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Public Health Medicine	
Key themes emerging from stakeholder consultation stage	
Key Demand Factors	<p>Greater sub-specialisation is anticipated for Public Health Medicine Professionals, particularly as Health Protection, Health Improvement and Commissioning become more clearly delineated subspecialties in post-RPA structures. It is envisaged that training may become more specialist in response, reducing the transferability of professionals between roles.</p> <p>Demand and workload complexity is expected to increase across all three strands in public health, and Trusts are expected to have an increased demand for public health medics.</p>
Key Supply Factors	<p>Many of the current workforce are aged over 50, and will be eligible to retire within 5 – 10 years suggesting the need for succession planning. Organisational change under RPA may also prompt earlier than anticipated retirements.</p> <p>There are more females and greater demand for part-time working within this group than in many other medical specialties.</p> <p>Awaited implementation of RPA recommendations on public health means there is currently a recruitment freeze on hiring additional public health professionals. Vacancies are currently being filled by locums on an ad hoc basis and several trainees are now “time expired”.</p> <p>Demand for specialty training places currently outstrips supply. There are currently only 8 funded trainee posts in Northern Ireland. Additional training posts have been approved but funding is not currently available to support them.</p>

NIMDTA	
Key themes emerging from stakeholder consultation stage	
Key Demand Factors	<p>An increase in QUB medical student and Foundation places, (increasing to 250 for both level 1 and 2 by 2011) coupled with statutory training requirements from PMETB places additional pressure on clinicians and academics to provide adequate training.</p> <p>Any future increase in duration of Junior Doctors' training (e.g. extension of GP Registrar training to 5 years is being considered by Department of Health) would further increase this demand.</p> <p>Reduced availability of Junior Doctors to work long hours under EWTD, places additional demands on the workforce as other grades have to provide cover for Junior Doctors' shifts to ensure compliance with EWTD.</p>
Key Supply Factors	<p>Unsocial hours combined with the nature of the work involved means that a number of the run-through specialisms are undersubscribed, including Obstetrics and Gynae, Paediatrics, Accident and Emergency and Psychiatry for example. Under-subscription to these disciplines means that ultimately there will be a lack of consultants within these areas to meet demand. In terms of workforce planning, this means that consultants will have to be recruited from elsewhere to maintain service standards.</p> <p>Policy changes effected under MMC, and issues around recruitment into specialty has seen a number of Junior Doctors and consultants emigrate to pursue career opportunities elsewhere, although NIMDTA is now better able to track emigration and its analysis indicates that to date only a small number leave the Northern Ireland HSC service permanently.</p> <p>With an increasing number of females making up the pool of Junior Doctors and changing expectations of younger generations around their working lives, there is increasing demand for flexibility and the option to work part-time. Research provided by NIMDTA shows that 3 per cent of Northern Ireland Trainees seek flexible working. This is below the UK average of 4.6 per cent. Demand is highest in Wales is 8 per cent. The demand for part-time options in Northern Ireland has potential to increase.</p>

7. Predicted Supply & Demand

7.1. Introduction

In this section we present a series of workforce models that estimate the number of additional medical professionals required to meet service demands in Northern Ireland over a ten-year period from 2009 to 2018. The assumptions underpinning the workforce models have been devised in conjunction with the Advisory Panel and based on analysis of recent patterns within the workforce as detailed in Sections 5 and 6. Consistent with the policy to move towards a system with a greater reliance on trained doctors providing direct patient care, models have been developed to estimate the future demand for trained doctors i.e. Consultants, GPs and SAS Grades. Estimates are also made of the number of training grade doctors available to meet that demand, and the potential surplus or shortfall situation in each case.

7.2. Supply and Demand Assumptions

An overview of the supply and demand assumptions used to produce the workforce estimates is provided below. Full details of the estimates for each group and the assumptions used are provided in Appendix III.

7.2.1. Assumptions for Trained Doctors

The supply and demand factors estimated to have an impact on the future need for trained doctors are:

- Service Change and Development - changes to service demand, introduction of new and extended services, and reconfiguration of services towards greater community-based models of care are estimated to increase demand for trained doctors over the next ten years. Over the ten year period, this increase is assumed to be 20 per cent for Consultants and 30 per cent for SAS Grades and GPs;
- EWTD – reduced availability of junior doctors due to EWTD changes is assumed to translate into additional demand for trained doctors equivalent to 22 additional Consultants and 84 additional SAS Grade doctors;
- MMC – an allowance is included for Consultants to reflect additional supervision and assessment of junior doctors;
- Revalidation – an allowance is included for Consultants, SAS Grades and GPs to complete revalidation;
- Retirements – an average retirement age of 60 is assumed for Consultants, SAS Grades and GPs;
- Worklife Balance – it is assumed that there will be increasing demand for flexibility in working patterns to allow for greater work-life balance. A factor is applied for Consultants and SAS Grades at 1 per cent per annum initially, rising to 2 per cent. A higher factor (2 per cent per annum, rising to 4 per cent) is applied for GPs where a higher demand for flexible working is anticipated;
- Productivity and Skill Mix Gains – it is assumed that productivity gains (three per cent initially, decreasing to one per cent) will be realised in the Consultant,

SAS and GP groups reflecting current CSR plans. A further gain of one per cent per annum is assumed to be achievable through introduction of skill-mix initiatives;

- Vacancies and Absence – a factor is included to reflect existing long-term vacancies within each group. An additional factor is included to account for under-reported absenteeism.

In addition, a number of scenarios have been included to illustrate the impact of:

- reduced productivity gains – a 1 per cent per annum productivity factor is applied to illustrate the impact on each grade of not achieving the 3 per cent gain per annum assumed for the current CSR period;
- decreased rate of demand from service change and development – a reduced factor is applied to reflect a scenario where service development does not take place as quickly as expected e.g. due to financial pressures; and
- reduced demand for flexible working – a reduced factor is applied to illustrate the impact of lower than anticipated uptake of flexible working.

7.2.2. Assumptions for Junior Doctors

Assumptions are also applied to junior doctor numbers. For StRs these assumptions reflect the fact that as well as being ‘in training’ doctors at this grade also provide service, particularly in the advanced years of specialty training. These assumptions relate to:

- Work-life Balance – it is assumed that there will be greater demand for flexible working among StRs to accommodate work-life balance (1 per cent per annum initially, rising to 2 per cent);
- Vacancies and Absence – factors are included to reflect existing long-term vacancies at StR grade and to account for under-reported absenteeism;
- Training Places – the estimates reflect changes to the number of Foundation and undergraduate training places available; and
- Attrition – where information is available to indicate the attrition rates among students and junior doctors assumptions have been applied. This includes an assumed ‘loss’ of 30 per cent of those completing Foundation training each year who do not take up StR positions in Northern Ireland (based on NIMDTA data).

7.3. Workforce Models – Trained Doctors

Table 7.1 shows the estimated demand for trained doctors, supply available to meet it and the resulting surplus / shortfall. Commentary on the estimates is provided in the subsections below (7.3.1 to 7.3.3).

Table 7.1

Supply and Demand Estimates – Trained Doctors**Consultant**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Baseline	1,213	1,297	1,344	1,381	1,406	1,430	1,455	1,480	1,505	1,530
Net Demand	83	38	40	66	58	61	66	66	72	69
Available Supply	61	65	65	65	65	65	65	65	65	65
Surplus (Shortfall)	-22	26	25	-1	7	4	-1	-1	-7	-4

SAS

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Baseline	359	420	476	489	500	511	522	533	544	555
Net Demand	53	46	8	11	11	11	11	11	11	11
Available Supply	53	46	8	11	11	11	11	11	11	11
Surplus (Shortfall)	0	0	0	0	0	0	0	0	0	0

GP

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Baseline	1,490	1,545	1,600	1,655	1,700	1,746	1,791	1,836	1,882	1,927
Net Demand	69	71	96	107	132	130	120	130	132	136
Available Supply	65	65	65	65	65	65	65	65	65	65
Surplus (Shortfall)	-4	-6	-31	-42	-67	-65	-55	-65	-67	-71

Note: shortfalls/surpluses Are assumed to be met each year i.e. not cumulative.

7.3.1. Consultants

Based on the most recently available data from HRMS there are currently 1,213 WTE Consultants – this is shown as the baseline figure for 2009 in Table 7.1.

Key supply and demand dynamics for this group are:

- service change and development – changes in demand and service configuration are estimated to result in the need for an additional 243 Consultants over ten years;
- retirements – based on the age profile of the current Consultant workforce and an assumed average retirement age of 60, it is estimated that a total of 354 Consultants will retire between 2009 and 2018;
- EWTD – an estimated 22 additional Consultants are required to absorb the reduction in availability of junior doctors due to EWTD;
- worklife balance - increased demand for reduced working hours is estimated to result in a loss equivalent to 256 Consultants over ten years;
- productivity and skillmix benefits – if the forecast productivity and skillmix benefits are realised this will provide an increase equivalent to 359 additional Consultants over the next 10 years. The annual impact is greatest in the current CSR period when a 3 per cent productivity gain is assumed i.e. equivalent to 36-40 additional Consultants each year.

This results in a net demand of between 38 and 83 consultants per year. The number of doctors being awarded CCT each year and therefore available to take up consultant posts is currently 61. This number is assumed to increase reflecting growth in the number of undergraduate and Foundation places. This results in an initial shortfall of 22 in the first year as a result of long-term vacancies currently in the system. An almost equivalent surplus position arises in years 2 and 3 due to lower levels of retirement (assuming that current vacancies are fully resolved in 2010), followed by modest surpluses and shortfalls (less than 10) for the remaining period.

Result

The net result of these factors is a reasonably balanced picture for the Consultant workforce. Based on the assumptions above, the number of Consultants would increase significantly over the next ten years from 1,213 to 1,530 (a 26 per cent rise), but there will be sufficient supply to meet the net change in demand.

This suggests that across the Consultant workforce as a whole there should be limited requirement for external recruitment beyond the annual supply of StRs being awarded CCTs. However, it is important to highlight that this regional estimate does not reflect the variable duration of training and service demand for different specialties, which might lead to specific specialty surpluses and deficits. Detailed specialty planning will be required to address specialty specific training and recruitment needs.

Scenarios

In the event of lower than estimated gains from productivity improvements a higher consistent shortfall in Consultants would arise, suggesting the need for additional

external recruitment. A slower rate of service development would place less demands on the workforce and thus result in a consistent surplus of Consultants over the modelling period. Lower than estimated uptake of flexible working would increase the surplus significantly. It will be important to track these assumptions in the interim period to determine what impact they have.

7.3.2. SAS Grade

Based on the most recently available data from the DHSSPS' HRMS system, there are currently 359 WTEs in the SAS group (shown in Table 7.1 for the baseline year of 2009).

Key dynamics for this group are:

- service change and development – a need for an estimated 108 additional SAS Grade doctors is projected over the ten year period to respond to changes in demand and service configuration;
- EWTD – an estimated 84 additional SAS Grades are required to absorb the reduction in availability of junior doctors due to EWTD;
- worklife balance – increased demand for reduced working hours is estimated to result in a loss equivalent to 74 SAS Grades over ten years; and
- skill mix benefits and productivity – transfer of responsibility to other professions and improved productivity results in a total gain of between 9 and 14 doctors per year or 104 over ten years.

This results in an initially high net demand (53 and 46 in years 1 and 2 respectively), followed by a more modest demand of 8-11 for the remaining period. The number of StRs potentially available to take up SAS Grade posts (i.e. those with at least four years of post-Foundation training) is well in excess of this demand. With a current pool of 1,055 StRs in medical specialties and assuming an average training period of seven years, there is potentially over 450 doctors qualified to apply for SAS Grade positions each year. Therefore, it is assumed that all SAS demand can be met on an annual basis from the StR group.

Result

The net result of these factors is a balanced picture for SAS Grades. Based on the assumptions above, the number of SAS Grades would increase significantly over the next ten years from 359 to 555 (a 54 per cent rise), but the number of StRs with the required experience to take up SAS posts will be sufficient to meet this change in demand. This assumes that non-Consultant positions are attractive to doctors at this level and some shaping of career expectations may be required to ensure this is the case. Again it is noted that this regional estimate does not reflect the variable duration of training and service demand for different specialties, which might lead to specific specialty surpluses and deficits. Detailed specialty planning will be required to address specialty specific training and recruitment needs.

Scenarios

The scenarios testing reduced productivity gains, a reduced rate of service development and reduced uptake of flexible working have a marginal impact on this group due to the assumption that all demand is met each year. Reduced productivity gains increase the net demand by 7 per year in the first three years of the model. A

reduced rate of service development (e.g. due to financial pressures) results in a smaller demand for additional posts (4 per year compared with 11 in the standard model). Lower than estimated uptake of flexible working reduces the potential loss from 74 to 41 over ten years.

7.3.3. GPs

Based on the most recently available data from NIMDTA, there are currently an estimated 1,490 GPs.

Key dynamics for this group are:

- worklife balance – reflecting the views of GP consultees, the large proportion of women in GP training and the limited data available to verify current working practices, a more generous factor has been applied for worklife balance in the GP group than for other parts of the workforce. Applying the reduction in availability of GPs of 2 per cent in the first 2 years of the model followed by 4 per cent for the remaining 8 years, results in a loss equivalent to 626 GPs. The predicted skillmix and productivity benefits (equivalent to 436 GPs) would not be sufficient to counter this reduction in availability;
- retirements – based on the current age range of GPs and an assumed retirement age of 60, 420 GPs are predicted to retire over the next 10 years;
- service change and development – at a rate of 3 per cent development per year, this would result in a demand for 447 additional GPs over the next 10 years;
- revalidation – the impact of revalidation in the first 3 years is estimated to equate to an increase in demand of 30 GPs.

The combined impact of these assumptions results in a significant net demand for GPs each year, increasing from 69 in year 1 to 136 in year 10. There are currently 65 GP training places providing a regular supply into this group.

Result

The net result of these factors is a shortfall of GPs that increases annually to significant levels due to the combined impact of increased service demand (reflecting the development of community-based models of care) and reduced availability of GPs due to uptake of flexible working options.

There is no data available on the potential to recruit GPs from outside of the NIMDTA training programme to meet these shortfalls. If the number of GP training places was increased to 75 (as suggested in the last workforce planning review) in increments of 5 per year, this would have some impact on the projected shortfall but this would not be sufficient to counter the predicted reduction in availability due to worklife balance. Specific research is required to obtain information on current and likely future working patterns among GPs.

Scenarios

Given the significance of the worklife balance factor on the GP group, any reduction could have a marked impact on the shortfall position estimated in the standard model. Reducing the work-life balance factor to the same level as assumed for Consultants and SAS Grades (1 per cent in years 1-2 and 2 per cent in years 3-10) dramatically alters the position. This scenario produces a modest surplus in years 1-

4 (between 1 and 11 per year) and a reduced shortfall in years 5 to 10 of the model (between 9 and 33 per year). It will be critical to improve the quality of information available on working patterns among GPs to assess the actual impact of reduced working hours over the next 2-3 years.

The scenario testing reduced productivity gains suggests that the shortfall would be higher within the GP group in the first three years. A reduced rate of one per cent service development per year would result in an initial surplus of GPs (24 to 26 per year) followed by lower annual shortfalls (between one and 41 per year).

7.4. Workforce Models – Junior Doctors

Table 7.2 shows the estimated demand for StRs, supply available to meet it from undergraduate to Foundation level and the resulting surplus / shortfall. Commentary on the estimates is provided in the subsections below (7.4.1 to 7.4.2).

Table 7.2

Supply and Demand Estimates – Junior Doctors

StR	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Baseline	1,055	1,130	1,130	1,130	1,130	1,130	1,130	1,130	1,130	1,130
Net Demand	212	135	146	161	161	161	161	161	161	161
Available Supply	99	99	99	99	110	110	110	110	110	110
Surplus (Shortfall)	-113	-36	-47	-63	-51	-51	-51	-51	-51	-51
TRAINING SUPPLY										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Undergraduate Supply (less attrition)	194	208	262	261	264	264	264	264	264	264
F2 Completions	234	234	234	234	250	250	250	250	250	250
F2 Completions (less 30% not taking up StR)	164	164	164	164	175	175	175	175	175	175
Available Supply GP StRs	65	65	65	65	65	65	65	65	65	65
Available Supply Medical StRs	99	99	99	99	110	110	110	110	110	110

Note: shortfalls/surpluses are not cumulative and are assumed to be met each year.

7.4.1. Specialty Registrars (StRs)

Based on the most recently available data from HRMS there are currently 1,055 StRs (excluding 195 GP StRs).

Key dynamics for this group are:

- vacancies – there are currently a significant number of long-term vacancies at this grade (75) which are required to be filled;
- worklife balance – there is a significant impact assumed as a result of reduced working hours due to worklife balance. This is estimated to equate to a loss of 203 StRs over the next 10 years;
- productivity and skillmix – a gain of 291 StRs is estimated as a result of productivity and skillmix benefits; and
- leavers – based on an average training period of seven years, it is assumed that in each year one seventh of the StR group (approximately 161) will leave. Of these an estimated four per cent per annum will awarded CCT.

The combined impact of these assumptions is a net demand of 212 initially, decreasing to 161 by year 4. Allowing for attrition, there is currently a supply of 99 Foundation graduates moving into medical StR posts in Northern Ireland, increasing to 110 by year 5.

Result

The net result of these factors is a significant shortfall in StRs in year 1 (reflecting the high number of vacancies currently in the system) followed by lower shortfall for the remainder of the model. Addressing this gap would require a combination of efforts to increase the number of Foundation graduates seeking to take up StR posts in Northern Ireland (i.e. to reduce the ‘loss’ of 30 per cent of those completing) as well as recruitment from other areas. The immigration changes may limit the extent to which the option can be relied upon.

7.4.2. Training Supply

Table 7.2 shows the number of undergraduate students and Foundation trainees estimated for the next ten years.

For the period 2009 to 2018, key dynamics for this group are:

- undergraduate supply – the number of graduates entering the foundation programme is projected to increase in line with the increased number of places available in QUB (increasing from 194 in 2009 to 264 by 2011);
- number completing Foundation training – the number of Foundation trainee places will increase in year 3, resulting in an increased output from year 5 onwards. This output is reduced to reflect the assumed 30 per cent ‘loss’ of those completing Foundation training who do not take up StR positions in Northern Ireland immediately (although they may do so at a later date). The remaining number is assumed to take up GP or medical StR positions.

The increase in undergraduate training places will lead to a more competitive position, with a greater number of graduates available each year than there will be

Foundation places. While this suggests that the number of undergraduate places is currently sufficient to meet local demand, it also highlights the potential for involuntary attrition of QUB graduates to other postgraduate schools in the UK.

7.5. Conclusions

The supply and demand models for the medical professional groups highlight the following dynamics within the workforce:

- It is forecast that the consultant workforce will grow by 26 per cent, and assuming that productivity and skillmix gains can be achieved, the current rate of supply into the workforce (CCTs awarded) will be sufficient to meet the required level of growth overall, although the position will vary across different specialties;
- The models estimate a significant growth in the SAS Group as the policy to rely more on trained doctors to provide service becomes imbedded. While the number in the StR group provides a ready supply to meet this increase in demand, there may be a need to shape the career expectations of junior doctors and promote the new Specialty Doctor role as an attractive alternative to (or step towards) a Consultant role;
- The increasing supply of junior doctors coupled with the balanced position in the consultant model also suggests that there will not be Consultant positions for all of those completing specialist training;
- Shortfalls are projected for the StR group suggesting the need to reduce the ‘loss’ of those completing Foundation training in NI who do not take up a specialty training post immediately, or rely more heavily on external recruitment;
- The models all assume significant gains due to productivity improvements and skillmix benefits. In the event that these are not realised at the levels forecast in the models, there would be a requirement for additional supply to meet the growth in demand due to other factors;
- Significant shortfalls are projected within the GP group, largely due to assumed high levels of demand for flexible working. Lack of data on working hours means there is considerable uncertainty as to the actual impact of worklife balance but stakeholder perceptions indicate significant concern and the proportion of women in the GP training group is particularly high. Increasing the number of GP places to the levels recommended in the 2006 review would go some way to meeting the projected shortfalls, but it will be vital to improve the information available on actual working patterns of GPs in the next few years to determine whether further increases in training places will be required; and
- An earlier average retirement age for Consultants and GPs also results in a significant loss of professionals from these groups over the next 10 years. This factor will need to be tracked to establish the impact of the economic downturn on the trend towards earlier retirement.

8. Conclusions and Recommendations

From both the qualitative analysis and the detailed data modelling we can draw conclusions in the following areas:

- This review takes place at a time of significant upheaval, with large scale change within the medical profession itself due to MMC, the desire for greater reliance on trained doctors to provide direct patient care; restructuring of the organisations through which doctors provide services as a result of RPA, changes in healthcare policy including personalisation, specialisation and community-based care, and other contractual / legislative changes such as EWTD;
- There has been significant investment in the training of doctors since the last review, with an increase in the number of undergraduate places and the introduction of new systems for recruiting to and delivering post-graduate medical training;
- The medical workforce as a whole has increased by almost 400 in headcount terms, and the trends identified in the last review towards a higher proportion of women in the workforce and changing demands for more flexible working structures have continued;
- Recruitment and retention issues highlighted through the review reflect the impact of the organisational, policy and legislative changes identified and the changes in workforce demographics. The key issues identified relate to:
 - The impact of MMC and EWTD on the availability and role of junior doctors in providing patient care, and the additional requirements these changes place on Consultants and SAS grades;
 - Predicted earlier average retirement among consultants and GPs due to the additional pressures faced;
 - The negative impact of the problems faced during the introduction of the national recruitment process for junior doctors and the perceived alienation of junior doctors from the profession as a result;
 - Growing demand for flexible working linked to an increasing proportion of women within the medical workforce but also reflective of the expectations of contemporary generations as to worklife balance;
 - Identified shortages in particular specialties including radiology, anaesthetics, psychiatry and laboratory medicine;
 - Concern regarding the future ability to recruit from overseas to fill shortage areas due to changes in immigration procedures;
 - Increased workload for GPs as more services are managed and delivered from the community, coupled with an increased demand for less than full-time, sessional and salaried rather than full-time principal GP positions; and
 - Continued need for development of career progression opportunities for SAS grades that better reflect their role in service delivery and junior doctor training.
- Based on the assumptions agreed with the Advisory Group, the workforce forecasts suggest that there are currently sufficient numbers within the junior doctor grades to meet the demand for consultants across the workforce as a whole but a shortfall of GPs is projected suggesting the need to increase training places in this specialty.

Close monitoring of the workforce will be required to determine the actual workforce trends emerging compared with the modelling assumptions made. Based on the analysis above, we recommend the following areas of focus in the next 3-5 years:

- EWTD - Continued monitoring of compliance with and impact of EWTD, and dissemination of good practice initiatives developed locally to manage the changing requirements;
- Skillmix and Productivity – monitoring by the Department of skillmix and productivity initiatives introduced and the efficiency gains achieved for comparison with the assumptions in the workforce models;
- Worklife Balance - Monitoring of demand for flexible working and dissemination of information on measures introduced by employers to meet that demand.
- GP Working Patterns – improvements to quality of data available on GP working patterns to determine whether the significant potential losses projected due to greater flexible working are actually realised. A specific research study to collect up to date information on this issue and make recommendations for monitoring arrangements is recommended. This should include a census of practicing GPs to determine how many sessions per week they currently work, and capturing the views of GPs and GP trainees on their likely future working patterns;
- Training Places – increase number of GP places to levels recommended in 2006 and keep this under review as better information becomes available on the working patterns of GPs. Undergraduate medical places to be expanded to 250 as planned;
- SAS Grade – continued development of the training and career progression opportunities for SAS doctors and promotion of the SAS Grade to doctors in training as an attractive career option;
- Trust Grade Doctors – DHSSPS should monitor the transfer of Trust Grade roles across to SAS contracts and take necessary steps to ensure this transition takes place as quickly as is feasible;
- Junior Doctors – ongoing collection by NIMDTA of information on the movement into and out of training among junior doctors, to improve understanding of turnover at these grades (particularly post-Foundation training) and secure the investment made in junior doctor training;
- Retirements – monitor the actual average retirement age for GPs and Consultants for comparison with the assumed average of 60 included in the forecasts;
- Specialty Planning – ongoing workforce planning for medical specialities via the SACs and introduction of regional workforce planning for public health medicine and clinical academics. Specialty level workforce planning should also include monitoring the impact of changes in immigration systems on the ability to fill specific shortages from overseas. Where required, special intervention from NIMDTA, and the employers should be made to protect vulnerable specialties;
- Trust Workforce Planning – working with the DHSSPS Workforce Planning team, the HSC Trusts should develop their contribution to workforce planning for medical professionals. In particular, this should include quantifying their future demand for doctors at each grade and in each specialty, and ensuring that accurate information on vacancies and working patterns are maintained in the HR systems feeding into HRMS.

APPENDIX I
ADVISORY GROUP MEMBERS

Name	Organisation
Dr David Ross	NI General Practitioners Committee (NIGPC)
Mr Martin McClatchey (Ms Amy Barber & Ms Laura Hamill, deputy)	NI Medical Students Committee (NIMSC)
Dr Rajesh Rajendran (Dr Connor Marron, deputy)	NI Junior Doctors Committee (NIJDC)
Dr Padhraic Conneally (Dr Stephen Austin & Dr Brigitte Bartholome, deputy)	NI Consultants Committee (NICC)
Dr Colin Hamilton (Dr Vinod Tohani, deputy)	NI Committee for Public Health Medicine and Community Health (NICPHMCH)
Dr Paul Darragh (Dr Kevin McConkey, deputy)	NI Staff and Associate Specialist Committee (NISASC)
Ms Kathy Clarke	BMA (Manager)
Dr Patrick Loughran	Southern HSC Trust (Medical Director)
Dr Cathy Jack	Belfast HSC Trust (Deputy Medical Director)
Mr Mervyn Barkley	Belfast HSC Trust (Assistant HR Director)
Mr Charlie Martyn	South Eastern HSC Trust (Medical Director)
Ms Myra Weir	South Eastern HSC Trust (Acting Assistant Director HR)
Dr Anne Kilgallen	Western HSC Trust (Medical Director)
Mrs Nuala Sheerin	Western HSC Trust (HR Director)
Dr Neil Corrigan	Western HSC Trust
Mrs Helen Walker (Ms Zoe Parks, deputy)	Southern HSC Trust (Assistant Director of HR, Acute Services)
Dr Peter Flanagan	Northern HSC Trust (Medical Director)
Dr Michael Mannion	Northern HSC Trust (Deputy Medical Director)
Ms Kathleen McCann	Northern HSC Trust (Assistant Director Resourcing)
Dr Eddie O'Neill	EHSSB (Medical Advisor)
Mr Martin Hayes	EHSSB (GMS Contract Manager)
Ms Linda Gregg	NI Ambulance Service
Dr Damien Fogarty	NIMASC
Dr Claire Loughrey	NIMDTA (Director for Postgraduate General Practice Education)
Dr Terry McMurray	NIMDTA (Chief Executive/Postgraduate Medical Dean)
Mr Alan Walker	GMC
Dr J Jenkins	Queen's University Belfast
Prof P J Johnston	Queen's University Belfast
Dr Paddy Woods	DHSSPS
Ms Joyce Cairns	DHSSPS
Ms Alison Dunwoody (Ms Deirdre Corrigan, deputy)	DHSSPS
Ms Melanie McClurg	DHSSPS
Ms Tracy Hodgen	DHSSPS

APPENDIX II
STAKEHOLDERS CONSULTED

**FOCUS GROUPS (CONVENED BY BMA COMMITTEES) & INTERVIEWS
CONDUCTED WITH:**

CONSULTANT GROUP

Dr. S Austin
Dr. A. Carson
Dr. J Wood
Dr.S Hedderwick

SAS GROUP

Dr. P Darragh
Dr. P Trearty
Dr. E Brown

JUNIOR DOCTOR GROUP

Dr R Rajendran

GP GROUP

Dr. E Deeny
Dr. T Black
Dr. D Ross

CLINICAL ACADEMIC GROUP

Dr. D Fogarty
Dr. P McKeown
Dr. U Chakravarthy
Dr. M Rooney

PUBLIC HEALTH GROUP

Dr V Tohani
Dr C Hamilton

TRUST REPRESENTATIVES

Dr. P Loughran
Dr. Stephens
M Barkley

NIMDTA

Prof Terry McMurray
Dr Claire Loughrey
Margot Roberts

APPENDIX III
ASSUMPTIONS USED TO PRODUCE WORKFORCE ESTIMATES

SUPPLY AND DEMAND ASSUMPTIONS

Table A below details the supply and demand factors used in the Consultant, SAS and GP models and note the basis for each assumption. Table B provides details the assumptions used for the StR model and Table C sets out the assumptions for available supply at each grade. Reliable quantitative data was not always available as a basis for projecting the impact of each supply and demand factor included in the models. Where quantitative data was not available, estimates were derived from consultation with key informants. All assumptions were discussed with the project Advisory Group.

Table A
Assumptions – Trained Doctors

Baseline	Source
People	Whole Time Equivalent (WTE) on HRMS at 31 st March 2008
Posts	Assumed WTE on HRMS = baseline number of posts
Demand Factors	Source
Long-Term Vacancies	Current number of long-term vacancies for Consultants and SAS (based on DHSSPS survey March 2008 figures) i.e. unoccupied posts which have been vacant for three months or more and which the organisation is still trying to fill. Vacancy information not available for GPs.
Service Change & Development	<p>All models show an increase in demand to account for:</p> <ul style="list-style-type: none"> • new and extended services; • reconfiguration of services to provide a greater focus on community based services; • the impact on service requirements due to demographic changes and health trends (including changing birth and mortality rates and factors influencing both), and wider social and environmental factors (including diet, obesity, smoking and alcohol consumption). <p>This takes account of the scenarios proposed by Derek Wanless in his 2002 report: Securing Our Future Health: Taking a Long-Term View. In his 2007 follow-up review Our Future Health Secured? Wanless notes the changes in service developments that have taken place since 2002 as regards development in hospital services, mental health care, primary care, NHS Direct and walk-in services. In particular, Wanless notes an increase in elective admissions, increase in day cases, increase in emergency admissions resulting from changes in clinical behaviour and reduced A&E waiting times. Wanless also notes the shift to a more community-based model of care for maternity and mental health specifically as well as the impact that development of key drugs has had on services. Health of the population has overall improved, with a fall in mortality rates and increasing life expectancy aligning the current situation to the solid progress scenario. However, the 2007 report concludes that the modernisation of NHS neither fell into the “solid progress” or “fully engaged” scenarios and that developments were still needed.</p>

	<p>On this basis, the model assumes 2 per cent per annum (20 per cent over 10 years) for Consultants which is consistent with that recommended by Wanless for solid progress (See Appendix III). It is noted that service growth and development will vary considerably by specialty, and that the rate of growth is likely to be higher for community-based services compared with that for hospital based services. To reflect this, a higher rate of 3 per cent per annum (30 per cent over 10 years) is included for GPs. The same higher rate is included for SAS Grades to reflect the greater demand for this grade of doctor as evidenced by the significant growth in numbers since the last workforce review (reference Section 5.4).</p>
EWTD	<p>Factor to reflect reduced availability of junior doctors (Foundation level and StR grades) post August 2009 – lost hours to be used as an indication of additional workforce resource needed to counterbalance the reduction in hours to be worked by junior doctors from 56 to 48 hours per week. DHSSPS estimates that approximately 40 per cent of junior doctors’ posts are already EWTD compliant and those which are not currently compliant vary in terms of the number of hours reduction required (i.e. fewer than 8 hours in some cases). Trusts will take a range of approaches to ensure compliance including redeployment of tasks to other health care professionals (e.g. nurses and AHPs), introducing new shift patterns/ rotas, deploying a range of health care staff in different ways (e.g. the Hospital at Night approach) and recruitment of new medical staff.</p> <p>The assumption is calculated as follows:</p> <p>Foundation</p> <ul style="list-style-type: none"> • 482 F1 and F2 doctors – model assumes that each foundation level doctor works an average of 44 weeks per year – 482 x 8 hours’ reduction x 44 = 169,664 hours lost per annum; • Assuming that each foundation level doctor works 48 hours a week for 44 weeks of the year: 169,664 hours lost/ 2,112 hours worked per annum = 80; • The reduction in working hours equates to a loss of up to 80 foundation level doctors (40 F1 and 40 F2); • To reflect the current rate of compliance, variable impact of the reduction in working hours and range of measures that will be adopted to achieve compliance, 50 per cent of these lost working hours are taken into account i.e. need to replace the equivalent of 40 Foundation doctors. It is assumed that lost hours at F1 level (20) will be replaced with non-medical professionals and that those at F2 level (20) will be replaced by SAS Grades. The impact is spread across the first two years of the SAS model. <p>StR</p> <ul style="list-style-type: none"> • 1,249 StR doctors – model assumes that each StR doctor works an average of 44 weeks per year – 1,249 x 8 x 44 = 439,648 hours lost per annum; • Assuming that each foundation level doctor works 48 hours a week for 44 weeks of the year : 439,648/2112 hours worked per annum = 208; • The reduction in working hours equates to a loss of up to 208 StR doctors;

	<ul style="list-style-type: none"> To reflect the current rate of compliance, variable impact of the reduction in working hours and range of measures that will be adopted to achieve compliance, 50 per cent of these lost working hours are taken into account i.e. a need to replace the equivalent of 104 StR doctors. It is assumed that this is spread evenly across the StR group (15 per year based on an average of 7 years' training) with 59 in years 1-4 of training and 45 in years 5-7 of training. Lost hours in the first 4 years of training will be replaced by 70 per cent SAS and 30 per cent non-medical. Lost hours in years 5-7 of training will be replaced by 50 per cent SAS and 50 per cent Consultants. This results in a total additional demand for SAS Grades of 64 and a total additional demand for Consultants of 22. The impact is spread across the first two years of the Consultant and SAS models. <p>It is assumed that no additional GPs are required due to the effect of EWTD.</p>
MMC	<p>An allowance of 1 per cent (spread across the first three years) is included for the Consultant group to reflect the supervision and assessment requirements under MMC. This is approximately equivalent to 1 PA (one tenth of a consultant) per 15 doctors in training (total of 1,731 foundation and StR doctors / 15 = 115 x 0.1 consultants = 11.5 consultants per year). Subsequently, it is assumed that supervision and assessment requirements will have been fully absorbed.</p> <p>No additional factor is included in the SAS model.</p> <p>It is assumed that the supervision and assessment requirements under MMC have already been accounted for in the GP group – no additional factor is included in the model.</p>
Revalidation	<p>An allowance of 2 per cent (approximately 5 days per year) is included for all Consultants, SAS Grades and GPs. This is spread across the first 3 years. In subsequent years, the same allowance is provided for all additional Consultants, SAS Grades and GPs.</p>
Retirements	<p>HRMS data indicates that the current mean age for retirement is 62. Model assumes reduced average retirement age of 60 for trained doctors reflecting:</p> <ul style="list-style-type: none"> increasingly female workforce (with women wanting to retire earlier in career); more onerous working pattern of doctors and desire to retire earlier; and impact of Pensions review and impact of phasing out of Mental Health Officer status on eligibility to retire early (note that the latter does not apply to GPs).
Work-life Balance	<p>Consultants and SAS Grades:</p> <p>Model assumes a 1 per cent increase per annum for the next 2 years, with a 2 per cent increase for the remaining 8 years. The 2 per cent increase reflects the anticipated increase in the number of female doctors progressing through the career system over the next few years combined with increasing demand for flexibility to facilitate part-time working and improved work-life balance for male and female professionals.</p> <p>HRMS data shows that while there has been little change in the number of females overall, the proportion of female Foundation grade doctors has increased substantially. As of 31st March 2008, 29 per cent of Consultants are female (28 per cent in 2006); 62 per cent of SAS grade doctors are female (compared with 64 per cent in 2006); 45 per cent of Specialist Registrars are female compared with 42 per cent in 2006; 58 per cent of Foundation trainees are female compared with 55 per cent in 2006. Information from QUB also shows that annual intake is becoming increasingly</p>

	<p>female: 57 per cent in 2008 compared with 55 per cent in 2005.</p> <p>Despite the anticipated increase in demand for less than full time working reported at the time of the last Workforce Planning Review, HRMS data does not indicate an increase in part-time working across the period 2006 to 2008. HRMS data indicates that as at 31st March 2008: Consultants - 15 per cent part-time (14 per cent in 2006); SAS grade - 36 per cent part-time (38 per cent 2006); Specialist Registrar – 3 per cent part-time working in both 2008 and 2006; Foundation Grade Doctors – less than 1 per cent part-time working 2008 and 2006. Although the trend towards more flexible working has not manifested yet, it is considered prudent to include an incremental increase in demand for worklife balance. This is to reflect the progressively greater proportion of female doctors at each grade and the potential for this to translate into greater part-time/flexible working over the next 10 years. DHSSPS should keep this factor under review in its annual workforce updates.</p> <p>GPs</p> <p>Model assumes a 2 per cent increase per annum for the next 2 years, with a 4 per cent increase for the remaining 8 years. The 4 per cent increase reflects the anticipated increase in the number of female GPs progressing through the career system over the next few years combined with increasing demand for flexibility to facilitate part-time working and improved work-life balance for male and female professionals.</p> <p>Data provided by NIMDTA shows that the proportion of females in the GP population has not increased significantly since the last review – 45 per cent of the GP population were female for the year 2007/2008 compared with 42 per cent in 2006/2007. However, 71 per cent of Trainee GPs (ST1 – ST3) are female. Given that there is little, if any, attrition during training, these will feed through to the GP register. Information is not available on current working hours of GPs i.e. WTE to headcount ratio. Six of the seven Trainee GPs recorded as working part-time are female (86 per cent). GP stakeholders highlighted that a considerable demand for less than full-time working already exists and attributed this both to the significant increase in female GPs and an increased desire across general practice for greater flexibility to improve work-life balance. DHSSPS should keep this factor under review in its annual workforce updates.</p>
Absence	The Advisory Group noted that sickness is typically under-reported by medical staff and that on average absenteeism across grades is approximately 2 per cent. Model applies 2 per cent absenteeism across Consultants, SAS Grades and GPs spread across the first 3 years.
Skill Mix Benefits	Model assumes estimated 1 per cent gain per annum (as per DHSSPS recommendation), accounting for expected transfer of activity formerly undertaken by medical professionals to other health professionals (i.e. nurses, AHPs etc.). Whilst conservative, this reflects that there is a limit to the type of skills that can be transferred and that there have already been skill mix changes to date.
Productivity	CSR plans assume a high proportion of savings from productivity improvement. Model assumes 3 per cent increase per annum in output of existing workforce over the next 3 years with a further 1 per cent increase per annum over the remaining 7 years.

Table B

Assumptions – StRs

Baseline	Source
People	Whole Time Equivalent (WTE) on HRMS at 31 st March 2008 less GP StRs (195)
Posts	People = baseline number of posts
Demand Factors	Source
Long-Term Vacancies	Current number of long-term vacancies for StR posts (based on DHSSPS survey March 2008 figures) i.e. unoccupied posts which have been vacant for three months or more and which the organisation is still trying to fill.
Work-life Balance	StR model assumes a 1 per cent increase per annum for the next 2 years, with a 2 per cent increase for the remaining 8 years. The 2 per cent increase reflects the anticipated increase in the number of female doctors progressing through the career system over the next few years combined with increasing demand for flexibility to facilitate part-time working and improved work-life balance for male and female professionals. (See Table A for details)
Absence	Advisory Group noted that sickness is typically under-reported by medical staff and that on average absenteeism across grades is approximately 2 per cent. The StR model applies 2 per cent absenteeism spread across the first 3 years.
Skill Mix Benefits	StR model assumes estimated 1 per cent gain per annum (as per DHSSPS recommendation), accounting for expected transfer of activity formerly undertaken by medical professionals to other health professionals (i.e. nurses, AHPs etc.). Whilst conservative, this reflects that there is a limit to the type of skills that can be transferred and that there have already been skill mix changes to date.
Productivity	CSR plans assume a high proportion of savings from productivity improvement. StR model assumes 3 per cent increase per annum in output of existing workforce over the next 3 years with a further 1 per cent increase per annum over the remaining 7 years.

Table C

Assumptions on Available Supply into Each Grade

Grade	Assumption
GP	All those completing GP training each year are available to take up GP positions. [The number of GP places is under review (an increase to 75 has been discussed) and this workforce analysis will support that review by providing information on the likely demand for an increase in places.]
Consultant	All of those awarded CCTs per year assumed to be available to meet Consultant demand. Although all of those who are awarded CCTs do not take up Consultant posts immediately, it is assumed that many do so in the future, thus providing a steady annual supply into this group. For the year 2007/2008, 61 were awarded CCTs. Assuming an average training period of seven years, this is equivalent to four per cent of the number in their seventh year of StR training. The number of CCTs awarded in subsequent years is therefore assumed to be four per cent of the estimated number of StRs in their seventh year.
SAS	There is limited information relating to the resourcing of SAS staff. Typically four years of post-Foundation training is required to become eligible for SAS posts. The number at this stage of StR training is well in excess of the demand for SAS doctors, therefore the model assumes that all SAS demand is met from the StR group (which includes FTSTAs).
StR	Proportion of those completing Foundation training who take up StR posts including FTSTAs (i.e. 70 per cent based on NIMDTA information) less those taking up GP StR positions.
Foundation	Number of undergraduates from QUB completing each year (increases from 200 in 2009 to 270 by 2013) less attrition. Attrition assumed to remain at current levels i.e. 6 per annum.

**APPENDIX IV
WANLESS SCENARIOS**

		Wanless Scenarios		
		Solid Progress	Slow Uptake	Fully Engaged
Changes in Demand for Care				
	UK Life Expectancy at birth by 2022	Men:80.0 ; Women 83.8	Men: 78.7 ; Women 83.0	Men:81.6 ; Women 85.5
	Long-term ill health among the elderly	No Change in rates of ill health	No Change in rates of ill health	Health life expectancy increase broadly in line with life expectancy
	Acute ill health among the elderly	5% reduction by 2022	10% increase by 2022	10% reduction by 2022
	Health Promotion (smoking, exercise, data)	Meet current public health targets leading to reductions in hospital admissions and GP visits	No Change	Go beyond current public health targets leading to greater reductions in hospital admissions and GP visits, combined with higher spending on health promotion
	Health Seeking behaviour among over 65's	Old old match use of hospital and GP care per head of "young old" by 2022	No Change	"Old old" match use of hospital and GP care per head of "young old" by 2012
	Health seeking behaviour among over 65's	One additional GP visit per year on average by 2022	No Change	One additional GP visit per year on average by 2022
	Self-care	Switch of 1% of GP activity to pharmacists; reduction of 17% in outpatient attendances among 225,000 people using self care	Switch of 1% of GP activity to pharmacists; reduction of 17% in outpatient attendances among 225,000 people using self care	Switch of 2% of GP activity to pharmacists; reduction of 17% in outpatient attendances among 450,000 people using self care
Changes in the cost and configuration of supply care				
	Medical Technology	Contributes around 3% a year to growth in health spending	Contributes around 2% a year to growth in health spending	Contributes around 3% a year to growth in health spending
	ICT	Spending doubles in real terms by 2003 - 2004	Spending doubles in real terms by 2007 - 2008	Spending doubles in real terms by 2003 - 2004
	Productivity growth	Increases from 2 to 2.5% a year in the first decade to 3 % a year in the 2nd	Increases from 1.5% to a year in the first decade to 1.75% a year in the 2nd	Increases from 2 to 2.5% a year in the first decade to 3 % a year in the 2nd

APPENDIX V
WORKFORCE ESTIMATES

CONSULTANT

	2009		2010		2011		2012		2013		2014		2015		2016		2017		2018	
	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People
BASELINE																				
POSTS FILLED	1,213		1,297		1,344		1,381		1,406		1,430		1,455		1,480		1,505		1,530	
PEOPLE		1,213		1,297		1,344		1,381		1,406		1,430		1,455		1,480		1,505		1,530
DEMAND																				
LONG TERM VACANCIES	36		0		0		0		0		0		0		0		0		0	
SERVICE CHANGE & DEVELOPMENT	24		24		24		24		24		24		24		24		24		24	
EWTD.	11		11		0		0		0		0		0		0		0		0	
MMC.	4		4		4		0		0		0		0		0		0		0	
REVALIDATION	8		8		8		1		1		1		1		1		1		1	
TOTAL POSTS	1,297		1,344		1,381		1,406		1,430		1,455		1,480		1,505		1,530		1,555	
RETIREMENTS		(27)		(22)		(22)		(41)		(33)		(36)		(41)		(41)		(47)		(44)
WORK-LIFE BALANCE		(12)		(13)		(27)		(28)		(28)		(29)		(29)		(30)		(30)		(31)
ABSENCE		(8)		(8)		(8)		0		0		0		0		0		0		0
SKILLS MIX BENEFITS		12		13		13		14		14		14		15		15		15		15
PRODUCTIVITY		36		39		40		14		14		14		15		15		15		15
TOTAL PEOPLE		1,214		1,306		1,341		1,340		1,373		1,394		1,414		1,439		1,458		1,486
NET DEMAND		83		38		40		66		58		61		66		66		72		69
AVAILABLE SUPPLY - CCTs AWARDED		61		65		65		65		65		65		65		65		65		65
SUPPLY / (SHORTFALL)		(22)		26		25		(1)		7		4		(1)		(1)		(7)		(4)
CUMULATIVE SUPPLY/ (SHORTFALL)		(22)		5		30		28		35		39		38		36		29		25

GP

	2009		2010		2011		2012		2013		2014		2015		2016		2017		2018	
	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People
BASELINE																				
POSTS FILLED	1,490		1,545		1,600		1,655		1,700		1,746		1,791		1,836		1,882		1,927	
PEOPLE		1,490		1,545		1,600		1,655		1,700		1,746		1,791		1,836		1,882		1,927
DEMAND																				
LONG TERM VACANCIES	0		0		0		0		0		0		0		0		0		0	
SERVICE CHANGE & DEVELOPMENT	45		45		45		45		45		45		45		45		45		45	
REVALIDATION	10		10		10		1		1		1		1		1		1		1	
TOTAL POSTS	1,545		1,600		1,655		1,700		1,746		1,791		1,836		1,882		1,927		1,973	
RETIREMENTS		(34)		(37)		(31)		(28)		(53)		(49)		(39)		(48)		(49)		(52)
WORK-LIFE BALANCE		(30)		(31)		(64)		(66)		(68)		(70)		(72)		(73)		(75)		(77)
ABSENCE		(10)		(10)		(10)		0		0		0		0		0		0		0
SKILLS MIX BENEFITS		15		15		16		17		17		17		18		18		19		19
PRODUCTIVITY		45		46		48		17		17		17		18		18		19		19
TOTAL PEOPLE		1,476		1,529		1,559		1,594		1,613		1,661		1,716		1,752		1,795		1,837
NET DEMAND		69		71		96		107		132		130		120		130		132		136
AVAILABLE SUPPLY - StRs COMPLETING YR3		65		65		65		65		65		65		65		65		65		65
SUPPLY / (SHORTFALL)		(4)		(6)		(31)		(42)		(67)		(65)		(55)		(65)		(67)		(71)
CUMULATIVE SUPPLY/ (SHORTFALL)		(4)		(10)		(41)		(82)		(150)		(214)		(270)		(335)		(402)		(473)

StR

	2009		2010		2011		2012		2013		2014		2015		2016		2017		2018	
	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People	Posts	People
BASELINE																				
POSTS FILLED	1,055		1,130		1,130		1,130		1,130		1,130		1,130		1,130		1,130		1,130	
PEOPLE		1,055		1,130		1,130		1,130		1,130		1,130		1,130		1,130		1,130		1,130
DEMAND																				
LONG TERM VACANCIES	75		0		0		0		0		0		0		0		0		0	
TOTAL POSTS	1,130		1,130		1,130		1,130		1,130		1,130		1,130		1,130		1,130		1,130	
RETIREMENTS		0		0		0		0		0		0		0		0		0		0
WORK-LIFE BALANCE		(11)		(11)		(23)		(23)		(23)		(23)		(23)		(23)		(23)		(23)
ABSENCE		(7)		(7)		(7)		0		0		0		0		0		0		0
SKILLS MIX BENEFITS		11		11		11		11		11		11		11		11		11		11
PRODUCTIVITY		32		34		34		11		11		11		11		11		11		11
LEAVERS		(161)		(161)		(161)		(161)		(161)		(161)		(161)		(161)		(161)		(161)
TOTAL PEOPLE		918		995		984		969		969		969		969		969		969		969
NET DEMAND		212		135		146		161		161		161		161		161		161		161
UNDERGRADUATE SUPPLY (LESS ATTRITION)		194		208		262		261		264		264		264		264		264		264
F2 COMPLETIONS (LESS 30% NOT TAKING UP StR POSTS)		164		164		164		164		175		175		175		175		175		175
AVAILABLE SUPPLY GP StRs		65		65		65		65		65		65		65		65		65		65
AVAILABLE SUPPLY MEDICAL StR		99		99		99		99		110		110		110		110		110		110
SUPPLY / (SHORTFALL)		(113)		(36)		(47)		(63)		(51)		(51)		(51)		(51)		(51)		(51)
CUMULATIVE SUPPLY/ (SHORTFALL)		(113)		(149)		(196)		(258)		(310)		(361)		(413)		(464)		(516)		(567)

APPENDIX VI
WORKFORCE ESTIMATES – ALTERNATIVE SCENARIOS

CONSULTANT - SCENARIOS

PRODUCTIVITY (1% pa)	12	13	13	14	14
Total Posts	1,297	1,344	1,381	1,406	1,430
Total People	1,190	1,280	1,314	1,340	1,373
Net Demand	107	64	66	66	58
Total Supply	61	65	65	65	65
SURPLUS / (SHORTFALL)	(46)	0	(2)	(1)	7
CUMULATIVE	(46)	(45)	(47)	(49)	(42)
SERVICE CHANGE & DEVELOPMENT (1% pa)	12	12	12	12	12
Total Posts	1,285	1,332	1,368	1,394	1,418
Total People	1,214	1,306	1,341	1,340	1,373
Net Demand	70	26	27	54	46
Total Supply	61	65	65	65	65
SURPLUS / (SHORTFALL)	(9)	38	37	11	19
CUMULATIVE	(9)	29	66	77	96
WORKLIFE BALANCE (1% pa)	(12)	(13)	(13)	(14)	(14)
Total Posts	1,297	1,344	1,381	1,406	1,430
Total People	1,214	1,306	1,355	1,353	1,387
Net Demand	83	38	26	52	44
Total Supply	61	65	65	65	65
SURPLUS / (SHORTFALL)	(22)	26	39	12	21
CUMULATIVE	(22)	5	43	56	76

SAS - SCENARIOS

PRODUCTIVITY (1% pa)	4	4	4	4	4
Total Posts	420	476	489	500	511
Total People	360	422	473	489	500
Net Demand	60	54	16	11	11
Total Supply	60	54	16	11	11
SURPLUS / (SHORTFALL)	0	0	0	0	0
CUMULATIVE	0	0	0	0	0
SERVICE CHANGE & DEVELOPMENT (1%)	4	4	4	4	4
Total Posts	413	468	482	493	504
Total People	367	429	481	489	500
Net Demand	46	39	1	4	4
Total Supply	46	39	1	4	4
SURPLUS / (SHORTFALL)	0	0	0	0	0
CUMULATIVE	0	0	0	0	0
WORKLIFE BALANCE (1% pa)	(4)	(4)	(4)	(4)	(4)
Total Posts	420	476	489	500	511
Total People	367	429	485	493	504
Net Demand	53	46	4	7	7
Total Supply	53	46	4	7	7
SURPLUS / (SHORTFALL)	0	0	0	0	0
CUMULATIVE	0	0	0	0	0

GP – SCENARIOS

WORK-LIFE BALANCE (1% yr 1-2, 2% yr3+)	(15)	(15)	(32)	(33)	(34)
Total Posts	1,545	1,600	1,655	1,700	1,746
Total People	1,491	1,544	1,591	1,627	1,647
Net Demand	54	55	64	74	98
Total Supply	65	65	65	65	65
SUPPLY / (SHORTFALL)	11	10	1	(9)	(33)
CUMULATIVE	11	21	22	13	(20)
PRODUCTIVITY (1% pa)	15	15	16	17	17
Total Posts	1,545	1,600	1,655	1,700	1,746
Total People	1,446	1,498	1,527	1,594	1,613
Net Demand	98	102	128	107	132
Total Supply	65	65	65	65	65
SUPPLY / (SHORTFALL)	(33)	(37)	(63)	(42)	(67)
CUMULATIVE	(33)	(70)	(133)	(175)	(242)
SERVICE CHANGE & DEVELOPMENT (1% pa)	15	15	15	15	15
Total Posts	1,515	1,570	1,625	1,670	1,716
Total People	1,476	1,529	1,559	1,594	1,613
Net Demand	39	41	66	77	103
Total Supply	65	65	65	65	65
SUPPLY / (SHORTFALL)	26	24	(1)	(12)	(38)
CUMULATIVE	26	50	49	37	(1)