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## SHAPE OF TRAINING

# Annexes

Securing the future of excellent patient care  
Final report of the independent review  
Led by Professor David Greenaway



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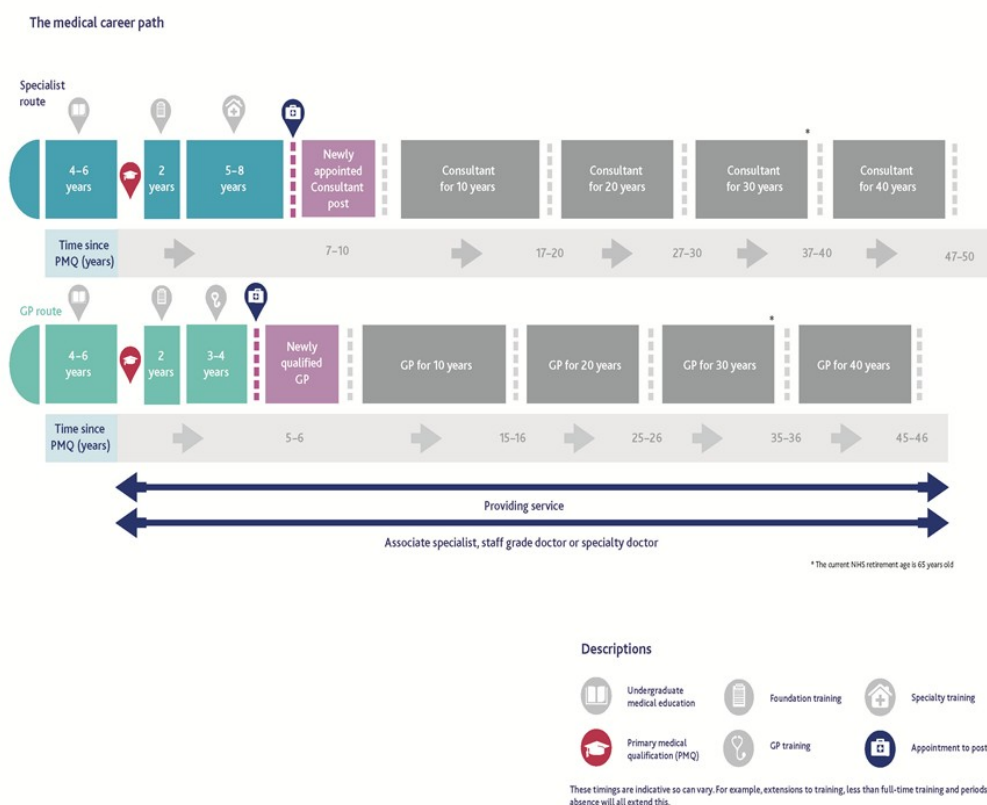
## SHAPE OF TRAINING

### Annex A: Current structure of postgraduate medical education and training in the UK

- 1 Undergraduate medical courses in the UK typically last five years; some six-year courses offer students the opportunity also to obtain a related BSc or are part of widening access programmes. There are also four-year Graduate Entry Programmes for students with a degree in another subject. Those who successfully complete the course are awarded a UK primary medical qualification, which enables them to apply for provisional registration with the GMC and entry to the Foundation Programme.
- 2 Foundation training is a two-year generic medical training programme, which bridges medical school and specialist training. Foundation year 1 (F1) builds on the learning, skills and knowledge obtained during undergraduate education. Foundation year 2 (F2) focuses on giving doctors a breadth of knowledge, skills and experiences in areas such as caring for acutely ill patients and working within community placements. F1 doctors are provisionally registered with the GMC and obtain full registration and a licence to practise medicine when they have successfully moved into F2.
- 3 When doctors have completed the Foundation Programme, they typically move into specialty or GP training. Specialty training lasts between five to eight years depending on the specialty. GP training typically lasts three years. At the end of training, a doctor receives a Certificate of Completion of Training (CCT) or Certificate of Completion of Training for General Practice (CCTGP). They can then apply to register on either the Specialist Register or the GP Register run by the GMC. Normally, a doctor must be on one of these registers in order to practise as a GP or a consultant in the NHS. (Some Foundation Hospital Trusts appoint doctors to consultant roles who are not on the Specialist Register.)

Doctors who have not undertaken one of the approved formal training programmes can still qualify for specialist or GP registration. Those who can show that their qualifications or training and experience are equivalent to the standard required for a CCT or CCTGP are eligible for the award of a Certificate of Eligibility for Specialist Registration (CESR) or the Certificate of Eligibility for General Practice Registration (CEGPR). These certificates enable doctors to be registered on the Specialist or GP Register.

- 4 A significant number of doctors are not on the Specialist Register and are not in a formal training programme. Many work in the NHS as staff, specialty and associate specialist (SAS) grade or locum doctors.
- 5 The picture below shows the medical career pathway of doctors in the UK<sup>1</sup>.



<sup>1</sup> The information about the medical career pathway and the diagram were taken from the GMC's State of Medical Education and Practice in the UK 2011 and 2012: <http://www.gmc-uk.org/publications/somep2012.asp>.

## Glossary of common terms in medical education and training

- 6 The following definitions have been taken from the GMC Glossary for the Regulation of Medical Education and Training. You can read the full Glossary at [http://www.gmc-uk.org/GMC\\_glossary\\_for\\_medical\\_education\\_and\\_training\\_Feb\\_2013.pdf](http://www.gmc-uk.org/GMC_glossary_for_medical_education_and_training_Feb_2013.pdf) 51 227935.pdf.
- 7 We have included this glossary to help readers understand terms they may not be familiar with particularly if new to the field, and given the complexity of medical education and training, the technical nature of some developments and debates, and the pace of change. These definitions are not intended to mandate usages (but some of the usages included are established by law for example).

### **Acute Care Common Stem (ACCS)**

ACCS is a core training programme that leads into higher specialty training in emergency medicine, intensive care medicine, general internal medicine, acute internal medicine and anaesthetics. See also Core training.

### **Annual Review of Competence Progression (ARCP)**

ARCP is a postgraduate deanery process which scrutinises the suitability of each doctor in training to progress to the next stage of, or to complete, a training programme. It is usually held annually, but some specialties have more frequent reviews in the early years of training. Foundation Programmes incorporate an ARCP from 2013. The review panel bases its recommendations on evidence in the doctor's portfolio of experience and competencies gained, together with the reports of the supervisor(s).

### **Appraisal**

Appraisal is a process to provide constructive feedback on the performance of a student, doctor in training or a member of staff to chart their continuing progress, and to identify their development needs.

In postgraduate medical training, appraisal is an individual and private planned review of progress between a doctor in training and their supervisor (usually their educational supervisor) that focuses on achievements, future learning and career management support. Appraisal forms part of the initial, interim and final meetings that a doctor in training has with their educational or clinical supervisor during a placement.

## **Capability**

The professional ability to manage chaos, complexity and uncertainty, created by the application of advanced understanding and complex behaviours. See also Competence.

## **CCST**

Certificate of Completion of Specialist Training, the qualification awarded by the Specialist Training Authority (STA) to those who successfully completed approved training between January 1996 and September 2005.

## **CCT**

Certificate of Completion of Training is awarded to doctors in training who satisfactorily complete their training in an approved specialty (including general practice) training programme and fulfil the approved curriculum.

The CCT is the certificate awarded by the UK under EC Directive 2005/36/EC.

## **CEGPR**

Certificate of Eligibility for GP Registration is awarded to doctors who demonstrate that their GP training or qualifications together with their experience are equivalent to the GMC-approved GP CCT curriculum. This certificate enables those with full registration to be entered onto the GMC GP Register.

## **CESR**

Certificate of Eligibility for Specialist Registration is awarded to doctors who demonstrate they have the knowledge, skills and experience in a specialty, gained outside of an approved training programme that is equivalent to the award of a CCT by the GMC. A similar process exists for doctors to apply for entry onto the Specialist Register with a CESR in a non-CCT specialty (part of the training or qualifications must have been gained outside the UK).

## **Clinical supervisor**

A clinical supervisor is a trainer who is selected and appropriately trained to be responsible for overseeing the clinical work of a specified doctor in training and for providing constructive feedback on that work during a training placement. A named clinical supervisor is a trainer who is responsible for overseeing the

clinical or medical work of a specified doctor in training throughout a placement and for providing a review of the clinical or medical practice of that doctor in training throughout that placement. The review will contribute to the educational supervisor's report on whether the doctor in training should progress to the next stage of their training.

### **College or Faculty**

The medical Colleges or Faculties provide curricula and assessment systems for specialty training which are approved by the GMC against published standards.

### **Competence**

The term competence refers to a holistic understanding of practice and an all-round ability to carry it out under ideal circumstances. Competence must be distinguished from the competencies assessed in contemporary testing programmes. It rests on an integrated deep structure of understanding and involves subtleties of sensitivity, imagination, wisdom, judgement and moral awareness that are the mark of a wise doctor. A successful conceptualisation of competence would show how specific competencies are integrated at a higher level.

### **Competency**

A competency is a specific capability, a discrete skill or a visible behaviour that is learnt and assessed separately.

### **Consultant-led**

A consultant-led activity is an activity where a consultant retains overall clinical responsibility. A consultant-led service is a service where a consultant retains overall clinical responsibility for the service, care professional team or treatment.

### **Continuing professional development (CPD)**

The term CPD refers to any learning undertaken outside undergraduate education and postgraduate training which helps to maintain and improve performance. In the case of doctors, it covers the development of knowledge, skills, attitudes and behaviours across all areas of their medical practice. It includes all learning activities, both formal and informal, by which doctors maintain and develop the quality of their professional work.

## **Core training (CT)**

Training for some medical specialties is broken down into two parts: core training followed by higher specialty training. For most such specialties, core training lasts for an indicative two years. Doctors in training then compete for places on higher specialty training programmes. Following the implementation of Modernising Medical Careers (MMC), this type of training is sometimes referred to as uncoupled to differentiate it from run-through or coupled training.

## **Curriculum**

A statement of the intended aims and objectives, content, experiences, outcomes and processes of a programme or course, including a description of the structure and expected methods of learning, teaching, feedback and supervision. The curriculum should set out what learning outcomes the learner will achieve.

## **Deaneries (postgraduate)**

Deaneries are the UK bodies that the GMC has authorised to manage GMC-approved training programmes and the training posts within them according to GMC standards. Postgraduate deans are responsible for managing doctors' progression through these training programmes. They are also generally the Responsible Officers responsible for making recommendations about revalidating the doctors in their local training programmes.

In England, the postgraduate dean and deanery functions sit within Local Education and Training Boards (LETBs). In Northern Ireland, the dean and deanery functions are held by the Northern Ireland Medical and Dental Training Agency. In Scotland, the postgraduate deans and deaneries are part of NHS Education for Scotland. In Wales, the dean is part of the Wales Deanery (School of Postgraduate Medical and Dental Education).

## **Education**

The term 'Medical education' is used loosely to apply to all forms of learning by medical students and doctors in training. More typically, 'medical education' relates to the transmission of knowledge often in a university environment and is distinct from 'medical training' whereby competencies and competence are acquired through supervised practice.

## **Educational supervisor**

An educational supervisor is a trainer who is selected and appropriately trained to be responsible for the overall supervision and management of the educational progress of a doctor in training during a training placement or series of placements (a rotation). The named educational supervisor is responsible for the educational agreement of the doctor in training.

A named educational supervisor is a trainer who is selected and appropriately trained to be responsible for the overall supervision and management of the trajectory of learning of a doctor in training and their educational progress during a placement or series of placements. The educational supervisor helps the doctor in training to plan their training and achieve agreed learning outcomes. He or she is responsible for the educational agreement and for bringing together all relevant evidence to form a summative judgement at the end of the placement or series of placements.

## **GP Register**

The GMC is required to maintain the GP Register by law. Since 1 April 2006, all doctors working in general practice in the health service in the UK, other than doctors in training such as GP Registrars, are required to be on the GP Register. This requirement extends to locums.

## **GP Registrar (GPR)**

A medical practitioner who is being trained in general practice whether as part of training leading to the award of a CCT or otherwise. The term 'GP Registrar' was used for appointments to GP specialist training programmes before 2007 but since the MMC restructuring the term Specialty Registrar covers those in GP training as well as other specialties. However, the Medical Act still refers to GP Registrars.

## **GP training**

This involves at least 12 months' employment as a GP Registrar under the supervision of a GP trainer and at least 12 months' employment in one or more specialties that are approved by the GMC as being relevant to general practice. On successful completion of GP training, a Certificate of Completion of Training (CCT) permits application to join the GP Register.



## **Higher specialty training (HST)**

Following successful completion of core training, doctors in training are eligible to apply for higher specialty training (HST). Specialty training (including GP training) programmes vary in length and are tailored to the needs of the specialty. On successful completion of HST, doctors receive a Certificate of Completion of Training (CCT).

## **Local education provider (LEP)**

The term local education provider or 'LEP' refers to the organisation responsible for the environment (usually clinical) in which training is taking place, whether in primary, secondary, community or academic placements. LEPs include health boards, NHS trusts, independent sector organisations and any other service providers that host and support medical students and doctors in training.

## **Modernising Medical Careers (MMC)**

Modernising Medical Careers was introduced in 2007 as a programme of radical change to drive up the quality of care for patients through reform and improvement in postgraduate medical education and training.

## **Out of Programme Experience (OOPE) / Career Break (OOPC)**

Doctors in training with an National Training Number can have a planned absence from an approved training programme at the discretion of their local postgraduate dean/deanery. Such absences do not count towards progress to the award of a CCT.

## **Out of Programme Training (OOPT) / Research (OOPR) posts**

Doctors in training with an NTN undertaking posts outside of their specialty programme must have prospective approval if the post is to count towards their CCT. Deaneries must apply to the GMC prior to the start of the post. If a doctor in training is undergoing an inter-deanery transfer, no information needs to be sent to the GMC.

## **Outcomes**

Outcomes are areas or aspects of knowledge, skill or behaviour to be acquired through a period of education or training.

## **Performance**

Performance is the application of competence in real life. In the case of medicine, it denotes what a doctor in training actually does in his/her encounter with patients, their relatives and carers, colleagues, team members, other members of staff etc.

## **Personal Development Plan (PDP)**

A PDP is a prioritised list of educational needs and intended learning outcomes compiled by a doctor in training prior to meeting with the educational supervisor. The PDP is an integral part of reflective practice and self-directed learning.

## **PLAB**

The Professional and Linguistic Assessments Board of the GMC oversees the PLAB test. The test is the main route by which International Medical Graduates demonstrate that they have the necessary skills and knowledge to practise medicine in the UK. See [www.gmc-uk.org/doctors/plab.asp](http://www.gmc-uk.org/doctors/plab.asp)

## **Placement**

A placement is a structured period of experience and learning in a particular specialty or area of practice in a health or social care setting.

## **Postgraduate training**

This term refers to programmes of training managed by postgraduate deaneries that lead to a CCT capable of being entered on the Specialist or GP Register, including sub-specialties. The term does not cover MDs or PhDs and various postgraduate university programmes of study for which the GMC has no jurisdiction. Nor does the term cover the Foundation Programme.

## **PRHO**

Pre-Registration House Officer – a redundant term. Before the creation of the Foundation Programme, a PRHO was a doctor in the first year after graduation and holding Provisional Registration. Also informally known as simply a House Officer or even more informally as a houseman.

## **Primary medical qualification (PMQ)**

In relation to UK graduates, a first medical degree awarded by a body or combination of bodies that is recognised by the GMC for this purpose, or that was empowered to issue PMQs at the time the degree was awarded.

## **Professionalism**

Professionalism in medicine denotes a set of values comprising statutory professional obligations, formally agreed codes of conduct, and the informal expectations of patients, colleagues and the wider society in which the professional works. These values are set out in Good Medical Practice. Key values include acting in the patients' best interest and maintaining the standards of competence and knowledge expected of members of highly trained professions. These standards will include ethical elements such as integrity, probity, accountability, duty and honour. In addition to medical knowledge and skills, medical professionals should present psychosocial and humanistic qualities such as caring, empathy, humility and compassion, social responsibility and sensitivity to people's culture and beliefs.

## **Provisional registration**

Under the Medical Act 1983, a UK medical graduate is entitled to provisional registration with a licence to practise so long as their fitness to practise is not impaired. The purpose of provisional registration is to enable a graduate to participate in and complete an acceptable programme for provisionally registered doctors. The only acceptable programme for provisionally registered doctors that the GMC recognises is the first year of the Foundation Programme (F1). Provisionally registered doctors are permitted only to take up F1 posts in the Foundation Programme and to do so they must also hold a licence to practise.

## **Quality assurance (QA)**

The QA of medical education and training in the UK includes all the policies, standards, systems and processes in place to maintain and enhance quality. The GMC carries out systematic activities to assure the public and patients that medical education and training meets the required standards. These activities are carried out in accordance with the principles of better regulation as described in the GMC's Quality Improvement Framework.

## **Quality control (QC)**

In the context of the Quality Improvement Framework, QC covers the arrangements through which LEPs ensure that medical students and doctors in training receive education and training that meets local, national and professional standards. Medical Royal Colleges and Faculties also have a role in quality control in terms of ensuring that the national examinations they run are in line with assessment best practice.

## **Quality Improvement Framework (QIF)**

The GMC's approach to the regulation of medical education and training and the name of the document which describes the approach. This has four elements: Approval against standards; Shared evidence; Visits including checks; and Responses to concerns.

## **Quality management (QM)**

In the context of the Quality Improvement Framework, medical schools and postgraduate deaneries are responsible for managing undergraduate and postgraduate training programmes and the progress of students and doctors in training according to the GMC's education standards. Medical schools and postgraduate deaneries will have QM systems to satisfy themselves that the LEPs delivering their local programmes are meeting the GMC's standards. These systems normally involve reporting and monitoring mechanisms.

## **Revalidation**

Revalidation is the process by which all doctors with full registration and a licence to practise are required to demonstrate on a regular basis that they are up to date and fit to practise. This includes doctors in foundation year two and specialty training. Revalidation aims to give extra confidence to patients that their doctor is being regularly checked by their employer and the GMC. Licensed doctors have to revalidate, usually every five years, by having regular appraisals with their employer that are based on our core guidance for doctors, Good Medical Practice, and by collecting supporting information. Revalidation recommendations for doctors in training will usually be made by their postgraduate dean, and will be based on their participation in the ARCP process.

## **Run-through specialty training**

Doctors in run-through or coupled training progress through each stage automatically, provided that they have met all the competency requirements. They complete a single programme of training and do not have to compete for places at different stages in the same way as those doing core and higher specialty training.

## **SAS doctors**

SAS doctors are not in training grades; nor are they consultants or GPs. There is some variation in what SAS is understood to cover but the BMA uses the acronym to stand for Staff grade doctors, Associate Specialists and Specialty Doctors. The Staff grade and the Associate Specialist grade are now closed to new entrants. Specialty Doctor is a relatively new term and refers to a grade where a doctor has received at least four years of postgraduate training, two of those being in a relevant specialty.

## **SHO**

A Senior House Officer – a redundant term. Before the creation of the Foundation Programme and the MMC restructuring, this was a post held typically for two to three years after completion of the PRHO year.

## **Special interest**

A number of curricula include areas of special interest. These areas of the curriculum are approved as part of the main CCT specialty curriculum and do not attach with them separate certification or a separate curriculum. Recording of satisfactory completion is through the ARCP process. For example, breast surgery is a special interest within the main CCT specialty of general surgery. In obstetrics and gynaecology they use Advanced Training Skills modules, an example of which is the Advanced Labour Ward Practice course. See Sub-specialty.

## **Specialist Register**

The Specialist Register was introduced on 1 January 1997. Since then, all doctors taking up a post as a substantive, fixed-term or honorary consultant in the health service in the UK are required to be on the Specialist Register.

## **Specialist Registrar (SpR)**

This is the title given to doctors in training who were appointed into specialist training prior to 2007. These appointments followed completion of a period as an SHO. Informally known as Registrars. Specialist Registrars were not listed on the Specialist Register.

## **Specialty / Specialties**

Specialties are areas of medicine that require particular sets of knowledge, skills and experience, for example paediatrics is a specialty focusing on the medical care of children. To date there are 65 specialties approved by the GMC, including general practice. For the latest list see [www.gmc-uk.org/education/approved\\_curricula\\_and\\_assessment\\_systems.asp](http://www.gmc-uk.org/education/approved_curricula_and_assessment_systems.asp)

## **Specialty Registrar (StR)**

A doctor on a specialty training programme appointed since August 2007. Specialty training levels are referred to as ST1, ST2, ST3 etc and correlate to a year of full-time training. Run-through or coupled training programmes start at ST1 while uncoupled training programmes, such as those in psychiatry and emergency medicine, start with CT1 reflecting the core training and then change to ST3 or ST4 (depending on how long the core training is) for the higher specialty part of the training programme. A Specialty Registrar is not a Specialty Doctor, who is not in training.

## **Sub-specialty**

An approved sub-specialty is an area of one or more specialty curricula which has its own approved curriculum. Satisfactory completion leads to the award of a sub-specialty certificate and is recorded on the Specialist Register. There are no sub-specialties in general practice. To date the GMC has approved 36 sub-specialties.

## **Working Time Regulations (WTR)**

The Working Time Regulations 1998 were implemented following the European Working Time Directive (1993). Since August 2009, doctors in training have been restricted to working no more than 48 hours a week, measured over a reference period of 26 weeks, unless they sign an individual opt-out.



## SHAPE OF TRAINING

### Annex B: Implications of the Shape of Training model on clinical academic training in the UK

#### Current clinical academic training arrangements in the UK<sup>1</sup>

- 1 Although this annex is setting out the clinical academic pathway, it is important that all doctors should have the capacity to understand the implications of scientific and medical advances for their patients through critical thinking. These skills must be part of the generic professional capabilities framework.
- 2 Medical schools in England, Northern Ireland, Scotland and Wales all provide similar opportunities to experience academic medicine at undergraduate level. Medical students wishing to pursue an academic career have the opportunity to complete an intercalated degree at medical school, meaning that they can take a year out from the medical curriculum to study an area of science and complete a research project in that field. A small number of students may decide to complete a course that combines medical training with a PhD, which usually takes about eight years to complete.<sup>2</sup>
- 3 Graduates may then apply for placements within the Academic Foundation Programme (AFP). Foundation doctors following an AFP have dedicated time set aside for academic activities. Most of the dedicated academic time will be during the second year of foundation training (F2), but some programmes arrange additional activities during the first year (F1).
- 4 Clinical academic medicine after the Foundation Programme takes on different structures in the four UK countries, in part because of different funding and employment arrangements. Posts and research opportunities are funded by a number of organisations within each of the four UK countries, as well as by UK -

<sup>1</sup> The information in this annex is taken from the Foundation Programme Office advice to students about a career in academic medicine including visual representations of the pathways - <http://www.foundationprogramme.nhs.uk/pages/medical-students>.

<sup>2</sup> The course is called the MB PhD (MB means Bachelor of Medicine Doctorate)

wide organisations such as the Wellcome Trust, the Academy of Medical Sciences and the Medical Research Council. Universities and Local Education and Training Boards (LETBs) in England and deaneries in Northern Ireland, Scotland and Wales also collaborate closely to support doctors in these career pathways.

## **England**

- 5** After the Foundation Programme, some doctors undertake an Academic Clinical Fellowship, which is a three-year training position in a particular specialty or area of academic interest. They are given 25% of their training time to dedicate to academic studies.
- 6** Those wishing to proceed along an academic route, will need to undertake at least three years of research leading to a PhD. Successful candidates can then compete for a Clinical Lecturer post, lasting about four years.
- 7** Doctors following an academic career then look for a five-year Clinician Scientist appointment, a Senior Lectureship, or some other post-doctoral fellowship.
- 8** In England, for example, the National Institute for Health Research (NIHR) is one of the main funding bodies for clinical academic medicine posts.

## **Northern Ireland**

- 9** Clinical academic training in Northern Ireland is coordinated and funded by the Northern Ireland Medical and Dental Training Agency (NIMDTA) and Queens University, Belfast. UK - wide bodies, such as the Academy of Medical Sciences, also provide funding.
- 10** In post Foundation Programme training, a doctor can complete an Academic Clinical Fellowship (ACF), lasting two years. This posts aims to develop a doctors' clinical and academic skills with 25% of the doctors' time being spent carrying out research.
- 11** A doctor may also choose to complete an Academic Clinical Lectureship (ACL), lasting two years. The doctor will normally have completed a PhD/MD prior to applying for an ACL and will complete their clinical training whilst carrying out postdoctoral research.

## **Scotland**

- 12** Post-AFP academic training opportunities in Scotland fall under the umbrella of the Scottish Clinical Research Excellence Development Scheme (SCREDS). The Scottish Funding Council or UK - wide bodies normally provide funding for these posts.



- 13** Clinical academic training in Scotland spans the entire length of specialty training. There are no ACF or equivalent posts in Scotland, but there are a series of SCREDS opportunities to develop academic skills through all aspects of post-foundation medical training.
- 14** These Scottish posts provide integrated clinical academic training and are funded by NHS Education for Scotland (NES) and Scottish universities. They typically average 80% clinical time and 20% academic time, with flexibility according to the career stage reached. At the higher level of training, doctors must hold an NTN in the specialty before appointment.
- 15** NES Clinical Lectureships are organised regionally, with very close liaison between deaneries and universities.

## **Wales**

- 16** The Wales Deanery, in association with the major Welsh universities and the Welsh Government, coordinates and funds the Welsh Clinical Academic Training Fellowship (WCAT) programme for people training to be doctors and dentists. WCAT posts are run through lectureship training positions typically lasting eight years.

## **Clinical academic medicine within Shape of Training model**

- 17** Patient care and service improvements will likely be driven over the next 30 years, in part, by developments and advances in medicine, science and technology. If the UK is to lead on these innovations, we must continue to train doctors who straddle both clinical and academic areas. We do not anticipate either substantial changes to the way these doctors train or a reduction in the numbers that will be needed in the future.
- 18** A more flexible approach to training will benefit all doctors, including those in academia and research. They will be able to undertake training programmes that suit their particular focus while making sure they are capable of caring for patients safely. A less rigid structure will also encourage doctors to consider moving into an academic career at different points in their training.
- 19** Although an indicative timeframe to complete a training programme is still needed, more personal and targeted training pathways based on outcomes will allow doctors to learn and develop in ways that suit their needs better. Doctors in clinical academic medicine will be able to manage their clinical outcomes without penalising their academic requirements. Time spent on academic development will no longer need to be undertaken outside of training programmes. However, clinical academic doctors in training may take longer than other doctors to complete training.

- 20** We also heard from both doctors in academic training and their trainers that most academic training should fit within a broad - based specialty training programme and that they should be expected to develop generic professional capabilities. The majority of doctors in clinical academic training should be able to care for patients in the general areas of their broad specialties. This will give them a good grounding in the nature of diseases, and enable them to work effectively within multi - professional teams and to understand the impact of their care on patients and carers.
- 21** But a small number of academic doctors in training may narrow their scope of practice quite early on in their training because of their particular research area. This should be discussed and agreed by the appropriate postgraduate organisations, including employers. It should also have clear benefits for patients or the service. However doctors who narrow their training pathways early on will not be able to retrain or change specialties as easily as other doctors.
- 22** Paragraphs 114 to 119 in the Final Report describes how clinical academic training will fit within a new training structure. Key points include:
- Clinical academic training will be a specific pathway within a broad - based specialty training. Where possible these doctors will still deliver general care within the broad specialty area.
  - In exceptional circumstances, a small number of clinical academic doctors should be able to restrict their clinical practice to narrow specialty, special interest or subspecialty areas.
  - A flexible structure will allow doctors to move in and out of clinical training while meeting the competencies and capabilities required of that training.
  - Doctors will also be able to move in and out of the academic pathway throughout their careers. This will help make medicine a more sustainable career option.
  - With a more flexible approach to progression, time spent in academic training should not count as out of programme. The time taken to meet the requirements of the Certificate of Specialty Training should be governed by the speed at which the trainee acquires the necessary clinical competencies. It is in the 'craft' specialties that doctors on academic training pathways may take longer to achieve such competencies.

- 23** But it is not necessary for all doctors to undertake or participate in research or academic projects to meet training outcomes.



## SHAPE OF TRAINING

### Annex C: Comparisons of previous inquiries into postgraduate education and training in the UK

Report	Key points	Some examples of work relevant to the Shape of Training review (not exhaustive)
<i>Aspiring To Excellence: Final Report of the Independent Inquiry into Modernising Medical Careers</i> - <a href="#">Final%20MMC%20Inquiry%20Jan2008.pdf</a>	Postgraduate medical training should be developed on a broad-based platform that allows for increased flexibility in the delivery of training.	Broad Based Training curriculum developed – <a href="http://www.rcgp.org.uk/gp-training-and-exams/broad-based-training-programme.aspx">http://www.rcgp.org.uk/gp-training-and-exams/broad-based-training-programme.aspx</a> .  Two - year broad based Training programme piloted in August 2013. 52 posts were available in seven deaneries.  Acute Care Common Stem training - <a href="http://www.accsuk.org.uk/">http://www.accsuk.org.uk/</a>
Professor Sir John Tooke	Postgraduate medical training must ensure trainees value their experiences and aspire to excellence in both learning and the delivery of the service.	The Trainee Doctor guidance - <a href="http://www.gmc-uk.org/Trainee_Doctor.pdf">http://www.gmc-uk.org/Trainee_Doctor.pdf</a> 39274940.pdf

	There must be clarity and shared understanding of the role of all doctors within the multi-professional team, including the contribution to service delivery by trainees.	<p>The Role of the Doctor Consensus Statement by MSC - <a href="#">RoleofDoctorConsensus_Statement.pdf</a></p> <p>Valuing the Doctor in Training Charter (see Annex F in Shape of Training Final Report)</p>
	Career aspirations and choices should be informed by accurate data on employment prospects and level of competition for the post.	<p>Career work streams in Better Training Better Care - <a href="http://hee.nhs.uk/work-programmes/btbc/">http://hee.nhs.uk/work-programmes/btbc/</a></p>
	Doctors should be allowed to interrupt their training by agreement to seek alternative experiences that enhance their career and contribute to the NHS.	<p>Out of Programme activities, such as research.</p> <p>Increased support for less than full time training.</p>
<p><i>Foundation for Excellence: An evaluation of the Foundation Programme -</i>  <a href="#">MEE_FoundationExcellence_a cc.pdf</a></p>	This evaluation of the Foundation Programme was for England.	HEE's Better Training Better Care (BTBC) initiative has taken forward a number of projects to implement these recommendations.
	A desire for more choice and flexibility in the system whilst prescribing specific	Bringing together pre-registration pharmacists and foundation trainees for improved training, education and prescribing.

Professor John Collins	learning experiences such as community placements.	BTBC work stream - Broadening the Foundation Programme: Review of the Foundation Programme Curriculum. BTBC has established three groups that will explore these aims and develop the deliverables.
	The current Foundation curriculum was not aligned to the changing needs of the NHS.	BTBC pilots: <ul style="list-style-type: none"> <li>• Heart of England Foundation Trust - Enhancing the transition from student to doctor through the e-learning VITAL project.</li> <li>• Leeds and York Partnership NHS Foundation Trust - Maximising and enhancing training opportunities and clinical time with patients by changing working pattern. This mental health and learning disabilities trust has revised the out of hours care pathway, using new ways of working, to bring more trainees into daytime hours where they can benefit from greater supervision at a time when most patients prefer their assessments and therapies.</li> <li>• Revised Foundation Programme Curriculum 2012.</li> </ul>
	Acute hospitals were not necessarily the best places to provide trainees with experience of managing long-term conditions, and training should encompass community settings where much of this	BTBC pilots <ul style="list-style-type: none"> <li>• Broadening the Foundation Programme.</li> </ul>

	care is now provided.	<ul style="list-style-type: none"> <li>• East Kent Hospitals University NHS Foundation Trust - Establishing hot 'emergency-based' and cold 'ward-based' teams to enhance the trainee experience, improving patient care at weekends.</li> <li>• Guy's and St Thomas' NHS Foundation Trust - SMART (Specific, Measurable, Aligned with training opportunities, Relationship building and Timed): training blocks/skill sets are formulated based on existing service requirements, patient continuity. Trainees take the lead using their prior learning, the opportunities in the post and the expectations of their stage in the curriculum to identify clear learning goals.</li> <li>• Leeds Teaching Hospitals NHS Trust - Advanced training and education in acute general surgery through novel interventions.</li> </ul>
<p><i>A High quality workforce: NHS next stage review final report - <a href="#">NHS Next stage review Final Report.pdf</a></i></p> <p>Professor the Lord Darzi of Denham</p>	Workforce planning, education and training need to change to enable staff to respond more effectively and flexibly to this dynamic environment.	
	There is a need for more clarity on the roles and contributions of healthcare professionals and how their roles are	<p>A number of initiatives have been taken forward to clarify the roles within the medical profession.</p> <p>The Role of the Doctor Consensus Statement - <a href="#">RoleofDoctorConsensus_Statement.pdf</a></p>

	changing.	Value of the Doctor in Training Charter (see Annex F in Shape of Training Final Report)
	Training must ensure career pathways offer the appropriate breadth and depth of knowledge and experience. The report also highlighted that it was important for the team to deliver personalised patient care and that clinicians needed to take on leadership roles.	Work has developed across the country to encourage more clinicians to take on leadership roles.  The BMA has produced a report on <i>Doctors' Perspectives on Clinical Leadership</i> , which looks at the barriers and enablers to clinical leadership as well as the role of medical education and training in leadership.
	Modularised, accredited training packages should be introduced and all clinical staff should have the opportunity to develop their skills throughout their careers.	NICE - Developing a fellowship programme to reward contributions to quality care.
<i>Scottish Foundation Programme Review Report</i>	Doctors could benefit from more community and general practice placements.	General practice placements in F2. Foundation Programme curriculum 2012 - availability of community placements will increase.
Alastair Cook	Training should include the experience of working within multidisciplinary teams, so as to reflect emerging practice.	Good Medical Practice 2013 – Domain 3 <i>Communication, Partnership and Teamwork</i> <a href="http://www.gmc-uk.org/static/documents/content/GMP_2013.pdf">http://www.gmc-uk.org/static/documents/content/GMP_2013.pdf</a> 51447599.pdf
	Trainees currently work in shift patterns, reducing continuity of contact between trainees and their clinical supervisor and clinical team.	NHS Education for Scotland initiative, ' <i>Communicating, Connecting, Caring</i> ' - <a href="http://www.nes.scot.nhs.uk/education-and-training/by-theme-initiative/communicating-connecting-caring.aspx">http://www.nes.scot.nhs.uk/education-and-training/by-theme-initiative/communicating-connecting-caring.aspx</a>



<p><i>Final Report of the Education and Training Regulation Policy Review:</i></p> <p><i>Recommendations and Options for the Future Regulation of Education and Training - Patel review.pdf</i></p> <p>Lord Patel</p>	<p>The GMC should not adopt a 'one size fits all' approach to medical education, training and development .</p> <p>In integrating education and training into the regulatory framework the GMC should demonstrate robust mechanisms for engaging with and involving the public and taking account of the patient experience.</p>	<p>GMC's quality assurance processes and recent QA review.</p> <p>As part of the work the GMC undertakes around education and training, it engages with a range of individuals and organisations, including patients and the public</p>
	<p>Regulation should address the challenges with transitions between the different phases of doctors' careers.</p>	<p>Revised CPD Guidance launched 18 June 2012 - <a href="http://www.gmc-uk.org/CPD_guidance_June_12.pdf">http://www.gmc-uk.org/CPD_guidance_June_12.pdf</a> 48970799.pdf</p> <p>Report published on '<i>A Study to assess the impact of continuing professional development (CPD) on doctors' performance and patient/service outcomes for the GMC</i>' - <a href="#">The_impact_of_CPD.pdf</a></p> <p>Revalidation began on 3 December 2012 and the GMC expects to revalidate the majority of licensed doctors in the UK for the first time by March 2016.</p> <p>CESR review - <a href="#">Routes to the GP and Specialist Register_Final_Report.pdf</a> 4819 5178.pdf.</p>
	<p>Regulation must recognise the different organisations involved in medical education and training along with the wider healthcare system.</p>	<p>Views expressed during the GMC's QA review process suggest that the GMC needs to work more closely with educational institutions to better share information and resources.</p>

<p><i>Time for Training: A review of the impact of the European Working Time Directive on the quality of training - <a href="#">Time for Training.pdf</a></i></p> <p>Professor Sir John Temple</p>	<p>Quality medical training can be delivered within a 48-hour working week but only with changes to the current service and training structure.</p> <p>With fewer hours in the working week, trainees and trainers need to have a more individualised approach to education, with trainees spending time focused on developing the competences relevant to their particular clinical specialty.</p>	<p>BTBC pilot at Leeds and York Partnership NHS Foundation Trust - Maximising and enhancing training opportunities and clinical time with patients by changing working patterns.</p> <p>Review of Hospitals at Nights and Weekends – Regulation and Quality Improvement Authority <a href="#">Full Report HospitalsatNightsandWeekends2013.pdf</a></p> <p>BTBC pilot at Royal Berkshire NHS Foundation Trust - Addressing the apparent gap between learning opportunities from every day recognised problems by 'Making Every Moment Count'</p>
	<p>Introduce a consultant-delivered service with a consultant available at all times for direct patient care responsibilities. Trainees should not be relied on to fill gaps in service provision at the expense of their training.</p>	<p><i>Benefits of Consultant Delivered Care</i>, AoMRC report published 24 January 2012  <a href="http://www.aomrc.org.uk/publications/statements/doc_view/9450-the-benefits-of-consultant-delivered-care.html">http://www.aomrc.org.uk/publications/statements/doc_view/9450-the-benefits-of-consultant-delivered-care.html</a>.</p>
	<p>A consultant-delivered service is more flexible with some consultants working within shift patterns, which will improve training and supervision to trainees.</p>	
	<p>More support and mentoring for trainees and newly qualified consultants</p>	<p>Mentoring schemes now in some places.</p>

	<p>Training has to be a fundamental part of the design and delivery of patient care. It is recognised that an institution which trains well also delivers high quality patient care.</p> <p>Only departments and/or hospitals that can deliver high quality training and provide the resources and support for this should be designated training locations.</p>	<p>GMC work on '<i>Approved practice settings</i>' and '<i>Approving education environments</i>'.</p> <p>Review of GMC's Quality Assurance processes.</p>
	<p>Recognise, develop and reward trainers.</p>	<p>GMC work on <i>Recognition and Approval of Trainers</i>. GMC Council has agreed a phased process for implementing new arrangements for recognising and approving trainers.</p> <p>Work is also being taken forward by HEE Better Training Better Care, National Association of Clinical Tutors (NACT) and AoMRC on implementing the framework.</p>
<p><i>NHS Future Forum: Summary report on proposed changes to the NHS - <a href="#">Future Forum Report.pdf</a></i></p> <p>Professor Steve Field</p>	<p>Education and training should be based around patient needs, and curricula should reflect the principles that guide the NHS.</p>	
	<p>A system that is able to respond more quickly to the challenges of changing patterns of care.</p>	<p>One of the aims of the Shape of Training Review.</p>
	<p>Education and training organisations, including higher education institutions, NHS foundation trusts and GP practices,</p>	<p>Some trusts have introduced schemes to better involve patients in training programmes.</p>

	<p>should be able to demonstrate that patients and the public have been engaged in their training programmes.</p>	<p>Some trusts have also introduced additional mechanisms for encouraging openness and learning on how to deal with specific patient experiences, called Schwartz Rounds.</p> <p>Opportunities have also been introduced for junior doctors to be involved in patient studies in order to develop their interaction skills and knowledge of patient needs, such as patient stories at board meetings, clinical reviews and shadowing of patients.</p>
	<p>The DH, and in the future HEE, should work with regulators to develop guidance to support programmes of appraisal and continuing development for healthcare workers.</p>	<p>CPD guidance for doctors published on 18 June 2012.</p> <p>HEE mandate encourages the development of skills of NHS staff, including HCAs.</p>
	<p>The Department of Health, and in the future HEE, should set out how it will review the principles and aims of the Tooke Report, considering which aspects and outcomes remain relevant for implementation in the new system; in particular the extension of GP training, the development of a more flexible career pathway and the means to foster generalism in medicine both in the community and in the hospital.</p>	<p>The Shape of Training Review was taken forward in February 2012.</p>



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## SHAPE OF TRAINING

### Annex D: Governance of the review

- 1 The Shape of Training Review, a review of postgraduate medical education and training, was launched through an agreement between the key organisations responsible for the regulation, commissioning and delivery of medical education and training in the United Kingdom.

#### Sponsoring Board

- 2 The Review of postgraduate medical education and training was jointly sponsored by:
  - Medical Education England (MEE) – whose function was subsumed into Health Education England (HEE)
  - the Academy of Medical Royal Colleges (AoMRC)
  - the General Medical Council (GMC)
  - the Medical Schools Council (MSC)
  - the Conference of Postgraduate Medical Deans of the United Kingdom (COPMeD)
  - NHS Education for Scotland (NES)
  - the Northern Ireland Medical and Dental Training Agency (NIMDTA)
  - The Wales Deanery

#### The Chair

- 3 Professor David Greenaway, Vice-Chancellor of the University of Nottingham, was appointed by the Shape of Training Sponsoring Board to lead the Review.
- 4 Professor Greenaway is an Economist who was Chairman of the Armed Forces Pay Review Body from 2004 until March 2010, having been a member of the Body since 1998. He was also a Member of the Senior Salaries Review Body from 2004 until 2010.

#### Expert Advisory Group

- 5 Professor Greenaway put together an Expert Advisory Group (EAG) to help him identify issues and potential options for changes to postgraduate training.
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Members of the group were selected for their independent expertise and advice rather than as representatives of their respective organisations.

**6** The members were:

- Dr Angela Coulter - Senior Research Scientist, Dept. of Public Health, Oxford
- Dr Tom Dolphin - Previous Chairman, BMA, Junior Doctors Committee
- Professor Peter Dolton - Professor of Economics, University of Sussex
- Ms Susan James - Chief Executive, Royal Derby Hospitals
- Dr John Jenkins, CBE - Previously Chaired, GMC Postgraduate Board
- Professor the Lord Kakkar - Director of the Thrombosis Research Institute, all in London, UK
- Professor Malcolm Lewis, OBE - Sub-Dean and Director, General Practice Education Wales Deanery
- Ms Clare Marx, CBE - Consultant Orthopaedic Surgeon, Ipswich Hospitals NHS Trust
- Dr Peter Nightingale - Previous President, Royal College of Anaesthetists
- Professor Bill Reid - Postgraduate Dean, NHS Education for Scotland
- Sir John Savill - Chief Executive, Medical Research Council, Chair of Experimental Medicine for MRC Centre for Inflammation
- Professor Paul Stewart – Dean of Medicine, University of Leeds

**The Executive**

**7** The executive body for the Review is provided jointly by the GMC and HEE with the GMC providing secretariat support - including policy and communications developments. The executive is made up of:

- Vicky Osgood, Assistant Director, Postgraduate Education, GMC, who is the Secretary of the Review
  - Stuart Carney, Senior Clinical Adviser, HEE, who is the Clinical Lead for the Review
  - Paula Robblee, Policy Manager, GMC
  - Jessie Moye, Projects Administrator, GMC
  - Richard Marchant, Assistant Director, Regulation Policy, GMC
  - Richard Green, Head of External Communications, HEE
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## **Terms of Reference**

- 8** The Terms of Reference were informed by previous work by Medical Education England. They were drafted by the Shape of Training secretariat for the Sponsoring Board and agreed by the Shape of Training Sponsoring Board on 22 March 2012.
- 9** The Terms of Reference formally set out the roles and responsibilities of those involved in the Review, what we aim to achieve, how and by when.

## **Terms of Reference (22 March 2012)**

### **Background**

Good medical education is essential to good medical practice. There is much in UK medical education and training to be positive about. The GMC's 2010 national survey of doctors in training showed that nearly 90% of those approaching the end of their training were confident about taking up a new role as a consultant or GP.

In recent years significant developments in UK medical education and training have followed after recommendations made in a number of seminal reports. But those reports have also pointed to the need for further reform if education and training is to support society's changing needs.

In 2007, the independent inquiry into Modernising Medical Careers, led by Professor Sir John Tooke, made a number of recommendations about the shape and structure of postgraduate medical education and training in the UK. It called for a more flexible and broad-based approach to training integrating both training and service objectives into workforce planning. The inquiry also raised profound issues about the role of trainees, SAS doctors and consultants within the service and the implications of the Certificate of Completion of Training (CCT) on training and practice.

Following on from Tooke, other inquiries have also highlighted the need to develop the current structure of postgraduate medical training so it continues to provide consistent, high-quality training for doctors throughout the UK. They too have pointed to the need for more flexibility in training in order to equip doctors to respond better to the changing needs of patients and the service.

In 2011, Medical Education England (MEE) undertook preliminary work to identify issues facing the future of postgraduate medical training (Phase 1). A steering group scoped out key themes for a review of the structure or shape of training. These included looking at the tensions between the needs of the service and training; the balance between generalist and specialist care; flexibility and value for money; and the need for innovation set against the risks of destabilisation.

### **Purpose of the Shape of Training Project**

The purpose of the Review is to ensure that doctors receive high-quality education and training that support high-quality patient care and improved outcomes.

To this end the Review will make recommendations to the four countries of the UK for the reform of medical education and training necessary to produce doctors of high calibre who are able to meet the changing health needs of the UK population.

## **Scope of the Review**

The Review will be UK wide and this will be reflected in the composition of the Expert Advisory Group (see paragraph 6 above).

The focus should be on postgraduate medical education and training.

The Review must also take account of the transitions from the Foundation Programme into specialty training and continuing professional development (CPD) once formal training has been completed.

## **Themes and issues**

Building on the earlier work on shape of training (Phase 1), the key tasks are to consider and make recommendations in relation to the following areas:

### **Theme 1 - Patient needs and expectations**

There is a lack of transparency for patients and the service about the standard of practice that both trainee doctors and trained doctors have attained. The Review should consider ways of developing training structures that provide clarity about the competencies attained by individuals and the roles and responsibilities of trainees and trained doctors.

### **Theme 2 - Workforce needs: Specialists or generalists**

The current model of medical training is based on a high degree of specialisation and sub-specialisation of medical practice. There are currently more than 60 specialties and over 35 sub-specialties, and the number is growing.

Patient expectations and the future health needs of a population that is living longer but with more long-term diseases and comorbidities will require a system that can provide care within different environments and in different ways. The Review should examine evidence on whether we have the right balance between generalists and specialists needed to deliver that care and consider the implications for the way we need to structure medical training.

There is an underlying assumption that there is only one appropriate outcome of successful training, which all doctors must meet, with any other outcome being a failure. The Review should examine whether there are alternative models for training, including the timing of the CCT, the content and length of training depending on the specialty, exit points within training, the timing of sub-specialty training (at present specialty and sub-specialty training are often undertaken at the same time), the way in which competencies acquired during training are recognised, and the balance between generalism and specialism.

The Review should also consider whether there should be an enhanced role for CPD and credentialing to support sub-specialty training post-CCT.



### Theme 3 - Training and service needs

There is a tension between service and training when working in a system based on trainees delivering the service, particularly at nights and weekends. They also frequently work in under-supported roles and may be asked to undertake tasks outside their level of competence. The Review should consider the role trainees should have within the service and how the competing needs of the service and training can be addressed.

### Theme 4 - Breadth and scope of training

The Review should consider how trainees can be better supported in gaining the right mix of knowledge, skills and behaviours to prepare them for the different healthcare environments and contexts in which they will work. Attention should be given to the structure of training, balance between giving trainees sufficient exposure to acutely ill patients and emergency interventions, while recognising that training will increasingly be delivered in the community, and allowing enough time for trainees to reflect on their practice and learn from their experiences.

### Theme 5 - Flexibility of training

Trainees – and subsequently trained doctors – find it difficult to move into another specialty to which they may be better suited or when the nature of medical practice, or patient or service needs, have changed. In general, they have to begin again in a training programme for the new specialty or sub-specialty rather than focus on gaining the additional knowledge and skills required for the new area of medicine.

Trainees' needs and expectations are changing with more of them wanting to move in and out of training with prior learning being recognised. Many doctors in training need to balance life and work, and require better support in maintaining their skills within different training and work contexts.

The Review should examine how to achieve more flexible models of training that will allow trainees and trained doctors to move more easily between specialties and into and out of training. It should also look at ways of supporting and valuing training that combine medical practice and academic or management careers.

## **Structure and governance**

### Sponsoring Board

The Review will be taken forward through an agreement between MEE, the Academy of Medical Royal Colleges (AoMRC), the General Medical Council (GMC), the Medical Schools Council (MSC), the Conference of Postgraduate Medical Deans of the United Kingdom (COPMeD), NHS Education for Scotland (NES) and representatives from Northern Ireland and Wales.

These groups will jointly form a Sponsoring Board to ensure UK oversight, representation from the regulator and coverage of the whole training pathway, including undergraduate stages.

The Sponsoring Board will set the strategic direction of the Review and determine how the Steering Group (see below) will account for its delivery. The Sponsoring Board will set the scope, timelines and outputs of the Review. It will also have responsibility for approving any financial commitments.

The Board will meet to initiate the Review, monitor progress at the midpoint and consider the draft report and recommendations from the Chair of the independent review. It may meet on other occasions as required. The Board may undertake some of its tasks electronically.

The Sponsoring Board will be composed of:

- a. one senior representative (preferably the chair or chief executive) of each sponsoring organisation;
- b. a representative (government official or designated education lead) of the Chief Medical Officer from each of the four countries;
- c. the independent chair of the Review, to be appointed by the sponsoring organisations.

The Board will be chaired on a rotating basis by the government officials in turn (in line with UKSG practice).

The Chair of the Review

The Review will be led by an independent Chair, appointed by the Appointments Commission on behalf of the Sponsoring Board.

The Chair will:

- oversee and direct the Review;
- be responsible for the delivery of the strategic objectives of the Sponsoring Board;
- report regularly to the Sponsoring Board to ensure UK-wide relevance;
- develop principles and recommendations for the reform of postgraduate medical education and training with particular reference to the themes and issues described in these Terms of Reference;

- define and prioritise work to test new training pathways, models and structures;
- develop and coordinate a work programme for the review of the shape of postgraduate training, including how it may be implemented;
- identify and assist projects already under way or planned;
- provide leadership for work relating to the review of the shape of medical training and make sure it aligns with other relevant work;
- ensure good communications and engagement with all stakeholders at all times;
- make sure educational, provider, professional and service perspectives are taken into account at all stages of the development of the Review.

The Chair of the Review will be assisted in carrying out his responsibilities, as set out in the bullets above by an Expert Advisory Group.

#### Membership of the EAG

Membership of the EAG will be taken from among the following:

- The independent chair of the Steering Group appointed by the Sponsoring Board
- Public/lay members
- The Academy of Medical Royal Colleges
- The British Medical Association
- The General Medical Council
- The Medical Schools Council
- The Conference of the Postgraduate Medical Deans of the United Kingdom
- NHS Employers
- Medical Education England
- NHS Education for Scotland
- The UK Foundation Programme Office
- The Academy of Medical Sciences

- Representatives from Northern Ireland and Wales

In supporting the Chair of the Review, the role of the members of the EAG is to provide him with independent expert assistance rather than to represent the interests of the organisations by which they have been nominated.

### **Outputs and timescale**

The Review will produce a final report with recommendations to the Shape of Training Sponsoring Board in the summer of 2013.

The report will set out any immediate changes, changes in the medium term (two - five years) and changes in the long term (five -ten years and beyond). It should also consider how these changes may be implemented in a coordinated way throughout the training pathways.

The report should be informed by a number of activities undertaken as part of the Review, including:

- A timeline for implementing any proposals, including the need for pilots and further work.
- A strategy and plan to work with stakeholders throughout the project as well as how the recommendations should be implemented and evaluated.
- Outcomes from any research or other work that was commissioned to gather evidence about the shape of training in other jurisdictions or professions.
- A matrix of work in progress by all key stakeholders that may impact on or inform the shape of training in the short, medium and/or long term.
- A series of workshops, seminars and events held throughout the review period.

### **Working methods**

The Chair of the Review and his EAG will undertake their work through meetings or by email as the Chair deems appropriate. They may organise or participate in such seminars, workshops, focus groups and other activities, as required. The Chair may commission such research, discussion papers, surveys and questionnaires as are necessary to support the work.

### **Accountability**

The Chair of the Review will report to the Sponsoring Board.



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# SHAPE OF TRAINING

**Jennifer Oates**

A report for the Shape of Training review

June 2013

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## **Author biography**

Jennifer Oates is a freelance regulatory policy and research consultant. She has recently contributed to the GMC's review of evidence to support revalidation and has worked as a mental health adviser in policy and standards at the NMC.

She combines work on health professional regulation with being a part time senior lecturer in mental health nursing at the University of Hertfordshire. She is a Mental Health Act Commissioner with the CQC. She is also on the governing body of Brighton and Hove Clinical Commissioning Group.

# **Shape of training evidence reviews**

## **Executive summary**

### **Introduction**

This executive summary summarises the findings of the evidence reviews undertaken to inform the Shape of Training review of UK postgraduate medical education and training (the Review). Evidence has been gathered and reviewed in a systematic way, and has been synthesised in four separate papers and two briefings. The reviewed evidence has been related to the five themes scoped out for the Review. The first paper looks at recent evidence evaluating the effectiveness of the system of UK postgraduate medical education post-MMC. The second paper looks at reviews of non-UK medical education in order to compare these reviews with concerns raised about the UK system. The third paper looks at future predictions regarding medical practice and health and social care. The implications of these for the thematic concerns of the Review are discussed. The fourth paper considers patient need and engagement (one of the Review's themes) in detail. The two briefing papers summarise current thinking on two major current preoccupations within medical policy: integration and generalism. These evidence reviews provide the background for the analysis and development of the key themes of the Review.

### **Background**

The UK postgraduate medical curriculum was overhauled in 2005. At this point Foundation and Specialist Trainee roles succeeded the roles of House Officer, Senior House Officer, Registrar and Specialist Registrar. There was a shift to a more 'competency-based' model of medical education, as opposed to an apprenticeship model. New ways of training and assessing trainee doctors were introduced, for example workplace-based assessments (WPBAs); problem-based learning, portfolios; a move towards holistic rather than disease-based clinical approaches; and also an increased emphasis on peer and patient feedback regarding a trainee doctor's performance (Osgood and Ossai, 2008). The changes instigated around the time of MMC took place within a complex system, some components of which are of long standing. Brice and O'Corrigan (2010), in their review of the landscape of medical education in the UK, describe medical education as always undergoing constant change and development, and as subject to the influence of social and political forces. They consider that the rate of this change and influence is growing exponentially. Alongside the explicit curriculum of medical education, some writers have described a 'hidden curriculum', in which trainee doctors learn that specialism is preferable to generalism, and that there is a hierarchy of esteem between specialties (Wass, 2007). Curricula vary between the UK medical schools, and the popularity or not of the newer approaches to medical education varies between specialties, schools, deaneries and groups of students.

The policy climate in the UK, in particular in England, means that the structures of the NHS and Higher Education are changing. The environment in which doctors learn and practice is on the verge of being very different from the recent past. The Department of Health (2012) has stated that current policy developments are the means of addressing 'demographic and technological change'. The NHS Future Forum was tasked with consulting and reporting on how future healthcare may be shaped. This included implementing the recommendations of the Temple report (2010) and the Collins report (2010) and taking into account of calls by the Royal College of General Practitioners

for extended GP education (2011b). The NHS Future Forum has called for the Review to build on existing work, to be sustainable and to be reflective of the wider picture in healthcare practice (2011a).

Policy, workforce and education decisions now must take into account the impact they will have on future practice and patient experience. The recent changes to health and social Care legislation in the UK, in particular the implementation of the *Health and Social Care Act 2012* in England, are future facing. They aim to address predicted future challenges as well as current issues. The major health policy think tanks, Royal Colleges and the governments of the four nations have published reports and consultation papers addressing how current estimations of future concerns may be met. Most recently (late 2012), the King's Fund launched its Time to Think Differently stream of work, incorporating its response to predicted future trends. The lag between commencement of medical studies and entry into the profession means that decisions about the medical workforce should be part of a longer-term strategy.

### **What evidence is there for the effectiveness of UK postgraduate medical education? What factors impact on the quality of postgraduate medical education in the UK?**

The majority of papers looking at medical education are discursive rather than being records of primary research. Much has been written on the historical context of changes in medical education and on reactions and responses to MMC and the European Working Time Directive (EWTD). Substantial recent evidence regarding the quality of medical education also comes from commission and inquiry reports. These reports tend to be based on some evidence-gathering from stakeholders and non-systematic reviews of the literature.

Whilst much has been written about the state of medical education in its current iteration, the evidence regarding whether it meets service, workforce, patient and individual doctors' needs could be stronger. Much of the work that has been done has been opinion-based surveys. These have tended to ask trainees, new consultants and trainers to retrospectively consider the quality of training in which they have been involved or to comment on current experiences of training. This work is useful for gauging the popularity of certain views within the profession and for informing how to frame future policy initiatives. There is a danger though, in using opinion as a proxy for hard evidence, particularly when current views may not have any past counterparts against which comparisons can be made. Periodic surveys, such as those by the GMC, the Royal Colleges and the Medical Workforce Unit, enable some comparisons over time to be made, but these, again, should not be interpreted in the same way as larger cohort or longitudinal studies might be. The Oxford research provides ongoing survey evidence on whole cohorts of trainee doctors, although the changing views of specific doctors are not tracked.

### **What other models of postgraduate medical education are used outside the UK? What evidence is there of the advantages / disadvantages they offer compared with the UK system?**

Published global literature on postgraduate medical education has tended to comprise discussions, interviews and surveys. Research papers tend to be about innovations and



development at local service level rather than national level. They tend not to be engaged with national training developments, save those addressing the working hours imperative, and even then are reports of local studies and local responses. The quality of the research studies tends to be reasonable, but the findings are not necessarily generalisable given the small sample sizes and the localised nature of the results.

The preoccupations of those writing about and researching medical education outside the UK seem to be similar to those within the UK. Countries are either working towards or wrestling with modern approaches to medical education: making it more flexible and competency based, and also opening up the field to take into account learning, evidence and approaches from other quarters. The balance between specialism and generalism is a common preoccupation. A concern with the quality of consultant-led teaching and also calls from junior doctors for more clinical content and contact time as undergraduates are found in non-UK as well as in UK works.

A review of this size could not realistically absorb all of the published literature on postgraduate medical education. The limited search terms and criteria have brought up works that are disparate in that they record concerns, initiatives and evaluations that reflect global preoccupations in a generally localised or specialised arena. What can be gleaned from this evidence review is that trends in the UK reflect trends worldwide. Standardisation and equivalence are important in medical education because of the mobility of doctors and the wealth of expertise and diversity that non-UK-trained medics bring to UK healthcare. This means that a global perspective should be included in the decision making that leads to changes to the shape of training.

This evidence review did not find any themes in the debates or developments that under way elsewhere that are not yet taken into account in the Review. There is no doubt that much could be learnt from non-UK postgraduate medical education, but as this appears to be more at a curriculum design, teaching approach and specialty level, then this may fall more within the remit of the Royal Colleges, deaneries and medical schools than at UK policy level.

### **What do key opinion formers and stakeholders consider to be the future of medicine - pressures, opportunities and developments?**

The evidence for this paper comes mainly from the major reviews and reports published by UK think tanks and medical colleges, in particular the Royal College of General Practitioners and the Royal College of Physicians. These reports tend to be based on the analysis of existing demographic and workforce information (such as data from the Office of National Statistics) allied with consultation responses - collected via interviews, surveys, workshops and requested submissions from key stakeholders within medicine and healthcare. From these it is possible to get a sense of the Review being part of a wider effort to prepare for the future and to enable decisions made now to have a positive legacy.

The patient population is changing, and public health concerns are changing also. It is likely they will follow the trends already prevalent. The doctor of tomorrow will be expected to be socially accountable as well as being aware of the impact of the range of problems facing tomorrow's populations. The present impetus to involve patients in decisions and to seek to empower them to become more involved will likely continue and gain pace.

Regarding the workforce, the current numbers entering medical school, training and seeking post-CCT work do not match with what is required to deliver a service that is equal to or better than what is offered now. Regarding service demand, the shift in locus from hospital to community and the move to integrated care will impact on medical career options. A more consultant-delivered service may have a very positive impact on the training experiences of doctors, as they may have more time to train and be less responsible for delivery. Regarding breadth and scope, training must equip doctors for new ways of working, including developing their leadership skills, and holistic and generalist approaches to care, as well as enabling doctors to make the most of technological innovation in medical and pedagogical practice. Regarding flexibility, at an individual level, doctors' career aspirations are changing. At a global level, the opportunities and challenges available to doctors are also changing.

## **Generalism**

How best to interpret and promote generalism within postgraduate medical education is central to the work of the Review. The evidence drawn on to inform this evidence review comes from commission, consultation and working party reports from the Health Foundation, the Royal College of General Practitioners (RCGP), the Royal College of Physicians and the King's Fund. This means that there is a wealth of opinion-based evidence that can be used, alongside the evidence gathered by the Review itself, to inform conclusions and recommendations. However, there is a lack of primary research on the benefits of a generalist or a specialist approach to care, and, despite the Commission on Generalism offering a definition of the term, a range of interpretations of the concept clearly still exists. Changed expectations of GPs and concerns raised about the upcoming shortage of GPs are matters related to the issue of 'generalism versus specialism', but this debate extends further than a discussion of GPs and primary care.

The effect of the Review will inevitably be to move the generalism debate on from definitions of concepts and marking of territory to practical changes to postgraduate medical education that will promote generalist medicine. The RCGP has in recent years been stating its case regarding its role in the future of medicine and healthcare. Because it has given this topic more consideration, it has more to contribute to the debate. The other medical Royal Colleges are beginning to address generalism versus specialism. There is a lack of research in this area, in terms of the impact of changes in the medical workforce, medical education and whole person approaches on patient outcomes and service quality. Any changes to postgraduate medical education that promote an increasingly generalist slant to the profession should be accompanied by primary research and evaluation. These should aim to move from opinion-seeking towards more objective measures of impact.

## **Integration**

The integration of health and social care has been upheld as a solution to current problems of social care funding, fragmentation and gaps in accountability (House of Lords Select Committee on Public Service and Demographic Change, 2013). Increased integration between services has been called for by the Nuffield Trust (Rosen, 2011), the King's Fund (Ham, 2012), the NHS Federation and the NHS Future Forum (House of Lords Select Committee on Public Service and Demographic Change, 2013).

An acknowledgement of integration as the direction of travel for UK health and social care is vital to the decisions made in the Review. Calls for increased integration at all levels in all areas of health and social care have come from influential bodies.

This has recently been translated into pilot work and policy statements. The next step is for integration to be incentivised and the success of integration to be measured in terms of patient outcomes as well as financial outcomes. Doctors in training are going to be working in organisations that are evolving and merging to incorporate integrated approaches. They are going to be working in teams wherein they have new colleagues and new team objectives. As clinicians take on more responsibility for commissioning services, doctors need to be au fait with what good integration looks like and how the success of integrated services may be measured. The evidence base is growing here, and the evidence is not all positive. Where improvements for service providers and clinicians may be reported, there is not necessarily a definite improvement felt by patients nor is there a definite financial gain. Doctors will therefore have to be skilled at evaluating the costs and benefits of integrated approaches, and at making decisions based on these evaluations.

### **Does current UK postgraduate training give doctors the knowledge, skills and experience to meet future need for patient involvement in their care and treatment?**

The inclusion of 'patient need' as one of the key themes for the Review assumes firstly that patient need should be an important factor for consideration within the Review. It assumes that current reference to patient need could be improved upon. It also assumes that patient need and service provision will alter in the years to come and therefore medical education must adapt to these changes. It might be best, for the purpose of clarification, to redefine 'patient need' as 'patient-identified need', to set this apart from 'patient need' as identified or assumed by the doctor.

The included papers are mostly either discussion papers or reports of working groups, with some reviews of the evidence on patient involvement and engagement, for example as part of the Health Foundation's work on shared decision making and patient engagement, the Picker Institute work on patient views and expectations, and the King's Fund's work on patient choice and the Point of Care programme. No reviewed papers looked specifically at whether current postgraduate medical education prepares doctors for working with patients and the public in such a way as current trends dictate. Included papers have tended to look at either patient or doctor views about patient involvement in care or reviews of attempts to involve patients in care. This involvement may be at the individual, collective or representative level. Terminology used in relation to, the meaning of, patient involvement may be different in different settings. There is an acknowledgement that patient involvement may have different meanings and require different skills in obstetrics and gynaecology 'versus' surgery 'versus' general practice 'versus' psychiatry. There is a danger in assuming one size fits all where patient centredness is concerned.

There are various imperatives for doctors to become skilled at identifying, soliciting and responding to patient's expressed needs and expectations. This is a fundamentally aspect of *Good Medical Practice* (GMC, 2010). Evidence suggests that doctors in training are not being as well equipped as they might be to practise in this way. The research on attitudes of trainee doctors that finds that patient centredness decreases in training suggests that more could be done to promote partnership working approaches. The evidence regarding

whether increased patient involvement and engagement improves outcomes is mixed, although this is a field whose evidence base is expanding.

Patients are not always correctly informed about roles, treatments and evidence. There is also evidence that patients' preferences for involvement are about interpersonal communication and professionals spending time with them. This suggests that postgraduate training should equip doctors with the necessary skills to ensure patients to consider themselves involved and able to understand complex ideas.

Two developments are bound to impact on how doctors in the future respond to patient needs and expectations. First, the introduction of medical revalidation in 2012 requires doctors to gather evidence of patient feedback. Also the increasing practice of patient access to medical notes and electronic records will mean that doctors' records will be more readily available for scrutiny by service users.

Doctors values and attitudes are as important as their interpersonal in terms of what is required of them to meet expectations about patient involvement and engagement. Doctors need to adapt their approach according to the individual patient and the specific setting, something that is, admittedly, not always easy to gauge. If the doctor's role is moving from that of information holder and decision maker to that of partner, then does this mean the doctor must no longer just understand and perform medical practice but evaluate it and explain it. The Commission on Generalism (2011) talks about 'guiding patients through complexity'. The risk here, as Christmas and Milward point out, is that medical paternalism is still in force, but in a new guise. Consideration of what patients want in the context of the move to increasing the number and type of generalist doctors may mean that more doctors have to become more skilled at matching their approach to a variety of patient expectations depending on context and individual.

Coulter (2006, for Picker) compared survey data from six countries looking at how the UK fares comparatively on the question of engaging patients in their care. She also looks at differences between the four countries of the UK. She finds little difference between the four countries, surmising that policy and resource differences do not necessarily affect clinicians' relationships with their patients. Whilst Coulter finds that none of the countries surveyed was excelling at promoting patient engagement, UK patients were less supported to engage than elsewhere. She argues that there are shortcomings in professional education and low expectations from professional and regulatory bodies. She says that:

*'What is needed is a major change in the way professionals work with patients in the UK. In particular, doctors, nurses and other health professionals need training in how to promote health literacy, support self-care and self-management and involve patients in treatment decisions, and their effectiveness in this regard should be monitored in regular patient surveys.'* (2006, p3)

It is worth noting that there have been several developments in recent years that speak to Coulter's recommendations, in particular the revised *Good Medical Practice* and the inclusion of patient feedback in medical revalidation, although similar calls are made in the more recent work by Dr Debra De Silva (Helping people help themselves 2011, 2012 Helping people share decision making).

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approaches, and at making decisions based on these evaluations.

## **Conclusion**

The Sponsoring Board has substantial published material to draw on to inform the Review. Research studies published in journals present localised studies and there have been relevant evidence reviews and presentations of case studies by UK think tanks and by the GMC, as well as by the Royal Colleges. The thematic concerns of the Review reflect the concerns presented in the literature. Evidence to support particular changes or developments in postgraduate medical education is not entirely robust though, as there is a high reliance on opinion surveys and on presentation of particular cases or pieces of evidence to support policy positions. Longitudinal data on the experiences and opinions of trainees is a valuable means of monitoring how doctors' careers are evolving. Any changes made to doctors' training should be accompanied by a programme of research into the impact and effectiveness of these changes.

# **PAPER 1: What evidence is there for the effectiveness of UK postgraduate medical education? What factors impact on the quality of postgraduate medical education in the UK?**

## **Introduction**

This paper reviews the published evidence regarding the effectiveness of UK postgraduate medical education. It will consider what 'effectiveness' means in the context of published research, as well as whether what has been written and researched relates to the five themes of the Review. This paper aims to be a starting point for the subsequent papers, the focus of which is more forward looking and future oriented. This literature review provided background for the analysis and development of the key themes of the Review. It was conducted independently of the oral hearings, focus groups and written submissions.

## **Background**

The UK postgraduate medical curriculum was overhauled in 2005. At this point Foundation and Specialist Trainee roles succeeded the roles of House Officer, Senior House Officer, Registrar and Specialist Registrar. There was also a shift to a more 'competency-based' model of medical education, as opposed to an apprenticeship model. New ways of training and assessing trainee doctors were introduced, for example workplace-based assessments (WPBAs), problem-based learning, portfolios, a move towards holistic rather than disease-based clinical approaches and also an increased emphasis on peer and patient feedback regarding a trainee doctor's performance (Osgood and Ossai, 2008). The changes instigated around the time of MMC took place within a complex system, some components of which are of long standing. Brice and O'Corrigan (2010), in their review of the landscape of medical education in the UK, describe medical education as always undergoing constant change and development, and being subject to the influence of social and political forces. They consider that the rate of this change and influence is growing exponentially. Alongside the explicit curriculum of medical education, some writers have described a 'hidden curriculum', in which trainee doctors learn that specialism is preferable to generalism, and that there is a hierarchy of esteem between specialties (Wass, 2007). Curricula vary between the UK medical schools, and the popularity or not of the newer approaches to medical education varies between specialties, schools, deaneries and groups of students.

## **Conceptual framework: defining effectiveness**

The GMC sets generic standards for postgraduate medical education (GMC, 2010). The standards pertain to trainees, trainers, learning environments, Royal Colleges and deaneries. Evidence is gathered and analysed with regard to whether these standards are met. As such, the effectiveness of medical education is well evidenced through quality assurance, in that standards are in place and are being assessed against. The current system of quality assurance is in its infancy, though, given that responsibility for postgraduate medical education was only transferred to the GMC from the Postgraduate Medical Education and Training Board in 2010. The Review is concerned with effectiveness of a slightly different sort, although its findings and recommendations may lead to revisions of the GMC standards and assessment. Effectiveness here is about how the shape of postgraduate medical education effectively addresses wider needs beyond turning out proficient doctors. These needs might be for training doctors in the right specialties to meet workforce and service delivery deficits, and also for training doctors

in a more flexible way to match the evolving expectations of work and the working environment that doctors may have.

Different deaneries, Royal Colleges and Societies, medical schools and training providers vary in how they deliver training according to the GMC standards (Illing et al, 2008; Collins, 2010). Differences of opinion also exist regarding how each stage of medical education prepares doctors for the next, from undergraduate to F1, F1 to F2, F2 to Specialist and so on. Evidence of effectiveness therefore comes from comparison studies and cohort studies, which, while not critiquing medical education per se, do seek to provide insight into how different aspects of postgraduate medical education may be better or worse in some areas and for some postgraduates.

## **Review methods**

This evidence review aims to provide a comprehensive picture of recent research into the effectiveness of postgraduate medical education in the UK. Papers have been searched for systematically and measured against pre-set inclusion and exclusion criteria. The quality and relevance of each included paper have been appraised. The final analysis is a synthesis of the findings and discussion of the research methods used.

## **Search strategy**

A systematic search was conducted using the following databases: Medline, PubMed, EBSCO Academic Search Complete, ScienceDirect, Web of Science, Web of Knowledge, Social Sciences Citation Index and Google Scholar.

A review of the grey and research literature from key stakeholders was also done, which included: the General Medical Council, the relevant Departments of Health from the four countries, NHS Education for Scotland, the Health Foundation, the Care Quality Commission, the King's Fund, the Academy of Medical Royal Colleges, the Royal Colleges, the British Medical Association, the NHS Confederation, Medical Education England, the Centre for Workforce Intelligence, the Joint Royal Colleges of Physicians' Training Board, the Nuffield Trust, the Joint Committee on Surgical Training, the Medical Schools Council, the National Association of Clinical Tutors UK, the Foundation for Advancement of International Medical Education and Research (FAIMER), the Academy of Medical Educators, the World Federation for Medical Education and the Association for the Study of Medical Education.

## **Inclusion / exclusion**

Included papers were published between 2006 and 2012, with this cut-off being set to reflect a post-Modernising Medical Careers educational environment. Included papers were written about UK postgraduate medical education, albeit some were published in non-UK journals. Excluded papers were those published before 2005, and those not referring to postgraduate medical education and not referring to UK medical education.

## **Search terms**

The search terms 'postgraduate' AND 'medical' 'medicine', 'medical education', 'specialism', 'specialist', 'generalism', 'generalist' were used in combination in title, abstract and key word searches of the relevant databases and websites.

Abstracts of papers were reviewed in order to determine relevance. Seemingly relevant



papers were accessed in full and reviewed for inclusion / exclusion in the study. The papers were appraised for relevance and quality, and the key information from each paper was logged on a data extraction record. In total 243 documents have been reviewed for this paper, of which 95 are referred to here.

## **Overview of evidence**

The majority of papers looking at medical education are discursive rather than being records of primary research. In these, the historical context of changes in medical education is well covered as are reactions and responses to Modernising Medical Careers (MMC) and the European Working Time Directive (EWTD). Substantial recent evidence regarding the quality of medical education also comes from commission and inquiry reports. These reports tend to be based on some evidence gathering from stakeholders and non-systematic reviews of the literature, but not to include these reports here would be to neglect significant contributions to the debate on the future of medical education. As such, other non-primary research evidence has been taken into account here and does inform the findings of this paper. Where literature reviews have been done on certain topics the reviews have been quoted rather than a secondary review being done of the included papers.

The included papers range from opinion pieces theoretical reviews, such as the application of social learning theory to community of practice approaches in postgraduate education done by Spilig et al (2012), to action research, such as the study by Gleeson (2010) of a group of palliative care doctors' professional development; from literature reviews to questionnaire surveys, such as the GMC trainer and trainee surveys (GMC, 2011a; GMC, 2011b); reports of focus groups and interviews, such as the interviews by Agius et al (2008) interviews with educators in six Trusts about the impact of MMC. A range of medical specialties are represented.

## **Key themes**

### **The impact of the changes brought in by Modernising Medical Careers (MMC)**

There is a body of research evidence that has looked at the impact of the changes brought in by MMC, often by comparing, in various ways, the before and after changes. For example, Dhanda et al (2011) conducted an online survey of 95 oral and maxillofacial surgery trainees. The post-MMC group (29 of the 95) had half as much time spent on basic surgical training than their predecessors but both groups had a similar range of surgical experiences. The pre-MMC groups were also more satisfied with their basic surgical training than the post-MMC group.

Agius et al (2008) interviewed 30 senior doctors involved in training regarding the impact of MMC on their practice. They find the majority had an awareness of the need to change their practices in order to meet new expectations of medical education but that only a minority were making changes. They conclude that:

*'In summary, the majority of the sample believed that change to postgraduate medical education was necessary, and supported the main tenets of MMC. This view was based on the subjects' disconfirmation of their current expectations, primarily relating to service pressures increasingly limiting their ability to deliver a high standard of education unless they received more support. There was, however, considerable anxiety amongst our sample with regard to the modernization process in postgraduate medical education, including concerns about the difficulties of providing robust training in the face of service tensions, increased consultant workload and reduced contact with trainees.'* (2008, p91)

Similarly, Tsouroufli et al (2008) conducted a qualitative study looking at the life stories of 20 consultant trainers. The interviews for this study took place in 2005, and so anticipate the impact of MMC and the EWTD rather than reflect on them post-implementation. This paper presents the range of concerns raised by the consultants: that the risks inherent in the changes included a loss of continuity of care, reduced clinical exposure for medical trainees and loss of the apprenticeship model. Consultant trainers perceived quality medical education to be dependent on long hours, personal sacrifices and learning without formal educational support and supervision. The resistance to MMC voiced by senior doctors is based on their opinions, which of course stem from their expertise and experience. These qualitative studies offer a real insight into opinions on postgraduate medical education effectiveness, although they do not provide a measure of it. Gallagher et al (2009) put the Foundation Programme to the test in their observational study, looking at the opportunities for learning available to junior doctors working in a 'Hospital at Night' team. Gallagher et al's study is of only one hospital over a three-month period but in this case the researchers do find that not only did the Hospital at Night offer enough opportunities for doctors to meet F1 competencies, but that it would be possible to meet these in one year rather than the allotted two.

### **The European Working Time Directive (EWTD)**

The EWTD was phased in for doctors between 2004 and 2009, making the legal working week for doctors no longer than 48 hours, with the aim of improving doctors' working lives. Whilst the EWTD is not an influence on medical education that has come from the profession itself, it has been the subject of much debate and concern in relation to trainee doctors both in terms of the workforce implications and in terms of their opportunities to learn. This has been crystallised in the review commissioned by Medical Education England (Temple, 2010a; 2010b) and by the GMC (Morrow et al, 2012a; 2012b), and in the UK Conference of Postgraduate Medical Deans' (COPMeD) (2011) paper on how to make best use of learning opportunities post-implementation.

One proposed advantage of the EWTD is that it may enable female doctors to have a broader choice of specialty. The Deech report on women in medicine (2009) cites research by Levitt et al (2008) that female doctors when they choose a specialty have different motivations from their male colleagues, looking more at people orientation and practicalities. The Deech report quotes female doctors as welcoming the EWTD impact on expectations regarding hours on the job, meaning that their options may be wider. The potentially negative impact of the EWTD on hours trainee doctors spend in clinical practice and with their trainers has been voiced by doctors in several studies (Temple 2010b). The true impact of this on service and education quality has been less well evidenced. It is worth also noting that whilst professional response to Temple has been generally favourable, doctors at different stages of their careers have responded differently to the recommendations (Klaber and Roland, 2012, in their participatory study of paediatricians).

Regarding the impact of reduced working hours on education and on clinical outcome, Moonsinghe et al (2011) have conducted a systematic review. From the 72 studies included in their review, the authors conclude that there is evidence that reduced hours do not impact on quality. The included studies that did report an impact from the European Working Time legislation were considered to be of poor quality and with conflicting results. Moonsinghe et al call for larger, better quality studies in this area.

## Evaluation of aspects of the Foundation Programme

The literature on the effectiveness of the Foundation Programme tends to be discursive. What research evidence there is tends to be based on opinions of trainees and educators about certain aspects of postgraduate medical education. Research papers that do not rely on solicited opinions through questionnaires and interviews tend to be analyses of routinely collected data. There is basic data on demographic factors relating to Foundation trainees available from the UK Foundation Programme Office (2011).

The question of whether Foundation doctors can be expected to be ready for specialist careers has been the subject of a recent editorial in *the Lancet* (Salisbury and Frankel, 2012). This piece reflects the concerns raised in the Review about current versus future expectations, needs and preparedness.

Professor John Collins conducted a review of the Foundation Programme on behalf of Medical Education England in 2010. Within the terms of reference of this review were the requirement that it assess whether the programme meets the future needs of the NHS and of trainees as well as whether it was meeting its original objectives. Collins sets the review in the context of not only the changing notions of the trainee doctor, but also the changing healthcare and regulatory environment, since the programme's inception in 2005. Collins' review identifies the strengths of the Foundation Programme to be its establishment of a generic nationwide infrastructure and curriculum, and the establishment and development of WPBA and feedback. The weaknesses of the programme are, according to Collins, a lack of clearly articulated purpose, in particular for the F2 year, confusion about the selection and role of trainees, and whether provisional registration is the best way of regulating trainee doctors. Collins reports having received submissions with varying opinions regarding the length and focus of the Foundation Programme and its ensuing years of training, but comes to the conclusion that a two-year programme is the most appropriate. He reports receiving multiple submissions raising concerns about the way rotations are organised and on the lack of flexibility of the programme. Content-wise Collins notes that:

*'The distribution of placements by specialty does not reflect the current and future needs of the NHS...The balance and distribution of Foundation posts within all Foundation Programmes is dominated by opportunities in adult medicine and adult surgery,...'* (2010, p10)

There is a lack of opportunity for trainees to experience community and multiprofessional working, for example no F1 placements are in General Practice, despite the workforce need for half of all medical graduates to become GPs (CfWI, 2011). Welch et al (2011) have also presented survey evidence that F1 doctors in one region did not consider that psychiatry placements met their requirements. Wakeling et al (2011) surveyed Scottish F1 doctors, consultants and senior nurses and again report a perception that rotations at F1 were not equipping doctors with the right experience. This was put down to too frequent rotations, not enough generic experience, and shortness of placements. Further criticisms of the programme are made about lack of careers advice, and variations in the use of technology to aid learning and in the training and development of trainers. Another major criticism of the programme is the number and time-consuming nature of assessments required. Collins notes that despite WPBA being 'central to the philosophy' of the Foundation Programme it is not valued by trainers. Collins calls for an urgent review of the range and frequency of assessments. Collins also notes variability

of training quality between programmes and poor communication between the bodies involved in the different stages of medical education.

Collins' review gathered evidence from various sources: oral and written submissions, meetings with trainees and trainers at a variety of events and a review of relevant literature. The information gathered is presented according to a thematic analysis under the headings of design, content, and safety and quality. Whilst the genesis of the Review may be traced to the recommendations of Collins' report, its remit is different. Collins' report is a good source of opinion-based evidence, and certainly gives an account of views of the Foundation Programme for all interested parties. Collins does call, at several points in his report, for better collection of evaluative data and smarter use of the data already collected. The impact of a training programme or aspects of a training programme on patient safety and quality is notoriously tricky to measure though, given the complex social, political and interpersonal environment in which any medical practice takes place.

Davies et al (2009) conducted a quality assurance exercise looking at the effectiveness of the modes of assessment used in the Foundation Programme. They analysed data from 2929 trainees regarding the four types of assessment devised to meet the requirements of the programme: multi-source feedback using the mini-peer assessment tool (mini-PAT); the mini-clinical evaluation exercise (mini-CEX); case-based discussion (CbD); and direct observation of procedural skills (DOPS). These modes of assessment were integral to the competency-based, workplace-based assessment programme approach to medical education. The authors find that further work needed to be done to validate the tools, but that they were a feasible means of measuring trainee progress in practice. In Johnson et al's (2011) paper, modes of WPBA were piloted and evaluated, using questionnaire and qualitative feedback. Validity and impact were found, but there were feasibility issues with the use of the patient survey. Mitchell et al (2011) retrospectively analysed 2005 to 2009 data from one deanery to see if WPBA results correlated with other information on a doctor in difficulty. They found that, whilst there was some association between scores on some WPBA and other evidence of training difficulty, the assessments alone were not a valid means of screening out such doctors. The authors stress the formative nature of WPBA and do not advocate WPBA as a means of assessing competence. (It is worth noting that there are several medical educational studies looking at the individual WPBA approaches. The detail of these is out of the remit of this paper.)

Hrisos et al (2008) surveyed and interviewed trainee doctors and supervisors from one deanery regarding their views on learning portfolios as records of F1 and other doctors' professional development. They find that around half of trainees and supervisors considered the portfolios to be a good idea and a worthwhile use of their time. There were concerns raised about the burden of completing a portfolio given the other aspects of a doctor's workload and also that it was not being used as evidence of progress, with 70% of educators relying on colleague feedback rather than portfolio documentations as evidence of progress. Educators and trainees did not consider the portfolios to be of educational value and around half of the trainees did not consider having to write reflective accounts to be a way of developing their professional skills. Hrisos et al conclude that the lack of perceived benefit is linked to the practical difficulties of engaging in portfolio-based learning.

## **Does the undergraduate medical programme prepare doctors sufficiently for the Foundation Programme?**

There have been multiple studies looking at how well equipped for postgraduate medicine newly qualified doctors are. Similar methods have been used by researchers from several of the UK medical schools, usually surveys and interviews. The findings are of relevance to a review of postgraduate medical education because they could influence how transitions from student to doctor and the early days of F1 are organised and supported.

Tallentire et al (2011a, 2011b, 2012) have looked at foundation doctors' preparedness for practice through a literature review, focus groups, questionnaires and interviews. They map preparedness against the expectations of doctors set in *Tomorrow's Doctors* (GMC, 2009) and against University of Edinburgh course outcomes. They find that doctors consider themselves to be underprepared for acute care and for prescribing, and also that junior doctors' colleagues perceive that their acute care skills have declined since the changes in the medical curriculum and structure. Doctors reported being well prepared in consultation and communication skills. In their questionnaire responses, there was a difference of opinion between the trainees and their educational supervisors, with educational supervisors saying preparedness was satisfactory across all 13 domains, whereas the trainees reported good preparedness across five and satisfactory preparedness across eight. In Tallentire's focus groups paper, the influence of the environment and social context on doctors' learning in acute care is explored. Doctors talked about the difficulty of transferring theory into practice, and of having to make decisions in their new roles with new responsibilities. Tallentire's work is high-quality qualitative research, conducted with and on trainee doctors, and its findings match the critiques of the modern medical curriculum offered elsewhere. It is, however, opinion-based, and so, like much research in this area, gives an insight into the views of doctors about their training rather than offering hard evidence of impact. Tallentire makes suggestions for further research, including looking specifically at newly qualified doctors and acutely ill patients. The findings also suggest that self-assessment of competence should be improved, as this has an impact on patient safety.

In a similar study, Brennan et al (2010) used interviews and audio diaries of 31 newly qualified doctors regarding the transition from student to doctor. Brennan et al choose a qualitative approach because they view that the previous evaluations of the *Tomorrow's Doctors* curriculum looked at attitudes rather than developing an in-depth understanding of the transition experience. Brennan et al link their study to the work by Illing et al (2008, 2009) that compares undergraduates to F1s in three UK medical schools. According to Brennan's interviewees, transitions work best if the doctor is well supported, if they are clear about their role, and if they are able to draw on prior meaningful clinical experience. The degree of perceived stress during the transition appeared to be reduced when the doctors had had relevant clinical experiences as undergraduates.

Illing et al (2008, 2009), in their multi-method, prospective, cross-sectional study of graduates from three medical schools, look at doctors' progress in F1 and preparedness for F1. They find little difference between graduates from the three schools despite different educational approaches: Newcastle (systems-based, integrated curriculum); Warwick (graduate entry); and Glasgow (problem-based learning (PBL)). Some of the recommendations of this study are for more meaningful clinical contact in pre-registration education, for more guidance on the use of medical students and shadowing, and for more education on prescribing before graduation. Illing et al in their ESRC Research

report (2009) compare the transition experiences of F1 UK, EU and non-EU doctors. There were differences in terms of preparedness between the UK and non-UK doctors, one being that the non-UK doctors reported having more clinical experience and team working.

The UK Medical Careers Research Group in Oxford has gathered longitudinal evidence regarding doctors and medical graduates' views on preparedness and choices across their careers. The Group has evidence dating before MMC. In one longitudinal paper, Cave et al (2007) compare three sets of data and track a progressive improvement in doctors' ratings of their preparedness.

Matheson et al (2009, 2010) in their research on junior doctors at the University of Nottingham look at the doctors' preparedness and transitions from two perspectives. First, the impact of a special induction and introduction programme for F1s is evaluated through a survey of 76 recent graduates. Of those surveyed, only 31% agreed or strongly agreed that the taught part of this course was useful, but 94% considered the shadowing part to be so. This study finds that transferable, new knowledge was more highly valued for transition than revision of information already learnt. Second, Matheson et al (2010) surveyed 228 SpRs and consultants regarding the preparedness of F1 doctors against the expectations of Tomorrow's Doctors. They find that F1s were not considered to be prepared for practice in eight of the 11 topic areas, in particular regarding clinical and practical skills.

### **Does postgraduate medical education prepare doctors for the role of a GP?**

The quality of GP services has been subject to considerable scrutiny in recent years. However, this scrutiny has not particularly addressed GP preparatory education. The King's Fund's independent inquiry into GP practices (Goodwin et al, 2010) addresses most aspects of general practice but does not look at doctors' education for the role. The complexity, high expectations and also variation in UK general practice are discussed, as is the growing requirement for GPs to balance generalism with specialism. Regarding education, the inquiry report does call for improved collaborative care working saying that '*clinical education and training must be undertaken*' (p80) to enable this.

Murphy et al (2009) conducted a national evaluation of WPBA in GP postgraduate training in the UK. This study does not look at the effectiveness of GP postgraduate education per se, rather it assesses the relative merits of the forms of WPBA used in this training through an analysis of assessment scores and questionnaire responses from 171 GP registrars and trainers drawn from nine deaneries. It finds that, of all of the assessment methods, patient and colleague feedback had the most potential to provide reliable findings. Other research on innovations in GP education include Doug et al's work (2010) on cluster-based learning. Here ten key informants were interviewed in this qualitative study in order to develop an understanding of what a cluster-based approach may add to GP training. The approach is presented as a means of providing high-quality education in a geographically dispersed area with increasing numbers of trainees. It is also seen to reflect some of the educational principles that doctors will be familiar with from their undergraduate experiences.

### **Does specialist education prepare doctors for the role of consultant?**

One way of measuring whether the Foundation Programme equips doctors for future consultant careers has been to compare College exam results. There is a history of using

such data as to compare different medical schools. McManus et al (2008) have looked at the Royal College of Physicians (RCP) exam results over a longitudinal study. They conclude that variance between candidates was due to individual factors and differences in medical school educational approaches. Rushd et al (2012) analysed examinations data from the Royal College of Obstetricians and Gynaecologists (RCOG) between 1998 and 2008. Their primary aim was to identify differences in pass rates between the UK medical schools, but as the data collection period covers the crossover between the old and the present system, some conclusions could have been made regarding the impact of MMC on pass rates. Rushd et al surmise that different medical schools have different pass rates for the RCOG exams and that gender does not impact on Part 1 exams but that women tend to pass more often in Part 2 exams. In a similar study by the Royal College of Anaesthetists (Bowhay and Watmough, 2009), differences in college exam performance according to medical school, gender and type of undergraduate curriculum were found. This study concludes that an impact of the MMC changes on performance would not be detectable.

Specialism and subspecialism within obstetrics and gynaecology have been the subject of discussion within the RCOG for several years. Farquharson (2010) looks at RCOG trainee survey evidence and calls for a review of the number of subspecialisms within the field. He talks about advanced training modules as an alternative. This is a suggestion very much in tune with some of the Shape of Training debate on how Continuing Professional Development (CPD) and specialisation may sit. The RCOG trainee survey (RCOG Trainees' Committee, 2009) shows a decline in demand for subspeciality training posts since the 2002 trainee survey. It also shows that career aspirations to become a subspecialist have dropped, with only 13.7% of trainees aiming to become subspecialists, compared with 46.5% of junior SpRs in 2002. The committee link this decline in interest to an accurate reflection of the decline in subspecialist consultant roles.

Morrow et al (2012a, 2009) directly address the question of whether specialist training prepares doctors to be consultants. The researchers solicited the views of 211 new (in post less than five years) consultants representing eight specialties using a questionnaire developed from qualitative interview research with 32 final year registrars and 20 newly qualified consultants. This mixed methods study had a high response rate (70.6%) and has been conducted using a strong methodology. It finds that doctors considered themselves to be well prepared for providing individual care but less well prepared for those aspects of the role where they were expected to negotiate and lead within the healthcare system, for example resource management and supervision. Similarly, Shaw et al (2012) surveyed recently qualified neonatal consultants. They also describe preparedness for the clinical aspects of their role but not for the management and senior administrative roles. Morrow et al did not find any significant differences in responses between specialisms or between different demographic groups. Their recommendations are for training to include more on management skills development as well as clinical expertise. One possible use of this research and this questionnaire would be to replicate it more widely and to compare findings once any Shape of Training changes to the curriculum and system are made.

In other research on specialist education and preparedness, Connick et al (2009) surveyed doctors at different points in their career regarding their confidence to perform certain procedures. They find that procedural confidence peaks at registrar level, then plateaus and declines over a consultant's career. Whilst the findings of this study are of interest and chime with the notion that effectiveness in doctors is linked to recent engagement in education and training, this is a one-off, not a longitudinal, study, hence it offers only a snapshot

of subjects rather than an account of confidence trajectories. Caution must be applied to taking accounts of self-perceived confidence as proxy measures of actual ability.

### **What is good-quality postgraduate medical education?**

Alongside the GMC or Postgraduate Medical Education and Training Board (PMETB) quality standards, other measures of good quality education have been developed. The Postgraduate Hospital Educational Environment Measure (PHEEM) (Roff et al, 2005) was developed in Scotland and the West Midlands. It is a 40-item inventory with subscales on the role of autonomy, perceptions of teaching and perceptions of social support. It has been validated for use in several countries and has been used internationally as a measure of the quality of a doctor's educational environment (Wall et al, 2009). Clapham et al (2007) use it to measure the experiences of 134 medics in nine different intensive care units. They find significant differences between units and between doctors at different stages in their training (in this case pre-MMC). Cotton et al (2009) identify quality criteria in primary care settings using a Delphi study.

The GMC national trainer and trainee surveys are also a valuable insight into the quality of training, according to the opinions of those directly involved. This is the most comprehensive account of trainer and trainee views (the 2012 survey had a 95% response rate (GMC, 2012b, p99)). The most recent survey of trainees (GMC, 2012a) reflects a positive view of training overall but there are concerns raised about some aspects of training, including assessment and also the quality of feedback and educational experiences. Satisfaction scores varied from 87.8 (General Practice) to 76.2 (Surgery) between specialties. The most recent GMC trainer survey (GMC, 2011b) maps out a similar picture of the state of training, although it offers a much less complete picture as its response rate is 44.6%. Response rates differ dramatically between deaneries. This is, according to the GMC, because of lack of clarity about whom the trainer survey is aimed at. The survey found that, whilst there are barriers to providing supervision and WPBA, trainers do make time (including outside contracted hours) to do these. There is concern about the impact of service demands on trainee experience, and also the impact of Working Time Regulations. The GMC trainer and trainee surveys are the means by which the impact of any changes instigated through the Review can be measured.

There have been several small-scale individual studies looking at particular educational programmes and certain approaches to postgraduate education that may impact on quality. Gleeson (2010) describes an action research project where doctors in palliative care met to discuss and reflect on their practice. She contrasts this approach with the behavioural, competency-based approach that is the current fashion in medical education. Kalkat and Khan (2010) report results of a feedback questionnaire on the two-year postgraduate education and training programme in obstetrics and gynaecology. They find respondents preferred lectures to small group work. They conclude that self-directed learning and critical analysis can be promoted through the way postgraduate courses are delivered. Kamesh et al (2012) report on an evaluation of a pilot specialist training programme in renal medicine. They find that the use of competency-based approaches and portfolios meant that high-quality training was delivered even in a busy clinical environment.

Tochel et al (2011) describe the use of ePortfolios and e-learning in NHS medical education in Scotland. Online learning is presented here as a means of meeting the particular challenges facing medical educators in Scotland, in that many trainees have limited access to senior doctors and medical teachers due to the remoteness of some



placements. In their literature review preceding the implementation of ePortfolios, Tochel et al (2009) find numerous examples of portfolios in use in medical education but the written accounts here tend to be of observational studies rather than primary research. Saltman, Tavabie and Kidd (2012) argue that whilst reflective portfolios have been promoted as a major advance in medical education, they gain in value if a reasoned, pedagogic element is included in portfolio activity. Such an approach, they argue, facilitates evidence-based practice. Kulier et al (2008) link evidence-based medicine and e-learning in their international study. They measure the impact of an e-learning course on evidence-based medicine and find some improvements in knowledge and confidence. They use their findings to argue for further development of e-learning in postgraduate medical education. Wong, Greenhalgh and Pawson (2010) in their literature review on internet-based medical education survey 249 papers and conclude that e-learning may suit certain types of learners and subjects better than others. Learner perceptions of effectiveness are linked to the added value that e-learning is seen to offer and whether it fits with their abilities and priorities. As such, the Scottish ePortfolio is a good example of online innovation in that it offers trainees a means of accessing education resources that are not available in situ. Sandars and Schroter (2007) surveyed the BMA's members on use of and attitudes to online learning. They find a willingness to engage with online approaches, but call for further training to be provided on how to make and use web technology. Johnson et al (2012) in their cross-sectional survey of 91 Core Medical Trainees in South Thames Deanery find that, whilst 84% agreed on the need for ongoing records of progress, there was uncertainty about the value of the current ePortfolio and also about information governance issues associated with its use.

### **What evidence is there for the effectiveness of UK postgraduate medical education?**

The research and discursive literature on post-MMC postgraduate medical education presents a mixed, albeit mainly positive, picture. Concerns have been raised in the major reviews, surveys and smaller research studies about the impact of system demands and working regulations on the training opportunities available to trainees. These concerns come primarily from trainers who compare their personal experience of a previous system of training with medical education as it is now. There is little objective evidence to suggest that training opportunities and experiences are diminishing. The effectiveness of aspects of the training has been questioned in several studies, particularly WPBA in its many forms, the focus on competencies, the use of portfolios and e-learning. There is perhaps some work to be done on clarifying when and how these approaches might be used to best advantage, and may be complemented by more 'old school' means of assessing and teaching. There is considerable evidence that variation exists between medical schools, clinical environments and specialties with regard to the trainee experience, preparation and success. This may suggest that one task of the Review is to revise the GMC standards so that there is less scope for variation.

### **What factors impact on the quality of postgraduate medical education in the UK? How do these relate to the themes of the Review?**

#### **Theme 1 - Patient needs and expectations**

Sensitivity and responsiveness to patient needs and expectations are a required attribute of the Trainee Doctor from F1 onwards (GMC, 2011, p49). The consensus is that patient and public expectations of doctors is rising (GMC Trainer Survey, 2011; Brice and O'Corrigan, 2010; Imison, 2012; Ham, 2012; RCP, 2012). Having said this, this

evidence review found no research looking specifically at the quality and effectiveness of postgraduate medical education from the patient's perspective. There is recent literature representing or discussing patient expectations of healthcare and of doctors but nothing specifically about this particular phase of a doctor's career. As Lord Patel says, in his final report on regulation in medical training and regulation, '*What matters to patients is the quality of the doctors who treat them, not the processes by which they were trained.*' (2010, para. 37). Patel uses this point to argue for a focus on outcomes and individual quality, rather than on process.

From the literature on patient expectations, certain key themes emerge. In relation to dignity in care, older people have said that they value privacy, confidentiality, information giving, being given choice and control, respect and being addressed by their preferred name (Tadd et al, 2011; Matiti and Trorey, 2008). Tadd et al's work also finds that older people can have low expectations of hospital care and can be reluctant to complain when their expectations are not met. Cornwell et al (2012) call for an improvement in continuity of care for older patients. They contrast inpatient survey data with their case studies, collected on behalf of the King's Fund. These case studies describe patient experiences of problems in the planning and coordination of care, and problems with communication. They also show how positive relationships can lead to patients reporting positive experiences of care. Cornwell et al report a variability in patient and carer experience, and cite a number of common problems, some relating to a lack of access to key medical staff and lack of shared protocols, and an excess of moving about between services. They argue that the problems here relate to systemic, normative, clinical, functional and service integration challenges. Within their discussion of systemic integration issues, the authors mention the EWTD and other developments in medical education. They cite Maben et al's 2012 report, surmising that changes in doctors' working conditions and ways of working with each other have made 'keeping in touch' about patients difficult. There is a risk here of opinion being used as definitive evidence, and comparisons between past and present being made where earlier comparative data does not exist. What can be determined here is that notions of patient experience and patient expectation are of present concern, and are being used to determine the quality of a doctor's work.

Changing notions of the role of the patient are relevant here, with the move to consider some patients, in particular those with long-term conditions, as service users, clients, consumers or even co-producers of health care (Realpe and Wallace, 2010; Gerada et al, 2012). The NHS Next Stage Review (DH, 2008) ties the expectations of doctors to public expectations of healthcare. It talks about doctors as partners, leaders and educators. It also talks about 'patient-centred' approaches where listening and responding skills are central to clinical education. The GMC *State of Medical Education and Practice in the UK* talks about changes to the profession being necessary in order to match its evolving relationship with the public and engagement with wider society (GMC, 2012b, p103). Doctors in training need to respond to shifting notions of who the users of medical services are and what their relation is to their doctor. In the era of integrated teams and cross-sector working, trainee doctors may be required to work with colleagues to support patients who have self-referred and who are less and less hospital based (The Health Foundation, 2012a; Ham, 2012). For the GMC, these changes in patient expectation are linked to increases in the number of complaints made about doctors, as if there is at present a mismatch between public expectation and some doctors' understanding of and ability to adhere to that expectation.

## **Theme 2 - Workforce needs**

Workforce needs in relation to the present postgraduate medical system have been addressed in a number of ways. First, the impact of increased trainee numbers after the EWTD has caused anxiety amongst newly qualified doctors about an excess of CCT (Certificate of Completion of Training) qualified doctors with no consultant post to go to. Second, there has been concern raised that specialty and subspecialty training posts do not reflect prospective posts vacant or posts required (for example, in academic medicine). Third, there is a concern that political changes such as devolution and reduced NHS spending may centralise training and reduce mobility.

As mentioned earlier, the appropriateness of training for the kinds of jobs that will be available has been a subject of some discussion and evidence gathering, for example in Farquharson et al's 2010 paper on the shifting popularity of subspecialist training and reduction in subspecialist posts. Goddard et al (2011) at the Medical Workforce Unit of the RCP report from their survey of 2176 medical registrars that 58.7% found their training was equipping them for a consultant role, with 31.9% unsure and 9.4% reporting they felt they were being inadequately prepared. 28.0% were very concerned about the prospect of attaining a consultant post and 28.6% were not planning to apply for one immediately after attainment of a CCT. Within this survey most respondents considered that the EWTD had adversely affected their training opportunities. It is worth pointing out, though, that this is the exact generation of doctors for whom the transitions of EWTD and MMC will have been hot topics, as they will have been most affected by the changes and will have been subject to the effect of the old and the new ways of working.

Goddard and Newbery (2011) report on the most recent annual survey of medical CCT holders for 2011, and find a 3.4% drop in CCT holders gaining substantive consultant posts. This increase in CCT qualified doctors not getting consultant jobs is coupled with CCT holder unemployment. They also report variation in application success between specialties, but do not note any pattern in this, except that there seems not to be an issue in respiratory medicine. Goddard's 2010 article on workforce planning, as viewed by the RCP, argues against points made in a King's Fund report (Imison et al, 2009) that called for medical workforce planning to be aligned with the rest of the NHS. Goddard cites the excess of fully trained doctors who will be looking for consultant posts, caused by the increase in training numbers after 2004 in response to the projected workforce implications of the EWTD. Goddard also raises concern about lack of trainee interest in relocation after qualifying and centralisation of training leading to workforce shortages in some areas. He particularly highlights the impact of devolution on Scottish training numbers and the impact of this across the UK.

One concern raised by the RCP (2010; Goddard, 2010) and others has been whether current training is providing a sufficient workforce of medical academics. The RCP Academic Medicine Committee's working group has identified ways of addressing this through the specialist societies and the deaneries.

## **Theme 3 - Training and service needs**

The effectiveness of current postgraduate training to meet service needs has tended to be viewed in terms of the impact of the EWTD and MMC. Alongside concerns raised about the impact of reduced working hours and of the competency-based, portfolio elements of the

curriculum on trainee experience, there have been concerns raised about their impact on service quality (Tsouroufli and Payne, 2008). In terms of outcome, these concerns relate to the already discussed preparedness of new consultants and GPs for their roles. In terms of immediate effect, these concerns relate to trainee doctors struggling to balance workloads, targets and time with their senior colleagues and the constraints of their postgraduate programmes. This is identified in the GMC *State of Medical Education and Practice* (2011) and also in the GMC Trainer Surveys. The 2011 GMC Trainer Survey found that 56.6% of consultant trainers had to restrict trainee activity. This was not necessarily due to the constraints of the postgraduate programme, rather because of patient safety, or service or governmental targets. The message from the Trainer Survey is not so much that the postgraduate programme impacts on service delivery, rather that service demands are out of step with what trainees can safely be expected to do and also that meeting targets in other areas means that trainers are unable to offer the learning opportunities that could be available. The survey also found a difference in trainer perspectives between GPs and consultants, with consultants considering themselves better supported in their trainer roles than GPs. GPs did not report the same impact of service demands on learning opportunities as hospital consultants.

#### **Theme 4 - Breadth and scope of training**

The question as to whether the current postgraduate training offers the right breadth and scope of training refers to whether it effectively prepares them for the types of patients they will meet and the types of working environments in which they will be placed. This broad concern, which actually encompasses all of the other Shape of Training themes (the needs of patients, workforce planning, service demand and flexibility), has turned into a debate on generalism versus specialism. For the purposes of this paper, the evidence considered will just be that which refers specifically to aspects of the present postgraduate medical training regime.

Again, the GMC Trainer Survey (2011) is relevant here in that it finds that the majority of trainers consider trainees to be less confident and competent than 'in their day' (p34). In the GMC Trainee Survey (2012), trainees were asked for their views on 'adequate experience', which may be considered to be the GMC's synonym for 'preparedness'. This survey found that:

*'74.0% of trainees said they rated the practical experience they were receiving in their current post as excellent or good (n=51,127).*

*80.5% said they were very or fairly confident that their post will help them acquire the competences they need at this stage of their training (n=51,127).'* (2012, p5)

One way of measuring preparedness for practice has been to look at statistical data relating to the changeover of doctors from one part of training to the next. A benefit of statistical data here is that, in comparison with the opinion-based findings of surveys, it offers some element of objectivity. Studies looking at 'the August effect' (the impact on mortality and referral rates of newly qualified doctors all starting work on the same day in August) has found some increased risks of mortality and adverse events (Jen et al, 2009; Haller et al, 2009). Recent research on the perception of adverse events amongst doctors (Vaughan et al, 2011) has found that 93.1% of doctors (of 763 surveyed) thought the single changeover did impact on patient safety. The impact of transition from foundation to specialist or GP trainee and from pre-CCT to consultant is less easy to measure as start dates for posts are not so fixed.

## **Theme 5 - Flexibility of training**

Theme 5 is concerned with whether the present training regime meets the needs of the postgraduate trainee in terms of how they may want or need to manage their career. Can trainees move between specialties? Can trainees step on and off training programmes, perhaps because of how they balance work and life? Can trainees manage to have clinical, managerial and academic experience? The research evidence here has tended to be survey studies asking the views of doctors in training or recent consultants. Lambert, Goldacre and others at the Medical Careers Research Group in Oxford have conducted a series of surveys looking at doctors' views on the preparation for medical practice afforded them by their training and on career aspirations and outcomes (Cave et al, 2007; Lambert et al, 1996; 2003; 2006; Goldacre et al, 2010a; 2010b; Evans et al, 2002). Watmough et al (2006a; 2006b; 2007; 2009a; 2009b) in Liverpool have also conducted research in this area, looking at preparedness, and exam success from trainee and educator perspectives. Watmough et al (2007) find that career choice is influenced by factors such as postgraduate experiences and their personal situations.

The GMC *State of Medical Education and Practice* (2011a; 2012b) and the Collins report (2010) discuss the flexibility required by the workforce, which is increasingly made up of female doctors and includes substantial numbers of doctors from overseas, for whom different support and working conditions are required at different times in their medical career, for example at that high-risk time of transition from postgraduate doctor to consultant. Reports on women in medicine (Elston, 2009; Deech, 2009) have highlighted that medical career options for women doctors in particular must take account of the needs of families, and offer flexibility around training and career progression for women stepping on and off the career track. The Deech report argues that whilst the GP career path seems the most suited to having children, women doctors must be enabled to have other medical career choices also.

## **Conclusion**

Whilst much has been written about the state of medical education in its current iteration, the evidence regarding whether it meets service, workforce, patient and individual doctors' needs could be stronger. Much of the work that has been done has been opinion-based surveys. These have tended to ask trainees, new consultants and trainers to retrospectively consider the quality of training in which they have been involved or to comment on current experiences of training. This work is useful for gauging the popularity of certain views within the profession and for informing how to frame future policy initiatives. There is a danger though, in using opinion as a proxy for hard evidence, particularly when current views may not have past counterparts against which comparisons can be made. Periodic surveys, such as those by the GMC, the Royal Colleges and the Medical Careers Research Group, enable some comparisons over time to be made, but these, again, should not be interpreted in the same way as cohort or longitudinal studies might be. The Oxford research provides ongoing survey evidence on whole cohorts of trainee doctors although the changing views of specific doctors are not tracked.

## **PAPER 2: What other models of postgraduate medical education are used outside the UK? What evidence is there of the advantages / disadvantages they offer compared with the UK system?**

### **Introduction**

A review of the research and discursive literature on models of postgraduate medical education outside the UK reveals that there are more similarities than differences between the UK model and those of the US, Australia, Canada, Japan and Europe. Medical education typically consists of an undergraduate pre-clinical education and a period of clinical rotations or clerkships that culminate in a final exam. The title of doctor may be conferred on an individual after completing the final exam and the period of clinical training, or else it may be granted following completion of a postgraduate year of practice. Subsequent to this, postgraduate education and training are undertaken in order to qualify as a general practitioner / family doctor or a specialist. Different countries have different routes to specialism and different terms for the stages in a medical career. In some countries the time between stages is a set number of years, but the trend now is (as in the UK) for there to be minimum time periods of being a registrar, for example, with final qualification being dependent on proof of competence rather than time served. The differences in medical education systems worldwide tend to stem from social and political differences, for example how medical education is funded, or whether junior doctors are required to spend time after qualifying in a rural district (as in Australia and Greece). In some countries entry into the medical specialties is dependent on a ranking in national exams (Germany, France), hence there is limited flexibility as to where doctors go and what they specialise in. This promotes a perception that there is a hierarchy of specialisms and of graduating doctors. The regulation of education and the setting of educational standards are at state level in some countries, and national level in others. The UK system, comparatively, reflects the relative size of the UK and also reflects its social and political set-up.

Information on global approaches to medical education can be obtained from the World Federation for Medical Education (WFME), the Foundation for Advancement of International Medical Education and Research (FAIMER) and the Association of Medical Schools in Europe (AMSE). The World Health Organisation (WHO) has published information in a World Directory of Medical Schools since 1953. Since 2007, this has been published by the University of Copenhagen on the behalf of the WHO, now called the Avicenna Directory. Global standards of medical education and Global Standards for Quality Improvement in Medical Education have been published by the WFME (MEDINE Quality Assurance Task Force, 2007). These relate to the provision and assessment of medical education post-initial qualification, and set out expectations regarding how doctors may be taught and assessed both academically and in the clinical setting.

The WFME has published global standards for medical education, including specific standards for quality improvement in postgraduate education (WFME, 2003). These cover how postgraduate medical education (PGME) should be facilitated, assessed and supported. Given the Bologna Process and the WFME standards, much of postgraduate medical education internationally, in particular in Europe, is more similar than it is different, in terms of how it is structured and measured.

There have been global efforts to increase similarity between medical education systems. The Bologna Process has been an ongoing effort to enable cross-border comparison and

transfer of qualifications. The UK signed the Bologna Declaration in 1999. This is now signed by 46 countries. It provides for a common set of qualifications within higher education, requiring common statements of educational achievement and means of attaining such. Applying the Bologna Process to medical education has been controversial, and has not been wholly implemented (Cumming, 2010; Patricio, 2008). The WFME (2005) has resisted implementation of an approach to medical education that would bring it into line with other higher degrees, and, in the UK, Bologna has not been fully implemented. Arguments against the Bologna Process approach to medical degrees in the UK have been related to reservations about awarding Bachelor of Medicine Degrees that would not confer a licence to practise. Patricio (2008) points out that the two-cycle model of higher education is used in the US (as it is in Canada) where students usually take a pre-med undergraduate course then go to medical school for the next stage of their studies. Patricio states that the European model of six straight years of medical school is in line with European Community Directive 93/16, now Directive 2005/36/EC (European Parliament and Council 2005). This requires that:

*'Basic medical training shall comprise at least six years of study, or 5,500 hours of theoretical and practical training provided by, or under the supervision of, a university.'* (AMSE 2010)

Patricio (2008) and Cumming (2010) argue that the two-cycle Bologna model need not be seen as a retrograde step, if a vertically integrated or proportionate approach is used.

Further measures to bring PGME in line internationally have been proposed. Archer (2009) argues for a European licensing examination, saying that, with global and regional efforts to ensure parity across global medical education, there needs to be some standard of postgraduate competence that is recognised beyond the country where training has taken place. Harden (2009) on the other hand, in the same journal, argues against pan-European medical licensing because there is a lack of evidence to support the assumptions that this would improve quality and patient safety. He argues that large-scale exams and licensing stifle innovation and diversity and tend to only measure a certain set of criteria that are easily measured on such a large scale.

The worldwide development of PGME as it is has been influenced by the Flexner Report of 1910, which called for higher standards in medical education in the US and Canada. The report recommended tighter admission criteria to medical schools, a focus on science and clinical instruction, and strengthened regulatory control. The influence of the Flexner Report has recently been evaluated in several papers published to mark its centenary. Norcini and Banda (2011, US) review the influence of Flexner after 100 years. They consider the primary achievement of Flexner to be the move in medical education to focus on clinical contact and evidence. They argue that medical education could be further improved through an adoption of similar rigour and focus on research with regard to educational approaches to the subject. Amin et al (2010) write about the current state of medical education in South Asia. They draw parallels with the US in 1910 at the time of the Flexner Report. The challenges facing medical education in this part of the world are not necessarily those faced in the UK, in that the concerns there about professionalism, quality, research and regulated practice are live but not as well rehearsed and established as they are in the UK.

## **Conceptual framework: defining PGME**

Worldwide, medical education takes place in stages. There are prerequisites for entry into undergraduate medical programmes. These may be exam results, test scores, interview outcomes, recommendations or completions of pre-med university courses. Completion of undergraduate education at medical school usually does not result in medical registration or licensing. This usually follows a period of junior practice, internship or house officer placement. Specialist training, including in family medicine or general practice, may be of varying lengths and in varying amounts of specialisation. Access to specialist training may also be dependent on meeting similar but more exacting prerequisites to those required for the undergraduate course. PGME is that part of medical education that takes place after completion of the undergraduate degree and before specialist qualification. This review has attempted to focus on this period in a doctor's career and on the available literature which concerns itself with the how, why and what of PGME.

## **Review methods**

This evidence review aims to provide a comprehensive picture of recent research into the effectiveness of PGME outside the UK. Papers have been searched for systematically and measured against pre-decided inclusion and exclusion criteria. The quality and relevance of each included paper have been appraised. The final analysis is a synthesis of findings and discussion of the research methods used.

## **Search strategy**

Of course, the international literature on every aspect of PGME per se is vast. The task of reviewing the complete literature here would be beyond the scope of the present review, not least because of the limitations of only looking at work in the English language. There has been, therefore, an attempt to survey the literature systematically in such a way as to enable a sense of the international picture.

The search strategy has been as follows:

1. Grey literature, key stakeholder and UK bodies with vested interests in medical education.

A search of the sites of these organisations was done using the search term 'international' and separately using the search term 'postgraduate'. Any papers discussing postgraduate medical education after 2006 were included here. A similar search was conducted looking at the web publications of those organisations concerned with medical education from an international perspective, for example the AMSE, the WFME and FAIMER.

2. Search engines.

Two searches were conducted for each site:

(i) 2006-2012 title / abstract searches using 'international' AND 'postgraduate medical education' - to identify any comparative work already conducted.

(ii) 2006-2012 title / abstract search for the term 'post graduate medical education' (PGME).

The abstracts of the papers brought up by this search were then reviewed to identify those papers that discussed non-UK PGME. These papers were then reviewed in full and evaluated according to their quality and relevance to this study.

## **Overview of evidence**



Overall published literature on PGME has tended to comprise discussions, interviews and surveys. Research papers tend to be about innovations and development at local service level rather than national level looking at local implementation of new approaches to medical education. They tend not to be engaged with national training developments, save those addressing the working hours imperative, and even then are reports of local studies and local responses. The quality of the research studies tends to be reasonable, but the findings are not necessarily generalisable given the small sample sizes and the localised nature of the results.

In presenting a synthesis of the literature there has been an attempt to draw the research together according to the Review's themes. Those studies and discussion papers that did not easily sit within the themes have been synthesised also, according to their main preoccupations.

The preoccupations of those writing about and researching medical education seem to be similar outside the UK as within the UK. Countries are either working towards or wrestling with modern approaches to medical education: making it more flexible and competency based, and also opening up the field to take into account learning, evidence and approaches from other quarters. The balance between specialism and generalism is a common preoccupation. A concern with the quality of consultant-led teaching and also calls from junior doctors for more clinical content and contact time as undergraduates are found in non-UK as in UK works.

## Background

What research there is that looks at certain aspects of medical training from an international comparison perspective comes from the UK. The three main recent reports in this area all stem from work that is now the remit of the GMC: on credentialing (PMETB, 2010), on specialties and subspecialties (GMC, 2011) and on medical regulatory systems (De Vries et al, 2009).

In 2011, the GMC Intelligence Unit conducted research into how specialty and subspecialty training is conducted outside the UK. This research consisted of a literature review and the analysis of a questionnaire that was responded to by medical regulatory bodies in 18 countries. The review focused on the specialist systems of the US, Canada, Australia, New Zealand and Ireland in particular. It finds that the UK has a relatively high number of specialties and subspecialties compared with most other countries, with several countries not recognising subspecialties at all (for example, Ireland and New Zealand). What this report says about international comparisons of pathways through training is repeated in its entirety here, as it is clearly of relevance (key points have been highlighted):

*'There were a number of significant findings the literature uncovered with regard to pathways through training. The **pathway through training that exists in the UK is common in other countries**. One or two years of basic training (i.e. FY1 and FY2) are usually followed by over five years of specialist training. In Canada there is currently no requirement for an internship or foundation year that is separate from specialty training in Canada. Since 2005, a Core Competency Project has been running in Canada, which looks likely to implement a foundation year system similar to that which is used in the UK.*

*As the questionnaire found, **the UK is not unusual in having no 'way point' in training**, or for not rewarding prior experience or learning. Nor is the UK unusual in considering whether such **recognition should be given to prior learning**. Some countries, such as Australia and Ireland have set up systems to attempt to ensure that the experience doctors gain is rewarded.*

*The Royal College of Physicians in Ireland (RCPI) has commented that 'trainees and training bodies*

*have tended to view time spent in registrar posts as an unregulated “gap”, which is ‘the only period prior to independent practice in which doctors are not formally enrolled on a structured, supervised training programme.’ To combat these issues, the RCPI has been piloting an initiative called the Registrar Training Programme (RTP). RTP recognises the experience and training of registrars by giving them credits which can reduce the time of their higher specialist training. Doctors who are on the RTP can gain credits which reduce their higher specialist training by up to twelve months.*

*The RTP is still being piloted in Ireland. It will be useful to monitor its progress over the next year, to see if the scheme is more widely implemented.*

*In Australia, a Recognition of Prior Learning (RPL) scheme is run, although it is currently under review. The RPL scheme acknowledges the skills and knowledge a doctor has already gained through work experience, formal training and life experience. Doctors who wish to change specialty or training pathways can use RPL to shorten the length of time of their training programme. The Australian General Practice Training organisation has also released documentation on RPL which states that:*

*Recognition of prior learning relevant to general practice may be used for two purposes. It may enable the registrar to reduce the overall time spent in Australian General Practice Training or it may reduce the time the registrar needs to spend on skills they have already gained and instead use that time to pursue additional training in particular areas during training.*

*The review of literature did not find particularly detailed information on the RPL scheme in Australia and more detailed analysis of the RPL scheme in Australia would be worthwhile, particularly in light of the Australian Medical Council’s review of its progress.’ (GMC, 2011, pp 10 - 11)*

This GMC research also discusses another related report commissioned by MACE for the DH and the PMETB (PMETB Credentialing Steering Group, 2010), looking at credentialing schemes. In this context, credentialing refers to doctors gaining qualifications in particular areas through modular education. It has been proposed as a way for doctors to engage in lifelong learning and development of skills, in the spirit of revalidation, rather than working towards a Certificate of Completion of Training (CCT), as the high point and potential end point of their CPD. The GMC 2011 paper is critical of the methodology of the MACE literature review, finding it to lack a specific definition for credentialing and to have a superficial, non-academic and overly broad appreciation of the relevant literature.

The impetus for the work on credentialing came from NHS Employers reporting that its members preferred modular PGME and would like this to be standardised. It is not clear whether this refers to PGME as post-CCT or as part of gaining a qualification as a specialist, as per the current CCT. The report finds that in Australia the debate on specialism versus generalism is relevant here in that there is a real need for generalists in rural medicine and over-specialisation may preclude this. It concludes that credentialing in rural medicine may offer a solution. The literature review, for what it’s worth, finds that research evidence in this area is limited, and has tended to look at the credentialing of senior doctors rather than doctors in training.

The RAND /GMC (De Vries et al, 2009) report comparing regulatory approaches in ten countries includes details of the medical education system in Egypt, Germany, Greece, India, Italy, Nigeria, Spain, Pakistan, Poland, South Africa and Spain. These countries were chosen for focus because they are the top-ten sources of overseas doctors entering the UK. A review of the regulatory system and education within which these doctors have been trained should enable an appreciation of their development needs once in the UK and what information they may require regarding the differences between the UK and their previous system. What this report has to say about how PGME is organised in each country is repeated here in its entirety:

## **Egypt**

*'Formal postgraduate education (i.e. within the university system) in Egypt roughly follows the British system, with one important exception: doctors must obtain a Diploma in their chosen area of specialty before taking a Masters. Typically, Diplomas are completed in two years. Masters degrees take a further 2-3 years. PhDs are awarded after 3-4 years of postgraduate study, as they are in Britain.'* (p33)

## **Germany**

*'Postgraduate training of doctors has been delegated to the self-administration of the medical profession at the Länder level, and is covered by specific specialised training regulations (Weiterbildungsordnungen, WO). To ensure, however, a certain level of uniformity, the BÄK developed federal model training regulations (Musterweiterbildungsordnung) that have been endorsed by the German Medical Assembly (Bundesärztertag), the "parliament" of the German medical profession. These model regulations are followed closely by the Länder chambers of doctors in their specialised training regulations.'* (p38)

*'After graduating, most doctors move on to specialised medical training. The responsibility for postgraduate training has been delegated by the Länder to the chambers of doctors in the Länder, but the requirements have been to a large extent standardised through the implementation of a model specialised training regulation.'*

*Specialised medical training takes four, five or six years, depending on the specific training regulation for each subject. Training is conducted in an authorised hospitals operated by universities or other healthcare institutions accepted by the chambers of doctors under the supervision of a person authorised to conduct specialised medical training. To some extent specialist training comprises additional mandatory courses, which take place outside the teaching hospital. After meeting all the requirements, doctors need to pass an exam with the regional chamber of doctors before they are permitted to use the specialist title.'*

*Recent reforms have been adopted which make it mandatory for doctors to hold a specialist degree before they can set up a practice within the public health insurance systems.'* (p38/39-40)

## **Greece**

*'Registration takes place following completion of the medical degree or the medical specialty, at which point doctors must register with a medical chamber (in the region in which they wish to practise) which provides them with automatic licensing to practise medicine.'* (p54)

*'After obtaining the university degree and the internship, those interested in post-graduate education can opt to do specialist training, which can be between four and seven years depending on the specialty. Specialist training is carried out within a university or a regional or district or specialist hospital, i.e. exclusively within a public medical setting, and is assessed by university professors with a final exam.'* (p59)

## **India**

*'The MBBS course is of four and a half years and is followed by one year of Compulsory Rotating Residential Internship...After successfully completing the course, candidates are awarded a provisional MBBS degree and may register provisionally as a medical professional. This registration is valid for one year. They can also start the year-long Compulsory Rotating Residential Internship. At end of the Internship they are evaluated on proficiency of knowledge, responsibility, capacity to work in a team, and other parameters. To be successful they should obtain a score of at least 3 (average) on a scale of 0-5 (with 0 being poor and 5 being excellent). There are a number of postgraduate degrees for medical education in India, including Master of Surgery (MS) and Master Chirurgiae (M.Ch.); in addition, institutes offer diplomas in various other fields. Postgraduate degrees generally span three years and sometimes more, with the exception of diplomas, which take only two years. The cost of medical education can vary significantly between states and between colleges.'* (p68)

## **Nigeria**

*'University Authorities of Nigeria and the MDCN have joint responsibility in ensuring that the standards of the institutions intended for the training of medical students in Nigeria are adequate for the purpose of training medical professionals. Basic and specialist education in Nigeria is very much embedded within teaching and general hospitals owned by the federal and state governments; these hospitals are central to the healthcare system. The realities of the Nigerian situation are that almost immediately after graduation the Nigerian doctor is required to assume professional responsibilities that greatly exceed those that his/her counterpart in more developed countries would be expected to carry out immediately after graduation.'* (p92)

## **Pakistan**

*'The trajectory for a student after admission to medical school is five years of academic and clinical training, and a one year internship as a provisionally qualified doctor (this is only necessary if they wish to practise in Pakistan). Once graduated, postgraduate qualifications (MD, MS) are required for attaining full PMDC registration.'* (p101)

## **Poland**

*'Upon completion of the study programme and practical training, junior doctors can register with the regional chamber of doctors, and they receive a provisional licence to practise medicine. The next step in medical education in Poland is the compulsory 13-month internship. Internships can start twice a year (11 October or 1 March) and are carried out on the basis of the employment status equal to a doctor. In order to receive a permanent licence to practise medicine in Poland, a doctor trainee has to obtain the approval of an internship coordinator and has to pass the state examination – the National Medical Exam (Lekarski Egzamin Państwowy). Passing this exam ends the first stage in medical education in Poland.*

*At this stage, doctors can start their specialist training. The old form of two-level specialisation lasted five to ten years. The single-level specialisation that was introduced in 2001 follows the European standard for doctors' training. The number of places in certain specialisation areas is reviewed and approved by the Ministry of Health allocating specific number of specialisation contracts. Postgraduate education and training is administered by the Medical Centre for Postgraduate Education and the Centre for Medical Examinations (the body responsible for the organisation of the state examinations). After passing the state exam, a doctor acquires the diploma of specialist in a given discipline. Doctors who have completed a specialisation in one of the basic disciplines may apply for admission to a specialisation course in any other discipline. Doctors are also required to advance their knowledge through self-education and participation in further training.'* (p116-117)

## **South Africa**

*'Undergraduate medical education lasts 5 years, then there is a 2 year intern period, followed by 1 year of compulsory community service. Teaching is predominantly performed by specialists through formal lectures, and practical clinical attachments to departments in large teaching hospitals. The hospital departments have autonomy in setting the content of teaching and time spent with medical students.*

*Specialisation in medical education consists of a range of postgraduate diplomas in some of the specialist disciplines through the Colleges of Medicine, formal specialisation through a registrar programme attached to a university, and vocational training as a family doctor. Medical registration allows medical practitioners unrestricted and independent practice (general practice) after completion of their intern and community service years, without the need for vocational training.'* (p130)

## **Spain**

*'The degree takes on average six years. After the third year students begin their clinical education, which takes place primarily in hospitals. Over the last years the weight of clinical education increased over academic-based learning, so that by the final year most of the learning takes place in clinical settings. For access to places for specialist medical education, which is between 4 and 5 years, candidates must take a national exam (a test of 250 multiple choice questions called the MIR exam). Places are allocated on the basis of the MIR exam and a process of "valuation" of the candidate's academic records. By 2010*

*this exam will include a practical element which will include clinical competence. Candidates can take the exam as many times as they want.'* (p143)

The three reports on comparative aspects of medical training and regulation offer a broad picture of how it is enacted internationally. The global initiatives to set and share standards of medical education and higher education in general are useful here, in that they are the benchmarks against which changes to the UK shape of training may be judged. The published research literature has tended to be small scale and country specific, and so it may not necessarily feed into the decision making of the Review. However, an appreciation of what is out there that may reflect preoccupations and developments in PGME outside the UK may assist the review team to identify areas for future collaboration and research.

Detailed descriptions of the medical education systems of certain countries have been written for the journal *Medical Teacher*.

Kurdak et al (2008) describe the system in Turkey, which has developed along Flexnerian lines, following the French and German models. The undergraduate education is six years, and movement into specialism is via the passing of exams. Specialisation is administered via the relevant faculties. Family doctors go on to do a further three years of training to fulfil the requirements of their role.

Teo (2007) describes the medical education system in Japan. He talks about reforms in the mid 2000s that have brought postgraduate education much more in line with the US, Canadian and UK systems. These have included a two-year postgraduate internship programme that looks very similar to the Foundation Programme in the UK. These reforms were brought in, along with changes to the way medical students are taught, in order to address concerns about the limitations of the previous 'apprenticeship' model. Kozu (2006, Japan) says:

*'There are 79 medical schools in Japan--42 national, 8 prefectural (i.e., founded by a local government), and 29 private--representing approximately one school for every 1.6 million people. Undergraduate medical education is six years long, typically consisting of four years of preclinical education and then two years of clinical education. High school graduates are eligible to enter medical school. In 36 schools, college graduates are offered admission, but they account for fewer than 10% of the available positions. There were 46,800 medical students in 2006; 32.8% were women. Since 1990, Japanese medical education has undergone significant changes, with some medical schools implementing integrated curricula, problem-based learning tutorials, and clinical clerkships. A model core curriculum was proposed by the government in 2001 that outlined a core structure for undergraduate medical education, with 1,218 specific behavioral objectives. A nationwide common achievement test was instituted in 2005; students must pass this test to qualify for preclinical medical education. It is similar to the United States Medical Licensing Examination step 1, although the Japanese test is not a licensing examination. The National Examination for Physicians is a 500-item examination that is administered once a year. In 2006, 8,602 applicants took the examination, and 7,742 of them (90.0%) passed. A new law requires postgraduate training for two years after graduation. Residents are paid reasonably, and the work hours are limited to 40 hours a week. In 2004, a matching system was started; the match rate was 95.6% (46.2% for the university hospitals and 49.4% for other teaching hospitals). Sustained and meaningful change in Japanese medical education is continuing.'*

Ten Cate (2007) describes the medical education system in the Netherlands. Like many countries, the reforms he describes in recent decades have seen a focus on competency-based training and new ways of learning and teaching.

Segouin et al (2007) describe the medical education system in France. This is superficially similar to the rest of Western Europe in its structure and also in the relatively recent adoption of modern teaching and learning strategies. Segouin notes, however, that the 'apprenticeship' approach still prevails in France, and also that access to specialty training

depends on national examination rankings (note this paper is from six years ago and so the situation may have changed). Curricula and structures are government-regulated, although the individual medical schools can set learning approaches and confer degrees and no national competencies are set, beyond the passing of national exams.

Pales and Gual (2008) describe the medical education system in Spain. As with other European countries the traditional medical education has developed in the latter years of the 20th century to take account of EU Directives, the Bologna Declaration and developments in both educational and learning approaches and notions of medical competence. Problems of a mismatch between graduates and postgraduate training places, and concerns regarding the distribution of doctors in Spain, are coupled with a concern about over-specialisation, with Pales and Gual reporting there to be 48 recognised medical specialties.

Georgiantopoulou (2009) describes the medical education system in Greece. She notes the key concerns are about the move towards using a more problems-based approach, coping with an oversupply of doctors, difficulty accessing some specialist training placements and challenges implementing aspects of the Bologna Declaration. The educational system she describes is similar to that in the UK, with four years post graduate education for general practitioners and four to seven years of specialist education. However, in Greece all doctors, on graduating, must spend one year practising in a rural area before they may apply for postgraduate courses.

Ananthakrishnan et al (2012) and Sharma and Aggarwal (2010) write about the problems of PGME in India, not least in that it currently has two parallel systems of PGME, calling for a two-year cross-specialty postgraduate course, a focus on competencies and measures to address the skewed distribution of specialties in relation to population and workforce need. Holmboe et al (2011, US) look critically at the rotation-based approach to medical education and find that there is a lack of empirical evidence regarding how these should work most effectively, in terms of structure and length. They argue that, whilst rotation-based PGME is rooted in the Flexnerian approach, there is research to be done on transitions and competency development. Iobst et al (2010), from an American Internal Medicine perspective, discuss the changes in educational approach and faculty development required by the shift to competency-based approaches to PGME. Nikendei et al (2009) describe medical education in Germany as undergoing radical developments. These, as in the UK, centre on how best to prepare doctors for their specialist roles and equip them with good generalist skills. Safdar (2012, Pakistan) writes about the current trend for medical education to learn from other fields, such as aviation and legal education, in terms of how it approaches topics such as risk and how scenarios are used in the educational context. Gonzalez de Dios et al (2009) survey paediatric residents in Spain and find that they would like changes to the Spanish undergraduate and postgraduate system to be less theoretical, more practical, with more focus on skills and abilities and on evidence-based medicine and research appraisal.

## **Theme 1 - Patient needs and expectations**

This search found little research evidence looking at predicted changes in patient needs and public expectations of medicine and their impact on PGME. Given the search terms and criteria used there is a likelihood that medical researchers and academics are considering such matters, but that published material may be best divined using different terms. Predictions regarding future health needs are discussed in paper 3 of this series. This will include a broader consideration of patient needs and healthcare development, rather than just that relating to PGME. What has been written about workforce and the scope of

training does relate ultimately to matching PGME to patient needs, but has been covered in those sections. In terms of specific studies, Lam et al (2011, China) evaluate the learning outcomes of a postgraduate course for family doctors and raise some concerns regarding increased awareness of older adults' issues in primary care, and discussion about specific training to meet this need.

## **Theme 2 - Workforce needs**

Nomura (2011) and Koike et al (2010a) describe problems in Japanese medical education provision that mirror concerns raised in the UK. They report on the evaluation of changes to Japanese medical education through a survey of hospitals and residents sanctioned by the Japanese Ministry of Health, Labour, and Welfare. The survey describes a shortage of physicians, in particular at some university hospitals. Nomura reports that politically this shortage is blamed on changes to the curriculum. An increase in female doctors is also described. Increasing medical school numbers is reported as the immediate solution but the author argues that this does not resolve distribution issues. Nomura et al and Koike et al (2008) survey doctors in the university and non-university resident programmes and find that, despite the university hospitals offering larger bed occupancy and better access to academic resources, they were less popular with doctors in training than non-university hospitals. Koike et al (2010a, 2010b) look at the data from the Japanese physician survey and note that career choice in Japanese medicine is changing, with fewer doctors choosing internal medicine and surgery. Koike et al (2010b) compare data from National Surveys between 1972 and 2004 to try and predict future workforce issues. From this work it is clear that, whilst the healthcare system is not the same as in the UK, workforce movements and trends in relation to population and service needs are of concern in Japan just as they are in the UK.

Eley et al (2010, Australia) have conducted a qualitative study of early career doctors. They find, similarly to the Japanese studies, that these medics prefer training in smaller schools, in less metropolitan areas. Those junior doctors whose undergraduate experience had been in such settings felt more confident and better prepared for internship. This was put down to their getting more hands-on experience and patient contact as students, as well as a better grounding in basic sciences. The transition from junior doctor to intern was identified to be a tricky time, as it has been in UK studies. Eley et al also discuss the Australian problem of a shortage of remote and rural doctors. This is a concern relating to workforce and patient needs also identified in Canadian studies.

Borman et al (2008) note the changing demographics of US residents choosing fellowships, including an increase in women, and call for workforce and educational planning to take these into account.

### **Theme 3 - Training and service needs**

Evaluations of whether educational approaches and learning practices meet doctors' training needs have tended to be on a case study scale and to look at particular approaches in particular medical specialties. Some of the more broad-brush studies are mentioned in this section.

Teunissen and Westerman (2011, Netherlands) have conducted a systematic literature review on the impact of transitions on doctors throughout their professional education. Whilst much of the literature they surveyed comes from UK sources, they consider transitions from an international perspective, and link their review with a re-evaluation of Flexner 100 years on. Concerns regarding the quality of internship and transition from medical school to general practitioner or specialist practice are reported by Leeder (2007, Australia). Transition times are seen as high-risk periods, and the majority of the research here has comprised of interviews and questionnaires looking at doctors' self-perceived preparedness from academic to clinical training, from junior doctor to specialist trainee and from registrar to consultant. There is evidence to suggest that doctors who have been taught according to a problem-based learning approach are more confident about transitions than their more traditionally taught counterparts and that, whilst in general doctors are confident about their clinical practice, they lack confidence about being prepared enough for the non-clinical aspects of more senior roles.

Baker et al (2008) review the effectiveness of transitional year programmes in radiology, in terms of their benefits for clinical excellence and economic factors, through a survey and a review of statistics from the Accreditation Council for Graduate Medical Education (ACGME). They find that these transitional internships may not be viable due to limited availability of training slots and also that residents tend to report greater satisfaction with the more traditional programmes.

Wijnen-Meijer et al (2009) write about vertically integrated programmes of study in the Netherlands. They report that this innovative approach has demonstrable benefits for medical students' transitions to postgraduate study.

Dijksterhuis et al (2009, Netherlands) review the validity and effectiveness of national postgraduate progress tests in gynaecology. Korndorffer and Slakey (2011, US) report on a redesign of surgical residency and clinical services to match resident educational priorities rather than the pre-existing department structure, and attending specialties. They report this as having positive effects on collaboration as well as on meeting postgraduate learning objectives. Day and Lin (2012, Canada) review the modes of quality assurance of dermatology resident programmes in Canada. Nawka et al surveyed European psychiatry trainees and find concerns raised about variation in clinical opportunity, employment and funding. Kothari et al (2010) evaluate the impact of changed residency training in California over a number of years and report improvements in resident ownership of cases, responsibility, and hands-on experience. Chu et al (2009) describe an accelerated learning programme of medical education in Taiwan where the shortened academic course enabled doctors to have more clinical time. This led to improved exam results and improved proficiencies.



## **The impact of changes in working time regulations and consequent reduction in clinical contact hours**

The concerns raised by some quarters of the UK medical establishment regarding the impact of working time regulations on the ability of doctors in training to gain enough experience to meet service needs are reflected in concerns raised about similar changes elsewhere in the world. Attempts to identify whether working time regulations have impacted on service delivery have involved case notes and statistical reviews as well as interviews with doctors and their supervisors.

Over a nine-year period, medical-surgical ICU residents' opportunities to admit and perform procedures on patients dropped by 32% and 34% respectively (Peets and Stelfox, 2012, Canada); in Pakistan mean operative times and mortality and morbidity rates were compared for hip surgery patients before and after the introduction of work hour reforms. Operating times reduced but mortality and morbidity did not differ significantly (Haroon Rashid et al, 2012). Peets and Ayas (2012, Canada) conducted a literature review on the impact of reduced working hours on patient safety, following the implementation of working time directives in the US in 2011. They conclude that reduced hours should reduce errors and improve resident safety and quality of life BUT argue that the lack of continuity of care could increase some patient safety risks. Peets and Ayas note that the evidence of the impact of doctors' working hours on patient safety is limited, as does Pellegrini (2012, US). Lee et al (2012) report that the majority of surgery residents surveyed were concerned about the impact of the US working time regulations on their learning opportunities. Watson et al (2010), through case review, report a decrease in surgical case exposure for residents in one US programme following the implementation of the 80-hour work week. Hegar et al (2011, US) argue against the restriction on resident working hours following their experiment testing 14 residents' responses to simulation tasks during a 24-hour period. Liang (2011) discusses how the Doctor Work Reform hours requirement will be managed in Hong Kong. Jack et al (2010, US) address concerns regarding the challenge of improving education in light of working time restrictions with regard to surgical residents at one academic centre. They found, through administration of learning and teaching styles questionnaires, that student and educator preferred learning and teaching styles may not match. They argue that more matching of teaching and learning styles would offer better chances of the most effective use of time while in education.

## **Theme 4 - Breadth and scope of training**

The debate on generalism versus specialism is live in both Canada and Australia (Gunn et al, 2008; Palmer et al, 2008; Collier, 2010; Cardwell, 2012; Gara et al, 2010). Albritton et al (2006, Canada), in their discussion paper on generalism versus specialism, cite that the ratio of family doctor trainees to specialists should be 52:48 but practice entry into generalist specialties has dropped 10% in 10 years. Curran et al (2007, Canada) surveyed rural education strategies and raise concerns regarding the education of doctors for rural areas in Canada. The Royal College of Physicians and Surgeons of Canada (Wilson et al, 2010) has published its views on the need for more generalist-specialists to meet public health requirements. They note the confusion around the term 'generalist'. There has also been discussion in the Canadian medical press on this issue in relation to family medicine, primary care and the needs of rural patients (Gutkin, 2012).

Several countries, including Denmark, New Zealand, the Netherlands and Australia, have adopted approaches to competency-based medical education according to initial work

done in Canada (Ringsted et al, 2006 — CanMEDS). The CanMEDS competency framework for medical education has been validated for multiple specialist medical roles.

MacDonald et al (2012) and Organek et al (2012) discuss the development of the curriculum for Family Medicine in Canada. As with much on medical education today, they talk about the move towards a competency-based approach and also the increasing importance of values and principles. Mortensen et al (2010) surveyed postgraduate medical specialists following the implementation of Danish PGME reforms according to the Canadian model. This initial survey, 3.5 years after the implementation of the reforms, finds that there has been limited impact on the learning environment and on the experience of clinical training. Lillevang et al (2009) conducted interviews and a survey looking at the development of this new Danish curriculum. They find that effective curriculum reform is impacted by several factors, including the clarity of information sent out by authorities and the level of pedagogical support. Skjelsager et al (2008) surveyed anaesthesiology trainees and departments regarding the implementation of the 2004 curriculum reforms, including in-programme assessments. This study finds a high degree of compliance with the recommended approach.

Following legislative requirements that postgraduate medical education in the Netherlands be competency-based, several studies and discussion papers have been published looking at how these changes have been implemented. The model for competency-based medical education stems from that developed in Canada, particularly CanMEDS. Scheele et al (2008) describe the stages of development of a competency-based curriculum. Dijkstra et al (2012, Netherlands) are in the initial phase of developing a means of testing whether PGME is enabling doctors to meet the competencies required of their roles. Their recent paper describes the development and validation of an inventory of tasks of the various medical, surgical and supportive specialties. They propose a next step of validating this inventory cross-nationally and also of using the inventory to find out where specialists consider themselves to be best and worst prepared by their training. Dijkstra et al set their approach apart from the literature on how prepared doctors feel their training has made them; rather they claim their approach is more aligned with the competency-based approach favoured in current medical education.

Tromp et al (2012) describe the validation of the Compass - an instrument to measure competence across postgraduate GP training. The development of the Compass has been influenced by the work on competency-based medical education developed in Canada, in particular the CanMEDS role competencies. The tool, in this study of one medical school, is shown to be a valid means of assessing and monitoring competency development during postgraduate training. The Compass aggregates assessments of competence done by various means by postgraduate trainers every three months.

Ringsted et al (2006, Denmark and the Netherlands) surveyed 3476 Danish doctors regarding the relevance of certain parts of the CanMEDS framework. They find that respondents were generally well disposed to the CanMEDS approach, but that certain aspects of it require adaptation to local context where medical provision and education differ from that in Canada.

Shaw et al (2010, Canada) conducted a review of the literature on palliative care education in postgraduate medicine. They find, of 28 studies (mainly from the US), that evidence for the effectiveness of palliative care education is limited, mainly due to the poor quality of

the research, which tends not to include control groups and not to measure impact objectively. Pype et al (2012) present the results of their survey on palliative care education for GPs. Whilst they describe this as 'postgraduate' education, as there is no palliative care component in Belgian undergraduate medical training, it is not clear whether this education in the UK would constitute continuing medical education rather than postgraduate pre-specialist qualification training. Pype et al find that this aspect of practice is not accompanied by training that follows set quality standards and that meets the level of palliative input that GPs will undoubtedly encounter in practice.

Pieper and MacFarlane (2011) report on the results of focus groups with GP registrars in Galway in Ireland, asking them about whether their training prepared them to take account of culturally diverse populations. They find that GPs were stressed and uncertain about their competence in this area, and call for this topic to be taken more account of in medical education at undergraduate and postgraduate level.

## **Modes of teaching and learning**

Much has been written about the impact and effectiveness of different modes of teaching and learning. The published literature outside the UK reflects the move towards competency-based medical education (CBME), the focus on evidence-based practice and the use of innovative teaching, learning and assessment strategies. Frank et al (2010) discuss the development and future direction of CBME from an international perspective, including the UK. Collins (2010) describes the development of surgical education in Australasia along competency-based lines.

A literature review on the application of e-learning approaches in critical care education was conducted by Wolbrink and Burns in the US (2012). They find that e-learning has the potential to transform medical education in that it suits an adult learner, learner-led approach. Wiecha et al (2010) surveyed users of a virtual learning environment in education on type 2 diabetes. They find this to be a viable tool for PGME. Kulier et al (2008, UK) evaluated the impact of an e-learning module in evidence-based medicine utilised in five EU countries. They find it to be a viable mode of medical education. Tsai et al (2008) and Yang et al (2011) piloted the use of OSCE, and Lin et al (2012) the mini-CEX in Taiwanese PGME. For some authors (Gordon et al, 2010) simulation is seen as having the potential to bridge the clinical and non-academic aspects of learning in a way that keeps to the fore the Flexnerian ideals of learning at the bedside. They discuss how to facilitate this approach. There are descriptions of the use of simulation in surgical training (Sinha and Cooling, 2012, Australia), radiology (Tubbs et al, 2010, US), and crisis management (Dourmouras et al, 2012, Canada), with a survey on its effectiveness in emergency medicine (Wittels et al, 2012, US), an evaluation of its use in general surgery (Kirton et al, 2012, US) and in medical training in India (Datta et al, 2012); the use of social media to facilitate reflection in radiology (Kung et al, 2012, US); a report on the use of video-conferencing to meet postgraduate conferencing needs in Africa (Hadley and Mars, 2008); interviews with Dutch medical educationalists regarding the challenges and success of implementing a competency-based curriculum (Jippes et al, 2012); a report on the impact of CBME on mortality and morbidity rates in surgery in the US (Falcone et al, 2012); a survey and interviews looking at the effectiveness of e-learning and community learning approaches in radiology education in Kenya (Obura et al, 2011), in public health in the US (Hemans-Henry et al, 2012) and descriptions of its use in anaesthesia in the US (Chu et al, 2010); a description of the results of use of competency-based metrics to evaluate skills at surgical procedures (Colt, 2010, USA); a description of the process of curriculum development

in Australia (Graham et al, 2007); descriptions of programme evaluations in Canada (Maniate, 2010); questionnaires on the use of portfolios and mentorship in undergraduate and postgraduate education in the Netherlands (Dekker et al, 2009); reports on the use of reflection in obstetrics and gynaecology residents (Learman et al, 2008, US) and the use of practice-based learning on mortality and morbidity in general surgery (Falcone et al, 2012, US). There has also been an increased interest in developing the notion of 'professionalism' in PGME (van Mook et al, 2009, Netherlands).

## **Educational climate and curriculum development**

Sadideen and Kneebone (2012) review the literature on educational theory as it applies to surgical education, in light of the changes in clinical contact time for undergraduates and postgraduates. They argue that approaches that take account of learning theory can optimise learning in clinical settings. A review of ways of learning in obstetrics and gynaecology postgraduate students in the Netherlands via focus groups (Teunissen et al, 2007) highlights the importance of the clinical aspects. Competency-based and lifelong learning approaches in Canada are discussed in relation to anaesthesiology by Naik et al (2012).

The qualities required of educationalists and consultants who lead on changes to the PGME curriculum have been explored through interviews with medical education leads (Lief and Albert, 2012, Netherlands) and with 16 lead consultants by Fokkema et al (2012, Netherlands). Mallin et al (2010, Denmark) in their survey and research comparing educational climate and clinical leadership skills find that clinical educators did not seem to have great influence over the educational environment and that leadership skills did not correlate with educational environment ratings.

The impact of a new PGME curriculum in Japan was measured using a survey of Japanese doctors. Those completing the survey after the new curriculum reported higher confidence and reported that they provided higher quality of care than their earlier counterparts (Tokuda et al, 2012). Monzon et al (2010) describe the process of getting Emergency Medicine recognised as a specialty in Argentina. Wan and Wan (2008) discuss the complexities of training to be a surgeon in China, where there is disparity between resources and training opportunities across the nation. Badsar et al (2012) evaluate the learning environment of an Iranian hospital using the PHEEM.

Rodriguez et al (2009) report on the results of a survey of obstetrics and gynaecology training in 25 European countries. They find that training conditions and access to training differ greatly. They call for greater harmonisation of training across Europe, and note that this is happening, but slowly.

## **Theme 5 - Flexibility of training**

Marco and Kowalenko (2012) report on the results from their longitudinal survey of Emergency Medicine trainees, part of an annual research programme conducted on behalf of the American Academy of Emergency Medicine (AAEM). Their results show that residents struggle to keep up with the programme and maintain their personal and family life.

Self-perceived competence in clinical aspects of the role was shown to improve over time, but competence in the non-clinical aspects was deemed weakest.

Dahlin et al (2010) surveyed doctors in the first postgraduate year in Sweden. They report that:

*'High worries about the future was a risk factor of exhaustion to which women were more subjected. Students with high doubts of themselves may benefit from specific programmes in medical school, addressing this risk. A positive learning climate at follow-up seemed protective, although no conclusions on direction of causality can be made.'*

Van der Horst et al (2010) surveyed Swiss postgraduates regarding their reasons for specialty choice. They report that:

*'Categorical principal component analyses yielded three factors underlying residents' choice of specialty, which explained 40.8% of the variance in responses: work and time-related aspects; career-related aspects, and patient orientation. Women considered work and time-related aspects and patient orientation to be more important factors in their choice, and career-related aspects to be less important, than did men. Career-related aspects became less important with advancing training status.'* (2010, p595)

This, as with UK research, suggests that a revision of how training is structured and whether it meets with other lifestyle concerns, particularly for women, should impact on the distribution and popularity of certain career choices.

## **Conclusion**

An evidence review of this size could not realistically absorb all of the published literature on PGME. The limited search terms and criteria have brought up works that are disparate in that they record concerns, initiatives and evaluations that reflects global preoccupations in a generally localised or specialised arena. What can be gleaned from this evidence review is that trends in UK PGME reflect trends worldwide. Standardisation and equivalence are of importance in medical education because of the mobility of doctors and the wealth of expertise and diversity that non-UK-trained medics bring to UK healthcare. This means that a global perspective should be included in the decision making that leads to changes to the shape of training in the UK.

This evidence review did not find any themes in the debates or developments that are underway elsewhere that are not yet taken account of in the Review. There is no doubt much that could be learnt from non-UK PGME, but as this appears to be more at a curriculum design, teaching approach and specialty level, then this may fall more within the remit of the Royal Colleges, deaneries and medical schools than at UK policy level.

## **Paper 3: What do key opinion formers and stakeholders consider to be the future of medicine - pressures, opportunities and developments?**

### **Introduction**

*'Medicine as a profession has always had to move with the times, and will continue to need to do so. The medical profession needs to be able to anticipate as far as possible the changes ahead and ensure that it continues to produce doctors soundly educated and trained in scientific principles, who will be able to respond expertly and appropriately to whatever conditions prevail. The potential to adapt to an unknown future should be put at the heart of medical education and training, underpinned by the ability to practise safely and respond to patient needs.'* (Levenson et al, 2010, px)

The future of medicine and of healthcare in general is a hot topic. Policy, workforce and education decisions now must take into account the impact they will have on future practice and patient experience. The recent changes to Health and Social Care legislation in the UK, in particular the implementation of the *Health and Social Care Act 2012* in England, are future facing. They aim to address predicted future challenges as well as current issues. The major health policy think tanks, Royal Colleges and the governments of the four nations have published reports and consultation papers addressing how current estimations of future concerns may be met. Most recently (late 2012) the King's Fund launched its Time to Think Differently stream of work, incorporating its response to predicted future trends. The lag between commencement of medical studies and entry into the profession means that decisions about the medical workforce should be part of a longer-term strategy. The UK Government has taken on board the recommendations of the NHS Future Forum, which include a recommendation that the newly established Local Education and Training Boards and Health Education England:

*'...should work with the range of stakeholders, including the CfWI, to set out the strategic direction for the development of the workforce to more effectively meet the changing needs of patients and communities.'* (2011b, p24)

### **Background**

The policy climate in the UK, in particular in England, means that the structures of the NHS and higher education are changing. The environment in which doctors learn and practice is on the verge of being very different from the recent past. The Department of Health (2012) has stated that current policy developments must provide a means of addressing 'demographic and technological change'. The NHS Future Forum was tasked with consulting and reporting on how future healthcare may be shaped. This included implementing the recommendations of both the Temple (2010) report and the Collins (2010) report and taking into account the calls by the Royal College of General Practitioners for extended GP education (2011b). The NHS Future Forum has called for the Shape of Training to build on existing work and to be sustainable and cognisant of the wider picture in healthcare practice (2011a). The Future Forum's recommendations have been based on widespread engagement, drawing on responses from over 12000 people, from across the range of stakeholders in health. One central theme of the Future Forum's recommendations is integration. Integration is a growing trend in response to analysing the current issues in health and finding solutions for the future. In his response to the Future Forum's recommendations, the Secretary of State for Health (2012) supports an integrated, joint commissioning approach that makes use of technological advances as a means of improving

patient wellbeing. He also highlights the increasingly important role of GPs in making these recommendations a reality (2012, p4).

As with health, the future of social care has been the subject of recent debate and deliberation. In England, the 2011 Dilnot Commission Report and the Caring for Our Future White Paper presented to Parliament by the Secretary of State for Health (2012) address the challenges faced now and in the immediate years to come, in particular the challenge of an ageing population with multiple health and social needs and heightened expectations. Proposed solutions come in the form of changes to health and social care funding, integration of services and pooled budgets, all within a networked, person-centred approach that seeks to prevent rather than respond to crises.

The Scottish, Welsh and Northern Irish governments have also published strategy documents, not about medical education but about revisions of healthcare provision, for example the Scottish 2020 Vision (Scottish Government, 2012), the Northern Irish Review of Health and Social Care by the Department of Health, Social Services and Public Safety (2011), and the Welsh paper on future trends produced by Public Health Wales Observatory (Charles, 2008). In Northern Ireland, workforce need is associated with new ways of working as part of its 'transforming your care' proposals. This means an integrated health and social care service, with revised roles across the health professions and more GP leadership. The same general future predictions are discussed and responded to in these and the English documents. It is clear that there is a consensus that future healthcare services and workers will be contending with an ageing population, where more people are living with multiple and long-term conditions, and where service providers must navigate financial constraints and raised public expectations. The evidence to support these broad predictions comes from analysis of public health data and from the opinions of stakeholders gathered via seminars, consultation exercises and reviews. These general trends are prevalent throughout the literature. This paper aims to draw out any relevant material from what has been written on the topic that may relate to the Shape of Training themes, thus identifying common problems and proffered solutions that may impact on any Shape of Training recommendations.

### **Short-term and long-term future**

There is perhaps some distinction to be made between those future facing papers that address the short term and those that address the longer term. In the short term, the medical profession must adapt to the impact of the changes to the structure of the NHS and to the impact of government-imposed financial constraints. Crawford and Emmerson (2012), for the Institute for Fiscal Studies/Nuffield Trust, have presented three possible scenarios for the next ten years based on NHS spending projections: if spending is frozen in real terms, if spending grows in line with national income and if spending grows in line with its long-run average for the UK (since 1950/51). These projections set out the scale of financial challenge in the next ten years since the 2010 Spending Review and our current period of reduced NHS spend for 2011-2014. They predict further cuts to services and argue that for the NHS and social care productivity to keep pace with the national income and with changing needs associated with changing demographics there will have to be radical changes to the way in which services are rationed and to whom services are provided. Crawford and Emmerson also highlight that if the changes to social care delivery recommended by Dilnot are implemented then spending on social care by 2021/22 will be around 15% higher than now. All of these scenarios imply that doctors training now to work tomorrow must expect free at-the-point-of-access resources to be tighter than they are currently. This also suggests that doctors in the future are more likely to be working in

a mixed health and social care economy, where more and more health provision is not free to all.

Charles (2008), writing for the National Public Health Service for Wales, writes about the upcoming challenges facing public health, based on a review of recent report and research evidence. These are the ageing population, diseases associated with lifestyle, changing disease profiles (more people living with long-term and multiple conditions) and the advances in technology, affecting monitoring, diagnostics, surgery and genetics, changed settings for care - less hospital based, rising public expectations. These predictions are in line with the consensus view of what is to come during the 21st century. The Centre for Workforce Intelligence's (2011;2012a; 2012b; 2012c; 2012d; 2012e; 2012f) models look forward to where health demand and supply might be in the next 30 years. This is of relevance to now though, given the time taken for changes in medical school intakes and training approaches to impact on delivery.

## **Search strategy**

A review of the grey and research literature from key stakeholders was included: the General Medical Council, the relevant Departments of Health from the four countries, NHS Education for Scotland, the Health Foundation, the Care Quality Commission, The King's Fund, Academy of Medical Royal Colleges, the British Medical Association, NHS Confederation, Medical Education England, the Centre for Workforce Intelligence, the Joint Royal Colleges of Physicians' Training Board, the Joint Committee on Surgical Training and the Medical Schools Council.

## **Inclusion / exclusion**

Included papers were published between 2006 and 2012, with this cut-off being set to reflect a post-Modernising Medical Careers educational environment. Excluded papers were those published before 2005, and those not referring to postgraduate medical education and not referring to UK medical education.

## **Search terms**

The search terms 'future' AND 'medical' 'medicine', 'medical education' were used in combination in title, abstract and key word searches of the relevant databases and websites.

Abstracts of papers were reviewed in order to determine relevance. Seemingly relevant papers were accessed in full and reviewed for inclusion / exclusion in the study. The papers were appraised for relevance and quality, and the key information from each paper was logged on a data extraction record.

## **Overview of evidence**

The evidence for this paper comes mainly from the major reviews and reports published by UK think tanks and medical colleges, in particular the Royal College of General Practitioners and the Royal College of Physicians. These reports tend to be based on analysis of existing demographic and workforce information (such as data from the Office of National Statistics ONS) allied with consultation responses - collected via interviews, surveys, workshops and requested submissions from key stakeholders within medicine and healthcare. An overview of these is provided here. From them it is possible to get a sense of the Shape of Training review (the Review) being part of a wider effort to prepare for the future and to enable decisions made now to have a positive legacy.



## **1. The King's Fund**

In November 2012, The King's Fund launched its Time to Think Differently future trends workstream, publishing a set of infographics, topic overviews, blogs and discussions. These include specific discussion of the future consultant doctor role. This work follows on from earlier work on the quality in GP care (Goodwin et al, 2010) and on integrated care (Ham, 2010; 2011; Goodwin et al, 2012). Goodwin et al's inquiry into GP practice discusses the future role of GPs in terms of generalism, integration, and GPs being at the centre of hubs of care. It talks about new types of roles, with the GP not as the gatekeeper to services but the navigator across services. Ham et al (2012) and Goodwin et al (2012) talk about making the case for change, drawing together evidence from disparate sources to map out future responses to changing patients, the changing environment, and highlighting opportunities regarding technology and information, and the changing location of care.

Imison (2012), for The King's Fund, summarises the future trends in health in both a global and a financial context. She writes about the economic downturn as a global phenomenon, alongside a shift in economic power to the emerging economies, and an increased concern about the sustainability of resources. In the UK financial context in the short term, Imison highlights the Office for Budget Responsibility (OBR) forecasts that even if the current rate of a 0.2% fall in productivity was maintained there would need to be a rise of GDP to 11% by 2011. The King's Fund calculations are more pessimistic than those of the OBR, to the tune of around £34 billion. Imison discusses the implications of ONS-derived demographic trends, namely the ageing population, which is also becoming more diverse. She also puts health-specific factors in the context of trends in other determinants of health status such as education, living conditions and access to green space - all of which are threatened by the economic climate. She looks at evidence on health behaviours that suggests that inequalities in health might well worsen, given that healthy living advice is less likely to be followed by disadvantaged groups. The expected rise in chronic and multiple diseases is mentioned, while to counter this the possible benefits of innovations in medical and information technology are also considered. This report asks whether the workforce is fit for the future, a question that The King's Fund is now exploring in more depth. It mentions the forthcoming oversupply of consultants and undersupply of nurses and care workers, as well as the potential deficits of the current skill mix. Public expectation of and attitudes to health are the final trends that are identified. Imison's report should be a key document for those interested in this aspect of the Shape of Training, not least because it incorporates a 'health warning' about the risks of making present decisions based on future predictions. As she says, past trends do not always lead to future patterns, nor do trends progress in isolation.

## **2. Centre for Workforce Intelligence (CfWI)**

The UK Government has tasked the CfWI with providing workforce models and scenarios to guide decision making on all aspects of healthcare workforce planning, in particular medical school intakes and training numbers. It is worth noting though that the CfWI work does not extend to Scotland and Northern Ireland. It is currently publishing a set of papers on all aspects of healthcare workforce provision, down to the level of projected need for particular specialties in particular parts of the country. The CfWI predictions are based on a 'back from the future' approach (2012c) wherein it has looked at how need may progress in the next 30 years and then worked back to consider the implications for training decisions to be made now. These future scenarios were generated through a

series of workshops and then used to derive possible models looking at the impact of certain aspects of supply and demand, in terms of level of need, service required and medical school intake. They also take into account aspects of workforce attrition and productivity.

The CfWI (2012e) is also engaged in horizon scanning to identify the key future challenges faced in health workforce planning. As with all of the work in this field, the caveats set out by Imison apply. There is general consensus about what these challenges may be, but how they will truly manifest themselves of course cannot be determined. The CfWI categorises what it calls '20 big picture challenges' for the health and social care workforce as demographic (the ageing population and workforce, and the burden of long-term and lifestyle-caused illnesses), relating to workforce planning methodology (how we forecast the impact of technology and how we gather and use intelligence, for example), education and training related (how we develop the future and current workforce to match the expectations of the skills and attitudes required) and finally in relation to system design (the bigger picture moves toward integration, from hospital to community, and within new and as yet uncertain funding and governance structures).

The CfWI has tried to map out possible scenarios based on how these different elements will interrelate, for example whether the economic situation gets better or worse. According to the CfWI, increased patient empowerment, changes to the skill mix and delivery of care, and increased student engagement and changes in careers are certainties, whereas the direction and impact of demographic changes and economic and technological developments can be predicted less confidently. The CfWI's Technical Report (2012c) describes how its recommended future numbers have been determined. This has been through consultation with employers, deans and members of each medical specialty. The Technical Report Part 2 (2012d) describing its processes separates uncertain aspects of the future (that cannot be predicted accurately but are likely) and policy decisions. It argues that this leaves policy makers with a range of responses that can be tested out as the situation develops. Key recommendations from the CfWI's work so far are that many more trainee doctors should be encouraged to enter general practice and that notions of what it means to be a consultant doctor or Certificate of Completion of Training (CCT) holder need to be redefined.

The CfWI projections look at the short-to medium-term future, with a particular remit to look at the impact of workforce decisions now on medical provision up to 2020. The CfWI has plotted training numbers for each of the 61 registered GMC specialties and for regions, using weighted capitation. It has incorporated the impact of UK policy changes and financial imperatives on service need and service provision. The forthcoming oversupply of consultant doctors is well documented (Imison, 2012; CfWI, 2012a). The BMA (2012a) has reported on the implications of the oversubscription to the Foundation Programme which will lead to an oversupply of CCT holders. This is commonly pointed out as being a consequence of the sudden increase in medical school places as part of Modernising Medical Careers (MMC) in response to the then-shortage of doctors. One message from the CfWI's work is that forward planning now should take account more of the longer term than MMC did.

### **3. Royal College of General Practitioners (RCGP) - Future of GP practice**

The RCGP has invested considerable resources in devising and promoting its model for the future of GP practice. Central to this are changes to GP training, in terms of both length, structure and content. The case for enhanced GP training (RCGP, 2012b; 2012c; 2012d) summarises what it sees as the increasing expectations of GPs' roles in terms of leadership, in terms of clinical skills to meet increasingly complex needs, and in terms of an expanded notion of generalism. UK GP training is short compared with the rest of Europe, with the UK programme of three years training being the bare minimum EU requirement. This means that not all GPs get any postgraduate experience in key areas, for example child health. In the case for enhanced clinical skills (RCGP, 2012b), the RCGP argues that GPs' knowledge base must expand, given the growing complexity of cases in general practice. Specific strategies for Scotland (RCGP Scotland 2011; 2012) and jointly with the British Medical Association for Northern Ireland (2010) have been produced, with Scotland already delivering on an extended postgraduate programme and pioneering on a 'spiral model' approach to education and training. The current RCGP stance may be compared with its statement in 2004 on 'The Future of General Practice'. At that time the same preoccupations were present but it is possible to see that the challenges on the horizon have become more pressing and also that notions of the role of the GP are still evolving in line with new ways of thinking about patients and services. In 2004, the RCGP talked about GPs as gatekeepers and advocates. In 2012, GPs are described as being the hub of a network and as collaborators with patients.

The RCGP has put together a compendium of evidence on 'Doctors, Patients and the NHS in 2022' (Gerada, Mathers and Thomas, 2012). This is the evidence to back up the RCGP's case for extended GP education in clinical, leadership and extended roles. It predicts the upcoming challenges for GPs who are facing extended and revised roles, complex patients with multiple morbidities, long-term conditions, fragmented and fragmenting care, having to deal with competing providers and multiple decision makers. The RCGP is arguing for a unified approach that maximises integrated care and continuity of care. This document is really a presentation of the evidence for the case they have set, rather than an evaluation of the available evidence. The compendium is an accompaniment to the RCGP consultation document (RCGP, 2012e). It will inform RCGP strategy for the next few years, the central tenet of which is that GP training must extend. With regard to the Review, the RCGP's work is bound to be influential, just as it has been on the Future Forum's work. The RCGP is somewhat ahead of the curve in terms of its engagement with how medical education might move forward. This is unsurprising given that changes to general practice play such a major role in the changes already taking place, in terms of clinical commissioning, integration and the move out of hospitals into the community.

### **4. Royal College of Physicians' Future Hospital Commission**

At time of writing this paper, the Royal College of Physicians' Future Hospital Commission (2012a; 2012b) is yet to publish its final report. In this report the main college for hospital-based doctors is looking at how it will tackle the challenges brought about by changed expectations and demands on services. Emergent themes from the Commission's work are the impact of a seven-day / 24-hour service, a review of the consultant's role, the interaction between generalism and specialism, designing care for people with dementia, and transferring care. The Commission's final report will address findings from five key

workstreams - patients and compassion; place and process; people — the workforce; data for improvement; and planning and infrastructure. The Commission's remit is inpatient care, and future ways of working in the hospital setting. It is yet to be seen whether the direction of travel for the Royal College of Physicians will slot in with the direction proposed by the RCGP, not least because a move towards general practice dominance of the profession and a move of care out of the hospital into the community will have implications for how hospitals are used and run in the future.

## 5. Further views from the medical profession

At the same time that concerns have been raised about the oversupply of Certificate of Completion of Training (CCT) holders and the potential for some doctors not to get consultant posts, there have been calls for increased consultant presence in the delivery of services. These calls are based on evidence that patient safety is best preserved when senior doctors are present.

Several of the other medical Royal Colleges have produced future looking consultations and reports, notably the Royal College of Obstetricians and Gynaecologists. The Royal College of Obstetricians and Gynaecologists (2011, 2012) has been engaged in collaborative work with other women's health stakeholders to determine the future direction of women's health. The working party engaged in this has gathered evidence from hearings and written submissions. It has considered the impact of technology, the different expectations of healthcare providers, the changed roles of the doctor, the possibilities of integration, the changed relationship between hospital and primary care, the move out of hospitals, the life course approach, and what might be useful outcome measures. It is arguing for a specialist workforce that can provide integrated specialist-delivered care around the clock. The Royal College of Paediatrics and Child Health (2009, 2011, 2012) has produced papers on how the specialty needs to develop to meet future needs. The paper covers about the impact of changing epidemiology, the fragmentation of services, and workforce issues. It has set standards for paediatric medicine following a review of current provision.

The Academy of Medical Royal Colleges (AoMRC) (2012) in its paper 'Seven Day Consultant Present Care' paper sets out and discusses its three proposed standards in relation to future provision of specialist (i.e. non-GP) services. These standards are based on a review of the research literature and an engagement with recent work by stakeholders and the medical Royal Colleges (including the Royal College of Physicians, the Royal College of Obstetricians and Gynaecologists and the Royal College of Paediatrics and Child Health) on the future provision of specialist care. It discusses future work the AoMRC is involved in with regard to the implementation of these standards, given that there are implications with regard to a revision of the consultant contract and the notion of a consultant, and that *'the direct and indirect costs to implement these standards may be substantial and likely to impact service providers'* (2012, p25). The evidence referred to by the AoMRC here relates to research findings, from a number of sources, showing that weekends and out of hours are high-risk times for mortality and morbidity, and that this is due to reduced access to senior and specialist opinion.

The medical profession's strategies and statements of future intentions (for example, the Academy of Medical Royal Colleges (2012) paper, the BMA/RCGP GP strategy for the next ten years, the BMA (2011) statement on its desired model of care) all centre on a stronger presence for trained doctors where trainees' time in practice is more about training than

delivery. The evidence to support these proposals comes from a variety of sources: the evidence that patient safety is more at risk when senior doctors are not available (Keogh and Porter, 2012), the forthcoming predictable oversupply of CCT holders, and feedback from doctors in training about how more time for training could improve their practice. There is a mismatch at present though between what doctors in training want to do and what is actually required for future service delivery. Recent findings from the BMA (2012) cohort study show that 61% of doctors were aiming for a hospital career, with 32% per cent seeking a career in general practice. As the study authors point out, this falls short of the CfWI recommendation that 50% of trainees should be encouraged to become general practitioners.

## **How do the predicted future trends relate to the themes of the Review?**

### **Theme 1 - Patient needs and expectations**

*'An unanswered question is the impact that the demographic shift towards old age will have on society.'* (Imison, 2012, p3)

How will patient needs and expectations alter in the coming years? What is not in doubt is that patients of tomorrow will likely be older, and have more long-term illnesses and multiple morbidities. They will likely be treated and cared for in the community rather than in hospital. The expectation to engage them in decisions regarding care will likely become greater, not least as they continue to make use of technology to become better informed about their rights and treatment options.

### **Integration and outcomes**

Goodwin et al (2012), in their paper on integrated care for the Department of Health and the Future Forum, position integration as very much in line with improved responsiveness to and involvement with patients and service users, in particular with complex needs. They argue the case for integrated care, based on their reviews of research evidence for this approach. There will be an increased focus on outcomes. Dauphinee (2011) reflects on how we must measure the impact of training and service provision on patient outcomes, with effectiveness being measured by impact on patient experience.

### **Engagement**

Imison(2012) cites evidence from the Economic Intelligence Unit, the King's Fund and King's College that the public is seeking more engagement in decision making and becoming more demanding of healthcare professionals. Boelen and Woollard (2011) discuss the social accountability of medical schools. They consider that the 'artificial divide' between providers and consumers in health is being replaced by dialogue, as consumers become more well informed. In mental health the recovery approach (CSIP, RCP & SCIE, 2007) has become common currency. This brings service user choice, engagement and empowerment to the foreground.

### **Multimorbidity**

Barnett et al (2012) in the Lancet explore the notion that multimorbidity is the biggest challenge facing modern healthcare. They track morbidities in a cross-sectional review of data on over one million Scottish registered patients. They find that morbidities increase with age and with social deprivation. They find that multiple morbidities seem to be the norm

rather than patients having a single disease. Barnett et al use this information to argue against the widespread approach to illness that leads to providing services according to a single disease model. This data, gathered in 2007, evidences the call for a less specialised provision of healthcare and for a more personalised approach to the management of disease. For Martin et al (2012), the ageing population means that the diseases associated with metabolic functioning and obesity will continue to dominate. The medical professional of tomorrow must be meeting the needs of the population as a whole (Gibbs and MacLean, 2011; Woolard and Boelan, 2011, Gonnella, 2011). The Royal College of General Practitioners Scotland (2011) expects future GPs to have to tackle deprivation and health inequalities, given their key role in the health of communities. This is in line with Boelen and Woolard's discussion of the concept of social accountability. If doctors have responsibility for improving the health and welfare of society then this includes being prepared to address its future needs. Calls for 'social accountability' and a sustainability approach in healthcare also come from the Faculty for Public Health (2009).

## **Theme 2 - Workforce needs**

*'Changes in workforce numbers, pay, skills and distribution will all be necessary to improve productivity in the National Health Service (NHS)' (Imison et al, 2009, King's Fund)*

The CfWI (2012a) in its discussion paper on the consultant workforce, opens up the debate on what should happen now to plan for where we might be in 2020. If nothing changes, then there will be an excess of consultants overall yet not enough specialists in certain areas. It calls for the profession to address the required move to general practice, the move to (some version of) consultant-led care, and the need to review training numbers, and to review consultant contracts and way points in training. The CfWI foresees that changes can be made to meet the predicted needs of services and the population by 2020, but even so although there might be enough doctors, the numbers might not be in proportion to the needs of each specialty. As part of its work, the CfWI (2012b) has canvassed the views of employers. It finds that employers do not consider the current model to be fit for purpose. Employers favour a more generalist approach and some version of a more consultant-led service, although they require a change in the expectations of trainees and of consultant pay and conditions, due to the expense of currently increasing consultants. They also consider a consultant-present approach to be more appropriate to some areas than others, and call for some variation in workforce planning to account for the different needs of different services across the UK.

However, the CfWI's findings have been criticised. The Royal College of Physicians of Edinburgh (2012) has called for there to be more evidence to back up the recommendation of less hospital-based care, citing research that the move to the community does not necessarily have a positive impact on outcomes. They also express concern that the introduction of a 'sub-consultant' grade and a revision of the consultants role will impact on the quality of UK medical students and new doctors, as the UK will be a less attractive place to pursue professional goals. The BMA (2012) has also expressed concern regarding a future lack of jobs for CCT holders. The BMA (2011) stated the preferred model of future care is one that has more trained doctors, where the proportion of trainee to trained is less than what is at present, as an acknowledgement of the economic downturn.

Goddard (2010) in his paper in the *Clinical Medicine journal* on the Royal College of Physicians' working party on consultant physicians for the future, addresses the implications of the forthcoming excess of consultants. Goddard warns against reducing training numbers to

respond to oversupply as this will negatively impact on patient care. He also warns against any sudden changes in workforce and training, bearing in mind the outcry against how Modernising Medical Careers (MMC) was organised. He discusses this in the context of the recent factors impacting on the European Working Time Directive, MMC, the changing financial climate, devolution and centralisation of training, and the increase in non-consultant grade doctors.

There is therefore some resistance to some of the difficult decisions that may need to be made about where and how doctors work in the future. Many of the proposed solutions to our workforce planning challenges mean a shift in power from hospital to community and a shift in relationship between senior doctors and their colleagues and employers.

### **Theme 3 - Training and service needs**

Training must adapt to the changing needs of the service, meaning that the role of doctors and of doctors in training will be revised as service design evolves. The policy changes in the UK mean more differences between the four countries of the UK and different expectations of how doctors fit in with service structures. Notions of doctors' accountability are evolving. There is a push for a more consultant-delivered service and yet for less dominance of the medical model.

#### **A consultant-delivered service**

The AoMRC statement (Dec 2011) on the future of postgraduate medical education (PGME) explicitly aligns the quality of future medical care with the quality of PGME. Its vision for the future incorporates more time set aside to enable training to take place alongside supernumary status for doctors in training, at least to some extent. This proposed consultant-delivered service is a response to a growing body of research that patients are more at risk out of hours, including elective not just emergency patients, and that acute patients are at risk as they do not fit in with the current model. The different specialisms within medicine are now interpreting what such a shift in service delivery models may mean. The Royal College of Paediatrics and Child Health (2012), for example, has conducted research looking at the implementation of the AoMRC's proposed standards (2011a, 2011b) and has set its own standards, that take account of the Temple report and the European Working Time Directive.

#### **Changes to the role of doctors in training**

This revised service provision, from consultant led to consultant delivered, should impact on the experience of doctors in training, with trainees having more supernumary time. The NHS Future Forum (2012) in its comments on education and training, suggests that governance and partnership arrangements between Local Education and Training Boards and Health Education England mean they will be able to reward high quality education and training and to fully implement the Tooke report. The Forum also suggests that:

*'...high quality workforce takes a proactive role in determining its own future. In particular, students and trainees should be able to demonstrate how they are shaping their own education and development, including welcoming feedback from patients and showing evidence of where they have used it in their own development' (p19)*

meaning that the shape of training can become more student driven and responsive to patient experience. The relationship between trainee and service will change. The Forum

also says that in the coming years there will be increasing non-NHS involvement in training and education. This will mean that not only will new services become accredited for training but also that not all training institutions and clinicians will automatically provide training. Christmas and Millward (2011) say in their scoping report for the Health Foundation on new medical professionalism that doctors' 'compact' will be with organisations rather than society. Organisations will determine how medical professionalism develops. There are risks here, in terms of how medical identity evolves, in that, for future doctors, 'professionalism' is a fluid concept (Passi, 2010).

## **Future need**

Levenson et al (2010) for the King's Fund have interviewed student doctors to get a sense of the views of the doctors of tomorrow. They undertook consultation events with medical students and faculty staff, on professionalism and what they think that might mean and also about the role of doctor in the future. Those consulted could foresee new challenges in new roles and talked about tension between present and future. They said that current training is not preparing them for what is to come, in particular in relation to early specialisation and the leadership aspects of the role and the changes to the working environment. In the US, the Lucian Leape round table on medical education discussed the impact of changing roles, changing environment, and advances in technology. Its findings recommend a focus on patient safety and professionalism to supplement the traditional medical school focus, which now tends to be on the technical and clinical aspects of medical practice. In internal medicine there is a requirement to acknowledge the move 'from reductionism to holism' (Kramer et al 2010), where the medical model no longer means treating the disease in isolation.

## **Theme 4 - Breadth and scope of training**

The key debate here is around the balance between generalism and specialism. Training must equip doctors to recognise, manage and treat the range and complexity of conditions their patients face. The breadth and scope of training are, however, affected by the changing patient demographic and public health agenda. Calls for more generalists across the board and for those choosing a general practice career to have extended training take account of these predicted developments. These are two related but perhaps separate issues.

## **Generalism versus specialism**

It has been argued that the changes to the patient demographic will best be addressed through an increase in generalism both in specialist and primary care (Barnett et al, 2012). The Commission on Education of Health Professionals for the 21st Century argues that professional education has not kept pace with the challenges we face globally. Current competencies and focus on particular approaches do not match patient need and the requirements of a move to community settings and continuity of care. The Commission, which comprises key thinkers from across the professions and a range of countries, argues for a shared vision of education not just in medicine but also in nursing and public health. Solutions to the problems faced are therefore not just the preserve of the medical profession. The Royal College of Physicians' Future Hospital Commission (2012) is looking into how generalism and specialism should be balanced within hospital settings. So is the CfWI(2012a).

The RCGP's Commission on Generalism and the RCGP's consultation (2012a) and report on the case for enhanced GP training (2012b) bid to increase the length of GP training from three to four years and seek to promote a new way of working that meets changing



demands on the GP as leader, clinician and generalist.

## **New ways of working**

Innovations in technology will impact on what doctors are expected to know and do. Ham, Dixon and Brooke (2012) in their 'case for fundamental change' call for healthcare providers to make best use of the tools available to improve productivity and outcomes. This means use of medical science and technology and new information and communication technologies. Innovation will incorporate ways of gathering and sharing patient-related information, but also ways of teaching and assessing trainees, for example Tochel et al (2010) describe the use of web-based programmes to deliver substantial elements of the Scottish Foundation Programme and discuss the potential of the ePortfolio for the future. Imison (2012) points out that the workforce will need to have the skill and capability to make the most of technology. This means enabling the existing workforce as well as new recruits.

## **Theme 5 - Flexibility of training**

Surveys of current doctors and discussions on how career and work-life aspirations may evolve suggest that medical training and career trajectories will need to have more scope for flexibility.

## **Changed career expectations**

The BMA (2012a; 2012b) in its cohort study of doctors who qualified in 2006 offers some insight into the aspirations and expectations of doctors now moving into post-CCT specialist and GP roles. The study offers an insight into the career choices of doctors in training. The BMA points out that generalisability from this study is limited due to the small sample size and 53% response rate. The most recent report of this longitudinal ten-year study found differences between male and female doctors and differences over time within the cohort regarding confidence about career aspirations being met. Female doctors were slightly more likely (30%) than males (25%) to change their career intentions. Specialty choice and career intentions have been shown to be affected by gender, with women more likely to choose paediatrics and general practice and males more likely to choose anaesthetics or obstetrics and gynaecology. The common reasons for career change were hours of work, working conditions and domestic circumstances. The BMA (2012b) found that four in ten doctors changed their chosen specialty at least once. This tends to be about doctors altering their career intentions when faced with the reality of limited job opportunities and competition for places. The report suggests that the current postgraduate system does not make changing specialty easy. There is little scope to be flexible about training not least because prior learning is not taken into account. Choices are influenced largely by quality of life.

The impact of the shifting gender balance within medicine is discussed in a report by Elston (2009) report for the Royal College of Physicians. She finds that it has implications on workforce planning because of the likelihood of increasing demand for more flexible career paths. The Royal College of Obstetricians and Gynaecologists (RCOG) (2012) discusses the implications of the increasing feminisation of their specialty, with regard to the implications this will have on careers and training, with women predicted to want time out to have a family and wanting to work around their home lives. The RCOG contextualises this assumption by citing survey evidence that increasingly male doctors also would like a healthy work-life balance. In terms of planning for the future this makes

determining specialty numbers difficult. Similarly, the RCGPScotland (2011), in its vision paper for 2011 onwards, has called for general practice to take account of increasing part-time, flexible and portfolio careers.

### **Taking account of the whole profession**

Christmas and Millward (2011), writing about new medical professionalism for the Health Foundation, talk about medicine as a varied profession. Their report is based on interviews and a review of published evidence. They describe doctors now as having evolved with the world around them. They caution against stereotyping based on old notions of the doctor, saying that doctors are becoming more culturally diverse, and are coming from more varied social backgrounds, just as the balance between male and female doctors has changed.

When discussing how to address the evolving notion of professionalism within medicine Christmas and Millward call for all parties with vested interests to be involved in the dialogue. They point out that changes to training cannot address all of the issues raised, in that there remain older professionals who form a substantial body of the workforce. The length of a doctor's working life means that the training of future doctors cannot address all needs regarding the changed set of skills required.

### **Taking account of global needs**

Gordon and Lindgren (2010) write about the future roles of doctors from a global perspective. They consider that there is likely to be more migration and working across international borders. The World Health Organisation (2010) in its consultation on the scaling up of medical, nursing and other health worker numbers, also suggests that there will be some increased distribution of health professionals to take account of the mismatch between demand and supply in various nations. Given the upcoming excess of CCT holders in the UK and the ongoing influx of non-UK doctors into the UK, the patterns of migration in and out of the UK are likely to alter in the forthcoming years as a consequence of internal and external pressures.

### **Conclusion**

Regarding public and patient expectations, the patient population is changing, and public health concerns are changing also. It is likely they will follow the trends already prevalent. The doctor of tomorrow will be expected to be both socially accountable and aware of the impact of the range of problems facing tomorrow's populations. The present impetus to involve patients in decisions and to seek to empower them to become more involved will likely continue and gain pace.

Regarding workforce, the current numbers entering medical school, training and a post-CCT search for work do not match what is required to deliver an equal or better service to what is offered now. Regarding service demand, the shift in locus from hospital to community and the move to integrated care will impact on medical career options. A more consultant-delivered service may have very positive impact on the training experiences of doctors, as they may have more time to train and be less responsible for delivery. Regarding breadth and scope, training must equip doctors for new ways of working, including leadership skills, and holistic and generalist approaches to care, as well as enabling doctors to make the most of technological innovation in medical and pedagogical practice.

Regarding flexibility, at an individual level, doctors' career aspirations are changing. At a global level, the opportunities and challenges available to doctors are also changing.

## **Paper 4: Does current UK postgraduate training give doctors the knowledge, skills and experience to meet future need for patient involvement in their care and treatment?**

### **Introduction**

This paper considers in detail evidence to inform the shape of training theme of patient expectations and needs. In anticipating the direction in which postgraduate medical training should go it is imperative that the patient's perspective is taken into account. Within health professional education and practice there is a long history of patient involvement (Towle and Godolphin, 2011). The nature of this involvement is changing though. The patient is no longer just the subject or object of discussion in the classroom or clinic. The classroom encounter between patient and medical student has become, in some settings, 'a meeting of experts' (Spencer et al, 2011; Boylan et al, 2011), and the patient is now often asked to give feedback on student and trainee performance. Whilst there is a considerable amount of material describing how patients and service users have been involved in medical education, there is limited material on patients' understanding of doctors' career paths and the differentiation between doctors at different points in their careers, save for work by the Royal College of Surgeons of England (2012) on the term 'surgeon'. There have been public facing documents describing doctors' roles, such as the PMETB / AoMRC publication 'Do you know who is treating you?', but the impact of these has not been evaluated.

This paper takes account of evidence about the evolving nature of the 'patient' and also evidence on how doctors and doctors in training take account of patient perspectives to inform their work. There is an increasing onus on patient engagement, involvement and patient-centred or patient-focused care. These notions have different meanings in different medical contexts. What there is a reasonable consensus on is that patient-centred, patient-involved and patient-engaged practices are on a continuum and that increased patient involvement, engagement and patient centredness are to be strived for in all healthcare settings (Chisolm and Askham, 2006; Coulter and Ellins, 2006; Royal College of Physicians, 2010, 2011; Scraggs et al, 2011; Taylor et al, 2010; PMETB, 2008; Parsons et al, 2010). Taylor et al (2010) talk about a 'mutuality' approach to patient involvement, citing examples of existing practice in Scotland. This covers a breadth of patient-provider relationships, from the dynamic between service users and providers when making shared decisions about what is best for the individual patient, to the dynamic between people and health provider systems and the dynamic between health systems and communities. Patient engagement may be about individual doctors and patients working together but it also means increased involvement at system, provider and commissioner level, with bodies representing the patient voice being involved in commissioning and monitoring services (the newly formed Healthwatch England being a prime example). It is worth noting, however, that not all current trends in UK healthcare promote increased patient involvement. Dixon et al (2011) describe the Quality and Outcomes Framework approach to incentivising aspects of general practice as mechanised and medicalised in a way that inhibits patient centredness

Patient input is a central aspect of medical revalidation. The rationale for this is that patients are well placed to measure those aspects of medical competence that:

*'extend beyond medical knowledge and clinical expertise to include additional competencies such as communication, professionalism and interpersonal skills.'* (Armitage et al, 2007, p1).

Patient involvement in medical revalidation is symptomatic of a wider recognition of the potential impact of patient input on improving quality and safety in healthcare, through being involved in quality, safety and care evaluation, clinical decision making and service development and through being enabled to increase their health literacy and self care (Coulter and Ellins, 2006). Patient involvement in service and professional improvement is again symptomatic of the way relationships with doctors have altered in recent years. This has been described as 'the decline of paternalism' (Christmas and Millward, 2011). Christmas and Millward's scoping study for the Health Foundation offers five reasons for this: (i) from a moral perspective where there should be 'no decision about me without me'; (ii) because of the proliferation of information; (iii) because medical knowledge is no longer the sole domain of the doctor; (iv) because of growing evidence that subjective experience can impact on outcomes - so the patient may well 'know best' - so there is an increased emphasis on partnership, with patients taking responsibility for their health; and finally, (v) because of a reduced trust in doctors due to of public awareness of 'bad doctors' and of other influences on healthcare decision making.

The report of the Royal College of Physicians' Working Party on the *Future Physician* (RCP, 2010) recognises similar factors that will increasingly impact on doctor-patient dynamics, namely the impact of the internet, changing and increasing sources of information and increasing data availability on doctors' authority and expertise. This is also borne out in the report of the Postgraduate Medical Education and Training Board (PMETB) on the future roles of doctors and patients in healthcare (PMETB, 2008). The RCP Working Party argues that doctors will have to become skilled at 'steering' patients through this information, and will have to deal with a variety of patient responses to this information proliferation. For the RCP, this analysis of consultation responses has led to calls for a revision of medical training to take account of the new demands on doctors, and the new partnerships that they will need to form (RCP, p25). Askham and Chisolm (2006, p2) set the range of doctors' interpretations of 'patient centredness' (working in patients' interests; practising according to patients' preferences or wishes; being in partnership with, or involving, patients; taking a person-centred approach) in the context of a range of available discourses on the role of patients and doctors (activity and passivity; power and autonomy; conflict and collaboration; emotion and objectivity). There is, therefore, within this wider discourse on patient engagement, involvement and centredness, a range of possible interpretations and other discourses. Whilst some bodies may argue for a particular approach or interpretation, or may conjecture as to where this discourse will be in the coming years, the key message has to be that it cannot be ignored. Doctors must consider their relationship with the patient, individually and collectively, when considering what it means to be a member of the profession.

## **Background: patient needs in the context of the Review**

One of the five themes of the Review is patient needs. The terms of reference for the Review describe a concerning lack of transparency for patients and services about the standards attained by trainee doctors (Shape of Training, 2012d). The Shape of Training consultation call for evidence asked respondents to consider how and whether this clarification should occur (Question 8). It also asked respondents to look ahead to the next 30 years and consider how doctors must change to meet changing patient needs (Shape of Training, 2012e). The Introduction to the themes of the Shape of Training review discusses changing patient expectations, in terms of trust, leadership and balancing communication, teamwork and respect.

The Review derives this impetus to consider patient need from various key sources (Shape of Training, 2012b). Increased responsiveness to patient needs and expectations is called for in the GMC's *State of Medical Education and Practice in the UK* (GMC, 2011 and 2012). The *State of Medical Education and Practice in the UK* (2012) finds that there has been an increase in the number of fitness to practise cases concerning doctor-patient communication and respect. The GMC links this not necessarily to a decline in doctors' ability to communicate but to rising patient expectations. The GMC cites work by the King's Fund on different perceptions of outcomes between doctors and patients and also calls for doctors to enhance their consideration of patient feedback and insights. The Academy of Medical Royal College (AoMRC) in its report on consultant-delivered care (AoMRC) concludes that this model of working will best meet patient expectations regarding access to the right doctors. A GMC focus group of lay reference group members considered patient and public involvement in medical education and training. The findings of this group also called for more clarity about what to expect from trainees according to their stage of training, and that patients are interested in involvement at a high level in education (Shape of Training, 2012b).

Expectations regarding how to work with patients are set out in The Trainee Doctor, the GMC's standards for trainee doctors (GMC, 2011). A trainee doctor in any specialty is expected to 'work in partnership' with patients. This involves listening, giving information, respecting patients' decisions and supporting self care, helping patients to make decisions and exploring choices and options. The standards for F1 doctors reflect several of the elements of working with patients discussed above. The F1 doctor is required, for example, to demonstrate effective relationship and communication skills, to recognise the patient's own expertise and ability to make decisions, to communicate effectively with groups as well as individuals, and to be sensitive to diverse needs (GMC, 2011, pp48-49). The question for the Review is therefore whether these standards go far enough to ensure that the trainees' partnership working - in practice - goes far enough to incorporate the range of meanings that 'working in partnership' might encompass.

## **Reviewing the literature**

### **Review methods**

Papers have been searched for systematically and measured against pre-decided inclusion and exclusion criteria. The quality and relevance of each included paper have

been appraised. The final analysis is a synthesis of findings and discussion of the research methods used.

## **Conceptual framework**

The purpose of this evidence review is to support decision making around the future shape of medical training in relation to recognising and responding to patient- identified needs, as identified by the patient. The inclusion of 'patient needs' as one of the key themes for the Review assumes firstly that patient needs should be an important factor for consideration within the Review. It assumes that patient needs could be improved upon. It also assumes that patient needs and service provision will alter in years to come and thus medical education must adapt to these changes. It might be best, for the purposed of clarification, to redefine 'patient needs' as 'patient-identified needs', to set this apart from 'patient needs' as identified or assumed by the doctor.

## **Inclusion / exclusion**

Included papers were published between 2006 and 2012, with this cut-off being set to reflect a post-Modernising Medical Careers educational environment. Included papers were written about UK postgraduate medical education, albeit some were published in non-UK journals. Excluded papers were those published before 2005, those not referring to postgraduate medical education and not referring to UK medical education.

## **Search strategy**

A review of the grey and research literature from key stakeholders was included: the General Medical Council, the Health Foundation, the are Quality Commission, the King's Fund, the Academy of Medical Royal Colleges, the British Medical Association, Medical Education England, Picker Institute, Patients Association, the Royal Colleges of Physicians, Surgeons, General Practitioners, Psychiatrists, and the Professional Standards Authority.

A systematic search was also conducted using the following databases: Medline, PubMed, EBSCO Academic Search Complete, ScienceDirect, Web of Science, Web of Knowledge, Social Sciences Citation Index, and Google Scholar.

## **Search terms**

The search terms 'medical practice' 'medical education' 'doctor' AND 'patient understanding', 'patient involvement', 'service user engagement' , 'patient engagement', 'patient awareness' were used in combination of title, abstract and key word searches of the relevant databases and websites.

Abstracts of papers were reviewed in order to determine relevance. Seemingly relevant papers were accessed in full and reviewed for inclusion / exclusion in the study. The papers were appraised for relevance and quality, and the key information from each paper was logged on a data extraction record.

## Overview of Evidence

The included papers are mostly either discussion papers or reports of working groups, with some reviews of the evidence on patient involvement and engagement, for example as part of the Health Foundations's work on shared decision making and patient engagement, the Picker Institute work on patient views and expectations, and the King's Fund's work on patient choice and the Point of Care project. Of the literature reporting primary research, the papers tend to be either surveys (Hamann et al, 2012; Han et al, 2013; Harmsen et al, 2008; Hasman and Graham, 2006; Illing et al, 2008; Palmer et al, 2010; Pardon et al, 2013; Royal College of Surgeons of England, 2012; Robinson et al, 2012; Schouten et al, 2007; Tsimtsiou et al, 2007); reports of interview studies (Arar et al, 2011; Bastiaens et al, 2007; Goodrich and Cornwell, 2008; Yedida, 2007); or focus group studies (Bombeke et al, 2012; Jha et al, 2009; Muir and Laxton, 2012). There were some reports of mixed methods studies (Bombeke et al, 2012; Chisholm, Cairncross and Askham, 2006; Dixon et al, 2010) and one randomized controlled trial (RCT) (Cooper et al, 2011).

No papers looked specifically at whether current postgraduate medical education prepares doctors for working with patients and the public in such a way as current trends dictate. Papers looking at doctors working with patients have tended to look at either patient or doctor views about patient involvement in care or reviews of attempts to involve patients in care. This involvement may be at individual, collective or representative level. Terminology and meanings of patient involvement may be different in different settings and different studies. There is an acknowledgement that patient involvement may have different meanings and require different skills in obstetrics and gynaecology versus surgery versus general practice versus psychiatry.

There is a danger in assuming one size fits all, where patient centredness is concerned.

Dixon et al (2010) find, in the four Trust settings they researched, that patient choice was valued highly by 75% of respondents, particularly by older patients with fewer qualifications and from non-white or mixed backgrounds. Goodrich and Cornwell (2008) conducted interviews and focus groups with patients, families and hospital staff, along with a review of the literature, in their report on patient-centred work, as part of the King's Fund Point of Care project. This study looked at different aspects of the patient experience and sought to identify means of improving it. The report finds that improving patient experience is a whole team effort and depends on organisational and system factors as well as individual interactions. It finds limited evidence for the effectiveness of particular improvement interventions and also calls for improved leadership in this area. The doctor in training might, therefore, be seeking to redress this gap by developing and evaluating patient experience improvement interventions in their area of practice or by leading and contributing to organisational change to this end.

Within the profession, there is evidence that doctors are aware that their relationship with patients, and therefore their sense of their own role, is changing. Levenson, Dewar and Shepherd (2008) report from the King's Fund / Royal College of Physicians consultation events held with doctors and their colleagues to look at the future of the medical profession. The consultation events showed that whilst doctors' notions of professionalism might not be altering, they were aware of shifts in notions of medical paternalism, with patients becoming better informed, and taking on a consumer role and with increasing drives for patient and public involvement. The decline of paternalism and increased impetus to involve patients in decision making are reflected also in Leatherman et al (2007, for the Health Foundation) in their



commentary on their published charts and guidance for providers looking to improve quality. They cite increasing evidence that patient engagement can impact on cost effectiveness and outcomes. Mulley, Trimble and Elwyn (2012, for the King's Fund) talk about 'the silent misdiagnosis' of ignoring patient preferences. They argue for a change in doctors skills and attitudes wherein patient preference is not just about place and time of treatment but about wider issues and choices.

The Royal College of Obstetricians and Gynaecologists (RCOG) (2012) Working Party looking at future training needs has incorporated survey findings from both clinicians and women. This acknowledges the need to respond to women's changing views and needs, and to involve women more in decision making. Ipsos Mori (2012), for the Department of Health, has surveyed and analysed patient responses to the 'Caring for our future' review of social care and support. One of the major themes here was about the key role of information and advice for service users. The Royal College of Physicians (RCP) (2010) Working Party report on the Future Physician predicts that technological change, the internet and the proliferation of information will challenge assumptions about doctors' authority and expertise. According to this report, the doctor's role becomes about assisting the patient to make informed choices and to steer patients rather than about their being the source of information and decisions. The Working Party also calls for patients and patient organisations to assert their demands for patient-centred and personalised care. Also, the RCP's Commission on Dignity calls for improvements in communication, basic care and treatment, responsibility, accountability and continuity.

There is a history of patient involvement in medical education (Hanson and Randall, 2007; Towle and Godolphin, 2011), and such involvement has been steadily progressing towards a partnership approach. Spencer et al 's (2011) large-scale evidence review on patient involvement in the education of health professionals, including doctors, looks at case studies of involvement at various points in the training and finds that provision of this is variable as is the quality of research on the subject. Muir and Laxton (2012) report on the benefits of patient feedback in medical education, following their focus group study. Jha et al (2009a, 2009b, 2010) look at patient involvement in teaching doctors in training. They conducted focus groups with students and educators and review the literature. They find that patients in most settings are employed in teaching roles, but in some settings they are involved in assessment and feedback and curriculum development. They find limited evidence of the impact of these on the outcomes of training programmes. Lucas and Pearson (2012) present case studies on the benefits of patient-centred approaches through patient involvement in undergraduate medical education. Worryingly, Tsimitsiou et al (2007) surveyed doctors in training in Greece and their findings show them to be more doctor-centred by the end of course, with a move towards authoritarianism as the course progresses. This is more so for men than women. Bombeke et al (2010, 2012) in their interview and focus groups study in Belgium also find a decline in patient-centredness during training, and report on an attempt to improve this with communication skills training.

Some research studies have considered how doctors enact the requirements for working with patients set out in the GMC's *Good Medical Practice*. Palmer et al (2010) in their survey of junior doctors' observations in practice present a mixed picture regarding the involvement of patients in decision making and respect for patients. Scraggs et al (2012, for RAND EUROPE and the GMC) have looked at the published evidence as to why doctors do not follow *Good Medical Practice*. Patient centredness is one aspect considered. They find that evidence regarding some conditions, for example depression, suggests that doctor and patient goals are not the same and this has implications as to how shared decision making is enacted, for example with doctors emphasising medical treatment while patients may emphasise self-management. Scraggs et al cite further research in the stroke setting where clinicians' perceptions about patient ability impact on whether shared decision making takes place. The implications of shared decision making are also explored in Robinson et al's (2012) paper comparing GPs and patient analyses of evidence for and against a certain treatment. They find that whilst GPs tend to value RCT evidence most highly, patients may rate other sources of evidence more highly.

Regarding revalidation, Sheldon, Swain and Harriss (2011, for Picker Institute) conducted a discourse analysis of the published material. They find that whilst patient and public involvement is virtually absent from this discourse, it does emerge in four ways: (i) when the purpose of revalidation is presented as being of benefit to patients, (ii) when revalidation is related to new medical professionalism (and the implications of this for doctor-patient relationships); (iii) when lay input to the process of revalidation is discussed and (iv) when patient feedback as part of 360-degree appraisal is discussed. The authors argue that the first and second discourses are at odds, in that the first positions patients as passive recipients of benefit, whereas new medical professionalism is about partnership working.

### **Patient centredness, patient engagement and patient involvement**

Whilst for some authors the difference between these terms is not defined, for others there is difference. Patient centredness is a term coined in 1969, according to Illingworth (2010), but it has multiple dimensions and interpretations. Parsons et al (2010) describe 'patient engagement' as being involved in one's own health, care and treatment, whereas, for them, 'patient involvement' is about being involved in service design, planning and delivery.

Hopkins et al (2009) reviewed the literature on service user expectations of inpatient mental health care. They find that respect for dignity and autonomy are key here, and are best reflected in clinicians' communications skills. Bastiaens et al (2011) conducted interviews with older people in 11 European countries, asking about their views on involvement in primary health care. They found that people over 70 do want to be involved in their care but that to them involvement is about relationships and person-centred approaches rather than active participation in decision making. The authors argue for an approach to involvement that acknowledges individual differences. This is also reflected in the studies by Schouten et al (2007) and Harmsen et al (2008) in the Netherlands looking at the views of patients from different cultural backgrounds on GP interactions and communications, where there are different expectations of

communication among different ethnic groups, ages and attitudes. Recommendations from this study are around GPs being culturally aware and sensitive and being able to match interaction to patient. As with the RCP's Working Party and others, Parsons et al discuss the implications of improved health literacy of patients. They link improved health literacy to improved outcomes, and report that for it to have the most impact it should be individualised and personally delivered. How the individual doctor determines what is required in each patient-doctor interaction is certainly up for debate though, as Christmas and Millward (2011, p44) describe an assumption that doctors can know what kind of doctor-patient relationship is required as 'perhaps the most insidious paternalistic strand in the Traditional Perspective'. Even the promotion of shared decision making may be seen as an imposition to some patients, as not all patients may want to work in this way, as Hamann et al find in their 2012 survey study of German patients.

Parsons et al (2010) in their review of the evidence on patient involvement and engagement consider the barriers to their development. They find that engaging patients is prominent in health professional codes, legislation and regulation of recent years. This has led to a heightened focus on partnerships with patients in education and training. Parsons et al find that this has primarily meant an increase in communication skills training, but question whether this has actually led to an increased involvement of patients in decision making or an improvement in the experience of all groups of patients. One suggested reason for this is that whilst recently trained doctors may have the requisite patient-partnership skills, those trained less recently, who are also more likely to be in senior and leadership roles, will not have been thus trained. They also consider that whilst patient engagement is one priority, some teams may be driven to focus more on administrative and financial targets, which do not necessarily reflect patient reports of improved engagement and experience. Parsons et al acknowledge some fears within the profession about the increasingly demanding patient as consumer, but counter this with research evidence that this is not the mindset of most patients. They argue for increased consultation time in primary care, seeing this as a means of meeting the requirements of increased patient involvement and understanding and choice about their health and treatment.

For doctors who seek to develop a partnership working approach, one skill to be developed is that of 'shared decision making' (De Silva, 2011, 2012, for the Health Foundation). What this means in practice and how it actually improves outcomes is not totally clear. De Silva's review of the evidence finds that there is limited robust evidence of its impact, beyond improving satisfaction with care results. She finds, however, that the evidence suggests that the impact of shared decision making may be best felt when it is one aspect of a 'broader ethos of care' along with collaboration and self-management approaches. As with the research studies described above, patient demographic factors, professional attitudes and specialty all affect how shared decision making works. Yedidia et al (2007) in their interview study looking at what medical education can learn from palliative care argue for a place within medical education for preparing doctors for the emotional and relational aspects of the role, which have at times been seen as things to avoid.

The Health Foundation (2013) evidence scan on involving patients in safety improvement finds some benefit in patients being involved in feedback, and in planning and improving their own safety, but the conclusions from this evidence review are that patient involvement here is facilitated by professional attitudes and behaviours. Do doctors need to be equipped to facilitate this? As with other reviews in this area the Health Foundation talks about the continuum of patient involvement, so solutions may be about doctors being aware of the continuum and developing the skills to match involvement strategies to the task in hand.

De Silva also points out that a shared decision-making approach suits certain situations better than others, for example palliative care or psychiatry (where multiple options for treatment may be available) rather than emergency care (where decisions must be made fast). She notes that making information and tools available is not enough, rather the clinician must support and encourage patient use. Again, this has implications for the training of doctors, if they are becoming facilitators and navigators rather than providers. For Arar et al (2011), based on their interviews with primary care workers, improvement in patient involvement in medical care homes is about workers being skilled at health promotion and self-care management. Again, these are not the 'traditional' realm of the doctor. Fischer and Erault (2012, for the Health Foundation) have applied a systems approach to making sense of doctor-patient interaction. They offer a model of shared decision making within the doctor-patient interaction that offers various aspects: it can mean competition, cooperation, negotiation or co-evolution. They consider, based on the findings of their consultation and workshops, that 'shared decision making' in terms of 'co-evolution' is not usual practice at the moment. Coulter (2007, for the Picker Institute) reports on an evidence review looking at improving patient experience in cancer care. She reports on evidence of patient involvement at service design level and at individual level. At the individual level this is about information sharing, communication and joint working, offering patient choice, and getting patient feedback. Coulter and Ellins (2006, for the Picker Institute and the Health Foundation) review the evidence on patient-focused interventions. This review groups interventions according to several themes and reviews each paper in turn. It offers an insight into the variety of patient-focused approaches and uses of such. This further adds weight to the suggestion that doctors in training need to have multiple approaches at their disposal and to have the ability to discriminate between which approaches to use and when.

## **The Themes of the Review**

### **Theme 1 - Patient needs and expectations**

As discussed above, there are various important reasons for doctors to become skilled at identifying, soliciting and responding to patient's expressed needs and expectations. This is a fundamentally aspect of *Good Medical Practice* (GMC, 2010). Evidence suggests that doctors in training are not being as well equipped as they might be to practise in this way. The research on attitudes of trainee doctors that finds that patient centredness decreases in training suggests that more could be done to promote partnership-working approaches. The evidence regarding whether increased patient

involvement and engagement improve outcomes is mixed, although this is a field whose evidence base is expanding.

Patients are not always correctly informed about roles, treatments and evidence (PMETB / AoMRC, 2010; RCSE's 2012 survey on public notions of the work of surgeons; Robinson et al, 2012). This arguably means that there are risks involved in weighting power and decision making more with the patient. There is also evidence that patients' preferences for involvement are about interpersonal communication and professionals spending time with them (Bastiaens et al, 2007). This suggests that postgraduate training should equip doctors to enable patients to consider themselves involved and to understand complex ideas. This is borne out in Chisholm et al's qualitative research on the public views of doctors, which finds that listening and communicating are key, and that more could be done to work out how to proceed when doctor and patient views diverge.

The heterogeneity of patient views and expectations is considered in several studies. This suggests that consideration of patient needs and expectations may require different sorts of approaches for each specialty. Within specialties, patients express a range of wants regarding information giving and decision making (see Pardon et al's 2012 study of lung cancer patients in Belgium) and a range of understandings of what this might look like (see Arcuri et al's 2013 study of perceptions of doctors giving a cancer diagnosis). Also Hasman et al (2006, for the Picker Institute) in their survey of patient and carer expectations regarding intensive care find that these differ, with patients valuing being given information and being involved in decision-making more whilst relatives value skill in giving bad news and treating patients as individuals.

Two developments are bound to impact on how doctors in the future respond to patient needs and expectations. First, the introduction of medical revalidation in 2012 requires doctors to gather evidence of patient feedback. Also the increasing practice of patient access to medical notes and electronic records will mean that doctors' records will be more readily available for scrutiny by service users. Leveille et al (2012) in the US are conducting a large-scale multi-site trial of on-site availability of patient notes in primary care, with the aim of finding out how this might impact on patient attitudes and outcomes.

## **Theme 2 - Workforce needs**

The requirement for doctors to meet the various expectations about patient involvement and engagement is about values and attitudes as well as interpersonal skills. It is about matching the approach to the individual patient and the specific setting, and also acknowledging that doctors might not always be able to gauge how this should be done. If a doctor's role is moving from that of information holder and decision maker to that of partner, then does this mean the doctor must no longer just understand and perform medical practice but evaluate it and explain it. The Commission on Generalism (2011) talks about 'guiding patients through complexity'. The risk here, as Christmas and Millward point out, is that medical paternalism is still in force, but in a new guise. Consideration of what patients want in the context of the

move to increasing the number and type of generalist doctors may mean that more doctors have to become more skilled at matching their approach to a variety of patient expectations depending on the context and the individual.

Patient involvement practices are not consistent within education. Towle et al (2010a, 2010b) and Towle and Godolphin (2011) have surveyed the literature on active patient participation in health professional education. They find that this challenging of the ideology of professional expertise through an increased valuing of knowledge held by patients 'is only just beginning to be articulated' (Towle and Godolphin, 2011, p498). This suggests that alongside a specific, individualised, tailored approach there may be room for some consistent standards and expectations to be set across postgraduate medical education.

### **Theme 3 - Training and service needs**

The Review is considering the role of trainees within service delivery (Shape of Training Terms of Reference, 2012d). This is associated with the move to a more consultant-delivered care and to revised expectations of trainees in practice. Evidence from the PMETB / AoMRC (2010) and the Royal College of Surgeons of England (2012) suggests that patients are often not currently aware of the expertise and seniority of who is treating them.

When considering why patient centredness may decline throughout training, Bombeke et al posit that this is in part due to a lack of role modelling within the hospital environment. They see the supervisor-student relationship as key here, and describe a gap between classroom and practice. Bombeke et al's findings are based on focus group research with students in Belgium so may be argued as not applicable to the UK. Illing et al (2008, for the Northern Deanery) look at student preparedness to practice from the point of view of three UK medical schools. They find that there is a potential mismatch between the prescribed outcomes of undergraduate education and actual requirements in clinical practice. The respondents in their study describe how patient-centred approaches learnt in the classroom do not sit well in a practice environment where there is less and less supervision and more and more administration to contend with. This links well with Dixon (2010) who points out that other aspects of the current regime do not align well with approaches that enhance patient involvement. There is a challenge to address here about changing perceptions. If patient involvement and shared decision making are a given, and are enshrined in *Good Medical Practice*, then they cannot be seen as disposable add-ons that take time and energy away from other aspects of the work. The Health Foundation (2013) in its publications on patient involvement in safety improvement considers that this can be valuable in a variety of ways, but that facilitating this depends on the attitudes and behaviours of professionals.

### **Theme 4 - Breadth and scope of training**

This theme of the Review is concerned with whether doctors in training are exposed to the range of experiences they need in order to equip them for future practice. Again, as referred to above, with regard to patient involvement and

engagement, this is about doctors developing the ability to match their approach to their patient and also about doctors demonstrating 'new medical professionalism' in this approach. The research evidence on trainee doctors suggests that there remains a range of opinions here, and that not all doctors in training demonstrate the values and beliefs that such an approach demands. Burke (2008) in her thesis on doctor-patient relationships uses five conceptual frameworks to describe them, based on her interviews with trainee doctors. These are: paternalism; guided decision making; partnership; the clinical; and consumerism. Askham and Chisholm (2006, for the Picker Institute) discuss four themes within the debate on professional versus patient roles: activity and passivity; power and autonomy; conflict and collaboration; emotion and objectivity. The policy push at present is clearly towards increasingly active and empowered patients, and towards collaboration. Where trainees sit now on these continuums is not clear, and as yet there is no definitive answer as to how to ensure all doctors end up at a certain ideal point of attitudes and behaviours.

Coulter (2006, for the Picker Institute) compared survey data from six countries looking at how the UK fares comparatively on the question of engaging patients in their care. She also looks at the differences between the four countries of the UK. She finds little difference between the four countries, surmising that policy and resource differences do not necessarily affect clinicians' relationships with their patients. Whilst Coulter finds that none of the countries surveyed was excelling at promoting patient engagement, UK patients were less supported to engage than elsewhere. She argues that there are shortcomings in professional education and low expectations from professional and regulatory bodies. She says that:

*'What is needed is a major change in the way professionals work with patients in the UK. In particular, doctors, nurses and other health professionals need training in how to promote health literacy, support self-care and self-management and involve patients in treatment decisions, and their effectiveness in this regard should be monitored in regular patient surveys.'* (2006, p3)

It is worth noting that there have been several developments in recent years that reflect Coulter's recommendations, in particular the revised *Good Medical Practice* and the inclusion of patient feedback in medical revalidation, although similar calls are made in the more recent work by De Silva (2011, 2012)

## **Theme 5 - Flexibility of training**

This theme is concerned with whether training offers doctors enough flexibility in order to meet doctors diverse career and personal intentions. As such the evidence reviewed here does not have anything to inform consideration of this theme.

## Breadth and scope of training: evidence on generalism and specialism

*'Generalism lies at the heart of the future of the NHS, and the system needs to value this. Instead of general practitioners developing more specialist knowledge, general practice needs to make available specialist support during the consultation process, during care planning, and in ongoing care to support patients to manage their own illness.'* (Goodwin, 2012, p132)

In the present system UK student doctors complete a first degree in medicine. They qualify as doctors and then choose a path towards either general practice or one of the medical specialties. All doctors in training complete two foundation years where general medical skills develop and where experience in some specialties is gained. There follow several years of training for either general practice or specialist medicine, culminating in passing the Certificate of Completion of Training (CCT) and passing the requisite Royal College exams. According to the CfWI (2012b) there is a forthcoming shortage of GP trainees to meet the populations need. There is also a reported hidden curriculum within medical schools that renders GP careers as less esteemed and attractive than working towards specialist consultant roles (Wass, 2007).

How best to interpret and promote generalism within postgraduate medical education (PME) is central to the work of the Shape of Training review (the Review) (Shape of Training 2011, 2012a, 2012b). The evidence drawn on to inform this evidence review comes from commission, consultation and working party reports from the Health Foundation, the Royal College of General Practitioners, the Royal College of Physicians, and the King's Fund. This means that there is a wealth of opinion-based evidence here that can be used alongside the evidence gathered by the Review itself, to inform conclusions and recommendations. However, there is a lack of primary research on the benefits of a generalist or a specialist approach to care, and, despite the Commission on Generalism offering a definition of the term, there still clearly exists a range of interpretations of the concept. Changed expectations of GPs and concerns raised about the upcoming shortage of GPs are matters of course related to the issue of 'generalism versus specialism' but this debate extends further than a discussion of GPs and primary care.

Generalism is on the political as well as professional radar. Tooke discussed generalism in his interview with the House of Commons Health Select Committee on Education, training and workforce planning (2012), following the recommendations made in the Tooke Report (2008) and reiterated by NHS Future Forum's recommendation (2011) to look at fostering generalism and flexibility in medical training and careers. He says:

*'We proposed in "Aspiring to Excellence" some ways of converting foundation year 2 and the early part of core training into, say, four broadbased generalist starts to specialist training. That has not been uniformly adopted and needs to be revisited.'* (2012, Ev48)

In one of the few research evidence-based discussions of the subject, Barnett et al (2012) in *The Lancet* argue that the single disease framework used to organise medicine is not the best means of addressing growing multimorbidity and complexity of presentations. They argue, based on a cross-sectional analysis of morbidity data from 314 medical practices in Scotland, that care based around strong generalists in primary care is the best option to tackle this.

The Centre for Workforce Intelligence (CfWI) analysis of future trends and the implications of current workforce strategies has identified that there must be a shift towards increasing GP trainees rather than hospital doctor



trainees. It argues that solutions must be found to meet the career aspirations of current doctors in training as well as workforce needs, because current rates of general practice growth AND projected numbers of upcoming consultant posts do not meet projected need. The CfWI highlights the Shape of Training project as the key site for decisions regarding generalism and specialism to take place (CfWI, 2012b). The CfWI's concerns are echoed in the concerns raised by the Royal College of Physicians' Future Hospital Commission (2012a; 2012b), as well as in the extensive published works of the Royal College of General Practitioners (RCGP) on this topic. The RCGP has campaigned for the training route for GPs to be extended. Concern has been raised in other specialties as to whether the current system best prepares doctors in training for their future careers (Future Hospital Commission, 2012a) and for the needs of older patients (Royal College of Physicians, 2011). The debate on generalism versus specialism is also live outside the UK, particularly in New Zealand, Canada and Australia (Collier, 2010; Gara et al, 2010; Imrie, Weston and Kennedy, 2011; Gunn, 2007; Gunn et al, 2008; Van Der Weyden et al, 2006; Workforce Taskforce, 2007).

The generalism debate has several aspects: about how much generalist knowledge a surgeon needs per se, or how to successfully make the shift from hospital to general practice as the centre of care and treatment, and also how to ensure the future workforce is made up of adequate numbers of generalists and specialists. Imrie, Weston and Kennedy sum up the findings of their paper on generalism in Canadian PME noting that what is required is (i) a consensus on what 'generalism' is, (ii) the development of a PME that fosters integration and communication between generalists and specialists and (iii) a redesign of residency programmes to enable exposure to generalism rather than moving around from subspecialism to subspecialism. These are all pertinent to the UK debate.

The RCGP and the Health Foundation's Independent Commission on Generalism final report also talks about integration and continuity of care as key to successful patient outcomes and experiences. It argues for 'exposure' to generalism for all branches of medicine, not just general practice. The Commission's findings are based on evidence gathering through oral and written submissions. It views the challenges facing modern medicine to be primarily, the ageing population, the increase in multimorbidity, and the move towards a focus on ongoing wellbeing rather than one-off interventions. It also identifies that true 'generalism' is a difficult task given the proliferation of information and also the challenge of diminishing resources and increasing public demand. The Commission's definition of generalism (p5) is, therefore, about 'an approach' rather than a set of clinical skills or body of clinical knowledge. This favours notions of professionalism and the role of the doctor more than a dilution or revision of clinical skills.

The RCGP's Compendium of evidence on 'Patients, doctors and the NHS in 2022' (Gerada, Mathers and Thomas, 2012) equates generalism in GP practice with 'continuity of care' (p9). The declining numbers in the primary care workforce, both in the UK and in the US, are linked to declining continuity of care. Also 'generalism' is equated with holism and patient-centred approaches. The compendium differentiates between generalist and specialist skills. The variation in use and meaning of generalism in medicine is acknowledged but the benefits of generalist approaches to patient outcomes and costs are stated, using evidence from a range of reports and studies. The compendium sets the case for the why and how of increasing the membership and reach of the UK GP workforce in the coming years. Goodwin et al (2010) for the King's Fund also equate generalism with patient centredness and holism. Their argument is for a future healthcare system that places general

practice and its values at the centre. This seems to be less about individual doctors' generalist versus specialist skills, rather it is about values and perspectives. They argue that an individual practitioner cannot be expected to be able to meet the range of demands made in relation to specialised and generalised care. For Goodwin et al, this increased commitment to generalism is about multiprofessional and integrated working rather than, for example, increasing the ranks of GPs with Special Interests. It's about how GPs work with specialists rather than a blurring of roles between the two. Ham (2012, for the King's Fund) has also explicitly linked generalism to integration in his arguments for a more integrated care system. Goodwin et al's (2010) perspective comes from an extensive inquiry into the quality of GP care. If the inquiry findings are taken into account when considering generalism versus specialism, it seems that better equipping doctors in training to work as generalists or specialists is at least in part due to their having the right negotiation, navigation and integrated working skills as much as clinical skills. The RCGP (2012d) further discusses this definition of generalism as being about whole person medicine and as a facet of professionalism. Generalism is described as 'an ethos' (2012, pviii), in much the same way that the Royal College of Physicians and Surgeons of Canada describes it as 'a philosophy of care' (Wilson et al, 2011).

Following on from the Commission's work, the RCGP has produced further discussion and consultation papers (2012a, b, c, d, e) calling for the profession to engage in a debate on increasing a generalist focus. This is linked to developments in how doctors and patients communicate and how the health system is set up and navigated. In terms of how this may impact on training, the RCGP has stated a commitment to campaign for increased access to GP placements in foundation courses, to campaign for generalist career paths and to work on how primary care may be used as a learning environment for generalist skills.

Christmas and Millward (2011), in their report on medical professionalism, note the increasing specialisation of doctors, and link this with the encroachment of other professions on the domain of the doctor, seeing both as part of the fracturing of the profession. The Medical Schools Council, in its response to the Commission, expressed concern at the fragmentation of the profession, the proliferation of specialisms and the unclear lines of responsibility for intermediate care. The Medical Schools Council calls for a broadening and deepening of general medical training and for a strengthening of the primary care evidence base.

## **Conclusion**

There is an expectation that the Review will move the generalism debate on from definitions of concepts and marking of territory to practical changes to PME that enable an increase in generalist medicine. The RCGP has in recent years been stating its case regarding its role in the future of medicine and healthcare. Because it has given this topic more consideration, it has more to contribute to the debate. The other medical Royal Colleges are beginning to address generalism versus specialism. There is a lack of research in this area, in terms of the impact of changes on the medical workforce, medical education and whole person approaches on patient outcomes and service quality. Any changes to PME that promote an increasingly generalist slant to the profession should be accompanied by primary research and evaluation. These should aim to move from opinion-seeking towards more objective measures of impact.

## Integration

### Policy context

The integration of health and social care has been upheld as a solution to the current problems of social care funding, fragmentation and gaps in accountability (House of Lords Select Committee on Public Service and Demographic Change, 2013). Increased integration between services has been called for by the Nuffield Trust (Rosen, 2011), The King's Fund (Ham, 2012), the NHS Federation and the NHS Future Forum (House of Lords Select Committee on Public Service and Demographic Change, 2013). This will likely be facilitated via GP practices and clinical commissioning groups (CCGs) and therefore means doctors must be versed in the process as well as the implications of these developments. The Dilnot Commission (2011) has encouraged an expansion of existing health and social care integration projects, particularly with regard to pooling of budgets and the integration of adult care with the wider care and support system. The House of Commons Health Committee (2012) has also stated that reconfiguration of services from hospital to community and an integration of health and social care are the sole means of meeting the resource and demand challenges of the upcoming years. A recent call for increased integration between acute and community services has come from a review of older adult care in NHS acute trusts (Tadd et al, 2012), and from a working party of the Royal Colleges, reported by the Royal College of Physicians (2010 - Future Physician, the Future Hospital Commission workstream (RCP, 2012a, 2012b)). The Royal College of Physicians has acknowledged the evidence for horizontal and vertical integration in its call to action to transform hospital patient care (2012 - Hospitals on the edge) and in its response to the Commission on dignity in care for older people (2011), and by the Royal College of Pathologists (2012) and the Royal College of Obstetricians and Gynaecologists (RCOG) (2011) and the NHS Confederation (2010). The Royal College of General Practitioners (RCGP) describes itself as having been at the forefront of calls for increased integration (2012e; 2012f; Gerada, Mathers and Thomas, 2012) and links it explicitly to medical generalism. Its definition of integration is about 'primary care led services' (p16). The Independent Commission on Generalism (2011) talks about GPs being uniquely placed to foster integration between primary and secondary care, and sees better communication both in person and in the use of communications technology as the best means of allowing patients and carers to benefit from generalism.

The NHS Future Forum's recommendations on integration (2012) have been wholly accepted by government (Lansley, 2012). These include moving from care pathways to a more person-centred service provision, and taking account of multiple needs using a care coordination approach. Patient experience is to be measured across the journey of care, with particular regard for transitions between services. Government has pledged to incentivise collaboration between the NHS, social care and public health (Lansley, 2012). Field (NHS Future Forum, 2011), post-collaboration with the King's Fund, the Nuffield Trust and the Health Service Management Centre in Birmingham (see Goodwin et al, 2012, for King's Fund and Nuffield Trust take on this), argues that a centrally dictated model of integration will not work, recommending instead several systemic changes to bring about local integration. GPs are situated at the centre of this, subsequent to the establishment of CCGs in line with the Health and Social Care Bill (2012). 'Coordination and integration' is one dimension of the Institute of Medicine's definition of patient-centred care, cited in the National Clinical Guideline Centre's work on improving patient experience (2012) and in publications from the King's Fund's point of care workstream (Goodrich et al, 2008).

Coulter (2006) writes about the impact of devolution on governance and accountability on the four UK nations. She contrasts the longstanding administrative level integration in Northern Ireland with localism in Wales, clinical networks in Scotland and the market and choice-based approach in England. This 'integration' at administrative level in Northern Ireland is now being matched with plans to integrate at functional and service levels. The Scottish Government is currently consulting on proposals to integrate adult health and social care (Scottish Government, 2012). The 2011 DHSSPS (NI) Review of Health and Social Care in Northern Ireland described plans to increase integration between hospital and community services, noting the problems that lack of shared IT have caused previously. There is also a call for pilots of budgetary integration between social and health, as with elsewhere in the UK. Better integration between secondary care clinicians and their primary care colleagues is also advised here.

### **Integration between health and social care services**

A case study of integrated services in Torbay has been often cited as an example of good practice in integration (Thistlethwaite, 2012). This has been described in detail in a report published by the King's Fund as part of its campaign for increased health and social care integration to improve service user outcomes. The case study describes Torbay services as demonstrating a long-term commitment to developing an integrated model of care with care coordinators and frontline staff taking a central role. The integration of health and social care services followed on from a programme of integrated health care when Torbay Primary Care Trust (PCT) took part in the Kaiser NHS Beacon Sites Programme.

A key stage in the integration project was the allocation of social care services by GP registration rather than post code, meaning that social work and community health could be closely aligned. Joint management teams engaged staff in a transparent and participative process through quarterly staff seminars, making sense of the project's ambitions through a fictitious example of an 80-year-old service user, 'Mrs Smith'. Joint management and contractual arrangements were implemented and new ways of working were established on the ground, with a focus on care coordination. Torbay GPs and health and social care staff were positive about the changes. Bed days and delayed transfers of care were substantially reduced. There was increased use of home care and direct payments. This case study highlights a number of points, including that strategy must be based on benefits for service users and ongoing communication with them, joint governance must be established early and the programme of change must be given sufficient time to progress, with engagement beyond executive level happening from early on. There also needs to be a clear understanding between all involved parties about what 'integration' means.

Integration was one of the six themes explored in Ipsos Mori's work with service users, carers and stakeholders, including local authorities, as part of the Dilnot Commission review of social care. Respondents across the board offered two aspects of 'good' integration: (i) it is person centred, and (ii) it is about people and organisations having shared objectives, rather than being about tasks and structures. The focus was on outcomes rather than efficiency. Caveats about the extent of integration were raised, for example by the British Association of Social Workers, which was concerned that integration should not lead to role ambiguity and blurred boundaries between roles. The Torbay example was cited in some of the submissions to this inquiry. Respondents highlighted particular conditions where service users could benefit from more integrated services, such as cancer and end-of-life care. Integration was deemed to be needed at transition points in particular, and respondents felt it should not be restricted just to health and social care. Information

sharing and communications issues were another theme, as were equalities issues around opportunities and access. Structural, financial and cultural barriers to integration were also considered.

## Integration between parts of the NHS

As described above, the current government agenda is about removing the boundary between health and social care. As such, integration within health services will be consumed within a broader scheme. Integration of health and social care is seen as the necessary next step on from integrated health services (Thistlethwaite, 2012).

The Health Foundation (2012) evidence scan on cross-sector working found that successful integration of children's services requires professionals and organisations to be empowered and motivated. There was limited evidence of impact on service user outcomes for joint health and social care appointments or for co-location of services. Outside the UK, research has found improved access to services, better care provision and quality, improved health status and high satisfaction associated with this approach. Structural integration in healthcare, meaning that primary and secondary care are integrated where specialists work alongside GPs, is standard in the US.

Cornwell et al (2012, for the King's Fund) explore the different notions of integration in their call to action to improve hospital continuity of care for older people. They refer to patient survey data, case studies, Care Quality Commission (CQC) reviews and the first Francis Report (DH, 2010), along with key stakeholder interviews and a literature review. They describe older people, often frail and with multiple health needs, experiencing dehumanising treatment and discrimination when in hospital. They differentiate between 'continuity', 'coordination' and integration of care and discuss how they see that issues around integration - both systemic, normative, service, functional and clinical - can impact on continuity.

Curry and Ham (2010; also Ham and Curry, 2011, for the King's Fund) review the evidence for integration at macro, micro and meso levels. They describe integration as a **process** concerned with improving patient **outcomes**. They also distinguish between systemic, normative, functional, service and organisational integration, according to a model developed by Fulop et al (2005). Horizontal integration is about services coming together at a similar level (for example, a hospital merger). Vertical integration is about services at different levels coming together (for example, a merger between acute and community care). Virtual, real and contractual integration are also differentiated. They state that measuring the impact of integration can be difficult, because the aims of integration may be multiple. Curry and Ham cite the example of Kaiser Permanente in the US for macro integration. The Kaiser model emphasises integrated care, focusing on chronic conditions, population and health management rather than acute care and use of hospital beds. Clinicians as managers and leaders are a key feature of the Kaiser approach. The Kaiser approach is described as being 'virtually integrated' in comparison with the Veterans Health Administration (VHA), which is an example of 'real integration'. This is more akin to the NHS model, albeit with a very specific population. Several other US examples of macro integration are discussed in Curry and Ham's paper.

According to Curry and Ham, meso-level integration is about integration of services for particular groups of patients, for example older people. They cite numerous examples of this, one in the US, one Canadian, two Italian, and also the Torbay example. They also discuss examples of condition-specific integration, including the managed clinical networks

in Scotland. For micro-level integration, Curry and Ham discuss examples of coordinated care for individual clients and carers. They cite the example of the Care Programme Approach used in mental health since the 1990s, along with other examples where telehealth and technology have been used to coordinate care. For Curry and Ham, the examples discussed signify that integration should happen at all levels, and macro and systems integration should be matched by micro-level integration. They argue for GP commissioning to be 'the platform on which to build integration' (p44). They also encourage generalists and specialists to work together in 'clinically integrated groups'. They urge commissioners to look to examples of good practice in integration and contracting from outside the health sector. They also discuss the looming issue of how integration and competition may work in tandem to change the shape of UK healthcare. Similar points are made by the Nuffield Trust, in its examination of four international integration case studies (Rosen, 2012). This report highlights the value of shared information technology and communication as the means of facilitating integration.

It is worthwhile contrasting the case put forward by Curry and Ham (2010) and Rosen et al (2011) with the findings of the evaluation of the DH's integrated care pilots (RAND Europe / Ernst and Young LLP, 2012). The pilots it evaluated were local projects, and mainly examples of horizontal rather than vertical integration. It finds that staff considered there to be improvements in processes, and changes to care planning and staff roles. The impact of these on quality of care was not immediately apparent. It also finds that patients did not generally sense an improvement in care. There was also no evidence of a reduction in hospital utilisation or reduced costs, and that saving money is neither a short-term nor inevitable consequence of integration. The evaluation also finds that leaders' expectations of integration were difficult to realise in practice and also that the focus on the needs and preferences of end-users can get lost during complex organisational change.

The Health Foundation (2012) finds few examples of evidence of the success of large-scale cross-sector working, but more examples of this at a local level, for example the implementation of integrated care teams and cross-sector programmes for people with mental health problems, diabetes, or for smoking cessation and other health promotion initiatives. Regarding integrated care pathways, there is evidence that these have been troublesome to implement in practice because of a lack of higher-level organisational integration and problematic organisational dynamics. Facilitators of integration appear to be vision and leadership demonstrating shared goals, good change management, engagement of stakeholders and champions, adequate infrastructure, resources and joint processes. Staff need joint training, which includes building up capacity and competence, and need clear roles and responsibilities. The role of link workers and coordinators is key. In summary the evidence scan finds that:

*'The best way to facilitate whole systems working or cross sector initiatives remains uncertain. We identified few high quality studies comparing different approaches to implementing large-scale change. Most research focuses on describing a particular approach, rather than considering alternatives.'*

*However, reviews suggest that structural integration does not necessarily lead to service integration and strong cross sector working.' (2012, p27).*

Doctors are likely to be at the frontline of cross-sector working initiatives, but also will be commissioning and evaluating them for their patients. They are also likely to be in leadership roles, championing change. Doctors in training will therefore need those skills to work

across services both horizontally (between health and social care, for example) and vertically (between primary and secondary care, for example). The RCOG (2012) discusses current examples and future prospects of how this may work in the women's health field, describing this as an opportunity for integration and joint appointments. For the RCGP (2012 - expertise) there are some threats to both a GP's sphere of influence and to patient care inherent in increased vertical integration and the uptake of new skills by non-medics. It calls for increased capacity in the profession in order to enable comprehensive care.

Whilst the evidence for the benefits of integration between specialist and primary care services in the US is acknowledged, there have been calls for UK evaluations of this approach (Royal College of Psychiatrists, 2010). The BMA has consulted its members on integration and has published its take on the integration policy push and evidence base (Priest, 2012). It has said that doctors' engagement with integration depends on assurances of stability, and on proof of clear benefit to patients and measurable outcomes.

### **Working with other professionals**

The Royal College of Paediatrics and Child Health (2009) has called for integrated workforce planning for doctors, nurses and other health professionals. For the RCOG (2012), integrated working with other professionals must be based around women's choices and will require doctors to be better versed in the work of their non-medical colleagues. The PMETB (2008) acknowledged that trainees will require this knowledge also, citing Age UK research on how training should promote multidisciplinary working. Imison et al (2009) talk about integration in terms of workforce planning, arguing that a multidisciplinary approach will best address forthcoming health service problems. This is in the context of more integrated financial and service planning, and of Strategic Health Authority responses to Darzi's High Quality Care for All (2008). Imison et al express concern at the influence of the Tooke Report on House of Commons policy debates, because it solely focused on medicine and therefore reinforced health workforce planning as 'medical' and 'non-medical' rather than looking at it 'in the round'. There has been significant movement on this since this report, for example in the broad-based work of the CfWI, and in the recent establishment of Health Education England, as proposed in Liberating the NHS: Developing the Healthcare Workforce (DH, 2012), and the establishment of Health and Wellbeing Boards.

### **Medical education**

Better integration of medical education within clinical services was proposed in the Temple Review (2010). Recently it has been discussed by the Royal College of Physicians (2012 - hosp on the edge), and the House of Commons Health Committee (2012). When the RCOG (2012) discusses this, it is in the context of doctors in training getting a much better sense of the wider health system and the work of their colleagues. For the RCGP the move to integrated care and a consequent enhanced role of the GP in ensuring continuity is used in its argument for extended GP training (2012 - enhanced leadership skills, 2012 - enhanced clinical; 2012 - GP training Scotland). The opportunities of integrated training posts are also discussed.

### **Conclusion**

An acknowledgement of integration as the direction of travel for UK health and social care is vital to the decisions made in the Review. Calls for increased integration at all levels and in all areas of health and social care have come from influential bodies. This has recently been translated into pilot work and policy statements. The next step is for integration to be incentivised and the

success of integration to be measured in terms of patient outcomes as well as financial outcomes. Doctors in training are going to be working in organisations that are evolving and merging to incorporate integrated approaches. They are going to be working in teams in which they have new colleagues and new team objectives. As clinicians take on more responsibility for commissioning services, doctors need to be familiar with what good integration looks like and how the success of integrated services may be measured. The evidence base is growing here, and the evidence is not all positive. Where improvements for service providers and clinicians may be reported, there is not necessarily a definite improvement felt by patients nor is there a definite financial gain. Doctors will therefore have to be skilled at evaluating the costs and benefits of integrated approaches, and at making decisions based on these evaluations.



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## SHAPE OF TRAINING

### Appendix 2: Summary of the Shape of Training Site Visits

- 1 This summary looks at some of the broad themes and challenges facing postgraduate training that we identified through the site visits.
- 2 From November 2012 to February 2013 we visited a number of places across the UK where training takes place, such as hospitals and GP surgeries. We were interested in understanding how education providers balanced training, service provision and patient needs. We visited Altnagelvin Area Hospital in Northern Ireland, Edinburgh Royal Infirmary, University College Hospital London, University Hospitals Birmingham, Nottinghamshire Healthcare NHS Trust, Dr Gray's Hospital in Elgin, Scotland Musgrove Park Hospital in Taunton, Moray Coast Medical Practice in Elgin, Scotland, Fairwater Practice in Cardiff and the London Deanery.
- 3 On these visits, we spoke to patients, doctors in training, trainers, Board members, including non-executives and other healthcare professionals. We discussed with them what their current training was like and how it could be improved. In total, we met with over 100 doctors in training, six CEOs, over 50 trainers and a number of patients, other healthcare professionals and employer representatives.
- 4 Overall, we were told at all sites that postgraduate training should emphasise broader and more general training within specialties before doctors narrow their focus. Demand for doctors with this broader specialty approach will increase as the number of patients with multiple morbidities or complicated conditions increases. Doctors will have to care for patients across a variety of settings with many doctors working both in the community and in hospitals. A more flexible approach to education and training will be necessary to develop the kinds of doctors needed in the future and to cope with changing demographics, technology and patient-identified needs.
- 5 Many of the organisations visited across the UK faced similar types of issues. Although there were differences between different types of institutions and different parts of the country, challenges tended not to be unique to one location. Consequently, there was a significant level of consensus and overlap in



the comments and feedback, with the main differences relating to the diverging service configuration within the UK.

### Patient needs and expectations

- 6** Continuity of care was identified by patients and others as the most important need for patients. There should be a more integrated and seamless care pathway across primary and secondary settings. There have to be better links between health care and social care professionals as well as more attention to mental health. We also heard that there should be fewer points of contact for patients. Patients often see different doctors each time they receive care, eroding the patient/doctor relationship and increasing the risk that something will fall through the cracks.
- 7** Given this possible shift in service delivery, many respondents suggested training should take place in a variety of settings. This would help doctors understand and gain perspectives on the whole patient pathway and how different health and social care services fit together. Patients emphasised that doctors in training have to understand the importance of each health professional within the team.
- 8** Patients told us that good communication skills and confidence in that communication were key to their care. Effective teamwork was also highlighted by a number of patients as a large contributory factor to good quality care.
- 9** Generally, patients thought doctors in training were kind, friendly and empathetic, but there were particular areas where training could be improved. Communication and teamwork were often cited as problematic areas. We also heard that all doctors have to have a better understanding of how to treat patients with mental health conditions, including dementia.
- 10** We heard that some patients were concerned that doctors in training might be treating patients without proper supervision or support. But patients suggested they were more concerned about the quality of their care than by the doctor's level of qualifications.

### Employers

- 11** We heard from some employers that they were concerned that many doctors when leaving medical school are not fit to take up their Foundation Programme posts. They suggested medical graduates often lack professionalism and do not have the essential skills necessary for their job. Many employers suggested they had to teach graduates basic skills as part of their postgraduate training.

- 12** Like the patients we spoke with, many employers thought training should focus more on collaboration and teamwork between doctors and other healthcare professionals. One site commented that most doctors in training also lack understanding of the NHS system and the context in which they work.
- 13** Most sites also emphasised the need for a more flexible approach to training. We heard frequently that the current curricula are very restrictive. Instead doctors should have opportunities to work across different settings and even move between specialties. Transferable competencies were seen as a valuable way of encouraging more flexibility within the system. Employers also indicated that we need attractive step-off points in training and increased encouragement for consolidation and out-of-programme activities.
- 14** Employers recognised that doctors will need to adapt to changes in patient and service needs. They thought a more general approach to training was needed. This role would have to be recognised and valued as much as specialists.

#### Doctors in training

- 15** Most doctors in training welcomed a broader approach to their training because it would introduce more flexibility into the training structure. It would also allow them to experience or work within other specialties before making a career decision and gain a wider range of knowledge and skills to meet the needs of a changing patient demographic.
- 16** Across all the sites, doctors in training raised concerns about the difficulty in balancing service provision and training. Many felt that service demands were given more priority than their training needs and they struggled to have time to train. Some doctors suggested the balance between service demands and training will differ by specialty, with training suffering more in higher volume specialties.
- 17** Most doctors in training supported the idea of strengthening core training by building in longer placements, which will foster better team relationships. They thought this change would also allow them to become more valued staff members within a department. A number of doctors in training also called for more research and academic opportunities. Many claimed that these are becoming increasingly difficult to access in the current economic climate.

#### Trainers

- 18** Most trainers suggested doctors in training are getting fewer learning opportunities and have less experience as a result of the reduction in working hours required by the Working Time Regulations (WTR). A number of trainers felt the WTR has created a significant disconnect between those training and

those delivering a service. A few trainers suggested many learning opportunities are being lost to the private sector as some treatments are removed entirely from the NHS. It was felt that doctors also have a lack of exposure to outpatient clinics, which could give them another way of developing their decision-making skills.

- 19** Some trainers also raised concerns that doctors were making career decisions far too early, resulting in too much focus on specialisation. Trainers thought doctors need more exposure to a variety of specialties before narrowing their field of specialty.
- 20** Like employers, many trainers saw the benefits of having more clearly defined stepping-off points in training, which would allow for greater flexibility in the system.

#### General practice

- 21** At a number of sites, the length of GP training was discussed. Many thought the current length was insufficient. They also thought the way GPs in training are used within hospitals adds little value to their training. GPs need more research, audit and management opportunities in their training.
- 22** Fragmentation between primary and secondary care has made it difficult for GPs to make sure their patients have continuity of care. It was suggested that a five-partner practice is necessary to maintain a continuous level of care.

#### Rural/remote issues

- 23** The rural sites we visited highlighted significant problems with recruitment and retention of doctors, including GPs. It is difficult to attract doctors to these areas, in part because they tend to study and train in urban areas. As a result, many rural areas are unable to maintain consistent service delivery and some sites have had to suspend services altogether. Indeed, one site suggested that issues with recruitment could be solved by having a dedicated medical school for remote and rural areas.
- 24** Sites recognised the impact of geography on training. Many doctors struggled with the long distances between training areas. They suggested an integrated approach is essential for remote and rural regions to make sure patients have easy access to care. It was also anticipated that, in many rural settings, care will be delivered predominantly by other healthcare professionals.

- 25** A number of doctors in training also highlighted issues with training in rural areas, including no access to emergency medicine training.



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## SHAPE OF TRAINING

### Appendix 3: Summary of the Shape of Training seminars

- 1** We held five seminars between September 2012 and January 2013 in Cardiff, London, Edinburgh, Manchester and Belfast to gather evidence for the review. These seminars were an opportunity to discuss possible changes to medical education and training with individuals and organisations involved in developing, providing and evaluating medical education and training. The seminars explored five main themes: patient needs; balance of the workforce; flexibility; breadth and scope of training, including academic training; and training versus service needs. They have helped both to inform and to develop the subsequent thinking of the review.
- 2** This summary sets out the common trends, views and feedback identified in the seminars, as well as highlights any specific issues with the four UK countries. Summaries of the individual seminars are available on request.

#### Patient needs

- 3** Many participants identified continuity of care as the key to patient satisfaction and improved outcomes. They thought an integrated approach between primary, secondary and social care services is essential to ensure that patient needs are met. There was support for a single person in the service who oversees the whole of a patient's care and some went on to support introducing a specialist similar to the hospitalist in North America.
- 4** The workforce has to be planned in order to meet the changing demands of patients and the service. Most of the time, patients want to receive care close to their home and with a measure of convenience. But they are willing to travel to access specialist care when necessary. Given this trend, medical education and training has to make sure doctors are able to care for patients both in the community and in hospitals.
- 5** Effective communication with patients is essential to provide a good service. Participants supported more emphasis on communication and generic capabilities throughout training.

## Flexibility

- 6** A main concern raised within the seminars was the difficulty for doctors of moving between specialties. Most thought the training structure must be more flexible and supported the idea of transferable competencies. Most participants also suggested the early years of specialty training should focus on generic skills that are applicable to all specialties.
- 7** There was support for a flexible, broad-based approach to training. Some suggested employers will be attracted to this approach in the long run. They will end up with employees with the right skills in the right jobs. Doctors will also be able to move into other roles more easily (with adequate training and support). But in the short term, these changes might disrupt service continuity and impact on how rotas are organised.
- 8** Participants also highlighted the need for more flexibility for people who want to work in different ways because of lifestyle choices. They agreed that training needs to be flexible to reflect the needs of women and others.

## General specialty training

- 9** Most participants supported a move towards broader-based, general training after the Foundation Programme. As the number of patients with multiple morbidities increases, we will need doctors with sufficient breadth of knowledge to provide appropriate care to these patients. Many participants noted this type of doctor would also benefit from a specialty interest to make sure they are not confined to only providing generalist care. Others warned that the perception of generalists was very poor and ways would have to be found to value and provide recognition for this area of medicine.
- 10** Many doctors in training viewed a move towards generalism as a way of creating a 'sub-consultant' level in order to fill rotas. There was also concern that if we train doctors up to the point of being a generalist, we are only focusing on solving short-term issues with the acute take rather than wider issues with training.
- 11** Participants discussed the impact more care in the community will have on all aspects of training and particularly the role of GPs. More emphasis on GP training will be needed to promote the idea of the GP as the main coordinator of care. An interesting concept that was discussed by a number of participants was the development of groups of general practices, specialising in specific areas, which would mean patients are channelled to practices that focus on their particular problem. It was argued that the change in GP contracts had fragmented care significantly and that if GPs operated a 24/7 service, patient admission to hospitals would decrease.

## Tension between service provision and training

- 12** All participants have referred to the impact of the Working Time Regulations on the delivery of healthcare and training. In particular, most participants felt doctors were missing out on training experiences, particularly seeing patients through their care pathway. But most recognised the importance and value of improving the work-life balance for doctors in training. There is concern that doctors will lack the breadth and knowledge required to be effective generalists.

## Issues identified in specific areas of the UK

- 13** Participants in Wales were concerned about retention of trainees in Wales. Currently 40% of those on GP training programmes travel to England to continue training. There was also concern about the impact of geography on recruitment and retention. It is increasingly difficult to get doctors to work in rural areas, leading to poor service coverage for patients in these areas. Participants agreed community care needs to be more accessible now and in the future. There were similar concerns in rural areas of Scotland, where there is heavy reliance on multiprofessional teams to deliver care within rural areas.
- 14** Participants in England raised concerns about the impact of service configuration on training and the role of deaneries within the new structure.

## A future approach to training

- 15** Participants emphasised a number of issues with the Certificate of Completion of Training (CCT). They emphasised that training should never really end and thought lifelong learning and CPD needed to be given more support. Participants also agreed that there needed to be more entry and exit points within the training structure.
- 16** Most participants thought a broad-based approach to training in the first four to five years would better prepare doctors. Some participants suggested that for doctors who have already decided on their specialty, this would be frustrating and a waste of time. However, others thought this general training should be within specialties and would allow doctors to train within themes. Most agreed that at the end, doctors should receive a Certificate of Generalist Training (CGT), which could be followed by further generalist or specialty training through credentialing.
- 17** Within the seminar, participants discussed other possible training models such as a fully modular approach, a more competitive system based on far more specialisation as seen in the US, and apprenticeship. Many participants also argued for no or only small changes. They felt that the recent pace of change had been considerable and the system needed time to settle down.

- 18** This broad-based training approach would also be necessary for those on academic pathways. Within this model, it was emphasised that all specialties have different needs and requirements for training and that 'one size does not fit all'.





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## SHAPE OF TRAINING

### **Appendix 4: Analysis of the Shape of Training written call for ideas and evidence**

#### **Introduction**

**1** The Review is considering what changes are needed to postgraduate medical training to make sure it continues to meet the needs of patients and health services in the future.

**2** This includes looking at the balance of the workforce between specialists and generalists, exploring options to support greater training and workforce flexibility, and finding solutions to how to address the tensions between obtaining training and providing a service.

#### **Methodology**

**3** The call for ideas and evidence was launched on 8 November 2012 and ran until 8 February 2013. The purpose of this exercise was to seek feedback and ideas about postgraduate training and to understand how we can improve on the current structure. This engagement process was not intended to provide us with research data but to give people an opportunity to tell us about their ideas, opinions and experiences. We have not weighted responses or quantified responses for this analysis. We are interested in the wide range of views and ideas, any trends identified by respondents and whether there were any particular patterns in the responses, especially if these showed consensus or differences between groups. We have used quite broad descriptors such as 'the majority', 'many', 'some', 'a number of' and 'few'. In general, 'majority' and 'many' refer to a pattern showing consensus or strong support. 'Some' and 'a number of' refer to a noticeable pattern but with more variation in the level of consensus or agreement. 'Few' refers to a small number of responses.

**4** We engaged with a range of individuals and organisations through meetings, seminars, site visits and a monthly e-update. Our engagement activities were UK wide with events taking place in England, Northern Ireland, Scotland and Wales.

**5** We asked 19 open-ended questions and allowed for free-form responses. To evaluate this data, we undertook a qualitative, thematic analysis based on the recommended practice set out by the government and industry leaders such as the

Consultation Institute.<sup>1</sup> We were interested in the quality of the responses and the merit of the feedback rather than the quantity of respondents. We broke down the analysis, where possible, by stakeholder groups. This helped us understand if there were any distinctions between the different categories of people and organisations.

**6** An initial analysis was undertaken by the Shape of Training executive. We reviewed the responses and removed any duplicates. We then developed guidance for each of the executive members looking at questions about the way to evaluate the responses. We analysed each question to show the breadth and variety of responses.

**7** We evaluated the feedback to identify main themes or trends, whether there was an overall consensus, and any counterviews that stood out from the majority of responses, as well as any suggestions for particular approaches regarding the future shape of training. We examined each question to see where there were any particular patterns or trends by different respondent groups. For instance, we looked routinely at responses between the public and the profession and between different professional groups.

**8** A member of the executive (not involved in the analysis) and two Expert Advisory Group have audited the analysis and report as part of our quality assurance and to make sure we have accurately captured the breadth and depth of comments. Their feedback and comments have informed the final draft of the summary report on the evidence.

## Overview of respondents

### *General data*

**9** We received 382 responses in total, 142 from organisations and 240 from individuals, including doctors at different points in their career from the Foundation Programme (FP) to retirement. We also heard from patient and public groups, the medical Royal Colleges and Faculties, deaneries, and a number of organisations that employ doctors in training.

**10** We received 29 responses from organisations with a UK-wide reach, such as the General Medical Council (GMC) and the Academy of Medical Royal Colleges (AoMRC). 140 responses came from England, including Health Education England (HEE) and NHS Employers (NHSE). From Scotland, we received 23 submissions, including From NHS Scotland (a pan-Scotland response from NHS Education for Scotland, deaneries and employers) and one from Wales (Abertawe Bro Morgannwg University Health Board). We only received two responses from individual doctors in Wales and no specific responses from Northern Ireland.

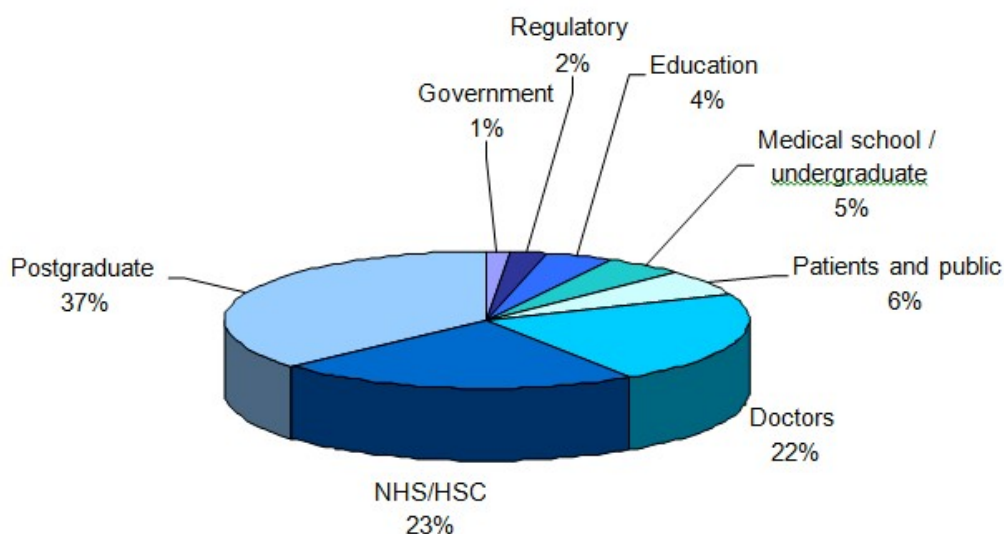
<sup>1</sup> <http://www.consultationinstitute.org/>

## Organisations

**11** The majority of organisation responses were from postgraduate institutions. We categorised the AoMRC, individual Colleges and Faculties, deaneries and training committees together because of their roles and responsibilities in developing and managing specialty curricula. Of the 52 responses from postgraduate institutions, seven were specifically from groups representing doctors in training.

**12** We had quite a strong response from employers across all four countries. In England respondents included NHS Employers (NHSE) and a small number of emerging Local Education and Training Boards (LETBs). We also heard from a number of organisations representing doctors, including the British Medical Association (BMA) and several specialty associations such as the Association of Surgeons in Training (ASiT) and the British Junior Cardiologists Association. Nine patient and public organisations responded to us, including the National Association of Patient Participation (NAPP). Although we heard from only five medical schools, we received overall feedback from their overarching organisation, the Medical Schools Council (MSC), and from the Russell International Excellence Group. A handful of organisations involved with education, research and funding for doctors and other healthcare professionals also responded, including the Wellcome Trust and the Medical Research Council (MRC). The pie chart below shows the percentage of organisation respondents:

**Organisation respondents**

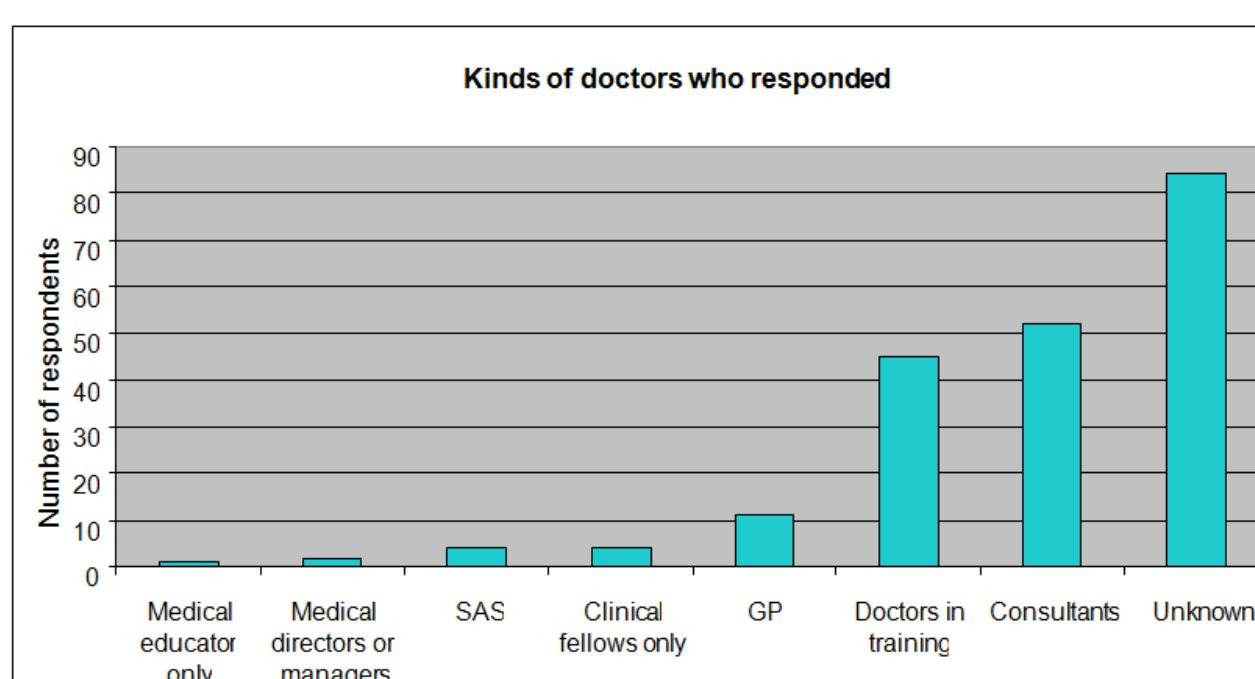


## Individuals

**13** Of the 240 individuals who responded, 203 were from doctors. We also heard from a small number of other healthcare professionals, medical students and a member of the public. We received 29 responses from people who did not tell us about themselves and so we have categorised them as 'unknown'. The graph below shows the types of individuals who responded:

### Doctors

**14** Of doctors who responded 41% did not categorise themselves. But of the doctors who told us about their jobs, the majority were consultants. About 26% of doctors also indicated they were medical educators while only 1% were primarily involved in research. The table below breaks down the kinds of doctors who responded:

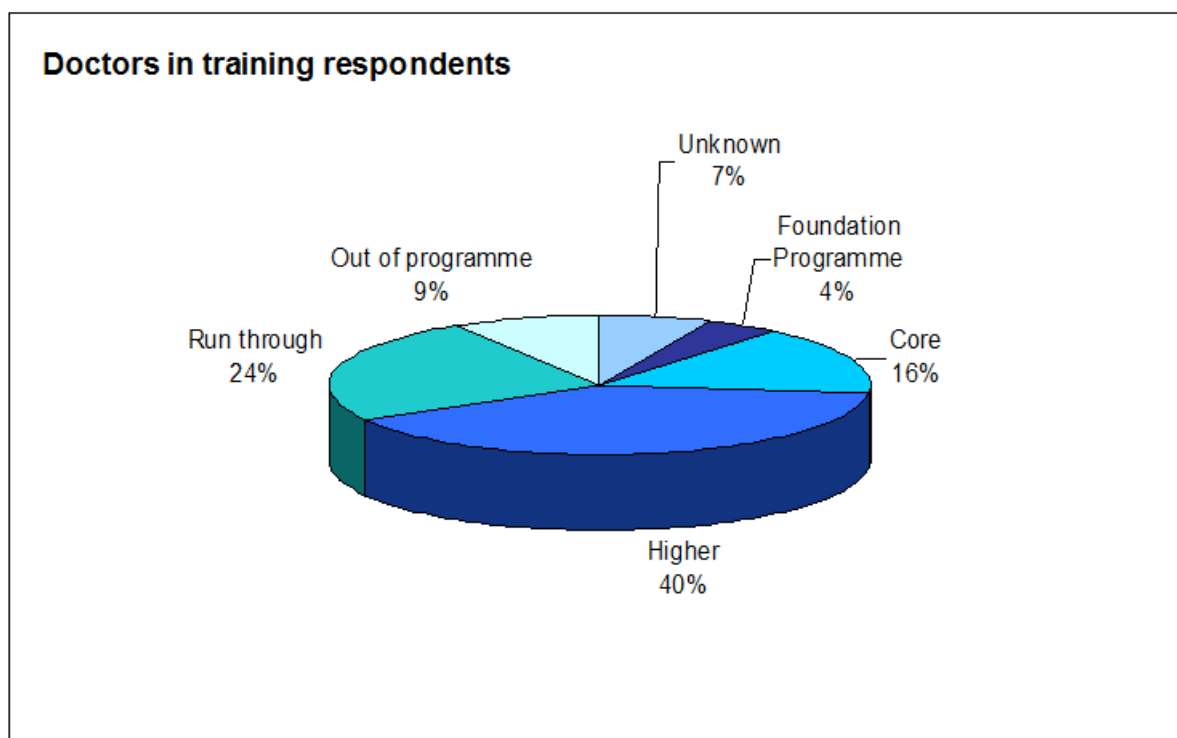


**15** Excluding doctors in training, 53 doctors indicated they were male and 23 were female. 32 doctors told us they worked full time, while seven indicated they worked part time. Of the part-time workers, four were women and three were men. Of the 164 individuals who responded to the question about their age, the majority were within the 55-64 age range with most of the part-time workers falling into this category. The second largest respondent group were doctors between 35 and 44, who were predominately men and worked full time.

**16** 114 individuals answered the ethnicity questions. 94 were white British or Irish, 11 respondents were Asian or Asian British, five were white other, two were African and two were mixed ethnicity.

## Doctors in training

**17** Overall, 22% of the responses were from doctors in training. The majority were from doctors who were fairly advanced in their training (higher training). Eight doctors identified themselves as clinical fellows or academics but only one indicated they were out of programme while completing their academic or research work. Most of the doctors were in the 25-34 age group. Four of these doctors worked part time and were split evenly between men and women. All the doctors aged 35-44 worked full time. The pie chart below shows some detail about the doctors in training who responded to us.



## Balance of the workforce

**18** People told us about how patients will be cared for over the next 30 years and what impact this may have on the kinds of doctors that will be needed. With significant overlap between the answers, we have analysed them together to build up a comprehensive picture of possible changes to healthcare and the medical profession.

**19** We asked:

**a. Over the next 30 years, how do you think the way patients are cared for will change?** We received 323 responses to this question. A small number of respondents suggested the 30-year time period was too long to predict possible developments. Most answers focused on the likely drivers of change over the next 30 years and how care should change to meet them.

**b. What will this mean for the kinds of doctors that will be needed in primary care? In secondary care? In other kinds of care?**

We receive 212 responses. Respondents tended to reflect the view that a change to the way people will be cared for in the future will change the way doctors practise.

**c. What do you think will be the specific role of general practitioners (GPs) in all of this?** We received 299 responses that considered how GPs will work across different care settings and with different kinds of doctors.

**d. If the balance between general practitioners, generalists and specialists will be different in the future, how should doctors' training (including GP training) change to meet these needs?** We received 289 responses to this question with a number of responses drawing up possible approaches or models for training in the future.

**e. How can the need for clinical academics and researchers best be accommodated within such changes?** 373 responses were received. Most responses considered how academics and researchers should work within the health service in the future.

What is driving change?

**20** In general, organisations and individuals described very similar pressures that will have an impact on healthcare over the next 30 years. However, some medical Colleges, Faculties and Specialty Associations set out these drivers within the context of their specialties. Similarly, some groups representing particular patient concerns reflected on how changes will affect their representative groups.

**21** Only a small number of respondents told us about their gender, ethnicity, and whether or not they had a disability. Within these groups, there were no trends that indicated issues or viewpoints regarding the balance of the workforce that were different from responses as a whole. Age also did not seem to be a factor in response patterns. Doctors in training tended to reflect on their own current experiences while more senior doctors commented on either their doctors in training or the system as a whole. But both groups told us about the same range of ideas and issues.

Changing patient demand

**22** Almost all respondents suggested the interplay between patient expectations and demands, medical and technical advances, information technologies and economic constraints will inevitably challenge how healthcare is delivered. While most respondents suggested changing patterns in patient demand will necessitate a different approach to health and social care, only a few reflected specifically on demographic change. They expect the UK will have far more people with multiple and complex health conditions. This trend will be exacerbated by an increase in the number of elderly people, people who survive and live longer with conditions that were once terminal and the impact of lifestyle diseases such as obesity. The East of

England LETB argued: *'We believe that the national demographic will continue to change. Within [our area] we are already experiencing a high birth rate, in part due to European migration and in some areas, due to ageing and retirement location trends, a disproportionately ageing population with high levels of age - related morbidity including dementia.'* Some respondents, such as the BMA, also suggested global travel and environmental change will impact on the diseases and conditions normally seen here while the UK's Faculty of Public Health predicted *'there are likely to be unpredictable changes including the emergence of new diseases.'* Similarly, the ASiT suggested increasing microbiological resistance will have an impact.

**23** The majority of respondents indicated people will become increasingly better informed about their health and treatment options as access to and availability of information become more mainstream. Doctors and other health and social care professionals will have to manage these expectations and help patients understand their options while delivering a more individual and tailored (and possibly more expensive) approach to care. The National Dignity Council believed: *'Patients will expect to be listened to, informed about their diagnosis and involved in their treatment plan...Patients themselves will be better informed and will understand that their relationship with their doctor is reciprocal and will treat them with respect and understanding.'* Others like the Paediatric Mental Health Association suggested many doctors will increasingly practise *'defensive medicine'* to reduce the risk of legal actions by patients. They will likely refer more often to specialists within secondary care for expert opinions.

**24** Patients will also want to and be expected to take on more self care and monitoring with support from healthcare staff, aided by technology such as mobile phones that can monitor blood pressure. A doctor in training described: *'A move towards more focus on patient autonomy and quality of life - ensuring that patients are equipped with information and given the opportunity to make decisions about where, when and how they are cared for.'* NHSE also suggested: *'The patient will have greater information and influence over how their care is delivered. We will see a larger number of expert patients, information on quality will drive patient choice and providers will compete for business based on quality and outcomes.'* But some respondents thought the core relationship between doctors and patients will remain unchanged, even as the healthcare structures change around it.

**25** A small number of respondents such as the Association for the Study of Medical Education (ASME), the British Association of Dermatologists and some individual doctors thought this shift to more empowered and informed patients will result in a demand for direct access and self-referral to some specialists, especially for already diagnosed conditions. ASME stated: *'The current role of GPs as gatekeepers may need to be reconsidered once the market is more open so that patients can refer themselves to specialists.'* A few respondents such as the British Infection Association commented that patients will also want more access to consultants, particularly in hospitals.

## Medical and technological changes

- 26** The realisation of medical and technical research was seen by almost all respondents as game changers and was particularly lauded by organisations like the MSC and the Wellness Trust. Advances such as genomic medicine will allow personalised and tailored care and people will expect individualised therapies. Better (and more accessible) diagnostic and screening technologies alongside more preventive interventions will improve health at community and population levels (and possibly counter some lifestyle conditions). The ASiT suggested: *'The focus will move towards screening and early detection of disease, allowing prevention, cure or even lifelong delayed progression. The mapping of the human genome and advances in areas such as cancer genetics will lead the way to much more bespoke targeted treatments. Individuals will have their genomes mapped which will allow them to know at an early stage in their lives what diseases are likely to affect them and make the necessary lifestyle alterations.'*
- 27** Healthcare professionals, teams and patients / carers will start to use information and communication technologies (ICT) for large parts of their interactions. Improvements in e-records will allow more joined-up patient care and increase accountability and monitoring of the quality of care. A doctor in training warned: *'Patients will increasingly use mobile technologies and information/communities on the internet and will be better informed... There will be greater access to some services and investigations in the community, but this will be limited with a continued need for significant acute and specialty care.'* But the London Deanery suggested *'Further advances in technology will assist the drive out of hospital and impact on the skills required within the medical workforce.'*
- 28** But these advances will mean all doctors and other healthcare professionals will need to have adequate knowledge and skills in areas like genomic medicine in order to manage them effectively. A number of respondents also suggest academic and clinical research will require further investment to make sure we continue to reap the benefit from medical and technical outputs. As the MSC suggested: *'Scientific advances, made possible by medical research, have brought about a greater understanding of the molecular basis of disease, which together with rapid technological developments offer significant opportunities to evolve clinical practice. In an age of increasing informatics comes ever increasing patient awareness and expectations... Advances in precision medicine will require medical students and doctors to have a more profound understanding of the scientific basis of medicine to drive improvements in patient care. Technological developments will make frequent re-training essential in order to take advantage of developments.'*



- 29** Some respondents like the Association of Paediatric Anaesthetists of Great Britain and Ireland warn that we may not be able to afford all the new technologies and interventions. Patients and the public will have to be educated about our finite resources, the appropriateness of some treatments, and end of life care (including patient's wishes on assisted dying).

#### Where care will take place

- 30** Almost all stakeholders agreed the majority of care will take place outside of hospitals. Over 300 responses suggested care will be delivered increasingly in the community including in homes and residential care centres by multi- professional teams and care networks. This shift will blur the boundaries between primary, secondary and social care so that people are treated in an integrated way across different care settings. The Centre for the Advancement of Inter professional Education (CAIPE) explained: *'The focus will be on care in the community involving professionals from both primary and secondary care backgrounds. Boundaries between the two will need to become blurred and roles flexible. Effective collaborative working will be required both within the medical profession (inter-disciplinary) and without the medical profession, working with other professions (inter-professional).'* Likewise BMJ Learning pointed out: *'More care will be delivered in primary care; more care will be delivered by members of interdisciplinary teams; and care will need to be better integrated so as to avoid cost inefficiencies such as those associated with duplication of clinical management. Integration of services will involve patients moving along care pathways and receiving care bundles (when appropriate).'*
- 31** But the BMA, while recognising the benefits of integrated care, did not support further changes to the healthcare system: *'While the integration of services is achievable, it can and should be delivered without any further re-structuring or reorganisation of the NHS, legislative change or structural upheaval...An integrated service could be achieved by adopting models of community care, co-location or introducing specialised care centres.'*
- 32** The majority of respondents, including the GMC and AoMRC, reflected that as care shifts into the community, more specialists will work in local clinics or centres, possibly associated with GP practices. The Radiology Patients' Liaison Group favoured a structure based on the level of diagnostic and expert care needed: *'A 3 tier approach where tier 1 will be the small local unit (community hosp or small DGH) able to assess and deal with some issues, but pass on more complex work to tier 2 ( bigger DGH, teaching hospital) and super specialist stuff to tier 3 (specialist centre such as GOSH or Oswestry).'* The group went on to say that GPs and other doctors trained more broadly will link into specialist care centres, healthcare networks and hospitals. A few responses considered whether GPs should provide care within hospital settings. The Derbyshire LETB predicted: *'Federation between primary and secondary care professionals and more blurring of boundaries and GPs also going into hospitals to deliver care particularly at the front door to ensure patients get onto the right pathway at the earliest opportunity.'* This view is reiterated by the Royal College of

Physicians (RCP) of London: *'Having medical practitioners working across these interfaces will help, and this may include general practitioners (GPs) with special interests, community specialists and GPs working in hospitals. Social care and public health need to be much more engaged with hospital care'*.

- 33** A number of respondents thought that there would have to be fewer hospitals and that a significant amount of specialist care would be centralised into regional care units. The British Cardiovascular Society believed: *'Centres where facilities are concentrated for the needs of patients across a wide geographical area will still be called hospitals. These will be fewer than at present since the public will expect that admission to hospital means admission to an environment where adequate acute care is deliverable 24/7.'* A few respondents thought that this could be achieved by increasing the numbers of doctors in some specialties, and that it might be possible to decentralise specialties to some degree, for example renal services using a hub and spoke system more effectively.
- 34** But one doctor warned: *'It is the potential demise of the District General Hospital'*. A number of respondents suggested this would mean that patients will likely have to travel further for some specialist care. They also suggested this would disadvantage some patient groups such as children who are routinely referred into specialist care.
- 35** But a few respondents, particularly individual doctors, challenged the idea that more care will shift to the community. One doctor speculated: *'I strongly doubt that more "care in the community" is really the answer - though more self-care may be.'* This perspective was supported by others, who believed patients will demand to be treated by specialists in hospitals. As a Medical Educator argued: *'Clearly there will be a move from secondary and tertiary care in to primary care and the community. However, I do not believe this change will be as great as many believe, since patients with greater information will increasingly insist on expert opinion.'* Other respondents suggested most medical advances and technology will still be centralised in hospital because of the cost of equipment.
- 36** Quite a few responses demanded a change in the way we think about patient care so that it no longer focuses on the location like primary and secondary care. As a clinical fellow suggested: *'Patients will receive specialist input earlier in the care pathway and have better access to care and use of more technology within care - rather this is what I would hope if things change for the better.'* The AoMRC also emphasised this point: *'There is a need for more pathway defined patient management integrating primary, secondary and tertiary care with seamless input from social*

*services...Individually tailored care seeing the patient as a whole rather than a part of the body or condition.'*

#### How care will be delivered

- 37** Nearly all respondents suggested that a shift towards more community-based care and fewer hospitals would affect both the kinds of doctors needed and where they will practise. Care is likely to become more polarised into acute and emergency and non-acute in interventions while, at the same time, doctors and others will be expected to care for patients in a wider range of settings (home and residential care, local clinics / surgeries, regional centres, highly specialist care centres/hospitals).
- 38** Several respondents also remarked that the review should consider how other health and social care professions may impact on the medical model of training and practice. Multidisciplinary teams and care networks will become standard with health and social care professionals becoming more mobile. The National Association of Clinical Tutors (NACT) suggested a team-based approach at regional levels: 'A hub and spoke system of care within a region including GPs and LEPs will enable best care for our patients. One team rather than multiple teams will ensure a more streamlined care pattern rather than patients moving from one team to another. Doctors in the spoke organisations will need to participate and rotate into the acute care centre. This sharing of acute work will enable the one team approach within a region.' An individual doctor reflected: *'fundamentally; teams need recognition, doctors often lead and contribute in teams, the 'kind' of doctor will follow team organisation.'*

#### Kinds of doctors

- 39** In order to manage this shift, many respondents such as the Royal College of Physicians Trainees Committee London and the Royal College of Anaesthetists, (RCoA) categorised doctors into four areas: specialists in hospitals; specialists in the community; general specialist working in and across hospitals and the community; and general practitioners. However, respondents thought these groups of doctors would work more flexibly across care settings and within multidisciplinary teams. Quite a few respondents, particularly individual doctors, emphasised the need for less protocol-driven care with doctors providing more leadership and professional judgements, while others thought doctors will increasingly need to develop more varied careers. The Kent, Surrey and Sussex (KSS) Deanery speculated: *'Portfolio careers will be more appropriate with doctors carrying out a number of roles or working to improve or learn new skills for a part of their time.'*
- 40** Over 230 respondents advocated strongly that we will need more generalists because most patients will be cared for outside of hospitals. But how care is delivered will have to change. Employers and postgraduate medical

organisations, such as NHSE and the AoMRC, thought care will have to be delivered 24/7 in both primary and secondary settings. GPs and generalists would provide acute and emergency treatment as well as manage non-acute care. The British Society of Gastroenterology, for example, suggested these could be delivered in Acute Medical Teams in the community.

Patients would only go to hospital if their conditions could not be managed within the community. An individual doctor suggested: *'These generalists should be able to provide basic emergency care and treatment with appropriate facilities for monitoring patients. Identify those who require immediate further intervention in secondary care from those who could continue to be managed in a local setting with appropriate specialist advice.'* A number of respondents also suggested future care will have to be delivered more frequently by consultants, with less reliance on doctors in training to deliver service. This is picked up in more detail within the tension between service and training theme.

- 41** Specialty organisations, like the Association of British Neurologists and the British Cardiovascular Society, warned we will also need more specialists, especially in the community and specialty clinics, to deal with growing health needs linked to an ageing population, long-term conditions or lifestyle diseases. As one group representing doctors in training explains: *'There will be a greater need for general practitioners, paediatricians, obstetricians, elderly care and emergency service physicians (accident and emergency, acute medicine, acute surgery, anaesthetics)'. The Royal College of Paediatrics and Child Health (RCPCH) confirmed this approach: 'There is a need for seamless care between GP and secondary Paediatric and Child Health. General specialists in secondary care should come out to work in local healthcare with GPs and give support to family practitioners and local healthcare teams.'*
- 42** Several respondents still supported the need for subspecialty experts, particular in hospitals, but in fewer numbers. As medicine becomes more complex, we will need people who have expertise in quite technical areas. Others countered this position by arguing that other healthcare professions within the healthcare team will be able to do much of the technical work, leading to fewer specialists with technical skills. These points are picked up further in the section on workforce issues and the multiprofessional team.
- 43** Although there was overall consensus for care being provided by GPs and generalists across care settings, a small number of respondents did not support this view. A medical educator believed the trend will be towards more specialist care: *'As a specialist it is hard to keep up with the changes and literature in my own field let alone keeping up with a more general literature. Whilst I understand the importance of general medical training and do my best to stay as general as possible I would be surprised if the future meant more general rather than more specialist training.'* This point was mirrored by the Ophthalmic

Trainees' Group which believed: *'This will largely depend on government policy in particular if it is intended to keep the primary care physician as the intermediary gatekeeper for access to healthcare. We suspect that this will not continue to be the case and that there will be less need for primary care physicians and a greater requirement for subspecialists.'*

## Defining generalism

- 44** Some respondents fed back that the definitions of generalism and generalists within the review were unclear. Some offered possible interpretations. For example, the AMoRC and Faculties in Scotland pointed out: *'Generalism will be very important, although the definition being considered needs further work.'* The BMA agreed: *'The term "generalist" has not been defined within the review documentation; it is therefore unclear what is meant.'* Indeed the Royal College of Physicians of London argued strongly: *'The Shape of Training review refers to such doctors as "generalists". Such a term does not accurately reflect the substantial training and expertise required. Furthermore, it implies that "generalism" is inferior to other specialties, whereas internal medicine should be recognised as the most important and most challenging specialty in acute care. We therefore urge the review to drop the terms "generalist" and "generalism".'*
- 45** Despite some concern about the terms, most respondents interpreted generalists broadly to mean doctors who have been trained to deal with a wide and varied range of care within different care settings including both acute and non-acute situations. The Royal College of General Practitioners (RCGP) viewed generalism as: *'Medical generalism is an approach to the delivery of healthcare that routinely applies a broad and holistic perspective to the patient's problems...The ability to practise as a generalist depends on the doctor's training, and on the routine use of skills that helps people to understand and live with their illnesses and disabilities, as well as helping them to get the best out of the healthcare options that are available and appropriate for their needs.'* This approach is reiterated by the NHS West Midlands Deanery: *'The competencies and capabilities of the generalist will be essential for these doctors who support individual patient - centred care and the ability to develop a relationship - based continuity of care whilst having the capability of needs assessment and service development for the population of registered patients that they care for.'*
- 46** Most respondents tended to regard generalists as doctors with a broad base of knowledge and skills within defined specialties, including general practice. But what defines the *'general specialist'* will differ between specialties. The British Infection Association explained: *'There will be increasing expectations among patients that they will be cared for by generalists who have had specialty, though not necessarily sub-specialty, training (using the term here to mean GIM*

*physicians, paediatricians, gynaecologists, etc.) rather than general practitioners.'*

- 47** Some respondents also raised the possibility of a doctor who is trained to manage patient care across specialties. Most recognised this as the role of the GP in primary care and community-based care, but quite a few also lobbied for a similar role within hospitals and secondary care such as a '*hospitalist*'. NHS Education for Scotland suggested: '*There will be a greater need for the GP-Community/Generalist (the family physician model in other countries) and this group will require longer training times. There will be a greater need for the Hospitalist / Generalist with a broad experience, possibly across several "specialties" and possibly separating "assessment" from "treatment" skills.*' An individual doctor also thought this role could manage the transition from hospitals back into community care: '*If we had a set of doctors who managed the last day of a patient's hospital care and the first day/2 days of their 1ry care, this might lead to earlier discharge from hospital and better quality recovery.*' However, the BMA was against this approach: '*The BMA believes that with the continuation of specialties such as general medicine, general surgery, paediatrics and geriatrics it means there is no need to introduce a new "generalist" service delivery post or specialty to meet the needs of patients in the future.*'
- 48** The bodies representing doctors and the medical Royal Colleges strongly rejected the idea that generalists can be trained to a basic level that allows them to deliver and manage acute intakes. The AoMRC was particularly adamant that: '*Many trainees are anxious that training all as general specialists might represent a step toward creating a second tier of consultants.*' Many respondents across all stakeholder groups were clear that perceptions of generalism and generalists need to be changed to make it a more prestigious career option. As NHS Education for Scotland argued: '*Work will be needed to engender the cultural shift required to enable the service and the profession to value generalism. Generalist posts are currently seen as unattractive.*' The Royal College of Physicians of London warned: '*Acute medical registrars have a workload that is increasing annually, and they feel undervalued and poorly respected by management... The expansion of this workforce needs to go hand-in-hand with greater attractiveness of (General) Internal Medicine to all doctors, and it should not be part of a process doctors pass through to reach the next stage of their career.*' An individual doctor summed it up: '*At present it is too often perceived that basic level skills are inferior to specialist skills...this is not so they are just different.*'
- 49** Most individuals and organisations argued that generalists would require a longer training period or reconstruction of training to capture the breadth of experiences needed to provide competent general care. This is looked at in more detail within the Breadth and Scope of Training theme. But this view was

summed up nicely by a doctor in training/researcher: *'It is absolutely imperative that training for general specialists , at least, is extended, as the amount of experience and level of judgement required in making accurate diagnoses in relatively undifferentiated patients can only come from a certain period of time, for which there is no substitute and no short cuts.'*

## Service changes and reconfiguration

**50** Many respondents raised concerns over service configurations, particularly the tension between commissioning and rationing care against clinical decisions and patient expectations. The impact of financial constraints was acknowledged by several respondents with many raising concerns that this will marginalise training. For example, the Association of British Neurologists suggested a commissioning model might distort recruitment of doctors into some specialties because they find this model attractive.

**51** Many respondents also worried that the healthcare system and patient care would become increasingly fragmented, with noticeable differences across the UK. Some respondents forecasted a move towards a more fee-for-care service, reliance on private care or a system built through competition rather than clinical excellence. The Ophthalmic Trainees' Group suggested: *'The boundaries between public versus private healthcare providers will blur as the financing of the service moves more towards an insurance based model instead of a central government led model. We are concerned that commissioning healthcare will prioritise cost over quality.'*

## GPs' role

**52** Most respondents suggested GPs will continue to act as gatekeepers for access to specialist and other healthcare services. They will have a more enhanced role in coordinating and managing care, especially across the primary and secondary settings. The AoMRC suggested: *'More generalist practitioners who work across the traditional primary/secondary care boundaries, some with special interests, with greater training in medical care and diagnostic skills'*. A few respondents did not foresee a change in GPs roles, other than taking on commissioning responsibilities in England. But a small number of individual doctors suggested GPs will only have a role in helping patients identify the right specialists. As a doctor explains *'There will be no general physicians practising medicine in primary care that resemble what we know as GPs today. They will be well trained, technically sound, and have a good understanding of health service jargon...Patients will understand their rights to demand access to healthcare and the limitations that are placed upon this by controls that are put in place centrally. The GP will not act as gatekeeper but as executor of these controls.'*

**53** Respondents saw the role of GPs and, to a lesser extent, general specialists as key to promoting a holistic approach to care that deals with both emotional and physical issues. The NHS West Midlands Deanery pointed out that: *'[GPs] will need to have a broad understanding of diagnostics and therapeutics, they will need to understand the choices available in secondary care and when and where to access them. The need to deal with patients with complex co-morbidity and*

*increasingly personalised therapeutic solutions will be important. This will require excellent communication skills and a good knowledge of information systems.'*

**54** In order to support the shift to more community-based care, GPs should become leaders within collaborative teams and care networks, with other healthcare professionals taking on more initial patient care. GPs will become responsible for referring patients into specialty care pathways. NHS Hampshire described the changing role of GPs as: 'predominantly frontline managers of paramedical staff. The triage of all patients will become a nursing or HCA task. This will serve to distance the decision from the patient and allow more economic (rationed) use of facilities or referral.'

**55** GPs will also have to increasingly link to other GPs and specialty clinics to provide patients with local and community-based options. Indeed some respondents indicated that GPs will take on roles traditionally set within secondary care such as diagnostics while other health and social care professionals shift to activities currently done by doctors. A few respondents, such as NHS Education for Scotland thought that the GP role would differ depending on geographic and local circumstances. For example, in rural areas GPs will have to take on far more responsibility for transferring patients to hospitals while, in urban areas, GPs will have to manage patients within complex specialist networks. Some respondents also speculated that as the GPs deal with more complex care, specialists will need to provide support and mentor them. The British Cardiovascular Society saw a closer relationship between hospital doctors and GPs: '*There will need to be better relationships between local family doctors and hospital based specialists ...Hospital based cardiologists will however be needed to provide leadership to locally delivered aspects of cardiovascular care (e.g. community clinics). This will include: coaching or mentoring family doctors; training specialist nurses; quality control initiatives e.g. reviewing audit data etc.*' Others thought some conditions should no longer be cared for by GPs but go directly to specialist units in the community such as supporting HIV patients.

**56** But in order to do this, GPs as part of larger multiprofessional teams and networks will have to provide continuity of care even on weekends and evenings. Nearly all respondents thought this broader role would require GPs to take on more acute and emergency care as well as preventative advice and interventions. Patients should be able to access primary care 24/7. A medical educator suggested: '*GPs are required to provide a level of care in the community that is responsive to the needs of that community on a 24/7 basis.*' But one doctor thought that a shift towards more personalised care may mean GPs will need to spend longer with patients and may have to manage smaller patient lists.

**57** The majority of respondents suggested GPs will still provide a broad range of care, but should also develop specialty or special interest areas such as dermatology, learning disabilities and mental health. Many indicated that these specialty areas could be obtained through credentialing and accredited training. An extended role for GPs may also attract doctors interested in more varied careers or who are considering changing specialties. But several individuals and organisations, such as the Royal College of General Practitioners and the Committee of General Practice



Education Directors (COGPED), believed that, to meet these needs, GPs will have to train longer and, to some extent, mirror training currently given to general specialists.

#### Clinical academics' and researchers' roles

**58** Respondents unanimously agreed that doctors in academic medicine and research roles must continue to be supported and valued. It was recognised that they make valuable contributions to science, medicine, education and patient outcomes. This was reflected well by one body representing patients and the public: *'Research skills need to be developed in medical schools and should be continued as part of practice. Academics should have up to date knowledge, possibly by undertaking a short period of practice each year. It is valuable to continue to use a mentorship system where academics can work with trainees.'*

**59** The National Institute for Health Research (NIHR) believed: that *'specialist services will be increasingly organised on a regional basis through functional clinical teams working with evidence-based, shared, care protocols, open to accepting innovation rapidly, and active in applied clinical research to close knowledge gaps.'* With more rapid medical and technical advances, most respondents recommended all doctors should have broad training in research methodologies and opportunities for research experience. The Wellcome Trust and the MRC point out: *'It is also important that the wider clinical workforce is sufficiently research aware to build the capacity of the NHS to apply research findings and contribute to research and the spread of innovation.'* This led the MSC to suggest: *'It is vital that there is an academic underpinning to all training, both generalist and specialist. New training paradigms are required that can equip all trainees with the professional judgement to interpret, apply and embed research findings and the output of innovation and thus contribute fully to the development of service.'*

**60** Overall, respondents thought academic training and career development should be flexible. Some organisations such as the Medical and Dental Recruitment and Selection (MDRS) Career Planning Group and Joint Royal College of Physicians Training Board would like to see opportunities and easier access for doctors to work in academic medicine and research at different points in their training, not just in the early years. One group of doctors in training suggested: *'Increasing the numbers of academic foundation posts for those interested in pursuing these career avenues at an early stage would be beneficial. There should also be more collaboration between the clinical and academic settings. Allowing trainees to take time out for research, without penalising re-entry into training, would be a positive step.'*

**61** Some respondents suggested ways we could help doctors build up both an academic and clinical career such as a competency-based approach or credentialing to remove time pressures on completing training. The MSC recommend that: *'A flexible approach which allows all trainees to gain research experience, as well as providing support to those who wish to pursue more focused research training, should be encouraged. Barriers to flexibility must be addressed; for example, trainees who are awarded academic grants and fellowships should have a right to*

*take these up, through inter-deanery transfers if need be. They should be supported to balance their clinical and academic duties.'* For a small number of organisations this flexible process would allow doctors to move quickly into their academic or research area without developing generalist skills. But most respondents such as the AoMRC and the MSC would like to develop academic medicine in a way that allows doctors to move into it later in their careers after more general training. The MSC also suggested: *'To attract greater numbers of trainees into broader based research experiences, appropriate exit routes should be well defined for those who decide not to progress further along the academic pathway. It is important that this is not perceived as "failure".'*

**62** Some respondents also called for more integrated roles for academic doctors within the emerging care structures. A number of respondents saw an increasing role for clinical academics within community based medicine. The NACT suggested: *'Academics should work within their specialty setting in regions that have links with academic organisations. The region should look at the academic needs of its community so that research can directly influence and change the area it is conducted in.'* The BMA extended this position: *'the proportion of medical academics required in each specialty should be urgently considered. Research opportunities should be widely promoted and not confined to just those on an NIHR academic clinical fellowship or clinical lecturer programme. Commissioning must also take account of the need for academic opportunities and ensure that all providers are engaged with the research agenda of the NHS and provide facilities and support to do so. This is particularly important as the emphasis moves from secondary care to the community, where it can prove challenging to build internationally competitive research teams.'*

What will training look like?

**63** Respondents identified several areas where doctors will need to develop knowledge, skills and capabilities in order to meet the needs of patients and the service in the future:

- Every doctor regardless of their specialty will need to be capable of communicating and caring for elderly patients and children as well as a general ability to communicate information to and facilitate feedback from patients.
- Doctors will need to have a grounding in emerging medical and technical advances such as genomics with some doctors going on to develop these as subspecialty areas. To support emerging technologies, all doctors should have a good understanding of academic medicine and research with specific support for academic leaders. As the joint submission from funders and supporters of health research said: *'Hospital trainees following research careers will be more likely to develop highly specialised clinical skills, and are therefore more likely to enter specialist roles. However, as clinical care moves more towards a community setting or intermediary facilities, it is critically important that clinical academic capacity is available in those settings. Doctors providing more generalist care will need to*

*acquire research skills appropriate to a generalist and population-based approach.'*

- All doctors should have more training in diagnostics, screening and prevention medicine. One member of the public also wanted to see: *'Exposure to emergency medicine available to all doctors at an early stage, perhaps as part of the Foundation Years training.'*
- Doctors will need to have better skills in leadership and management particularly in change management and more training to work in teams. The National Association of Patient Participation makes this clear: *'All doctors need to be trained as team workers and understand management as well as research based practice. I like the idea of wider base of experience prior to undertaking specialised training.'*

**64** Almost all respondents thought doctors should train in both hospitals and within the community. This was particularly supported by doctors under 34 years old (many of whom were doctors in training), with many explaining that they would have liked more and longer experiences across different settings. As one doctor in training told us: *'My curriculum and training as a geriatrics reg has almost no training in primary care settings, yet this is where consultants are increasingly moving, and where I suspect I will find myself as a consultant for a significant part of my working week.'*

**65** Some respondents felt training should only take place in larger, regional centres where training can be prioritised and supported. A few employer groups also suggested training should take place where they will work, so fewer training places in London.

**66** Quite a few respondents also called for training to be more targeted to doctors' future roles with less service delivery, in order to compensate for the limited hours as a result of the Working Time Regulations. But as one NHS organisation said: *'Training needs to be closely allied with service development and workforce planning to ensure we train specialists with the right skills and competencies'*. Some thought this would also require more trained doctors to cover the service so there would be more dedicated time to training. Many respondents also called for more apprenticeship-based relationships that link trainers and doctors in training more explicitly.

**67** In contrast, some respondents did not welcome a shift towards more general training and would like to see the status quo maintained. As a group representing doctors in training argued: *'For those trainees who choose to specialise, their specialist training should continue as it does now with no fear of dilution by mandating generalist rotations. The training any trainee receives within a specialty should be focused on the individuals' career intentions, however this would have to be carefully planned and appropriate career advice be given to prospective trainees so as to prevent a glut on popular specialties.'*

**68** Several respondents argued that doctors should not be considered out of training at any point before they have a CCT or equivalent. This is particularly true for doctors spending time in academia, research or education. Even doctors who are not in a training programme such as SAS doctors should have the right support and learning opportunities for their competence level similar to a doctor in training. NHSE suggested: *'A more flexible approach to training will enable doctors to pass in and out of these opportunities and training more easily to follow a training pathway rather than become a new "lost tribe" waiting for rigid training opportunities to arise within restricted timeframes.'* A SAS doctor reiterated this point: *'There should be just one fixed system of doctors; either a student or a trainee is what is needed. The in-between layer of non-trainees in the workforce is useless and in fact affects patient care significantly because there is no passion involved due to the nature of the job and lack of progress or growth.'* In contrast, many respondents suggested there should be multiple exit and entry points throughout training rather than the CCT as a single end point.

**69** A number of respondents commented that reforms have to start in medical school and with the Foundation Programme if we want to change the postgraduate training structure and, in particular, culture. As the NHS West Midland Deanery explained: *'It is vital that for as much of their career as possible doctors are pluri-potential. All doctors will have to adapt to the need for 24/7 healthcare and all will have to respond to patient needs both within traditional working hours and out of hours. The extent that this will be required will vary through a doctor's career particularly as doctors are likely to work longer before retirement.'* A number of suggestions included:

- Students and doctors in training need more career advice that is realistic in terms of the kinds of doctors needed in the future.
- Medical schools (and indeed secondary schools) have to encourage people from all backgrounds to go into medicine as a career through widening access programmes. Other respondents called for a more sophisticated way of selecting candidates into medical school who will have the right skill set for future patient needs.
- Medical schools have to have a much broader-based and general curricula to give all doctors a better level of general knowledge and skills and to encourage doctors into more general areas of practice.
- Longer, themed placements on the Foundation Programme. Some respondents also suggested a third year would benefit some doctors who want more opportunities to try different specialties. The AoMRC Trainee Committee thought: *'the foundation programme should be retained with a significant general practice component. Foundation posts should have an emphasis on general specialties (acute medicine, acute surgery). The focus should be to foster professionalism including the ability to work within a multidisciplinary team, in addition to developing core clinical skills. These posts should be determined by the skills they give to individual doctors, and not by service demands of less generic specialties.'*

**70** Several respondents suggested approaches to training that would develop doctors who have broader-based knowledge, skills and capabilities. For example, ASME described a model: *'It will mean that general practice placements will need to be extended for all graduates beyond the current 4 months during Foundation training. Those who move into general practice will then need to be trained in specific general practice skills. For those working in hospital, a broad generalist training will be the platform for specialist training for some. However, if this approach is adopted then being a generalist is a role of its own and will require on-going professional development. For those who want to change career direction, moving between clinical areas would be easier. If there are to be fewer specialists then they need the time to ensure they reach the required standard before becoming an independent practitioner. That may mean spending little time in the generalist programme (for those with recognisable talents) and starting the specialist training earlier to ensure they have the time to develop the skills. Given the restrictions on working hours there has been concern, especially within the specialties, that there is insufficient training time to become an expert. Alternatively, if all doctors have to pass through the full generalist programme, it has to be recognised that it will take many years to train a specialist and that will add significant costs to the training programme for that individual.'*

**71** Almost all respondents supported a model that streamlines specialties into general stems or core areas. Doctors would train broadly within a specialty or area for longer before going on to specialise more narrowly. As the MSC noted: *'As in the Final Recommendations of the MMC Inquiry, a three year core training programme should reflect the core requirements of a small number of specialty "families" (i.e. medical disciplines, surgical disciplines, family medicine etc.), immediately following the completion of FY1. This would support doctors in making more informed decisions about their career trajectories. It would also introduce greater flexibility for doctors to retrain and move between specialties as healthcare needs change, thus creating a more adaptable workforce.'*

**72** This approach would give doctors more opportunities to work across specialties during this training period. This would allow them to retain more easily into other specialties. For example, the BMA *'would support the introduction of more opportunities for doctors to choose a "broad specialty themed" training programme after they have completed the FP... This model would enable doctors to train in the general field they are interested in and gain a well-rounded sphere of experience and knowledge before they begin their specific specialty training and acquire their CCT.'* The Joint Royal College of Physicians Training Board had a similar view: *'More training for both primary and secondary care doctors at the interface of hospital and community. GP training in hospital medicine should be extended by at least 12 months. Specialists in the majority of specialties (all those linked with GIM and others such as neurology, oncology, and haematology) should undergo initial specialist training to a generalist CCT (5 years). After this, they could compete for subspecialist training (e.g. cardiology), if desired, which could be delivered while retaining a commitment to the generalist service. Some doctors will prefer to remain at the generalist level for variable lengths of time. Attachments to the acute care system should be in blocks, and not fragmented on a day-to-day basis as is often the case at present. An opt-out point from the generalist CCT programme should be retained after*

*achievement of MRCP(UK), since this basic core medical training would be an excellent foundation for GP, radiology and pathology (as at present).'*

**73** Some respondents thought doctors should then become a generalist in a specialty area at the point of the CCT. Many respondents argued these doctors would be specialists in their own right. The AoMRC Trainee Committee suggested: *'these doctors will require considerable training in order to meet the needs of patients with multiple comorbidities. We do not believe it is in the interest of patients to create a cohort of physicians who undergo a shorter period of training and who go on to merely triage patients to appropriate specialty teams'*. Some doctors, based on competitive need, would train through modular learning and credentialing into specialties and subspecialties. Other respondents argued that a push towards training more generalists would not change their specialty significantly. The British Cardiovascular Society explained: *'Specialists such as cardiologists will continue to be developed from a broad based training ("general medicine") through "general cardiology" to "sub-specialty". The majority of specialists will retain generalist skills, this is important for cardiology as general cardiology covers a wide spectrum of conditions, this will need to include general physicianly skills (e.g. care at the end of life, e.g. ability to recognise when extra social care is required for their patients, e.g. ability to recognise the need for involvement of other specialists)'*.

**74** However, many respondents warned general specialty training is not necessarily the shorter training option, particularly in craft or small specialties. For example, the Specialist Advisory Committee in Audiovestibular Medicine suggested: *'We need 5 years to train a specialist and cannot shorten that time by a longer period in general training because of our highly specific knowledge base which is not taught at any other time in training, unlike some of the larger specialties'*. Several respondents instead suggested a competent and safe general specialist requires longer training periods in order to gain a wider range of experiences and learning opportunities. The Wessex School of Surgery commented: *'Concerns regarding the competencies that generalist training will result in cheaper, poorly trained staff need to be addressed with a rigorous training programmes and clearly set boundaries about what is expected of them...As regards surgical specialties it will take a significant amount of training to be competent running an acute surgical take (in any of the sub-specialties), it involves some of the most complex decision making and operating. Trainees will not be ready or safe to do this after, for example, five years as has been suggested for generalist training.'* Some argued training could not be shorter than it is now to produce doctors who are safe to triage and manage acute patients. A number of respondents thought more general training would dumb down outcomes and the doctors coming out of it. For example, the British Thoracic Society (BTS) suggested: *'We believe that generalist skills may need more emphasis in training, but that this should still be integrated with specialist training in those specialties which can continue to have a major role in the emergency take (among which we would certainly include Respiratory Medicine).'*

**75** However, some respondents suggested curricula could be redesigned to streamline them and shorten training without losing competency levels. Others recommended rearranging curricula based on patient needs and a longitudinal theme rather than in specialty blocks. One doctor envisioned: *'Imagine foundation training*

*as a year in hospital generalism and a year in community generalism. Then imagine a trainee choosing either a hospital generalist training or a community generalist training to be a general hospital practitioner or a general community practitioner. From this point, trainees from hospital or community could join newly designed specialty training schemes with curriculums updated to the new environment of community care unless acute/in-patient services are needed in hospital. Trainee numbers for hospital/community generalism then for specialties would be recruited as per expected patient need. Trainees with subspecialties would still be expected to perform a generalist role too as per demand.'* A similar approach was suggested by the NHS West Midland Deanery: *'Work from Harvard in undergraduate medicine has shown that by rearranging the curriculum from blocks in each specialty to a longitudinal theme has delivered doctors who are as able clinically as their peers and are much more patient centred and much more skilled in generalist diagnosis (David Hirsch). Trainees must be actively involved in diagnosis and decision making and the care of their patients, rather than being seen as the person who is responsible for completing all the delegated tasks.'*

## Flexibility (Question 6)

**76** Within this theme, we asked one question with four parts: **How would a more flexible approach to postgraduate training look in relation to:**

- **doctors in training as employees;**
- **the service and workforce planning;**
- **the outcome of training and the kinds and functions of doctors;**
- **the current postgraduate medical education and training structure itself (including clinical academic structures)?**

**77** We received 268 responses covering the range of respondents.

**78** There was consensus from all respondents that medical education and training need to be more flexible to reflect the needs of the service and patients. Respondents, particularly employers and postgraduate medical institutions, focused on the importance of broad-based generalist training and the need for transferable competencies within the training structure. Nearly all respondents raised the importance of ensuring more flexibility to meet the changing demographics of the medical workforce, including more flexible work arrangements such as part-time working. This was particularly picked up by women responding as individuals. As one doctor explained: *'The rise in female doctors is leading to more demand for LTFT posts and therefore this needs to be normalised and considered, rather than an exception. Furthermore, doctors (particularly female doctors) are more inclined to enter GP training, or specialties which are perceived to be more accommodating - this should be universal and not specialty specific. I would hope that allowing people to tailor-make their career path a little would lead to greater employee satisfaction rather than feeling like another number'*. But another doctor warned that



service delivery will have to change as the medical profession changes: *'We need urgently to recognise the huge numbers of women entering medicine and accept that many of these women will take time out for maternity leave, and may wish to work on a less than full time basis. When anticipating numbers of doctors required please take into account the fact that women (I am one, not a man with an agenda!) will produce fewer hours of work than men, in their professional lifetime. Surely it must be possible to calculate a facet by which the numbers of doctors must be increased if they are predominantly female?'*

**79** There was quite a lot of agreement from respondents about how a training structure could be made more flexible for doctors in training as employees. But, many respondents emphasised strongly that a more flexible system must be appropriately quality assured. There was some concern around the risks that increased flexibility might have, with one doctor commenting: *'Increased flexibility in a career path risks 'half trained' doctors at the end'*. In contrast, other respondents suggested further flexibility within the system is not needed. One medical educator said: *'We already have flexibility - give any more and the workforce will be unmanageable and costs of administering it astronomical.'*

### Transferable competencies

**80** Most respondents thought a more flexible approach to training for doctors should be based on transferable competencies and the ability of doctors to move between specialties and care settings. Current training is very rigid with doctors facing many difficulties when changing specialty. Respondents were concerned that doctors are being discouraged from changing specialty because they have to returning to the start of a programme, on lower pay and at a lower grade. An individual doctor in training commented: *'It is ridiculous to have an experienced doctor having to go back to the beginning just because they are forced into the straight jacket of a training scheme'*. Similarly, doctors are forced to make lifelong career decisions far too early and face restrictions on their career choices when they want to change specialties later in life.

**81** Many respondents thought transferable competencies would help doctors plan and manage their careers better. The BMA commented: *'A robust system of properly accredited transferable competencies would alleviate the difficulties associated with changing specialty, both for doctors and workforce fluidity'*. Respondents agreed that approach would avoid unnecessary lengthening of training for all specialties. Most respondents also supported better career advice and more opportunities to experience a variety of specialties before making key life decisions.

**82** There was also consensus that there needs to be more flexibility for doctors to move between different care settings. One medical educator explained: *'For a flexible approach to training that would meet the future needs of both patients and doctors, movement between training provider organisations must be possible'*. It will also be necessary for clinical academics to be able to move between NHS and university posts. The BMA commented: *'Clinical academics should be able to move seamlessly from the NHS to university employment without detriment'*. Overall



respondents were in agreement that a flexible approach to training cannot exist without transferable competencies.

### Training needs versus service demands

**83** Many responses highlighted the importance of striking the balance between training needs and service demands. The majority of respondents agreed that service provision is an essential element to training. It gives doctors a number of important skills such as managing different pressures, working in teams and taking leadership roles. The Joint Committee on Surgical Training (JCST) said: *'Service is an integral part of training and must be acknowledged as the best way for trainees to learn clinical and technical skills and competencies as well as professional skills and behaviours such as judgement, communication, compassion and empathy'*. Similarly, the Defence Postgraduate Medical Deanery (DPMD) stated: *'Doctors are training to deliver a service to patients and to divorce service delivery from training is illogical'*.

**84** A few respondents thought doctors should only focus on training rather than provide service coverage, but only in the early stages of their training. The British Association of Audiovestibular Physicians (BAAP) suggested: *'Doctors in training should not be part of the service, they should be supernumerary to allow proper supervision'*.

**85** Though service provision is an integral part to training, respondents highlighted that doctors in training should not only provide service. They are also there to train. The JCST pointed out: *'The service should not be dependent on trainees for the delivery of care, their status should be that of trainee first and service provider second'*. Respondents agreed that service delivery is essential for training, but doctors also need to have dedicated and protected training time.

**86** Respondents were in favour of an employment system which recognises both the service and training needs but gives priority to training. East Lancashire Hospitals NHS Trust commented: *'Doctors in training need to have a single employer so that they can move around between hospitals trying different specialties'*. A small number of doctors also suggested other training models. For example, one doctor thought training should not be under deaneries or colleges but handed over to universities while another doctor suggested training could be like a *'sandwich'* course enabling consolidation in service.

**87** Respondents agreed that this system would improve flexibility and allow doctors to gain a deeper wealth of experience. Some responses to this question detailed a desire for training contracts to be held by a single provider to allow more flexible movement within the medical workforce. The NACT stated: *'If the contract for junior doctors was held regionally then they could move from one institution to another (including the community) so that their training needs would be met rather than a service commitment to the employing organisation'*. In contrast, many respondents argued doctors should remain in posts for longer to build up better team experiences and learning and to facilitate better supervision and mentoring. See Balance of the Workforce theme for further detail.

## Broad - based training

**88** Most respondents agreed that doctors in training should undertake a period of broad-based generalist training that would allow the workforce to be far more flexible. St George's University of London stated: *'A greater emphasis on generalism during the early stages of training will undoubtedly permit greater flexibility'*. Several respondents, particularly medical colleges and deaneries, argued that broad-based generalist training is necessary for the early stages of training but it will be difficult to implement. The Royal College of Anaesthetists commented: *'Ensuring that broad-based training results in transferable competencies that meet current service as well as future training needs will be a challenge'*. Some responses also highlighted the need to remove run-through specialty programmes as they do not offer any flexibility.

## Workforce planning

**89** Some respondents highlighted different workforce planning issues and solutions. Overall, responses emphasised that workforce planning currently is increasingly difficult to get right. The British Geriatrics Society commented: *'Workforce planning is persistently poor, predictive modelling is not accurate and there is a disparity between the number of doctors needed in junior grades and the number who will be able to obtain consultant posts on obtaining CCT'*. There was also some agreement that increased flexibility will make workforce planning more difficult. The Royal College of Anaesthetists thought: *'Wide-scale movement between specialties may be destabilising and make workforce planning more difficult than it already is now'*. There was also some agreement that workforce planning needs to be delivered at a local level.

**90** Some responses highlighted the importance of ensuring that workforce planning considers the needs of the population including local needs. The Newcastle upon Tyne Hospitals NHS Foundation Trust said: *'To create greater flexibility will require robust, accurate, centrally managed workforce planning, informed and supported by local healthcare need'*. The British Association of Paediatricians in Audiology (BAPA) agreed stating: *'Service development and workforce planning will need to take into account the changing demographics of the population and this must be paramount'*. Some responses highlighted concerns with current workforce planning and trainee numbers. For example, the Academic Trainee Doctors' Group said: *'Workforce planners should not see trainees as an expendable resource, the number of trainees recruited should only match the future workforce requirements'*. What is evident from the responses is that currently workforce planning does not recognise the correct balance between training and service needs. The Scottish Recovery Network said: *'Workforce planning should involve ensuring that the workforce had the correct balance of professionals with recognition of both shared and individual training needs within the service'*. Some respondents also suggested that workforce planning needs to support doctors shifting practice areas in the future.

## Flexibility in the workforce

**91** Some responses identified the need to consider the impact of increasing numbers of women on the workforce and the importance of ensuring flexibility within the system to meet the needs of women doctors. The Royal College of Surgeons of England had identified that in 2010 women made up just 24% of surgical trainees and 8.5% of surgical consultants; its patient liaison group commented: *'A more flexible approach to postgraduate training of surgeons is needed to prevent the drop-out of women from surgical careers, due to the difficulties of taking a career break to have children and still be able to progress with their careers'*. Most doctors, not just women, value the benefits of Less Than Full Time (LTFT) training. But some respondents, particularly doctors, felt part-time and LTFT training are still perceived negatively. One doctor said: *'There is a poor culture within the NHS which does not respect part time doctors'*. There was agreement that LTFT and part-time training allow greater flexibility within the system and greater employee satisfaction. As a doctor in training commented: *'More part time training positions would allow doctors to train in more than one specialty, a specialty/GP plus research/education/leadership'*. There was consensus that opportunities for part-time training and LTFT across the specialties should be encouraged. It is important that with the increase in flexible training, we ensure that the needs of patients are met at all times.

**92** Some respondents also highlighted the difficulties faced when taking time out of training. There was consensus for out-of-programme activities to be more accessible and encouraged. The MSC was in agreement by stating: *'Whilst current regulations do allow out of programme activity, this should be positively facilitated and encouraged, including re labelling such experience as, for example, "Programme Enhancing Activities"'*. At present, many doctors feel they have little or poor support when taking time out of training. An NHS organisation stated: *'At present the notion of taking time away from a competitive specialty (like the surgical specialties) to pursue outside interests is tantamount to resignation'*. Out-of-programme activities need to be encouraged and valued.

**93** Respondents commented on the effect the Working Time Regulations (WTR) have on the ability for training and the workforce to be flexible. Respondents agreed the WTR has impacted hugely on the quality of training. For example, one body representing doctors commented that: *'Training has produced junior doctors who miss out on continuity of care because of the WTR'*. Some respondents, particularly doctors in training, were concerned that doctors in training were missing out on acquiring skills and experience because of the WTR and needed longer training times to compensate.

## General specialty training

**94** Overall there was a wide consensus that the outcome of training should be more generalists providing the majority of service, with referral to specialist care when needed. The outcome of a more flexible approach to training will be more generalists within the system, i.e. doctors with wider depth of knowledge, which will benefit the service. The BMA said: *'An increase in the number of doctors*

*undertaking broad specialty themed programmes, before embarking on their specialty specific programme, will result in doctors acquiring a well-rounded wealth of knowledge*'. This is discussed in more detail in the section on the balance of the workforce theme. But in terms of flexibility, we must make sure that a move towards more generalists allows for career progression. Cambridge University Health Partners said: *'More generalist doctors will be needed and this could have a benefit for health services, though it is important to have a system based on progression, so if a generalist wishes to become more specialist they have the flexibility to do so'*. But some respondents were concerned that making someone who wants to train to be a specialist train in the whole of the generality of a specialty was wasteful.

## Training structures

**95** Although the response to this question was varied in terms of stakeholder suggestions for training structures, there was strong consensus that any training structure needs to encompass a large element of flexibility. The Advanced Life Support Group stated: *'All elements will need to be more flexible and more adaptable'*. Respondents again pointed out that increased flexibility is not without consequences. The British Junior Cardiologists Association (BJCA) commented: *'A more flexible approach may however increase the workload of any institution overseeing it'*. Overall, flexibility within training structures was seen as important for the development of future doctors and necessary to ensure the workforce meets patient needs.

## Competency - based training

**96** Many respondents indicated that a move towards competency-based training and assessment would be preferred and would allow for increased flexibility within training structures. Competency-based training as opposed to current time-based training, coupled with core general training, was favoured by respondents as the best way to ensure flexibility in training. The Royal College of Physicians stated: *'A structured, competency-based, curriculum focussed approach will be key to ensuring specialist services can be delivered to their current standard'*. Competency-based training not only ensures flexibility within structures but also ensures high quality standards are still met. But there was concern as to how a competency-based approach would apply to all as one doctor commented: *'A competency based curriculum would work although most of the curricula are far too complicated with too many micro-competencies'*.

**97** Some respondents were conscious of the negatives of competency based training. ASME commented: *'Competency based outcomes throughout postgraduate training would lead to more flexibility but also less predictability of an individual doctor's progress through training'*.

## Modular approach and credentialing

**98** Some responses emphasised the need to incorporate the concept of modular learning in training structures. Respondents were in agreement that a modular approach to training will ensure flexibility within training and will benefit doctors and the service. BMJ Learning commented: *'Modularisation throughout training will enable*

*trainees to change direction during their training or at the end of their training. This will be in the interests of both trainees and patients*'. Support was also given to the concept of credentialing, with most respondents in agreement that credentialing will increase flexibility for training. NHSE was also supportive of a modular approach to training, and commented: *'A system of "modular credentialling" would facilitate a "career ladder" approach, encouraging doctors to step in and out of training*'. Modular learning will ensure increased flexibility within training structures and many modules would be common to several broad specialties allowing movement between specialties to be less rigid and transferable competencies would also be encouraged. Modular learning and credentialing will create a more flexible training programme and result in a more adaptable workforce but there was some concern about how this would be quality assured. There was also some opposition to modular learning and credentialing before the CCT. This is picked up in more detail in the Breadth and Scope theme.

## Academic pathways

**99** The ability to undertake research and take time out from training to develop academic skills was seen by respondents as a necessary and highly important aspect of training that needs to be encouraged and better supported. It is essential that flexibility is embedded in academic pathways. There was consensus for academic elements to be incorporated into all training programmes. The BMA said: *'More research and academic opportunities should be embedded within other training programmes*'. Currently, fulfilling academic elements is a struggle due to the lack of encouragement to take time out of training to pursue academic activities. Respondents were also in agreement that academic pathways should not be labelled as out-of-programme activity; one doctor suggested: *'Clinical academic structures should be more widespread and allow academic expertise to be developed at the same time, rather than time in and out of training programmes*'.

## Patient needs (Questions 7 to 9)

**100** We asked: **How should the way doctors train and work change in order to meet their patients' needs over the next 30 years?** We received 248 responses to this question. There were no particular patterns or issues raised by respondents based on gender, age, ethnicity or disability for this theme.

**101** Most respondents emphasised that people want a healthcare system that mirrors their understanding and experiences of their conditions. Respondents told us barriers between primary and secondary care result too often in people being bumped around the system rather than being treated. Patients and carers need a more integrated, holistic and multidisciplinary approach with communication, caring and professionalism at its heart. The Patient Liaison Group for the Royal College of Surgeons stated: *'Patients are not interested in the lines of demarcation between professionals, such as the boundaries between primary and secondary care, health and social care. What they want are integrated healthcare teams that can meet all their health and social care needs effectively without letting something slip through the cracks.'* They went on to explain: *'As patients our interest lies in seeing healthcare practitioners who understand that we are a whole person not a collection of parts to*

*be looked at in turn by different professionals. This means that while healthcare practitioners might specialise in one area they retain / develop the ability to see that area within the whole and take responsibility for coordinating their actions with those of others in the healthcare team. ASME emphasised this point by explaining the changing relationship between doctors, other professionals and patients: 'Great skills of partnership working will need to be demonstrated. Patients now have access to the kind of information that was hitherto the sole province of doctors. What they will need is explanation and negotiation as they move through the care process... The concept of officially having a team looking after a patient rather than having the responsibility lie with the consultant will require doctors to think differently.'*

**102** Some respondents emphasised that patients will increasingly be responsible for their own care needs and expect to be included in care decisions. Doctors will have to work differently. For example, the National Association for Patient Participation thought doctors and in particular GPs will *'need to be signposting patients for the appropriate treatment which may not necessarily be medical.'* Most respondents suggested doctors will have to work more and more within multi-professional teams and within increasingly complex organisations and systems. The National Dignity Council told us: *'Doctors will have to work in teams and be prepared to listen. Doctors will have to communicate well with one another, other members of the team and with patients and be prepared to treat all members of the team with respect and dignity.'* Doctors will also have to deliver care in the way patients expect; in the community, closer to their homes and on a 24/7 basis. The AoMRC commented: *'Doctors will need to have greater in - depth training and understanding of the demographic that they will be involved with treating on a day to day basis. For example, enhanced knowledge of the issues (clinical and societal) relating to ageing, obesity and the consequences of long term conditions are relevant to all doctors if they are to manage these patients confidently and provide appropriately individualised care'.* This position was reiterated by doctors in training, including the AoMRC Trainee Committee.

**103** Most respondents thought more generalists would be required to meet future service delivery needs. But many warned that this should not be to the exclusion of specialists. There has to be an appropriate balance between generalists and specialists. The Royal College of Surgeons Patient Liaison Group stated: *'We recognise that there may be a tension between a call for generalists who can look across comorbidities and a call for specialists but we think a balance needs to be found with equal recognition given to the value of both groups of doctors'.* Mencap thought that training doctors more generally would require an emphasis on the wider team to make sure patients receive specialist care when necessary: *'Steps [should be] taken to ensure that a move towards a more general approach to training does not result in trainees being unaware of the specialist care needs of people with a learning disability and other vulnerable groups and therefore less equipped to meet their needs ... As part of this, doctors should establish a stronger working relationship with colleagues in social care to ensure that nobody slips through the gaps'.*

**104** Respondents recognised the importance of doctors in training acquiring skills in leadership, risk management, diagnostics and commissioning, but also highlighted

that the focus of training should be to care. The Academy of Medical Educators wanted: *'an overarching model that incorporates not only patient experience, but also patient safety and patient outcomes'*. It is essential that all doctors have the skills to effectively communicate with ageing patients who have comorbidities; the National Dignity Council commented: *'Health and social care will have to work together to ensure that the functional needs as well as the activities of daily living are met in older people with disability and or dementia and or frailty'*. Other respondents suggested flexibility within the system is crucial if we are to train doctors for an uncertain future. The MSC stated: *'There will need to be flexibility both for education and training to respond to evolving patient population needs, and also for trainees themselves, recognising that careers will lengthen as retirement is delayed.'*

**105** Given the changes to the way doctors work in the future, respondents suggested training would also have to change. For example, some respondents thought longer training, an apprenticeship model and more out-of-hours training would be needed to train effective generalists. As the British Infection Association commented: *'Training should return to an apprenticeship model, with the delivery of service being an integral part of a doctor's training'*. Others emphasised a competency-based approach to training that would be reflected in doctors' roles and grades. CPD, modular learning and credentialing would measure doctors' competence and capability throughout their careers. Respondents also emphasised that doctors have to train in good environments that promote a culture of learning. The Patient Liaison Group for the Royal College of Surgeons told us: *'We recognise as patients that providing a service can itself be a learning opportunity but this only happens when individuals are given the time and support to learn from what they are doing and provided with feedback on their activities as well as being allowed to focus on those areas of care for which they are being specifically trained.'*

**106** Most respondents felt patients should be involved in training. They emphasised that patients should have the opportunities to take on increasingly more proactive roles, including teaching and giving feedback. For example, Mencap suggested: *'training of doctors would benefit from being delivered by patients'* while the National Dignity Council recommended: *'Patients ought not only help students take histories and observe physical signs but also inform medical students and doctors in training how it is and was for them as a patient.'* The response by BMJ Learning suggested how this might be done: *'Tew et al. (2004) describe a Ladder of Involvement in curricular development and delivery. Level 1: Little involvement "curriculum is planned and delivered with no consultation or involvement". Level 2: Emerging involvement "outreach and liaison with local user and carer groups; they are invited to tell their story and are occasionally consulted in relation to planning, but have no opportunity for shaping as a whole". Level 3: Growing involvement "users and carers contribute regularly in more than one aspect of education and training. They are reimbursed and there is some support. Key decisions on education may be made in forums in which users or carers are excluded". Level 4: Collaboration "users and carers may contribute to key discussions and decisions; the value of this is acknowledged by all concerned. A coordinated programme of involvement and support is developing". Level 5: Partnership "all partner groups work together systematically and strategically, underpinned by explicit statement of partnership*

*values. All key decisions are made jointly. Infrastructure funded and in place for support and training".'*

**107** We asked: **Are there ways that we can clarify for patients the different roles and responsibilities of doctors at different points in their training and career and does this matter?** We received 232 responses.

**108** The majority of respondents agreed that there is little understanding of doctors' career pathways by patients and members of the public. Patients are often not aware of the expertise and seniority of who is treating them. A number of respondents remarked on the unclear and inconsistent use of labels to describe different medical and healthcare roles such as consultant, trainee, junior doctor, registrar, house officer, staff or trust doctor as well as physicians' assistants, and nurse practitioners.

**109** Most respondents, particularly those representing patients and the public, thought patients should, and want to, know who is taking care of them. For example, the National Association of Patient Participation emphasised that patients must be told in advance that they may be treated by doctors in training and that they have an option to ask for a different doctor. But they suggested patients would support doctors' training, provided they are informed about the level of supervision: *'Many patients are unaware of the roles of doctors at various points in their career. It is important that clinical staff introduce themselves at all times to patients and inform them of their designation. It is important to have sufficient supervision and support/mentoring and trainees should not be left unsupervised'*. The MSC agreed with this position: *'In a health service that is being reformed based on the principles of greater transparency and patient involvement, patients and their families, as well as the doctors themselves, must have clarity on professional capabilities and competencies. Ultimately, patients want to be reassured that their overall care is being managed by a doctor with expertise in that area, and at the necessary level.'* Many doctors in training, consultants and medical educators agreed with this position and suggested a more simplified way of describing the different doctors' roles and responsibilities.

**110** In order to identify the different roles and responsibilities of doctors some respondents felt that clear signage was needed. Mencap suggested: *'Visual signs, such as different coloured uniforms or wearing badges could help people identify the different roles and responsibilities of doctors'*. Respondents such as CAIPE also suggested that patients would be clearer about their care if doctors introduced themselves to their patients, explained how they fit within the team and what to expect from them. Others recommended that patients have fewer points of contact during their care. But the British Infection Association thought it would help if *'junior doctors [were not] termed as trainees, as this implies that they are less capable in delivery of care'*. Credentialing was also cited as a way of reassuring patients that they are being treated by a doctor who is competent in that area of medicine.

**111** In contrast, some respondents argued that the different roles and responsibilities of doctors do not matter to patients. Patients are only concerned



about receiving quality care, whether that is delivered by a consultant or a doctor in training. ASME commented: *'Patients want good, safe care and in the main are not concerned who gives it'*. NHSE agreed stating: *'There is some evidence that patients are less concerned with doctors' job titles and more concerned with having experienced, qualified people in place to meet their healthcare needs promptly and effectively'*.

**112** Doctors gain different levels of competence at different points in their career and have different experiences. Some respondents suggested we should focus on making sure doctors have the right support and supervision to make sure patients are safe. NHS Scotland commented: *'Patients have the right to expect that their care is being delivered by someone competent to do that role and supervised appropriately where necessary'*. Similarly the Royal College of General Practitioners (RCGP) stated: *'In general patients assume their doctor is competent for the procedures that he or she is undertaking, or if not competent that they are supervised by someone who is'*. Respondents highlighted the need for better support for doctors during career transitions. Other respondents like the MSC and NHS Scotland suggested credentialing would help clarify competence levels.

### Multi-professional teams

**113** We asked: **How should the rise of multi-professional teams to provide care affect the way doctors are trained?** There were 230 responses to this question.

**114** There was generally support for doctors to train with and alongside other healthcare professionals. Respondents like the BMA and GMC recognised the value of these experiences but warned that some learning that is relevant only to doctors can't be compromised. Other groups, particularly doctors in training, didn't value these experiences because of the way they have been developed and delivered in the past.

**115** Some respondents also warned that multi-professional teams might reduce training opportunities for doctors. They were concerned about the risk that doctors' training opportunities would be reduced, or that they wouldn't get sufficient exposure to complex pathology. The BMA summed up these concerns well: *'The BMA values and is in favour of multi-professional working. However, there are concerns that doctors in training are receiving fewer opportunities to perform procedures which are important to their development due to the increase of roles such as physician assistants and surgical care practitioners.'* And the AoMRC said it was *'essential that the training of specialists is not compromised by this structure (eg cherry-picking of straightforward cases by another member of the team or other provider, depriving the trainee of valuable training opportunities).'* Others said that a move toward multi-professional training requires a clearer definition of the role of doctors in training. The Royal College of Surgeons of Edinburgh suggested: *'Improved definition of roles is, however, required to ensure trainees are not missing out on training experiences and to determine who is ultimately responsible for overall care, post-operative management and follow-up.'*

**116** Some respondents stated that doctors should be trained alongside other healthcare workers, with just a couple saying that they shouldn't or that multi-professional training shouldn't be increased beyond its current level. The AoMRC said that they were *'committed to integrated care; working and training within multidisciplinary teams should be the norm, from the beginning of training and throughout CPD and revalidation.'* And that they supported *'the continued expansion of training within MDTs and greater integration between medical training and education and management from an earlier stage.'* Similarly the Scottish Recovery Network told us: *'Only through a holistic understanding of the various professional perspectives can really effective education take place. For example some of the actual concepts like "addiction" or "mental health problem" have contested definitions depending on your professional perspective.'* A number of respondents commented that training should be more integrated across disciplines. For example, The Newcastle upon Tyne Hospitals NHS Foundation Trust said: *'There is a place for greater integration of training, certainly for single condition management and in particular technical skills where service is already being delivered by nurse practitioners and other healthcare professionals.'*

**117** Some respondents, particularly those involved in education and training as well as patient groups, thought interprofessional training, where doctors are taught by other healthcare professionals, is a good thing. Though ASME suggested that it might not be popular with doctors, and BMJ Learning made the point that this was not a way of cost cutting and that it requires changes to the training of other professions. CAIPE explained: *'Doctors need to be trained along, with and from team members, and specific learning events need to be structured for the team to ensure good interprofessional collaboration and good quality care with a focus on patient problems and improving care. There needs to be more interprofessional learning within all aspects of medical education including postgraduate medical education.'* Some respondents, particularly doctors in training, were concerned that there needs to be careful oversight and governance of interprofessional training.

**118** Some said that doctors should also be assessed and supervised by other healthcare professionals. For example, a medical educator suggested: *'Clinical supervision may take place with the involvement of non-medical supervisors, who may also become involved in assessing doctors, eg during a workplace-based assessment, such as a DOPS.'* And Wessex Deanery said: *'Assessment by and formal feedback from the wider team should be explored.'*

**119** A few respondents were concerned that this consultation was only about doctors' training, and felt that there was a need to review the training of all healthcare professionals together. BMJ Learning commented: *'The rise of interprofessional practice should influence the education of all healthcare professionals (and not just doctors). Patients and carers should be seen as key members of interprofessional teams...Also doctors cannot unilaterally move towards interprofessional education...they will need to do so in collaboration with their interprofessional colleagues.'* While Wessex Deanery said that this question is *'difficult to comment on without knowing what the other professional training bodies are doing currently in terms of revision of their training. Seems to be we are talking a lot more about alternate workforces and their interaction with the NEW medical*

*workforce. To alter training massively without linking with how other members of the same team are changing their roles is difficult and will potentially leave gaps. Will the new shape of training fit the future healthcare workforce jigsaw if someone else changes the shape of the other bits? Coordinated or linked reforms are required or we risk going forward again in isolation.'*

**120** A number of respondents mentioned ways in which doctors' training shouldn't change. Many doctors in training said that doctors still need to have training that is separate from other professionals, with a large number pointing out that doctors are unique among health professionals in that they need to go outside protocol and make diagnoses, solve problems and assess risks, whereas other health professions are not trained to deal with diagnostic uncertainty. One doctor in training said that it was important that *'high standard of doctors' training should not be compromised.'* Another doctor in training said they were in favour of interprofessional training *'although it should be taken into account that training in other multi-disciplines can be more rigid and protocol based and doctors' training needs to take into account the fact that there are times doctors have to go outside "protocol" for very good reasons and need to be trained to deal with this.'*

### **Scope and Breadth of training (Questions 10 to 13)**

**121** We asked: **Are the doctors coming out of training now able to step into consultant level jobs as we currently understand them?**

A note of caution

**122** We received in excess of 350 responses to this question. Despite the closed nature of the question, very few respondents offered short, unequivocal 'yes/no' answers. Even where a clear view was discernible it was often subject to qualification of one sort or another. There were no specific trends or themes specific to gender, ethnicity or disability.

Is there an issue?

**123** Just as there were many who felt that new CCT holders were able to step into consultant posts, there were many others who felt they were not, as well as those who felt it was a mixed picture and impossible to generalise.

**124** Thus the GMC was typical of many organisations associated with training insisting that current training is in *'very many respects...superior'* to that of the past. BMJ Learning said that doctors *'coming out of training are able to step into consultant level jobs as we currently understand them'* and the BMA concurred, insisting that there is *'no evidence to suggest otherwise'*.

**125** The alternative view was that *'training is less thorough than in the past'*. The Radiology Patients' Liaison Group, for example, wrote that new CCT graduates were probably not ready to step into consultant posts.

**126** Some saw the picture as mixed. The British Infection Association, for example, said there is *'currently a large variation both within and between specialties'* and Mencap said that it would be *'inappropriate'* to generalise.'

**127** NACT noted that the feelings of unpreparedness by doctors in training did not necessarily mean that they were unprepared. Some respondents, particularly medical educators and postgraduate institutions, reiterated this position. Doctors seem to lack confidence in their ability rather than competence in their technical skills. Less experience and time to learn were often cited as reasons for this challenge.

**128** Others simply deferred judgement. They felt that whether or not there are deficiencies in the current system will only come to light in a few years' time, when the foundation year doctors attain their CCTs (London School of Hygiene & Tropical Medicine).

### Experience

**129** One of the most prominent themes was that doctors emerging from training *'are not as experienced clinically as starting consultants in the past'* (Advanced Life Support Group). This was evident regardless of whether the respondent thought doctors at the end of training were ready for consultant roles. For many the lack of experience was attributed to *'the reduction in training time'* (ASME) and the WTR, meaning that doctors in training see fewer patients. One doctor referred to them as *'often woefully short on experience and learning'*. Another regretted that *'we will complete our training having a fraction of the experience of those who have gone before us'*.

**130** The experience deficit was particularly felt in the craft specialties where trainees needed the time and caseload to practise and achieve mastery of their disciplines.

**131** But while some lamented that *'new consultants do not always [have] enough experience to deal with every eventuality likely to crop up'* (doctor), others regarded this as part of the normal learning curve for anybody taking on a new role and by no means indicating the inadequacy of the individual or of their training. The important thing was that those new to the role should receive appropriate support and mentoring in their early years to enable them to build up experience and hone their expertise.

**132** Deficiencies in experience related to a number of different areas. For some, there was too much specialisation and a *'lack of general medical training'* (Association of British Neurologists). The British Association of Perinatal Medicine commented: *'specialist neonatologists who have recently completed training are not really able to manage the breadth of complex perinatal care'* and that longer or post-CCT programmes were needed. A doctor commented: *'GPs appear to lack the knowledge and experience to work in such a generalised field'*. Another referred to *'too early subspecialisation and not enough generalist training'*. East Midlands LETB referred to the *'Reduction in clinical experience, including continuity of care'*.

Another individual respondent felt that their colleagues are: *'remarkably well-trained but probably lack the breadth of experience, because once specialist trainees, the only non-specialty work they've done is the general medical take, with little other specialty work in other branches of general medicine since MRCP.'* There was recognition that there are 'good, even excellent, specialists but few have the general medical competencies required and very little of the leadership or management skills' required to deliver a high-quality service.

**133** Many respondents drew attention to the fact that post-CCT and overseas fellowships are increasingly being used as a way of building on and consolidating the experience needs that are not met during training.

**134** The comments from the British Infection Association, for example, noted that those who have obtained their CCT through the minimum training period tend to require *'considerable support in their early consultant years'* compared with those who have taken longer, often as a result of undertaking clinical research. These comments were echoed by the British Society of Gastroenterology, which referred to concerns that trainees on run-through training *'are reaching consultant posts too early and without sufficient experience'* and that many were undertaking research or fellowships to remedy this deficiency. But the Ophthalmic Trainees' Group complained that such fellowships, although popular, *'should not be used to make up for inadequacies of a training programme'*.

**135** Several commentators saw a possible solution to the experience deficit in the re-creation of the *'senior registrar grade where the "trainee...rehearses" the consultant role'*.

**136** But others, while acknowledging that current CCT trainees emerge with less experience than their predecessors, felt that they are *'competent in most cases to work effectively as consultants'* (Association of Paediatric Anaesthetists of Great Britain and Ireland). This was echoed particularly by doctors aged over 55 with one person suggesting: *'The role of the consultant in 21st century UK NHS has changed beyond all recognition from when I qualified in early 1980s. Phasing of consultant careers becoming more acceptable in my specialty paediatrics.'*

#### Skills deficiencies

**137** Some said the key deficiency in new consultants was a lack of decision-making skills. The Abertawe Bro Morgannwg University Health Board (ABMU LHB) referred to new consultants being *'often unable or unwilling to make decisions or take responsibility'*. This is linked to the theme of infantilisation of trainees, which was picked up by a doctor who attributed the difficulties experienced by new consultants to the fact that *'they may not be trusted to take complex decisions during training'*. A medical educator referred to their *'reluctance to accept responsibility even as senior trainees'*. The Association of British Neurologists suggested the problem was that doctors in training *'tend to experience less autonomy'* particularly towards the end of their training.

**138** A frequent observation was that individuals emerge from training clinically competent to undertake consultant posts but lacking the essential management and leadership skills. A doctor wrote: *'Many also have no real experience of the considerable non-clinical, managerial duties which constitute the workload of both GPs and consultants.'* Another responded: *'More training in hospital management is needed as this now seems to take up as much if not more time than clinical duties.'* RCP London Trainees Committee said that new consultants are *'unprepared for the administrative and other aspects'* of the job and the RCPCH Trainee Committee said that *'managerial and leadership competencies'* necessary for the role were not always developed. Quality improvement, service re-design and educational leadership roles were also seen as undeveloped areas.

**139** This view was echoed time and again by organisations. Derbyshire Local Education and Training Board (LETB) wrote that they need *'a period of supported consolidation to get wider skills and get confident leading the team, management skills, business planning and finance and understanding the wider health and social care agenda'*. Oxford University Hospitals NHS Trust wrote that there needs to be *'more emphasis on training in management/leadership skills and running clinical governance programmes'*. The London Deanery referred to the need for skills in system improvement. The RCPCH summed up the views of many: *'In paediatrics, most are able to step into consultant roles clinically but are often short on learning and experience to be able to take on leadership, quality improvement, service redesign and educational leadership roles.'*

#### Changing nature of the consultant role

**140** Many felt that the issue was not that current training regimens are inferior to those of previous years, but that *'the demands of the jobs have changed substantially'*. *'Consultant jobs are not the same as they used to be'* wrote one doctor. Similarly, East of England LETB wrote that *'the future Consultant is not the same as the Consultant of previous years.'* In fact, there was *'enormous variation in what constitutes a consultant job in different specialties in different locations'* (Medical Manager) and there needs to be *'a realistic view of what the consultant role is and how this progresses over a period of time for an individual'* (Medical Manager). The UK's Faculty of Public Health summed up the views of many when it wrote: that *'there is a need to shift the view of and nature of consultant level jobs rather than training as it is important that consultant posts are not seen as destinations.'*

**141** In fact, not only were consultant roles changing but so was the NHS. East Midlands LETB referred to doctors being trained *'for the previous NHS, there is a bit of a lag'*. The RCGP said that new consultants and GPs *'are probably not fit for purpose for an adaptable career in the changing NHS'*. It went on to argue: *'a more holistic approach [to care] is required, with a focus on goal centred rather than specialty-centred care planning.'*

## Solutions

### New NHS grading systems

**142** If new consultants were seen by many to struggle with the transition to their new role, one of the solutions was to recalibrate or restructure the consultant job. It was argued that the *'consultant tier is too flat... There should be career progression as a consultant, with adequate remuneration for additional responsibility.'*

**143** St George's University of London echoed this theme by suggesting *'consultant grading'*. East Midlands LETB introduced the idea of *'different levels of career grades... with doctors becoming emergency safe and skilled, then generalists in a specialty with only a few moving onto subspecialist training'*.

**144** NHSE saw value in *'a period of employment in a post-CCT career post focused on service delivery'* as a way of addressing the deficit in confidence and experience felt by some CCT holders. NHS Grampian expressed similar views, suggesting that *'doctors should not come out of training with an expectation of a "consultant level job".'*

**145** The RCP did not support the creation of a *'pre-consultant grade'* but did propose *'phased grades of consultant'*. The British Geriatrics Society shared this view, and perceived the sub-consultant grade as a device for introducing shorter training and seven-day working: *'We do not feel there is a role for "judgment safe" doctors providing general medical service at consultant level but with less years of training in order to fulfil the requirement for consultant led 7 day working.'*

### Generalist versus specialist training

**146** The JCST suggested a number of changes to training. They included: *'Broadening surgical curricula to include allied medical competencies; Concentrating pre-CCT training on the achievement of generalist skills and competencies within the surgical specialty; Moving the majority of special interest training to post-CCT via 2-3 year funded fellowship posts, linked to service needs and commissioned by the responsible bodies in the 4 nations of the UK;... A broader-based curriculum, which includes transferable skills, would also promote flexibility across surgical and medical specialties and could help even out peaks and troughs. An example would be the current problems recruiting in emergency medicine and the absence of opportunities for core surgical trainees to transfer (into EM).'*

### Mentoring and support

**147** Regardless of whether current training was deemed sufficient preparation for consultant roles, many respondents recognised the importance of mentoring and support to ease the transition (NHS West Midlands Deanery). For example, the AoMRC argued that CCT graduates are well trained and highly competent but recommended that *'all consultants have a mandatory mentor for at least the first year in consultant practice (ideally first 3-5 years).'* The Royal College of Obstetricians and Gynaecologists (RCOG) referred to a *'clearly expressed desire for more support'* for newly appointed consultants. And one group representing

doctors in training declared: *'All doctors should be appropriately mentored when newly appointed.'*

**148** We asked: **Is the current length and end point of training right?**

**149** As with the responses to question 10, the statistics only tell part of the story. From over 350 responses, only 85 respondents gave answers which clearly indicated that the current length and end point of training was right. 75 respondents thought it was not. The rest either did not answer at all or offered a different analysis of, or approach to, the problem.

Lifelong learning - there is no end point

**150** Many respondents pointed out that it was misleading to talk in terms of an end point to training. There *'should be no end point to training and on-going CPD is essential'* (Advanced Life Support Group). The GMC said that training should equip doctors *'to continue developing and greater emphasis needs to be placed on the role of CPD in maintaining and developing doctors' competence.'*

Competency - based training versus time - based training

**151** The most common theme was that training should be competency rather than time based (for example, the Royal College of Physicians and Surgeons of Glasgow (RCP&S Glasgow) and BMJ Learning). There was support for doctors to be assessed against these competencies. As the RCS Patient Liaison Group stated: *'Focus should be on individual trainees being effectively assessed as having achieved the necessary competencies to provide high quality patient care.'*

**152** However, respondents were often reluctant wholly to separate the two concepts. Thus the BMA asserted that 'completion of training should be based on competences rather than length' but opposed increasing the length of training as this would increase costs *'without any discernible benefit'*. The Academy Trainee Doctors' Group wrote that *'the focus should be on gaining competencies rather than a strict time limit on training'* but did not want any shortening of training since it saw this as a pretext for a more generalist approach and the introduction of a sub-consultant grade. One doctor saw a fundamental tension in the way training was organised: *'We have a competency-based but time-limited training system. The two are in opposition. Some people need more time than others.'*

Length of training

**153** For many, duration was important though there was no clear consensus about whether training was too long, too short or just right.

**154** Those who appeared broadly satisfied with the current length of training included the British Thoracic Society, NHSE (*'about right in most specialties'*), The UK's Faculty of Public Health, the British Society of Gastroenterology and the Ophthalmic Trainees' Group.



**155** For the British Association of Dermatologists training was '*probably too short*'. Similar views were expressed by, among others, the British Cardiovascular Society, the British Infection Association, Newcastle upon Tyne Hospitals NHS Foundation Trust and ABMU LHB.

**156** GP and surgical training, in particular, were identified by many as being too short (NHS London, Newcastle upon Tyne Hospitals NHS Foundation Trust, and RCGP, among others).

**157** Where training was perceived as being too short, the reduction in the number of hours and the WTR were frequently identified as the cause of the problem. Even those who were generally satisfied about the length of training referred to difficulties in some of the craft specialties where the reduction in hours and the need to practise skills and build experience were seen as crucial. Thus Cambridge University Health Partners referred to '*craft specialties where competence improves with caseload*' and argued that training '*necessarily...needs to take longer in some specialties*'. The RCS Patient Liaison Group wrote of the '*significant effect that the European Working Time Directive has had on the training of junior surgeons with many struggling to obtain sufficient theatre time to observe, assist etc*'. As a result of the WTR and the restrictions in the trainee contract, a few respondents such as the RCP and the ASiT suggested these requirements should be removed to make it far easier to deliver training and service.

**158** For others, training was too long. One doctor complained that too much time is '*wasted in early years of training performing essentially administrative tasks*'; and another wrote of activities that could be delegated to other professions. This was echoed by a medical educator who maintained that a '*move to multiprofessional working would reduce the time required for training by about 1 year*'. The Association of Anaesthetists of Great Britain and Ireland complained that it is '*pointless that trainees who know what they want to do have to continue to gain experience in specialties they will never use again*'. And some employers '*felt that in many specialties current training is too long with curricula being all encompassing*' (East of England LETB) and '*needs a more generalist earlier end-point*' (Wessex Deanery).

**159** Many respondents said that the appropriate length of training needed to be linked less to the specialty and more to the individual trainee. A doctor wrote: '*It depends on the trainee (ie should be truly competence based) for some it is too long and inflexible and the learning curve has flattened too much for others it may need to be longer or more graduated into a consultant role*'.

**160** The MDRS Career Planning Group took a similar view and noted that while '*some are held back*' by the inflexibility of the current system, others '*feel rushed through elements of training*'. The solution was a '*true competency based training*' in which individuals would progress at their own rate. '*Surely training should be as long as is needed to achieve competence assuming the trainee is progressing at the appropriate rate and standard*'. NHS Grampian felt that the needs of the individual could best be met by a '*modular, competency based approach*'.

**161** Linked to this idea was concern about the *'current rigid structure'* of training (Specialist Training Committee - Northern Deanery). The RCOG saw this changing in the future when *'programmes will be individualised to...reflect different training and service needs.'*

**162** There were also nuances to the too long / too short debate. Again, Cambridge University Health Partners noted that the length of training also depended upon the sort of doctor you were trying to produce, arguing that *'for a generalist in a DGH it may be sufficient, but for a specialist in a tertiary centre it may not'*.

**163** But the idea that training to become a generalist was necessarily shorter was challenged by many. A doctor pointed out: *'There is a perception that training as a generalist is much "easier" than as a specialist, and that it should take much less time... this...assumption...would be poor for patients. The challenges of developing as a generalist are complex and varied and need careful thought and sufficient time and experience.'*

**164** The NACT also made the point that training generalists *'will not take less time'* while the MSC said that the end point of training may need review *'to take account of the need for a longer period of generalist training'*. Newcastle upon Tyne Hospitals NHS Foundation Trust responded that *'a move to length[en] time for all trainees to gain broad based skills early in training'* is likely to mean that *'overall length of training will need to increase'*. But one advantage of this would be that it would *'allow trainees to provide service with sufficient skill and experience to be lightly supervised for core generic service'* (Newcastle upon Tyne Hospitals NHS Foundation Trust). In addition, longer generalist training may bring the compensating benefit that post-CCT sub-specialty training is shorter (NHS Grampian).

What does the endpoint of training signify?

**165** The key was to be clear about the aims of the training programme. One medical educator wrote that we have to *'Train to the task'*, and posed the question: *'What are the tasks required of a new fully trained doctor in 2012 in my specific organisation in my specific specialty in my specific team?'* A medical educator asked: *'...is it to produce a practitioner skilled in virtually all aspects of a speciality irrespective of the type of consultant post; or to produce a practitioner with less subspecialty exposure who is able to further develop knowledge and skills most appropriate for their roles?'*

**166** There was a broad view that the end point of formal postgraduate training was the ability to undertake *'independent practice within the security of the team'* (Medical Educator) and that this should be denoted by the award of the CCT. The BMA also wanted to stress the link between the CCT and eligibility for consultant posts, saying that doctors should not be required to undertake any post-CCT training to take on consultant or GP posts). The British Association of Urologists referred to CCT holders being equipped *'to deliver "core" and emergency care...as a member of the surgical team'*. Others referred to the aim being to produce individuals who are *'judgement safe'* in their discipline (NHS Grampian).

**167** Some, such as the RCP Edinburgh, were clear that although the CCT signified *'readiness for independent practice'* it did not signify completion of training. Indeed, for most the aim or end point was to produce a doctor able to practise at consultant (and definitely not sub-consultant) level. But there was recognition among many specialties that this did *'not achieve subspecialist expertise in many cases'* (Ophthalmic Trainees' Group). NHSE clearly saw this subspecialty expertise as something to be acquired post-CCT in order *'to maintain optimum flexibility in the workforce planning for these, often small, areas of the medical workforce'*. That need for a broader, more generalist capability is also reflected in the comments of the RCP which said that it should form *'a greater part of training curricula and replace some current narrower subspecialist capabilities.'*

**168** But the idea that the acquisition of learning beyond the CCT was mainly concerned with increasing specialisation was balanced by the observation of the GMC that it was *'about the capacity to adapt to the changing environment'*.

**169** But even though the end point of training was perceived by most as being the ability to enter independent practice, some saw this in terms of a gradual progression from generalist to specialist: *'I envisage a system where consultant (or specialist) is reached 3-4 years after FY. This could be the first CST. Some doctors will choose to stay at that level, providing broad care, but without higher skills or management responsibility. Others will choose to continue their training but for part of their time will function as a specialist at independent level providing care.'*

**170** In contrast to the BMA, the NHSE even saw this gradual progression needing to *'develop to include [a] period of post-CCT experience between entering the specialist register and attaining a consultant post'*.

**171** A more radical view came from another medical educator who questioned the fact that there is *'currently only one successful endpoint – CCT. This makes every doctor who steps out without getting to CCT a failure.'* He asked: *'Can't we have different end points?'* This was strongly endorsed by NHS Education for Scotland, which urged the need to move away from the idea that training is a single process with one end point. There should be training to different levels with different end points: *'The aim of the training structure should be that all doctors should reach the point where they are "judgement-safe" in their broad specialty area. Many will go on to develop in-depth competence in another area in due course - some will take longer than others. The period of training leading to judgment safety should be closer to current training to middle grade level and could be equated to the minimum training periods in the European training directive.'*

**172** This idea is also reflected in the comments of the RCP&S Glasgow (*'A range of end-points would give greater flexibility...'*) and East of England LETB which advocated a *'stepped approach to training'* which *'would mean that some doctors only cover the shorter broader curriculum with only a small number progressing to longer more specialised programmes.'*

**173** The GMC suggested that a shift in the end point of training geared toward creating more generalists might require re-examination of the terminology around

attainment. For example, *'Certificate of generalist physician training'*, *'Certificate of specialist surgical training'* and *'registered credential in cosmetic surgery'* may be more accurate reflections of a doctor's practice than the current CCT.

## Credentialing

**174** Some tried to describe what lifelong learning might mean for training. The MSC, for example, referred to the need for *'competency based systems of credentialing for specialty training'*. The West Midlands Deanery urged that thought be given to *'more modularised and on-going learning'*. It went on: *'Maybe we should stop thinking about the end point of training and ask whether or not a doctor is ready for unsupervised/independent practice (and entry to the specialist register) and in what contexts. For example a paediatrician may be ready for independent practice in general paediatrics but would need to ask colleagues if faced with a very sick child.'*

**175** A medical educator wrote of the need for *'increased post-CCT training opportunities/credentialing'*. RCP Edinburgh envisaged consultants acquiring new competences following the CCT: *'Training will continue as CPD throughout a consultant's career, with the option of further sub-specialty training as required by the service...some specialist and super-specialist competencies that are only required by a small proportion of consultants, would be achieved after appointment as a specialist, and would be targeted by the local service that requires this expertise.'*

**176** We asked: **If training is made more general, how should the meaning of the CCT change and what are the implications for doctors and their subsequent CPD?**

## No change

**177** There was a very clear trend among respondents that however training may change the meaning of the CCT should not. That is to say, the CCT should continue to be *'the formal point at which a doctor is able to work independently as a consultant or general practitioner'* (Academy Trainee Doctors' Group). This view was reiterated by, among others, ASiT, British Junior Cardiologists' Association (BJCA), the British Association of Dermatologists, the Group of Anaesthetists in Training (GAT) Committee (*'it is difficult to identify either training or patient benefits to trainees achieving anything other than a CCT as it currently stands'*), the Hospital Consultants & Specialists Association (HCSA), individual doctors (*'The current CCT model is a good one and should not change'*), AoMRC (*'CCT should remain as a benchmark of readiness for independent practice at consultant level'*), RCGP (*'an end point in training when sufficient competence has been gained and demonstrated by the trainee performing safe independent practice in the appropriate clinical context'*) and the BMA. The AoMRC also dismissed the superficial attractions of the *'judgement safe'* level of practice. This position was also strongly supported by doctors in training and those aged under 34. In contrast, doctors aged between 35 and 54 and doctors in more senior roles

such as medical educators tended to support a shift of the CCT towards recognising training in more general areas.

**178** The British Cardiovascular Society was equally clear that any increase in generalism *'should not be at the expense of specialist training'* because *'patients demand and require consultants with advanced specialist skills'*. This view was shared by the British Society of Gastroenterology, which maintained that making training more general would not be *'in the interests of patients'* and would *'deskill'* those training in craft specialties. The Ophthalmic Trainees' Group was even more adamant in its opposition, arguing that generalism was at odds with the requirements of technological progress and that a generalist CCT would be a *'useless qualification in a world that is becoming ever more specialised.'* One doctor saw generalism simply as *'a dilution of standards'* and another responded *'Don't make training more general'*. The Royal College of Ophthalmologists (RCOphth) said: *'Neither training nor CCT should be dumbed down.'*

**179** Other individual doctors were more sanguine, accepting that properly trained generalists *'can provide excellent healthcare and it would avoid a lot of unnecessary inter-hospital referrals as more specialised consultants feel unable to deal with the most basic problems.'* The same individual summed up: *'Quite honestly we need a common sense, generalist approach far more.'* The RCoA seemed to concur, writing: *'CCT should be regarded as more of a driving licence designed to produce doctors who are broadly competent generalists.'*

**180** Insofar as there would be change it would mean that the *'CCT holder is a generalist and has not undertaken any subspecialty training'* (HCSA). *'Specialising would be done after CCT is gained'*, wrote another doctor. And *'CCT should mean – competent in the generalist aspects of that specialty, not a super specialist in every aspect of that broad specialty.'*

### Implications of generalism

**181** However, others saw generalism as heralding some fundamental changes. BMJ Learning noted: *'many generalists will want to go on to specialise and this may lead to further specialist training with a different CCT endpoint'*. The logical conclusion seemed to be *'two end points of training'*, one generalist and one specialist. This was echoed by the British Association of Perinatal Medicine, which wrote that the *'CCT for specialist needs to be different than the generalist' and an individual doctor who described 'the "general" certificate then the "specialty" certificate'*.

**182** Conversely, the British Geriatrics Society was keen to avoid strict lines of demarcation between generalists and specialists, describing the challenge *'to incorporate the generality, and particularly how to manage frail and complex older patients, into the body of specialty training, rather than reinforce subsequent distinctions that once can either be a specialist or a generalist.'*

**183** But one doctor has mapped out in some detail what the change should mean for current medical roles and doctors aspirations to become consultants: *'The*

*meaning of the CCT should change to allow one to practise independently in a broad specialty area, e.g. general medicine, general surgery, obstetrics and gynaecology, paediatrics, psychiatry, etc. Then one could sub-specialise in an area of interest, qualifying them to manage patients in their specialty area, and to accept referrals for the same. By shortening the length of compulsory training, this would improve workforce planning and reduce rates of dropout from training programmes. This may mean that not everyone can be a consultant in the current sense of the word. However, not every doctor may enjoy the management responsibilities of the consultant role, and it is certainly true that the consultant will have less clinical contact than training grades. Therefore it would be likely that a number of non-consultant senior roles would have to be defined, and that the majority of doctors will enjoy working in these roles. It is probably likely that the majority of doctors will find an area of interest and sub-specialise. Hence, these doctors will have mandatory continuous professional development (CPD). For those who choose not to sub-specialise, it will be necessary to ensure that doctors undertake CPD, for example in the form of attending courses, writing published articles, and/or revalidation activities.'*

**184** As responses to earlier questions had also identified, generalism may mean that training leading to a CCT takes longer and is *'not an endpoint'* (doctor). The AoMRC, for example, insisted that *'High quality generalism takes longer to achieve.'* Though one medical manager contended that the fact that the CCT was not an end point meant the opposite could equally be true. The Academy of Medical Sciences highlighted that an earlier CCT might make research pathways unattractive and that there needed to be *'clear pathways to success in clinical academia'*.

**185** Though most saw generalism and specialism as part of a single continuum, one medical educator was clear that generalism was not simply a waypoint on the road to specialisation, but an entirely different evolutionary development: *'Generalist and specialty training needs to remain separate and should not be seen as part of the same continuum.'* The Faculty of Intensive Care Medicine made a similar point, noting: *'Generalists are essential but these are not half-trained specialists - In effect these are specialists in acute care with particular expertise in decision making where both time pressures and considerable diagnostic and prognostic uncertainty exist.'*

**186** NHSE drew several important themes together. It highlighted the importance of mapping *'transferrable skills and competences'* across generalist and specialist disciplines so that trainees do not have to repeat training in skills they have already acquired. It also acknowledged the arguments of those who said that technology points to ever-increasing sub-specialisation, but insisted that the speed of such developments supports the case for *'an increase in post-CCT sub-specialty training as opposed to incorporating these highly specialised skills into training leading to CCT'*. Employers, noted NHSE, were better able to determine the demand for those specialist skills within a two-three year time frame rather than a five-seven year period as is currently required.

**187** The London Deanery saw the possibility that generalism might bring a reduction in the current *'unhelpful'* proliferation of specialties and sub-specialties.

Like many, it saw sub-specialisation linked to credentialing driven by service need. The Wessex Deanery similarly referred to *'Many fewer CCTs.'*

**188** Perhaps the most radical view came from NHS Education for Scotland, which sought to break the link between *'acquisition of specialist registration and consultant appointment'*. It wanted to align the CCT more closely with a European model so that the CCT was *'seen as a more basic level general/specialist qualification'*. Subsequent specialist expertise would be achieved by means of credentials. For its part, the GMC noted that changes to the nature of the CCT may make it necessary to re-examine *'the relationship between certification and inclusion in the specialist (or any future generalist) register.'*

### Changing terminology

**189** The British Infection Association picked up the themes of earlier questions in suggesting that the CCT was a *'misnomer'* and that the implication of generalism was that certification becomes a waypoint. It suggested the alternative term of *'specialty certification'* which would be followed by *'formal certification or credentialing [sic] in one or more further specialties or sub-specialties'*. This mirrored the comments of others. Doctors referred variously to *'layers of CCT'* and *'a tiered sense of the level of training'* while Cambridge University Health Partners observed: *'If the service requires that the majority of secondary care doctors should be generalists, then the CCT should be given at the end of generalist training and another type of qualification given to those who have done further training as specialists.'*

**190** Another doctor suggested changing the CCT to a CCGT (General training) halfway through higher training and CCST (Specialty training) could become the final passport to consultant level. Newcastle upon Tyne Hospitals NHS Foundation Trust envisaged a three-tier structure: recognition of basic skills, recognition of specialty specific skills at a broad level, and recognition of specialty skills and generic skills sufficient for practise as a consultant. West Midlands Deanery envisaged doctors acquiring a number of CCTs as *'recognition of competencies at different stages'* of their careers and going in and out of training during their careers. However, it concluded that it was *'difficult to see what advantages would accrue from such an upheaval'*.

**191** A cautionary note was also struck by one doctor who saw the scope for *'generalist careers [to be] devalued'* in comparison with specialist careers.

### CPD

**192** Most respondents acknowledged the continuing importance of CPD, though without necessarily describing how it might need to change. Several respondents also made the link between revalidation and CPD.

**193** As with the impact of generalism on the CCT, some saw no cause for changes to CPD. A doctor said that it would remain a matter for consultants to *'identify their learning needs and direct their own CPD'*. A medical educator saw *'no implications for CPD'*.

**194** But the BMA was one of several commentators to note potential change. It referred to the importance of CPD not becoming too narrow in its focus. It observed that to meet the future patients' needs part of doctors' CPD should *'focus on developing general skills'*. This echoed the comments of the Association of British Neurologists, which said that for the majority in its specialty *'ongoing CPD in all areas of neurology will remain of utmost importance'*. The Scottish Recovery Network referred to the need to keep up to date *'in the wider field'*.

**195** But maintaining *'a broader base of skills is clearly going to present greater challenges'* (Association of Paediatric Anaesthetists of Great Britain and Ireland) and this pointed to a need for *'more clearly defined specific requirements for each doctor group'*. Others, including the NACT, picked up this theme, which saw CPD becoming more planned and linked to the creation of a formal system of credentialing: *'CPD needs to be planned against national credentials. As new skills and treatments come on board CPD should be planned against these so that qualifications in new areas can be gained rather than picked up.'*

**196** Individual doctors referred to CPD needing to include formal *'assessment of knowledge and skills'* and requiring *'more structure [including] more organisational and practical...support after CCT'*, for CPD to be *'more uniform'* and *'a more formal role for accrediting CPD for a specific purpose'*. A medical manager saw effective appraisal as the means of bringing *'better planning'* and *'a more structured approach to the delivery'* of CPD. The Defence Postgraduate Medical Deanery saw subspecialisation as something which would take place post-CCT with an *'impact on CPD'* but likely to be *'a more formal training scheme'*. Cambridge University Health Partners also saw CPD as the vehicle to convey doctors from qualification as a generalist *'to become either specialists or clinical academics'*.

**197** The RCOG followed a similar theme in calling for *'a structured approach to the post-CCT career'*. It saw CPD as the vehicle for doctors to enhance their clinical skills and demonstrate competence in new areas. The RCPCH similarly wrote of the need for *'targeted and programmed CPD'* for trainees in subspecialties. But the RCGP made an important distinction between CPD and development of competence: *'CPD is not intended to bring inexperienced or under trained doctors up to the standard of competence and confidence required to deliver care safely in their chosen specialty, but to maintain those standards over time, through changing circumstances in society and the healthcare system, and to ensure that the existing population of qualified doctors is able to operate at the same standard as new entrants'*.

**198** KSS Deanery noted how the increasing sophistication of post-CCT CPD needs will have implications for funding and *'become a political issue for the paymasters.'*

### Credentialing

**199** Several respondents linked more formal CPD requirements with the development of credentialing. St George's University of London went further, suggesting that credentialing may make the need for a CCT redundant as it will identify when a doctor has achieved sufficient experience / competence to take on defined responsibilities / roles. It also saw credentialing as reinforcing the idea of CPD as



*'continuing training' rather than just 'a series of "updates"'. NHSE saw post CCT specialty training as dependent on 'a properly regulated credentialing system to accredit training'.*

**200** We asked: **How do we make sure doctors in training get the right breadth and quality of learning experiences and time to reflect on these experiences?**

Training versus service

**201** The dominant theme in the responses to this question was the need for a better balance between the demands of the service and time for training. This was evident across all groups of respondents. Thus the Advanced Life Support Group said the *'balance between service delivery and training needs to be reset'*. The Association of Anaesthetists of Great Britain and Ireland noted that *'Good departments protect their trainees from too much service delivery'*. The British Association of Dermatologists wrote of the need for a *'balance to be struck between service commitments, and time for independent study and research'*. A doctor reported that *'the nature of busy 13 hour shifts has meant people don't stop for lunch, don't sit down as a team and don't have any time to reflect'*. Other doctors wrote that *'the service should not be 100% dependent' on trainees and that 'Less time [should be] spent in service provision roles and greater time allowed for reflection'*. The RCP said that doctors needed to be *'able to focus more on their education and training, rather than coping with an unmanageable workload.'*

**202** One doctor said that time for training needed to be reflected in their job plans, a remark which was echoed in the comments of both Oxford University Hospitals NHS Trust and the RCP&S of Glasgow: *'Greater use of formal job-plans for doctors in training with protected time for training and teaching could be considered.'* A group representing SAS doctors pointed out that SAS and trust grade doctors also need opportunities to learn and develop: *'Future training should focus equally on Trainees and SAS Doctors. This training should ultimately lead towards SAS Doctors completing CCT and becoming Consultants i.e. it should be a pathway towards career progression.'*

**203** A medical educator proposed: *'Training could be organised to combine periods of service delivery followed by periods of experiential learning and project work supported by time for individual reflection'*. He noted, however, that this would mean *'the service output would be reduced compared to current arrangements'*.

**204** The MSC complained that the funds allocated for education and training were being spent on service delivery. Addressing this would bring *'an immediate and dramatic increase in quality'*. While COGPED saw a *'trained doctor delivered service'* as key *'so that service delivery for learning has adequate time for reflection'*.

**205** There were also those who argued that training should not be divorced from service delivery. NHSE said that the two must go *'hand in hand'*. East of England LETB shared this view, arguing that *'doctors learn best when they believe they are delivering a service that benefits patients and is valued'*. However, that service

delivery needed to take place, wherever possible, with the aim of *'fulfilling defined learning objectives'*. There were echoes of this in the proposal from the Wessex Deanery for *'graded exposure to increasing clinical complexity of service responsibility'*.

**206** KSS Deanery saw value in better alignment between educational curricula and service needs: 'Curriculum delivery should be mapped as a mandatory requirement for the programme deliverers. Sharing this information with the employer and the HEIs should ensure that doctors in training get the right depth and quality of learning experience required. However, as mentioned above, the nature of mandates and targets within the curriculum have to be constantly updated to emerging patient need'. An identical view came from the NHS West Midlands Deanery: *'Colleges should be asked to again review their curriculums and their assessment strategies with the objective of ensuring that they are congruent for the purposes and needs of the health service and to ensure the fitness for purpose and capability of the future workforce. There must be a greater emphasis in understanding and describing the generalist role and the competencies that are needed, for each specialty area. All curricula should be mapped to link together where appropriate in recognising the needs of trained doctors to work together in the NHS for patients, and with patients, and to deliver patient care effectively in the new models of delivery (i.e. closer to patients homes and across various health service systems), and to ensure that they have demonstrated their preparedness for this in order to be signed off.'*

**207** The RCPCH Community Child Health SAC saw a different solution: *'Ideally we would make the trainees supernumerary'* in order to address the *'constant tension between service needs and training needs'*. The Faculty of Intensive Care Medicine advocated a similar approach: *'Uncoupling of training to service needs would also allow the development of a real competitive market in training and is likely to further increase the quality of training.'*

## Reflection

**208** Alongside time to learn was the need for time to reflect. The GMC noted that progress has been made in restricting the overall number of hours worked but the *'benefits are lost if the pattern of work and service requirements are of such intensity that doctors in training no longer have time to reflect on what they have learned'*. BMJ Learning similarly noted: *'Time to reflect...will need to be built into all training programmes.'* But this does not currently appear to be the case. A doctor wrote that *'we must ensure doctors have time in their job plans to reflect on their learning experience'*. The British Society of Urological Surgeons warned of the lack *'opportunity to reflect and discuss experiences'*.

## Meaningful learning experience

**209** Linked to concerns about the dominance of service requirements over learning needs were a number of objections that too much of trainees' time is spent performing tasks of little educational or experiential value and which might be better performed by others. A doctor wrote: *'Remove the scut work.'* The British Association of Perinatal Medicine referred to the need for *'multiprofessional staff'*

*delivering some of the care presently delivered by specialists in training so as to 'allow more time for focussed "specialist training".'*

**210** On the other hand, some complained of valuable learning opportunities being taken by other staff: *'Stop insisting that patients can be managed effectively by non-medically trained "practitiners" and enable junior doctors to use these training opportunities.'* (doctor). But a medical educator wrote that trainees should be enabled *'to deliver the sort of service often provided by nurse practitioners in the routine care of... patients as a way of helping them understand CDM better and improving their ability to work in teams.'*

**211** There was also frustration that too much learning time was occupied with paperwork and assessments rather than practical activity. *'Stop the paper exercise, let the doctors work and train in real life'*, wrote one respondent. Another doctor complained of a training structure which *'encourages a tick-box approach to workplace-based assessment'* (WPBA) and called for WPBAs to be abolished. This point was further emphasised by medical educators and postgraduate institutions. They called for more effective implementation of assessment systems, including high-quality feedback from supervisors and trainers. As the RCGP explained: *'It is also important to ensure that the training period is not assessment driven at the expense of the development of the enthusiasm to learn to improve and personal interest. Flexibility for interests and time to embed experience without overly detailed repetitive assessment encourages professionalism and independent practice'*.

**212** The Association of British Neurologists called for *'Less emphasis perhaps on completing log books and "reflection time", and more on actually doing clinical time.'* And COGPED wanted to enhance *'access to experiences beyond routine clerking, phlebotomy and discharge paperwork completion'*. Another doctor wanted *'Ward time and protected study time.'* And, repeating the observation about the effects of the service, the British Geriatrics Society complained that doctors in training posts *'should not be used to fill service gaps in lower quality hospitals'*.

**213** The Defence Postgraduate Medical Deanery wanted to see *'modularised training'* used to ensure breadth of experience. Each module would have specified time, competencies and proficiencies, which once completed would then be consolidated in a defined time period of service delivery in that area.

#### Specialising too early

**214** One doctor argued that in order to get the necessary breadth of learning experience the idea of choosing a subspecialty early in the career should be removed: *'This makes most of the current trainees see themselves as "just passing through" and will not have to do this ever attitude develops. Secondly the common and general procedures; for example in surgery; appendectomy, hernia repair, drainage of abscesses and good suturing technique should be taught and assessed before you can be signed off as having completed that posting.'*

**215** There were also those who saw breadth of experience linked to continuity of care. A doctor respondent wanted trainees to *'start caring for the patient while [the*

*patient was] still acutely unwell, and follow their progress so they may increase their confidence in management'. A medical educator endorsed this view: 'they do not see enough of the patient journey'.*

## Learning environments

**216** Where doctors learn was also seen as important in gaining the right sort of learning experience. The GMC wrote of the importance of ensuring *the 'quality of the educational environment in which training takes place'*. ASME noted that many current posts *'are located to meet service needs and not where the learning opportunities are mapped against the curriculum'*. The RCoA took a similar view, and concluded that not all institutions should be training environments: *'...not all hospitals will engage in formal postgraduate training of doctors in traditional CCT programmes. The current model of shoe-horning training around service delivery is unsatisfactory and there will be a need to separate service from training at least for some sections of the training pathway.'* The British Geriatrics Society agreed, saying that training posts *'should be allocated'* to hospitals that are recognised as providing *'good quality, inspirational training'*.

**217** But the opportunity to experience different environments was important for breadth and quality of learning. A doctor wrote of *'Rotations around different centres of learning for exposure to different types of [patient] and illnesses'*. Another called for *'more opportunities for out of programme experience'*. The College of Emergency Medicine referred to training programmes *'in differing clinical environments, both small and large departments, rural and urban and with a variety of trainers with differing specialist interests'*. The British Thoracic Society was keen to maintain a balance of rotations in secondary and tertiary care as well as more *'training in integrated work with primary care'*.

**218** But, equally, trainees needed to spend long enough in one place to reap the benefits. King's College Hospital NHS Foundation Trust described the need to balance the opportunities to experience different institutions and specialties with *'the value of spending longer periods in different places and jobs in order to consolidate...experiences and training'*. Of particular concern were the three and four month rotations in the Foundation Years *'which prevent the trainee from settling and learning in a stable environment'*. This view was echoed by NHSE. A medical educator linked this with the idea of continuity of care, noting that in *'attachments that last only 6 months, they will not have seen an individual patient for long enough and over 3 years it cannot be guaranteed that they have worked with every chronic (let alone acute) condition in any depth'*.

## Recognition of trainers

**219** The role of the trainer was also seen as key to high-quality training. The BMA welcomed the GMC's plans to introduce new arrangements for the recognition of trainers. Similarly, BMJ Learning wrote that quality learning experiences *'will require fully trained trainers and supervisors'*. NHS Education for Scotland said the key lies in ensuring effective supervision. The British Association of Urological Surgeons called for *'More time in trainers job plans'*, a view reiterated in the comments of Oxford University Hospitals NHS Trust.

## Strong regulation

**220** A number of commentators looked to effective regulation to ensure quality of the training. The RCOphth wrote that organisations that ‘quality manage training need real teeth to be able to remove posts from LEPs who are not providing suitable training environments.’ The BJCA picked up this theme, stating that quality can ‘only be assured by effective quality control’.

## Tensions between service and training (Questions 14 to 16)

**221** One of the main themes of the Shape of Training review is to better understand and address the tension between training and service delivery. Most of the points in this section have been raised within the other themes. Like previous sections, responses did not reflect any particular pattern relevant to gender, ethnicity or disability.

**222** We asked:

**a. What needs to be done to improve the transitions as doctors move between the different stages of their training and then into independent practice?** We received 219 responses to this question with most respondents focusing on issues of preparedness and confidence and supported better supervision, apprenticeship and mentoring.

**b. Have we currently got the right balance between trainees delivering service and having opportunities to learn through experience?** We received 235 responses to this question. Most responses thought the balance depended on the local environment in which doctors work but training has to take priority.

**c. Are there other ways trainees can work and train within the service? Should the service be dependent on delivery by trainees at all?** We received 230 responses. The majority of respondents supported doctors in training working and delivering service but with more protected time for training and reflection.

## Supporting doctors in training

**223** As with other themes, most respondents called for improved support, supervision and mentoring. A number of respondents, especially educational supervisors and postgraduate institutions, thought supervision and mentoring should be more formalised. For example, the RCOG said: *‘Colleges should define the requirements for the mentoring of doctors working in women’s health and develop proposals for training mentors regionally, specifically to support doctors in early specialist practice, but with the expectation of expanding this element of professional development to all within the specialty.’* The majority of respondents also thought a more apprenticeship-based training model would help doctors cope better with the stress of changing roles and responsibilities. As ASME’s

response explained: *'each transition involves a fundamental re-examination of who and what we are, even if this process is occurring at a largely unconscious level. Therefore as part of the medical education process we have to ensure that students and trainees have the tools they need to make the most of the opportunities. Mentorship/preceptorship combined with reflection may help individuals to work through the transitional phases.'* The AoMRC Trainee Committee suggested: *'Early on in training, trainees should be given access to a mentor or mentors who will remain with the trainee as they move through the various stages of their careers, and most importantly into their consultant or specialist roles'.*

**224** As with other themes, many respondents also called for a better understanding of the competence and capability expected by doctors at different levels, including accountability. One doctor said *'Greater clarity of competence of each level and thus role will reduce [concerns].'* Indeed the St George's Medical School argued for a more joined-up approach to education, training and practice: *'A curriculum "road map" that identifies the skills and knowledge necessary for a doctor at any particular point in training. This should start with the undergraduate years, demonstrate consolidation of learning and skills during foundation and then continue into core training. The "map" will then be continued into specialty or sub-specialty training with reflections back to general training. The expectation is that this will smooth out necessary learning, ensure that important areas of training are revisited in context and provide a smoother transition for doctors in training. They will have a much better understanding of what is to follow.'*

**225** The majority of respondents also recognised the role of reflection in education, training and practice. Doctors in training must have time to reflect on their experiences and how they cared for their patients. Many respondents also referred to the need for all doctors to have generic capabilities. For example, the Scottish Recovery Network recommended that: *'doctors having verified experience of practice across a range of placements and settings would be a good way to improve the transition from training to independent practice.'*

**226** Some respondents would also like to see more relevant assessments for doctors with the Annual Review of Competence Progression (ARCP) being used to better and more consistently measure whether doctors should progress. KSS Deanery suggested: *'Making more use of the workplace based assessments, and being more imaginative with them...would allow trainees to practise and get feedback on the imminent progression to the next stage whilst assuring the educational supervisors and other senior colleagues that the doctor is ready to move on.'* While a doctor explained: *'ARCP should be the point where this is evaluated and trainees should not progress until they are ready to.'* But a medical educator suggested: *'if doctors are not ready to make the transition to the next steps in training they should either be given more time or career advice.'*

**227** Flexibility within the training structure is key to better supporting doctors in training and work. Some respondents like the NACT suggested that doctors should not be stigmatised or penalised for changing specialties. Others like the MSC would like more bespoke training: *'Greater flexibility needs to be introduced to permit trainees to modify their clinical training programmes as their research interests*

*change.*' A few respondents including NHS organisations thought more time consolidating training would be of value: *'Build in opportunities for consolidation periods before moving on to the next stage. But make it easier for them to step back onto the training ladder.'* This was echoed by NHSE who suggested 'a period of employment in a post-CCT career post focused on service delivery.' But one NHS organisation recommended longer placements rather than adding in more training time: *'The balance of this could be met in early stages of training by creating longer rotations based within one organisation so that individual variations in service structures and processes are not being constantly relearned by trainees leading to diversion away from progress in training.'*

**228** Another solution to support doctors more might be to put patient care and the patient journey at the centre of training. For example, the Royal College of Physicians of London Trainees Committee suggested: *'[F2 trainees would be] redeployed to the Emergency Department for 8 months, with the provision that trainees should follow any patient admitted to the ward and present their case to the Consultant of the admitting specialty. This would reduce pressure on admitting specialties, avoid duplication of data gathering and improve training for the admitting doctor.'* A similar approach was raised by the Advanced Life Support Group: *'Trainees need more access to patients and support to follow through patient episodes to fully understand how their disease progresses.'*

**229** Many others called for a number of improvements, including better inductions, shadowing as well as access and continuity of use of ePortfolios throughout careers. The British Geriatrics Society among others, would like to see a short period of time when doctors in training begin to undertake consultant roles: *'Geriatric medicine trainees find a 3 month period of acting up as consultants useful, but the ability to do this is often dependent on the situation of the department the registrar is working in at that point. Formalising this role, and a structured way to make it available to all, would be useful.'*

### Balancing training and service

**230** Although most respondents, including employers, postgraduate institutions, individual doctors and patient organisations, felt the balance between service and training was not right, many suggested there was great variation between workplaces and employers. As one employer stated: *'There is still too much reliance by organisations on service delivery by trainees - service delivery as a learning opportunity is fine but the appropriate mechanisms need to be in place. More focus on medical workforce planning and building a medical workforce around service need and then populating with trainees as appropriate rather than waiting to find out how many trainees are available and plugging gaps.'*

**231** Some respondents thought the balance between training and service was more challenging in acute areas. The Cambridge University Health Partners thought: *'In some specialties and in some hospitals the balance is right mainly in the non-acute specialties. The balance is more challenging in the acute services mainly in larger hospitals. This will become even more challenging as the number and complexity of the caseload become greater as centralisation of services increases.'*

*Distribution of trainees will need to be changed with trainees assigned to 'accredited training hospitals'. Doctors training to be GPs seem to have a better balance between service and training but don't get as many learning opportunities and experiences, especially in hospitals. The RCGP explained: 'Training in general practice currently provides an excellent balance between delivering service and learning through experience. Unfortunately, there is not a sufficient duration of training in this setting, and training delivered in hospital settings is often less suitable for the generalist trainee.'*

**232** Organisations like Mencap indicated that training was probably good where staffing levels were adequate: *'If staffing levels are right then trainees are more likely to receive the appropriate support and guidance when gaining practical experience. However, if staff levels are poor and those staff working are over stretched then it is more likely that errors will occur.'* An NHS organisation also raised staffing as an issue in training: *'If we had all hospitals, rotas etc fully staffed then this is probably do-able. Training suffers because of many multiple staff gaps at different levels, variable locum staff and absolutely no slack in the system so that if one person goes off sick, another cannot attend that training opportunity. Gaps at consultant level particularly impact on this delicate balance.'* Individual doctors and patient groups suggest patient safety has to be a priority. Inexperienced or poorly supervised doctors in training should not be put in positions that put patients at risk.

**233** The majority of respondents were adamant that doctors in training have to be responsible for patient care and service delivery. The BMA stated: *'It would not be possible or beneficial to the development of fully trained doctors to entirely separate training and education from service delivery for all specialties at all times.'* Many respondents felt that learning flows from challenges while others remarked that doctors must learn from real-life experiences. As the AoMRC Trainee Committee stated: *'Some specialties and some Trusts and Boards have the balance right. In others, service needs are far too onerous to allow good training. Again, we emphasise that there is no way that successful training can take place without the programme being embedded in clinical reality; that is, within the day-to-day service. However, not all service providers should expect to provide training.'*

**234** But most respondents indicated that service needs often overshadow training needs, particularly where there are rota gaps. This view was expressed strongly by doctors in senior roles and medical educators. These experiences don't necessarily equate with high-quality learning experiences nor have time built in for reflection. As BMJ Learning points out: *'All too often trainees are left to get on with the job, to simply deliver the service, with inadequate supervision, little feedback, and no learning. This is clearly unacceptable. Training should not be divorced from service delivery and yet service delivery should not take over training. Best practice is when trainees are learning from delivering service under close supervision'*. Quite a few respondents suggested that a move towards consultant-led care would help address this imbalance.

**235** In contrast, a small number of respondents saw value in doctors in training no longer being responsible for delivering service, particularly in light of the limits placed on work hours by the WTR. Some suggested if doctors are allowed to concentrate



on training, they may not take as long to meet their competencies and capabilities. One group representing doctors in training argued: *'Doctors in training are not allowed to undertake procedures because their productivity is lower (understandably!) The tension between service delivery and training means that training always loses out. Perhaps supernumerary training would help avoid trainees being used for low-level service requirements and not given the opportunity to develop.'* The JCST would also like to see training given priority over service: *'Whilst not wholly supernumerary (although some believe that they should be), their status should be that of trainee first and service provider second, where this provision of service is linked to the achievement of competencies at the appropriate level of training'.*

**236** Some respondents suggested doctors in training need to work in organisations committed to training and learning. As the Association of Anaesthetists explained: *'The organisational culture needs to be one in which each individual should feel comfortable to ask for help and to expect help to come from colleagues, including trust managers and leaders. Many doctors change roles throughout our careers, and we should be open about the challenges this presents to us, and how we try to address these.'* Other respondents indicated organisations have to use doctors in training in a way that matches and challenges their skills. The Association of Surgeons in Training commented: *'Hours and even shifts given over to repetitive tasks, where trainees spend more time sat behind a computer screen than sat at the patient's bedside, that often do not require an individual with a medical degree to complete, only serve to dilute the training experience.'*

**237** But some respondents like the Association of British Neurologists recognised that training has to be relevant and doctors have to have a realistic view of the job, including the paperwork: *'Most of medicine is the ordinary routine, and there is no replacement for immersion within the mundane. Training by passing through a succession of superspecialist units is not ideal, providing as it does a skewed view of practice, and ill preparing trainees for the real world. However, it must be ensured that such service provision is relevant to training needs, not simply fulfilling a Trust or government target, and not unduly affecting other parts of training (for example, the involvement of neurology trainees in some of the more onerous stroke thrombolysis rotas, whilst providing excellent training in that regard, has had a negative effect on other aspects of their training, given the strict regulation of junior doctors hours)'. This point was reiterated by a medical educator: 'There are of course many training opportunities in daily service practice - we just don't look for them. Stress conditioning is also important for those who will be the future leaders of healthcare. It is part of training in all professions and is valuable for reflection.'*

**238** A number of respondents suggested other ways of working and training within the service that are discussed in other themes including:

- Time out of programme to pursue research.
- Apprenticeships with doctors being assigned a group of trainers rather than one supervisor. As the Association of Paediatric Anaesthetists of Great Britain and Ireland suggest: *'Junior trainees should be supernumerary for a greater period of*

time with a consistent and relatively small group of high quality trainers. Senior trainees should be much more actively involved in service delivery but should be mentored and supervised by a separate cadre of trainers.'

- Progression based on the competence and capability of the individual.
- Consolidated period in work. Plymouth University's response suggested: 'Perhaps the way forward is a period of time training and a period of defined service - payback for the cost of training.'
- Use of other professional staff to take over some tasks done by doctors in training. But many respondents worry that doctors will not get training in basic medical procedures if too much is shifted to other members of the multiprofessional team.
- Protect education time and credentialing opportunities.

### Other comments (Questions 17 to 19)

**239** We asked: **What is good in the current system and should not be lost in any changes?** We received 212 responses covering the range of respondents.

**240** A majority of the responses received strongly highlighted the current reputation value of the UK training system, with many responses commenting on its value compared with the rest of the world. The AoMRC stated:

*'The standards of training and the quality of UK trainees are envied throughout the world'*. Respondents agreed that current training produces high-quality doctors.

**241** Some comments also indicated that the current system allows for a certain amount of flexibility, particularly with out-of-programme activities, which should not be lost in a new training system. The BMA suggests: *'Flexible academic opportunities should continue, along with the widespread availability of Out of Programme Research opportunities'*. Ability to undertake academic activities such as research was highlighted as a key feature of UK training. Some responses also emphasised that run-through training should remain in a new system.

#### Clinical and educational supervisors

**242** A number of respondents highlighted the importance of creating and building relationships with supervisors. The role of clinical and educational supervisors is valued highly in the current system and their role benefits not only doctors in training, but the workings of the NHS. One doctor commented: *'The current system has educational and clinical supervisors. This is good because it ensures trainees have local & relevant people to call upon should the need arise'*. Dedicated time with clinical and educational supervisors was seen as a key aspect to ensure effective training and learning take place. The majority of respondents thought that these roles need to remain if we are to continue to produce highly skilled professionals. The Royal College of Surgeons of Edinburgh commented: *'Appointment of clinical and educational supervisors has been worthwhile, when it works'*

*appropriately with engagement by both trainers and trainees*'. It was also highlighted that it is important that supervisors are valued and recognised by employers.

**243** The role of educational and clinical supervisors was praised highly by the majority of respondents, with the RCP of London commenting:

*'The current commitment by thousands of educators and supervisors, including many of our members, to the training of junior doctors is exemplary'*. Overall, respondents felt that the development of dedicated and skilled clinical and educational supervisors should not be lost in a new system of training.

#### Apprenticeship model

**244** Many comments suggested the ability for doctors in training to learn from senior colleagues is seen as an important aspect of medical learning. One doctor described the apprenticeship model as *'The essential building block of training'*. There was strong indication that working with a 'firm' type structure is crucial for motivating learning and ensuring that doctors in training feel like an essential part of the team. Respondents viewed the apprenticeship model of training as the best system to train highly skilled doctors for most specialties, yet, due to a number of changes in working patterns, this model of learning rarely exists today. A large number of respondents argued that the concept of apprentice learning needs to be enhanced and extended to ensure that there are greater opportunities for doctors in training to learn from more experienced colleagues and develop skills in a non-threatening environment.

**245** Some respondents also highlighted the impact of the WTR on the medical profession and the ability for training to be delivered within an apprenticeship model, with one NHS organisation commenting: *'The EWTR has had a damaging effect on the apprenticeship model on which medical education was based. We need to be free from this regulation'*. Similar views have also been expressed in responses to other questions.

#### Retention of Deanery and College roles

**246** Several respondents highlighted the role of deaneries and medical Royal Colleges in making sure there are high-quality of standards and effective management of the training workforce. The independency of these organisations was also valued highly by a number of respondents. The BMA said: *'Maintain the independent role of Deaneries and Deans so that they can manage the quality of training and support doctors'*. Respondents were also agreed that development and management of curricula should remain the role of the medical Royal Colleges. They recognised that there is expertise and experience within these institutions that can be used to ensure training reflects best practice. Some respondents mentioned the importance and benefit of deaneries acting as training managers and medical Royal Colleges as quality managers in driving up standards in training.

**247** There was agreement that the deaneries and medical Royal Colleges have a fundamental role in ensuring that training is developed and delivered effectively. A number of respondents highlighted that these organisations must continue to be responsible for

the regional overview of training. The AoMRC Trainee Doctors' Group commented on the role of deaneries by stating: *'By commissioning training, they have the ability to drive up the quality of training and ensure curricula are followed. Regional overview of training in this way should be retained'*. Similarly, a doctor thought: *'We can't allow employing trusts to oversee training as they will prioritise service needs above training'*. While another doctor commented: *'Local hospital trusts should have nothing to do with the running of training programmes as this creates a conflict of interest'*.

## Foundation Programme

**248** There were a number of comments related to the merits of the two-year Foundation Programme (FP). Respondents largely agreed that the FP has been a great introduction to the training system and allows doctors in training an appropriate time to develop their learning and make effective decisions about their future careers. But some respondents argued that the second year need not be compulsory.

**249** There is a perception that those undertaking the FP have a lack of experience and therefore do not provide a high-quality effective service. Yet some respondents highlighted that doctors in foundation training are highly valued, one NHS organisation commented: *'Foundation training has been an excellent introduction. We often have very good foundation trainees, who more than make up for their lack of experience'*. Although a number of respondents outlined the benefits of foundation training and indicated the need for it to remain, some suggested that aspects of foundation training could be enhanced.

**250** On the whole positive comments were made in relation to the FP. NHS Grampian said: *'Foundation is viewed positively by the service, the educators and the doctors themselves'*. The majority of respondents identified the FP as another vital aspect of the current training system and it was felt that the FP or an equivalent programme should remain if any changes to the structure of training are made.

## Clinical exposure

**251** The clinical exposure received in the UK was rated highly by respondents, yet emphasis was still made to the importance of supervision in all clinical settings. One doctor commented: *'Emphasis upon clinical skills appears to be a feature relatively unique to UK training'*. A medical educator emphasised: *'Our doctors develop the best clinical skills I have seen in the world. We are lucky to have this and should maintain this'*. Clinical exposure is essential for doctors in training to develop a number of skills, particularly decision making, and gain hands-on experience. We need to be mindful of this when making any changes to the structure of medical education and ensure that opportunities for clinical exposure are not lost.

**252** Respondents also thought that clinical exposure was also excellent within GP settings, one doctor said: *'Clinical training both in hospitals and in general practice is of generally high quality in the NHS'*. We need to ensure that this high-quality clinical and experiential training remains.

**253** We asked: **Are there other changes needed to the organisation of medical education and training to make sure it remains fit for purpose in 30 years time that we have not touched on so far in this written call for evidence?** We received 203 responses.

**254** Although most responses to this question were quite varied, there were aspects of training on which respondents did have a collective view. A number of responses detailed issues with preparedness for those graduating from medical school. One doctor commented: *'UK medical schools require three clinical years and do not fully prepare the student for work as a junior doctor'*. Respondents highlighted that medical students are also unprepared to make informed career decisions and there needs to be improved quality of exposure and clinical experience gained in order for students to be prepared for a lengthy medical career. Coupled with this was the need for improved career advice and the importance of preventing false career expectations at medical school. Respondents emphasised the need for a change in career preferences particularly for generalist and community work. The perception of the status of these roles also needs to change. There were some suggestions that exposure needs to encompass small specialties as well as large specialties, in order to attract students to a number of smaller specialties which are often undersubscribed.

**255** A number of responses highlighted the importance of developing a UK-wide approach to training. NHS Scotland stated: *'It is important that the shape of training is cognisant of the different policy drivers across the 4 nations'*. One single UK training system may not be effective in delivering the care that patients need and want, as patient needs and expectations are different in each of the four countries, as are political and financial drivers. It will be necessary for the Review to carefully consider the implications of any changes to training on the differing approaches to training in the UK.

**256** It is also important for the Review to consider how training in rural and remote settings can be developed to better serve patient needs in those areas. NHS Scotland went on to comment: *'Educational solutions which work in remote and rural areas translate well into urban settings, but the reverse is often not the case'*. We cannot create a model of training which is a 'one size fits all' approach, as different settings, specialties and locations have different training needs.

**257** We asked respondents to make **any other comments** relevant to this call for ideas and evidence.

**258** There was an emphasis on the need for a period of stability if any major changes to postgraduate medical education and training are made. Respondents are wary of another upheaval to the training system which does not solve the current issues with training. A doctor explained: *'Over the past 20 years through Calman and MMC medical training has undergone a number of inquiries and changes, which have cost a lot of money through organisational reform but without any demonstrable improvement in medical training'*. It was suggested by some respondents that minor changes to the training system may be more effective than a complete overhaul, but in any case it was stressed that all changes should be piloted. Some respondents felt

that attempting to scope training around the societal changes in the next 30 years was too ambitious and that continuous modelling of future needs would be more effective.

**259** All respondents emphasised the importance of training within multidisciplinary teams and the benefits of learning from other healthcare professionals. Yet there were concerns that the rise in roles such as physician assistants, and the enhanced role of specialty nurses hinder medical training significantly. More and more roles which are performed traditionally by doctors are increasingly being delegated to physician assistants and nurses, and although this creates an improved balance between time for learning and service delivery, doctors in training are now missing a number of opportunities to develop clinical skills.

**260** One doctor also highlighted the impact and implications of the feminisation of the workforce on men. She pointed out that selection into the profession may have to adapt: *'I think we also need to think about how we maintain a balanced and diverse workforce. Currently recruitment to medical schools strongly favours females, due to their superior performance academically and interpersonally at high- school leaving age. We need to be able to either improve the performance of male school students in order to increase their recruitment from school age, or improve access to postgraduate medical programmes in the UK to ensure we are not unfairly discriminating against men in the medical school recruitment process.'*

**261** There will obviously be cost implications for any changes which are made to the current system and respondents emphasised the importance of being aware of affordability issues when considering changes to the training structure.



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## SHAPE OF TRAINING

### **Appendix 5: Shape of Training oral evidence sessions analysis report**

**Jennifer Oates**

1 September 2013

#### **Executive summary**

##### **Introduction**

- 1** In the course of the Shape of Training Review 59 oral evidence sessions took place. These hearings were chaired by members of the Review expert advisory group and administered by the secretariat of the Review. At the hearings invitees were asked to offer comments on draft frameworks suggested by the Review, and to elaborate on the written submissions provided by the bodies they represent. Invitees were representatives of the key stakeholders in postgraduate medical education: educators, employers, policy makers, unions, the Colleges and research bodies.
- 2** This report presents an analysis of the transcripts of those hearings. It offers an overview of the opinions expressed both in terms of emergent themes and in terms of novel and divergent views.

##### **About the Review**

- 3** The Review was instigated by Medical Education England in 2012, with David Greenaway as its chair. The Review aims to consider how the shape of postgraduate medical training may best address changing workforce and service needs, patient expectations, changing expectations of medical careers and education from the point of view of doctors in training and the best balance of breadth and scope of knowledge and skills required in modern medical practice.
- 4** Across health and social care in the UK, a number of concerns are being raised about our future. The needs of the patient population are changing, as patients are getting older, have multiple morbidities and long-term conditions. There is

much talk of integrating services, person-centred care and moving as much care and treatment out into the community as possible. Within medicine, the workforce is becoming more and more female. There are perceived implications of this on how many doctors want part-time working or time out for maternity. There is also an assumption that the workforce in general will be seeking to work in more flexible ways, not just in terms of hours but in terms of the portfolio of activities that might make up a medical career. These points have been well rehearsed in the Shape of Training's existing output, and elsewhere, and are covered in the oral evidence hearings.

- 5 The Review has considered postgraduate medical education in relation to five themes: workforce, breadth and scope of training, service provision, patient choice and expectations, and flexibility. It is a four-country review, and is tasked with offering possible training solutions that acknowledge and address the importance of reflecting and withstanding the different service configurations and policy environments across the UK.

### **A four-country perspective**

- 6 The different service configurations of the four countries must be taken into account. This means that there may not be one uniform Shape of Training across the UK. Postgraduate medical training must, however, ensure cross-border movement of doctors in training and trained doctors. It must also enable our doctors to have qualifications that are portable outside the UK. Employers must be confident that all medically qualified employees meet national standards.
- 7 There must be a broader than local level oversight of medical training numbers, and postgraduate training numbers and delivery must take account of the needs of patients in remote and rural areas, and in areas with limited access to medical staff.

### **Workforce**

- 8 The future medical workforce must be prepared to meet population needs. This means that workforce skills match service requirements. Education of the postgraduate medical workforce must take account of how doctors in the future will work with non-medical colleagues and how epidemiological and technological changes will impact workforce requirements.
- 9 There is work to be done to best articulate and promote generalism as a career choice. Incentivising this is not just about financial reward but about leadership, role modelling, working conditions, prestige and having career options.



## **Breadth and scope**

- 10** There is broad consensus in favour of competency rather than time-based progression through postgraduate training, with core generalist training within specialty groupings. Implementation post-Shape of Training should account for the ongoing need for optimally trained doctors, who have the opportunity to maintain the relevant competence once a skill has been acquired.
- 11** There is room to improve the training of doctors' non-clinical skills and also to better incorporate academic training into postgraduate training models. There is also work to be done to better support trainers and to foster better, more continuous relationships between trainers and doctors in training.
- 12** Most stakeholders see that any proposed changes will lengthen the time it takes to train. There is also strong approval for changes to how the Foundation Programme years relate to the rest of the training programme. There should be scope for doctors to choose their career track later than at present, and for this choice to be based on appropriate exposure to potential options.

## **Service needs**

- 13** There is at present a tension between training and service delivery. Service requirements should be reflected in training numbers and pathways. There also needs to be a revision of the relationship between training and service delivery, where doctors in training are concerned. This might mean that not all current training providers will provide future training, and that market forces will determine the distribution of doctors in training.
- 14** Doctors, however, should have realistic expectations about a medical career and be enabled to make intelligent choices about training paths.

## **Patient needs and expectations**

- 15** Stakeholders expressed the view that patient choice and public opinion should drive change rather than doctors' career aspirations. Workforce planning needs to take this more into account. Alongside patient involvement and patient choice, patient safety is seen as also something that should influence decisions around training.
- 16** Current terminology used to describe doctors in training does not make sense to patients. There is work to be done to improve patient awareness of doctors' roles and degrees of expertise.

## Flexibility

- 17** There is broad consensus that the current shape of medical training does not give doctors enough flexibility. Stakeholders would like to see increased flexibility in terms of porosity between specialisms and scope to change fields, and in terms of flexibility within a career structure, so that doctors may opt to move between clinical, academic and management or leadership roles. Also, and perhaps crucially, there is backing for a revision of how day-to-day working and rotations might be more flexible.

## Conclusion

- 18** The oral evidence hearings afforded the Shape of Training expert advisory group and secretariat opportunities to develop, test and qualify ideas about how postgraduate medical education should move forward. There is a commitment from all stakeholders in the hearings to work together to improve the current situation. Whilst there are a range of views about how this should be done, and a range of interpretations of the key terms and draft models, there is an openness to engagement and collaboration evident across the board.
- 19** The ideas, concerns and questions put forth in the oral evidence hearings are often about how postgraduate training could and should work in practice. The Review's recommendations should take account of what stakeholders have said here about flexible working (in all its meanings), the need to meet local service needs and address national workforce issues, and the need for postgraduate training and medical roles and responsibilities to make sense and be appealing both to doctors in training and potential doctors and to patients.

## Introduction

- 20** In the course of the Review 59 oral evidence sessions took place. These hearings were chaired by members of the Shape of Training expert advisory group and administered by the secretariat of the Review. At the hearings invitees were asked to offer comment on draft frameworks suggested by the Review, and to elaborate on the written submissions provided by the bodies they represent. Invitees were representatives of the key stakeholders in postgraduate medical education: educators, employers, policy makers, unions, the Colleges and research bodies. The oral evidence sessions took place after the deadline for written submissions, and represent a waypoint during the Review proceedings where evidence from site visits, written submissions and consultation events had been analysed but not yet published.

- 21** This report presents an analysis of the transcripts of those hearings. It offers an overview of the opinions expressed both in terms of emergent themes and in terms of novel and divergent views.
- 22** It is clear from a full reading of all of the transcripts that there is a broad range of opinion around every aspect of the shape of training. Whatever decisions are made regarding the proposed next steps will not satisfy all parties. It is also apparent that as the hearings progress the views of the expert advisory group are evolving, and being influenced by the hearing discussions. In later hearings the panel members test out suggestions made during earlier hearings, and scope out support for and criticism of other evidence. The transcripts reflect that the hearings were discursive rather than interrogative. This seems entirely appropriate given the nature of the relationships between advisory group members and the stakeholder representatives. This is pitched to stakeholders as a collaborative, collegiate enterprise, and is conducted thus.
- 23** A common thread during the hearings is that stakeholders broadly agree that change is necessary and that current training does not best equip future doctors for how healthcare will need to be delivered in the future. The broad principles of the Review are acceptable to most parties. However, whilst parties giving evidence may express their support for change, they voice concern that other stakeholders may challenge or impede 'progress.' This is particularly the case with regard to the Colleges. The representatives of the Academy of Medical Royal Colleges (AoMRC), in their 30 April hearing, present what they consider to be a consensus view based on consultation with the AoMRC's 21 members. In some other submissions, by non-Colleges, stakeholders are less confident that there will be a consensus among the Colleges and between the Colleges and other parties. The key issue here is that a move to a broader curriculum with shared competencies would mean collaborative working between the Colleges and a possible relinquishing of control over some aspects of training. Also the move to generalism and reduction in specialties and subspecialties has major implications for the Colleges.
- 24** Another common thread is a concern with selling any new model to doctors in training, prospective doctors and to patients. There need to be recognisable medical career and training paths, with clearly understood terms to describe the point in training a particular doctor is at, and to gauge the degree of expertise and responsibility that a doctor has attained. The current terminology (ST3, F2 for example) is seen as not being clear enough. The terms 'generalist' and 'specialist' also currently have multiple meanings. The discussion between hearing members about the draft models often included a range of interpretations of these terms. The final Shape of Training proposals need to be definitive and succinct about their meaning in this context.

## Background

- 25** The Review was instigated by Medical Education England in 2012, with David Greenaway as its chair. The Review aims to consider how the shape of postgraduate medical training may best address changing workforce and service needs, patient expectations, changing expectations of medical careers and education from the point of view of doctors in training and the best balance of breadth and scope of knowledge and skills required in modern medical practice.
- 26** Across health and social care in the UK, a number of concerns are being raised about our future. The needs of the patient population are changing, as patients are getting older, have multiple morbidities and long-term conditions. There is much talk of integrating services, person-centred care and moving as much care and treatment out into the community as possible. Within medicine, the workforce is becoming more and more female. There are perceived implications of this on how many doctors want part-time working or time out for maternity. There is also an assumption that the workforce in general will be seeking to work in more flexible ways, not just in terms of hours but in terms of the portfolio of activities that might make up a medical career. These points have been well rehearsed in the Shape of Training's existing output, and elsewhere, and are covered in the oral evidence hearings.

## The models

- 27** Stakeholders were supplied with three diagrams either prior to or during the oral evidence hearings. These represented works in progress, possible frameworks for what the future Shape of Training model might look like. Discussion of these models (Models A, B and C) enabled Review members to identify ways that certain approaches may be interpreted, received and criticised. Strengths and weaknesses in all three of the models were found. No one model was preferred overall, although there were some common concerns raised about each one from various quarters. Several stakeholders saw all of the models as implying a two-tier system, creating sub-consultants by another name. There was strong support for the proposed Certificate of General Training (CGT) to not be set at a lower level than the current Certificate of Completion of Training (CCT).
- 28** Some Colleges considered that they already offer a training route similar to Model A. Some Colleges are currently piloting broad-based entry into their training programmes. There was also a concern that Model A does not reflect the way that service delivery is currently going.
- 29** Model B was seen as potentially being the most popular with doctors in training and employers.

- 30** Several parties liked the opportunity to run through and made cases for why their specialty would be best kept as a run-through. On the other hand, this was seen as not solving the 'lack of generalists' issue, in that the run-through specialty would be seen as the place to aim for still. The diagrams have been read as still presenting a hierarchy, with generalism being seen as less prestigious than specialism.
- 31** There was considerable support for a broad basis of training in a general field, for example medicine or surgery.
- 32** For some people, Model C was seen as 'a nonstarter' for several reasons. First, because doctors' learning should not be modular, where certain areas get ticked off never to be addressed again. Rather the doctor learns by working from simple to progressively more complex cases over time and competence is something that both develops over time and needs to be maintained through continued use of the skill. Secondly, the modular approach was described as potentially 'a nightmare' to standardise and regulate. It would be a hindrance rather than an aid for workforce planning. It could also lead to hyperspecialism or overgeneralism, therefore not solving any of the pressing issues the Review seeks to address.
- 33** Having said this, when the credentialing post-CCT equivalent was discussed, this was met with positivity and seen as a better option than the current use of fellowships.

#### **A four-country perspective**

- 34** The Review is a four-country review. In hearings with stakeholders representing perspectives across the UK, the challenge of making changes to postgraduate education that suit the needs of England, Wales, Scotland and Northern Ireland was acknowledged. Representatives from across the nations expressed similar views, but some nation-specific concerns were also flagged up. Review members posited that solutions may eventually not be uniform for the four nations. This seemed to be well received, to an extent.
- 35** Welsh, Scottish and Northern Irish representatives described not wanting training to diverge from the rest of the UK. This could limit cross-border movement of doctors in training and trained doctors, where there is already difficulty attracting doctors to practise in some areas, including general practice. Similarly the CCT equivalent needs to be portable outside the UK, and to allow movement across UK borders in both directions.
- 36** Wales is going through service reconfiguration at the moment, and the difficulty getting medical cover and adequate access to services in remote and rural

areas is a live issue. Political concerns were discussed in the Welsh hearings. Similar problems in attracting good doctors to remote and rural posts were acknowledged by Scottish stakeholders, although they did make the point that the model of training may not be the problem here, rather it is associated with lifestyle factors. The same concerns were raised about parts of England - where certainly academic doctors in training and specialists are centred around London and a few other urban areas only. Some stakeholders said they had confidence in the Local Education and Training Boards (LETBs) and Health Education England (HEE) resolving this mismatch between training numbers and service requirements, seeing their role as taking a 'helicopter view' of the situation. There is however some concern that there is a risk of parochialism if the LETBs determine training numbers and configurations according to local need.

- 37** In Scotland, barriers between primary and secondary care were seen to be problematic. Current service reconfiguration and the political situation will impact on training. Decisions made about service provision are emotive for the public. More care is likely to be in the independent sector (at least in England). Several times, across all of the submissions, stakeholders argued that training decisions must take account of how service models are evolving.
- 38** Some radical views about the English system were voiced, and were certainly out of step with the direction of travel that has been implied by government. However, there was consensus on the view that the four nations are going in different directions in terms of service provision, so a training plan must be robust enough to weather further divergence. Certainly, the education providers and College representatives wanted parity between the four countries to enable cross-border movement for doctors. They were looking to the GMC to manage these tensions and to ensure this remains. Employer representatives also wanted to be confident that all UK medically trained doctors meet national competencies and standards.

## **Workforce**

- 39** There was a consensus in the hearings, when the question was raised, that medical training in recent years has produced an oversupply of specialists and a generation of doctors who cannot all get posts in the field in which they have qualified. Training plans have not been mapped well enough onto service requirements. The Centre for Workforce Intelligence (CfWI) projections were referred to by several parties, with several hearing attendees also being engaged directly with the CfWI work.

The medical workforce in the context of the wider health workforce

- 40** For many stakeholders, changes to medical training must take account of what is going on in the other health and social care professions. Commonly, the potential for nurses and allied health professionals to take on some doctors'

work is mentioned. This gradual assuming of work that was once the doctor's domain was referred to in several discussions, with the implication that this will increase and evolve over time. Similarly, as technology advances, some conditions will not require medical or surgical intervention anymore. This point was used to argue for a more generalised approach, because there is little use in subspecialising in certain types of operation if medical advances mean no one will need that operation in a few years' time.

- 41** In discussions with educational stakeholders and others, joint training and joint workforce planning was discussed. It seems that opportunities for joint training and joint curricula are not maximised at present. This does not reflect the multidisciplinary environment that doctors will find themselves working in.
- 42** There was a lot of discussion about the quality of the current crop of doctors in training. Stakeholders talked about their immaturity and lack of experience. This was put down to lack of hours served since the European Working Time Directive (EWTD), the narrow pool of medical school applicants (all science A\* students), and their being from Generation Y, which seems to imply they are good at computerised activities but not so good at communicating and that they lack the work ethic of previous generations of doctors. There was some discussion as to whether we should make medicine graduate entry, as in the US, and there are positive reports of the UK graduate entry programmes. In several discussions, medical training pre-Modernising Medical Careers (MMC) was referenced, and stakeholders saw some of the proposed post-Shape of Training changes as implying a return to the SHO, Specialist Registrar (SpR) training of the past.

## Generalism

- 43** As has been articulated in many places in recent months, generalism within medicine means different things to different people. Throughout the oral evidence sessions the expert panel members attempted to explore and articulate an understanding of generalism that does not equate to what we mean by the 'general practice' of the GP role as it stands. The generalist is also not a combination of physician, surgeon and obstetrician; rather one stakeholder defined it as:
- 44** 'What we are looking for here is people turning out with the CCT retaining the ability to look after the generality of patients in any particular specialty.'
- 45** The physician representatives, and several other parties, articulated their concern that one of the reasons why doctors are pursuing ever more specialised career paths is that they do not want to take on the risk and responsibility of a general internal medicine role. People are seen to ditch the general aspect of their work as soon as they can. They cited dwindling numbers of applicants for emergency and acute training, linking this to doctors' awareness of the overwhelming nature of this role. They expressed their desire to get to a place where, first, general internal

medicine is seen as an attractive option and second, where a wider pool of doctors within an organisation can competently handle the acute and emergency take.

- 46** The importance of leadership and role modelling in generalism was discussed. This would help make it an attractive career path. There was much discussion of how to incentivise this choice, with most stakeholders arguing that, whilst money is a factor, it is not the only factor. It is also about esteem, role models, and opportunities for development but primarily working conditions, and peer and senior support.
- 47** There were discussions of the geographical variation in workforce pressures, in particular the problems of attracting doctors to remote and rural areas. Smaller hospitals require general doctors. They need generalists on call. The degree to which this is a problem to be solved by a review of training was not clear. The military were seen as a potential source of inspiration here, as were the Highlands and Islands, where generalists are used already, in order to meet service requirements.

### **Breadth and scope**

- 48** Most parties were broadly in favour of competency over time-based progression through medical training. There was a strong appetite for core generalist training, and across the branches of medicine this was seen as what is needed. This was matched by a strong appetite for better crossover between hospital and community settings. The point was made that if breadth of training is increased post-Foundation Programme then the purpose of the Foundation Programme needs to be really clear. Across several hearings there were calls for clarity and better alignment between undergraduate and Foundation and post-Foundation. There is apparently work currently under way by the Medical Deans Group to do this.
- 49** Representatives argued that if training increases in breadth then it risks decreasing in depth. They made the point that in a craft specialty (for example, a branch of surgery) you need to decide early on in order to do it well. There was concern that the EWTD has already reduced capability in surgery, by reducing hours in training. The concept of a 'general surgeon' also caused concern, as did the notion, for example, of an 'optimally trained surgeon' who can only maintain competence in a finite number of skills once competence is gained. Both surgeons and physicians argued that in order to call oneself a 'general surgeon' or physician one would need considerable exposure to a range of procedures.
- 50** There was concern that generalism is a difficult specialty. It is seen as probably requiring longer training than the current CCT. The case for lengthening GP training was discussed, and there was an expectation that the outcome of the Review will be to address this definitively. Several non-GP stakeholders saw the



current GP curriculum as where we have got training right. Others argued that it is too community focused, specialises too early and does not prepare GPs for their future contact with hospital colleagues.

- 51** Some argued that a move in favour of generalism over specialism is risky, in that both generalists and specialists are needed. There will still be a need for specialists and subspecialists but the number of these will vary. There was general consensus that service requirements should determine the number of credentialed subspecialist training opportunities available. Also, there is some support for different specialties requiring different lengths of training to ensure competence.
- 52** There was a perceived lack of flexibility in the current approved curricula in that there is not enough scope to change curricula as required competencies change due to technological and epidemiological changes. Post-Shape of Training should give the Colleges more scope to manipulate their competency framework to meet changing needs.
- 53** Several stakeholders considered that there is more to be done to develop doctors' non-clinical skills - communication, management, leadership, finance. These generic professional capabilities are important if new doctors are to be 'pluripotential.'
- 54** Representatives expressed concern about the apparent lack of consistency between different medical schools and between doctors' Foundation experience. Some doctors get no exposure to general practice in the early years; others get substantial amounts. This was seen to impact on career choices, with recruitment for general practice being higher in those areas where doctors in training and medical students are exposed to it. Current undergraduate education was seen as far too hospital focused. If post- Review, training is to be more community focused and broad, then there is work to be done on developing a body of trainers who can deliver and support training in this new way. Several stakeholders made the case that medical trainers currently do not get time and support to train. We also lack generalist trainers, trainers who work across community and hospital settings and trainers who can best support doctors' development of non-clinical skills.

#### The clinical academic pathway

- 55** There was general consensus that the clinical academic pathway and the current clinical academic fellowship system does not work as well as it could. There was not a consensus on how to move forward, however. The research stakeholders and others made strong cases for an academic run-through option. They argued that they want to prioritise, attract and support future research leaders and have a trajectory for them to follow rather than 'peppering the NHS with research understanding.'

- 56** Other parties argued that for a doctor to be 'pluripotential' they should have the same broad training and meet the same competencies for the CCT (or equivalent). The importance of maintaining 'clinical credibility' was voiced. Representatives argued for academic and research exposure to be part of every doctor's experience, with the opportunity to go down that route available at different stages in a medical career. At the moment research has a leaning towards hospital medicine. Some specialties are only just beginning to establish an academic track - they saw the Review as an opportunity to make academic and research involvement available to all.

#### Length of training

- 57** Pretty much most education and College stakeholders considered that training would need to lengthen in order to encompass increased generalism. Also several people made the point that medical training should not all be about cramming everything in as quickly as possible. The doctor needs time to reflect and develop. This point was used to argue against a credentialing approach. Having said this, it was acknowledged that from an international perspective we are seen as having a long training programme as it is.
- 58** There were several calls for longer placements and longer rotations to compensate for losses associated with the WTR. Current doctors in training are seen as being short-changed by not having a longitudinal relationship with a sponsoring firm and a consistent and committed mentor.
- 59** One suggestion was that length of training should be different for different medical roles. When this was mentioned in some discussions it was seen as a reasonably good solution.

#### Timing of Full Registration

- 60** One suggestion that came out in several discussions was for a revision of the interface between undergraduate and F1. Several people suggested moving what is now F1 into the undergraduate programme. There also seemed to be a swell of opinion that full registration on completion of the undergraduate course would be a popular move. Registration at the end of medical school was seen as one way of addressing the current challenge UK doctors in training face in competing with non-UK doctors for specialty places. It was pointed out that full registration at this point would require changes to the *Medical Act 1983*. There would also be major funding implications. Not all stakeholders were in favour of this move. Employers saw the F1 year as vital for doctors' development and understanding of what it means to be an employee not a student. Registration after F1 also should give an assurance that the doctor is up to the task, as it should weed out those people who have just about coped with medical school

but are not robust enough to provide service. One stakeholder suggested provisional licensing after medical school with revalidation one year later.

- 61** Regarding the current F2 year, some stakeholders suggested there should be more flexibility. Others suggested doing away with F2 if the second year is where the broad-based training in a general area begins. Some saw the current F2 set-up as a waste anyway because doctors have to apply for their post-Foundation options so early on. They viewed it as too random, with placements being too short. One stakeholder summed it up as not working for the individual or for the service.

## **Service needs**

- 62** There was broad consensus that the shape of training should reflect service needs and service configurations over individual career aspirations. There was perceived tension here, where doctors now are not seemingly aware enough that patient needs and hence service requirements are paramount. There is work to be done to sell a different type of medical career that is directed by the kind of care and treatment that services are expected to deliver, for example more holistic, older person focused, and with community medicine not just meaning general practice. Doctors also have to take some responsibility for their own career paths and career planning.
- 63** A common concern raised about the state of training today was that trainers and mentors are not given enough support to train well. We need to increase training capacity and give trainers a more defined role. Also doctors in training are not getting to develop longitudinal relationships with trainers. There is no mentorship or apprenticeship, no ownership of training by teams. This voiced concern links to the calls for longer placements and for doctors to have a sponsoring firm.

## **Impact of WTR on training and service delivery**

- 64** There was also a consensus that services rely on doctors in training for service delivery too much. When there are gaps in service rotas then service provision takes priority over training. There needs to be a shift in balance between delivery and training and clearer articulation of this. The impact of the WTR on training was often cited, although some stakeholders asserted that 48 hours a week is sufficient for training if training time is optimised.

## **Doctors' ability to make wise choices**

- 65** The individuals having to make choices about their training and careers are mature, intelligent people and so should be trusted to weigh up their options. Some respondents, particularly in relation to the craft specialties, argued that run-through should still be an option and that doctors should be enabled to make

narrow choices if that suits them. There was some concern, from several quarters, that medicine may cease to attract 'the brightest and best' of school leavers if it no longer looks like an attractive career path.

- 66** The problem of attracting people to training that covers the acute medical take was linked to the perception of this as risky and poorly rewarded work. There is a current problem of attracting people to the smaller specialties due to lack of exposure during undergraduate and F1. There is a shortfall of GP doctors in training in those areas where community experience in medical school and Foundation is limited.

### **Tension between training and service**

- 67** The tension between training and service was a live issue for many stakeholders. It was particularly recognised by the parties representing the educationalist point of view. One major concern, voiced by several people, was that shifting the balance between training and service delivery will mean a renegotiation of funding and accountability between education and service providers. There were discussions about whether service should adapt to training or vice versa. There were also discussions about whether all hospitals should be training hospitals. In several hearings, the capability of all services to deliver training was discussed, with some parties arguing that not all healthcare providers should automatically be training providers. Of course this has major implications for the running of the service, in those places where doctors in training are relied on to deliver service. More than one stakeholder argued for a market-driven approach to training provision, where only the best training providers get the doctors. Similarly, concern was raised that at present deaneries rather than services drive the profession at government level, and so the service delivery perspective was not well represented.
- 68** Whilst the overall principles of the Review were supported, there were concerns raised about the implementation of change, not least because services are struggling to implement other related change as it is. Several parties referred to the Future Hospital Commission's work, and argued that the final Review plan should take account of its findings. The challenge to move to a consultant-delivered service was a key issue for service provider stakeholders. Stakeholders said that the primary / secondary care interface is not working. Whilst a move to more community-based care is the stated direction of travel, services are not clear about how to implement this. By implication, there are not trainers or training providers currently out there who can equip doctors in training to work in a way that is not in place yet. The move from hospital training to community training implies a movement of training monies and activities. It was pointed out that currently not only do services rely on training monies as part of their budget, but also that hospital trusts are not geared up to deliver training off hospital premises. There are risk and insurance implications to moving training into the

community. Current community training provision depends on GPs expanding what they offer to non-GP doctors. It was feared there will be cost implications to that change.

## **Patient needs and expectations**

- 69** Putting the patient at the centre of care was seen as vital to any changes to the shape of medical education. Some stakeholders, in particular the Colleges, saw themselves as already setting out plans for the future that reflect a patient-centred approach. As patients become more expert, the doctor's role will change to be a more collaborative partnership with patients. Patient-centred care is linked to holistic and generalist approaches, in that the patient has a more seamless experience of healthcare. Some stakeholders expressed the view that patient choice and public opinion should drive change rather than doctors' career aspirations. Workforce planning needs to take this more into account.
- 70** Some stakeholders saw that hard decisions will have to be made with regard to service provision, given the economic and demographic realities health providers now face. Where there may be a choice that has to be made regarding convenience of access to treatment versus quality of service, patients will have to decide this. Decisions realistically will not meet all patient expectations. It was seen as unfeasible that remote and rural areas can have all their needs met locally, but acknowledged that there is more that can be done to plan for this. Also it was seen that there is more seemingly to be done to communicate to patients the rationales and consequences of service planning and delivery decisions.
- 71** Alongside patient involvement and patient choice, patient safety was seen as also something that should influence decisions around training. Several stakeholders made reference to the Francis Inquiry in relation to this point. The link between doctors in training and mortality rates was discussed, as was the case for patients being able to access the right care whilst being 'bounced around' services as little as possible.
- 72** Current terminology used to describe doctors in training does not make sense to patients. Some stakeholders argued that what patients ask for is 'to see a specialist', therefore offering them 'generalists' may be confusing and also at odds with what they say they want. This point was explored further, and it was agreed that there is work to be done to improve patient awareness of doctors' roles and degrees of expertise.

## **Flexibility**

- 73** There is broad consensus that the current shape of medical training does not give doctors enough flexibility. Stakeholders would like to see increased

flexibility in terms of porosity between specialisms and scope to change fields, and in terms of flexibility within a career structure, so that doctors may opt to move between clinical, academic and management or leadership roles. Also, and perhaps crucially, there was backing for a revision of how day-to-day working and rotations might be more flexible. The typical surgeon's working pattern is not seen as being particularly family friendly, just as some medical roles are very stressful with little let-up. Some roles, particularly in hospital-based medicine, do not suit part-time or flexible working, and are not seen as viable for an entire working life. There are still notions of some specialties being more 'civilised' than others. There also needs to be flexibility in the system to account for how technology and epidemiology will change in the coming years, meaning that some medical roles that exist now may not exist in the future.

- 74** The current state of training has been described as being like 'snakes and ladders', where there is little room to manoeuvre if goals change or earlier choices do not play out well. Stakeholders cited the feminisation of the workforce as one reason why there must be more flexibility in terms of stepping on and off programmes and also in terms of being able to have a good career without working full time all the time. Some stakeholders also talked about 'Generation Y' as a cohort who have different notions of work-life balance than their predecessors, and so will choose career options that mean fewer hours and less shift work.
- 75** Several hearings discussed the way a doctor's career might look at different times of their life. An often-cited example was the acute medical doctor or else the surgeon. These roles were seen as fitting for early to midpoint in a working life, but not as the doctor goes into his or her fifties. There the portfolio career or a move to education or management is seen as the preferred trajectory. Stakeholders usually cited their own career paths as examples of how this can work. This suggests that doctors already have such possibilities open to them. When discussing how to 'sell' a new shape of training, stakeholders talked about how the 'many phases' of a medical career should be better articulated to new recruits.
- 76** On the other hand, there were concerns raised that too much flexibility within training might dilute doctors' mastery of their skills. Placements that are too short and a too varied portfolio of training experiences, do not allow doctors to develop into independent practitioners in a coherent way. Any grouping or interchangeability of training experiences must be based on a sensible and coherent fit between specialties.
- 77** Some stakeholders talked about the importance of building in stepping-off points, or 'fire breaks', such as the current F1 registration point and the current CCT. Having a point where a doctor has to stop and reapply for continuation of training was seen as key to maintaining the quality of the profession. This could be done by building mechanisms into the to deal with those who are not

meeting expected competencies and standards. This point linked to the concerns raised about the option of run-through training and with the general agreement about competency over time-based progression.

#### Cost implications of changing training

- 78** The cost implications of a changed training structure were a cause for concern for several parties, particularly those representing the employers and higher education institutions. Some points to consider include that if doctors in training post-Review are really doing more training and less service delivery, then they should be remunerated less. Also, if the opportunities and expectations of a portfolio career are promoted then there needs to be clarity around funding. Does service pay for their part, research pay for their part, education for another part? Doctors' pay becomes very complicated. If F1 was moved into medical school, this would also have financial implications.
- 79** Some stakeholders also described the current system of money for doctors being distributed to training providers as being out of step with potential changes to training. A move to more training in the community will mean that training monies will have to go out of hospitals. The view was that this money is relied on heavily as part of the service budgets.
- 80** There was also a range of opinions regarding funding for specialist training, and personal versus organisational responsibility for learning. Should training all be funded by the employer. Doctors' training experience is contrasted with other professions where the individual may have to fund their own career development.

#### Terminology - selling the model

- 81** Selling a post-Review model of training will depend on careful choice of language to describe each component and a clear set of training options. Stakeholders pointed out that fuzziness in the model will impact on the uptake for certain training pathways. They also pointed out that 'generalism' as a training path needs to be sold well and made to seem like a prestigious path. This was seen to be about leadership, role modelling and having financial and non-financial incentives to make that choice. Non-financial incentives mean workload working conditions and career paths.

#### Certificate of Completion of Training / Certificate of General Training

- 82** It was widely acknowledged that the CCT does not mark the end of medical training. Education and professional development were seen as ongoing elements of a medical career, and therefore central to revalidation. Also several stakeholders talked about their experiences as, and of, newly appointed consultants. Newly

appointed consultants were seen as still needing mentorship and training. Having said this, it was also seen as important to have some means of certifying a doctor as qualified, although the Certificate does not equate to an automatic right to be a consultant. This qualification was variously seen as reflecting that a doctor can practise independently, is 'judgement safe', and can deal with the generality of patients in a given specialism. There were discussions about how much expertise a CCT or CGT confers. The word 'independent' was considered to be contentious also because doctors work in teams. From the point of view of patients, it was pointed out that there needs to be a means of letting patients know that they are being seen by a trained and appropriately qualified doctor.

- 83** Nobody wanted a 'sub-consultant grade'. This was seen as stigmatising but there was an implied awareness across the hearings, that the consultant role is going to change. There was also a strongly stated case for altering the perception and treatment of SAS doctors. Hearing members discussed how to allow doctors who do not want a consultant post (as it stands now) to make that choice as an attractive option, with incentives, career progression and choice. There is work to be done on managing doctors' expectations here, in that medical career pathways must change to fit the financial and clinical climate. One stakeholder made the point that 'consultant' is a term used by employers. Employers advertise for consultants. Colleges train people for their CCT and for specialist qualifications. This puts the debate about 'consultant' and 'sub-consultant' posts somewhat out of the remit of the Review.

## Conclusion

- 84** The oral evidence hearings afforded the Shape of Training expert advisory group and secretariat opportunities to develop, test and qualify ideas about how postgraduate medical education should move forward. There was a commitment from all stakeholders in the hearings to work together to improve on the current situation. Whilst there are a range of views about how this should be done, and a range of interpretations of the key terms and draft models, openness to engagement and collaboration was evident across the board.
- 85** The ideas, concerns and questions put forth in the oral evidence hearings were often about how postgraduate training could and should work in practice. The Review's recommendations should take account of what stakeholders have said here about flexible working (in all its meanings), the need to meet local service needs and address national workforce issues and the need for postgraduate training and medical roles and responsibilities to make sense and be appealing both to doctors in training and potential doctors and to patients.



## List of oral evidence session attendees and dates

Committee of General Practice Education Directors	10 Apr 2013
National Institute for Health Research	10 Apr 2013
Committee of English Deans	11 Apr 2013
National Association of Clinical Tutors	11 Apr 2013
Royal College of Psychiatrists	11 Apr 2013
Royal College of Paediatrics and Child Health	12 Apr 2013
Foundation Programme Office	12 Apr 2013
Foundation Trust Network	12 Apr 2013
Royal College of Anaesthetists	12 Apr 2013
Medical Research Council	14 Apr 2013
Academy of Medical Sciences	16 Apr 2013
Defence Postgraduate Medical Deanery	16 Apr 2013
Academy of Medical Educators	17 Apr 2013
Faculty of Medical Leadership and Management	17 Apr 2013
Independent Doctors Federation	17 Apr 2013
NHS Ayrshire and Arran	18 Apr 2013
NHS Greater Glasgow and Clyde	18 Apr 2013
Royal College of Physicians and Surgeons of Glasgow	18 Apr 2013
British Association of Physicians of Indian Origin (BAPIO)	19 Apr 2013
NHS Employers	19 Apr 2013
Health and Social Care Board in Northern Ireland	24 Apr 2013
Northern Ireland Medical and Dental Training Agency (NIMDTA)	24 Apr 2013
Joint Committee on Surgical Training (JCST)	26 Apr 2013
Joint Royal Colleges of Physicians Training Board (JRCPTB)	26 Apr 2013
Royal College of Obstetricians and Gynaecologists	26 Apr 2013
Academy of Medical Royal Colleges	30 Apr 2013
Conference of Postgraduate Medical Deans of the United Kingdom (CoPMeD)	30 Apr 2013
Medical Schools Council	30 Apr 2013
National Association for Patient Participation	30 Apr 2013
National Voices	30 Apr 2013
Sir Peter Rubin	1 May 2013
The GAT Committee	14 May 2013
Professor John Collins	23 May 2013
Professor Sir John Temple	23 May 2013
Health Education England	24 May 2013
Royal College of Physicians	24 May 2013
Royal College of Surgeons of England	24 May 2013
British Medical Association	29 May 2013
Faculty of Occupational Medicine	29 May 2013
Medical Careers Research Group, Oxford	29 May 2013
Royal College of Ophthalmologists	29 May 2013
Royal College of Physicians Medical Workforce Unit	29 May 2013
East of England Trainee Forum	30 May 2013
Independent Healthcare Advisory Services (IHAS)	30 May 2013
Royal College of Radiologists	30 May 2013
Academy of Medical Royal Colleges Trainee Doctors' Group	5 Jun 2013

Medical Women's Federation	5 Jun 2013
Royal College of General Practitioners	5 Jun 2013
The Wellcome Trust	5 Jun 2013
Medical Deans Group	14 Jun 2013
NHS Education for Scotland	14 Jun 2013
Royal College of Physicians of Edinburgh	14 Jun 2013
Royal College of Surgeons of Edinburgh	14 Jun 2013
Scottish Directors of Medical Education	14 Jun 2013
British Medical Association Junior Doctors Committee	20 Jun 2013
Academy of Medical Royal Colleges in Wales	26 Jun 2013
The Employers (Wales)	26 Jun 2013
Royal College of Physicians in Wales	26 Jun 2013
Swansea and Cardiff Medical Schools	26 Jun 2013



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## SHAPE OF TRAINING

### **Appendix 6: Trajectory research, Scenarios to assist in understanding the future demand for, and future demands on, doctors**

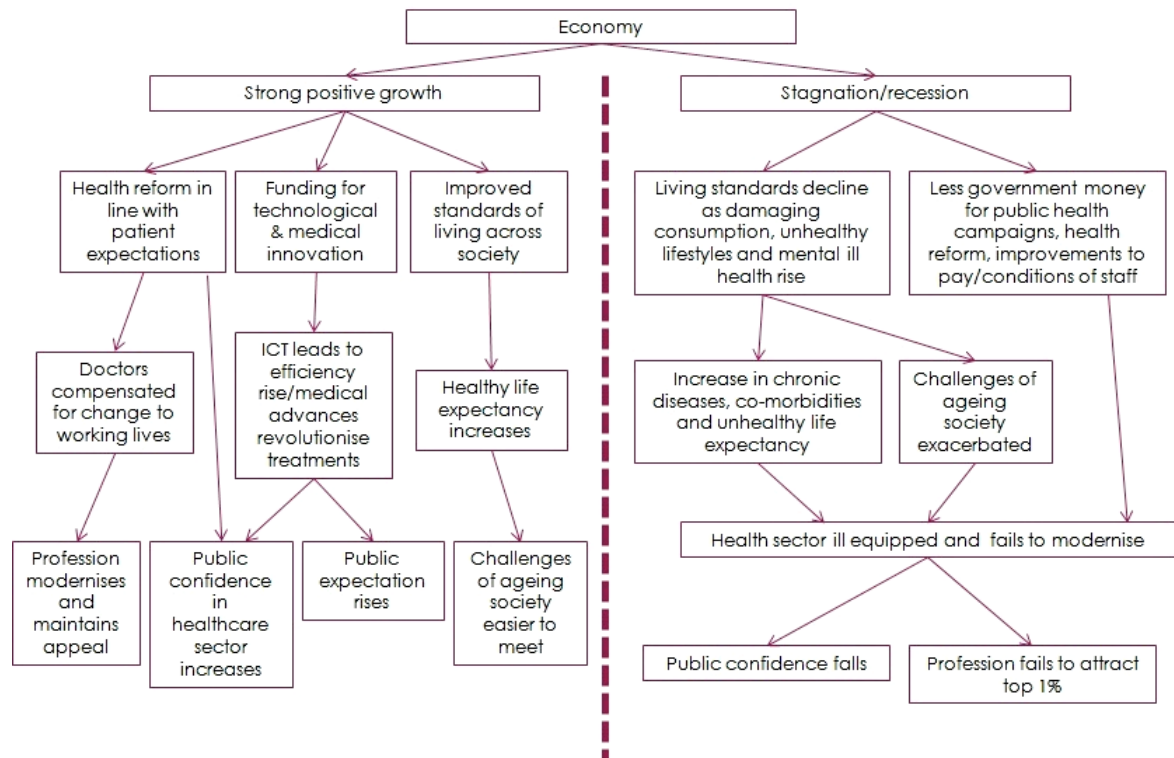
#### **Background and objectives**

- 1** Scenarios are required to support the work of the Shape of Training Review (a joint initiative sponsored by the Academy of Medical Royal Colleges, the GMC, Medical Education England, the Medical Schools Council, NHS Scotland, NHS Wales and the Northern Ireland Department of Health, Social Services and Public Safety) in modelling the demand for doctors over the next 30 years. The Shape of Training Review has been set up in response to issues around the future of postgraduate medical education and training and examines whether current training will meet the needs of patients and the healthcare service as a whole in the future.
- 2** The assumptions and forecasts described in the nine scenarios below have been derived from a number of different sources. The first stage was to conduct a series of interviews with members of the Shape of Training Review's Expert Advisory Group, in order to understand the main issues that will impact on the demands for and demands on doctors over the next three decades. Using these interviews and a wider review of relevant literature, a trends rating exercise was produced, where c.60 trends across a range of topics (patient expectations, economics, technological progress etc) were assessed and rated for their likely certainty and potential impact by the members of the Expert Advisory Group. Next, a workshop was held with the group to further discuss and develop the trends and organise them into three separate 'core' scenarios.
- 3** After this, a quantitative study was conducted to gather information on the current and future incidence rates of major illnesses. This data is presented in the quantitative appendix at the end of this document. In addition to the quantitative appendix, the key assumptions from the scenarios were tested with a panel of experts from a range of relevant backgrounds. The panel allowed us to gain new perspectives on key issues and to test the validity of the central

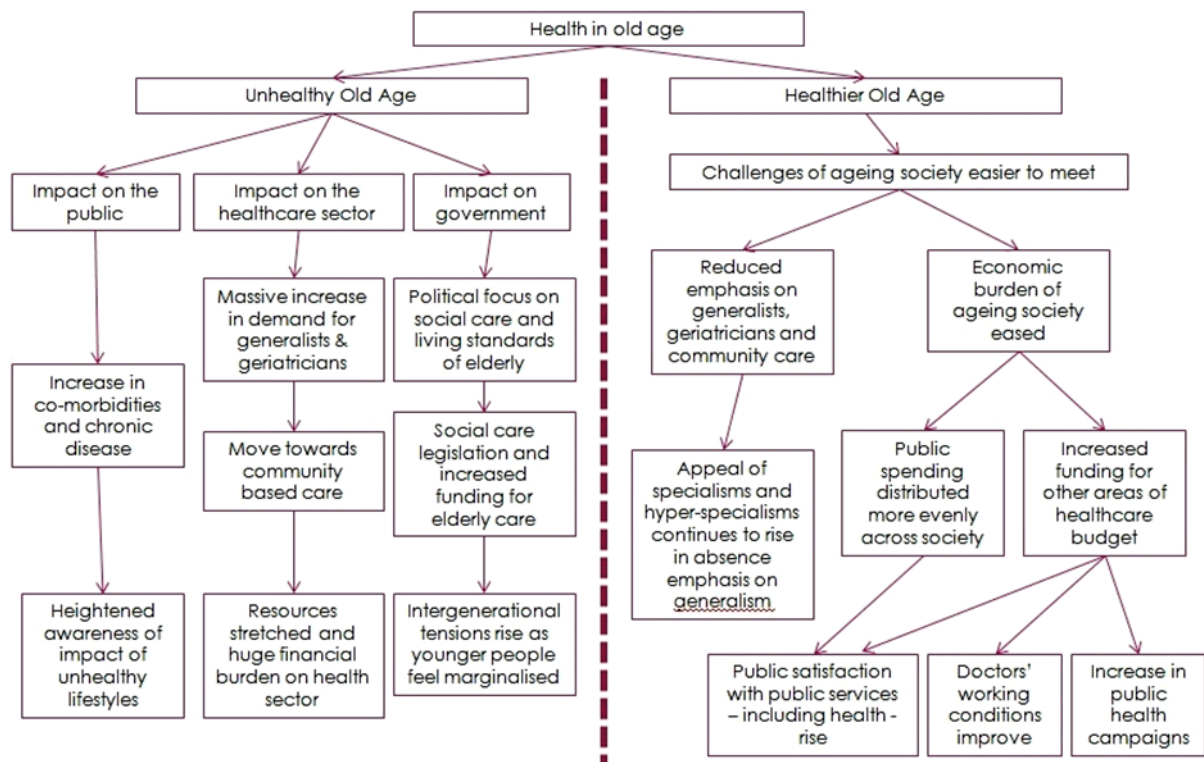
demographic, economic and technological assumptions driving the scenarios. Commentary from the expert interviews is presented throughout the scenarios, with an appendix summarising the process and the outputs at the end of the report.

## Summary

- 4** These scenarios have been directly informed by a series of expert interviews and a workshop conducted by Trajectory with members of the Shape of Training Expert Advisory Group, and a wider literature review of key publications in the area. The scenarios themselves are three diverse pictures of what the healthcare sector in the UK could resemble in 2043; one driven by public demand and expectation; one in which changes and reform are driven by doctors and healthcare professionals, and one in which the central driver of change is a prolonged period of remarkable medical development and technological innovation. Each of these core scenarios is complemented by shorter positive and negative scenarios, which explore how the core scenario might vary depending, for example, on a significant change in the national economy (positive or negative).
- 5** There are a number of themes common to all three core scenarios. Firstly, we have assumed that many key demographic forecasts – chiefly the steady ageing of society – will continue as forecast. Although it is of course possible that these forecasts could change – in the event, for example, of a flu pandemic – for the purposes of these scenarios we have assumed that the number of older people will rise over the next 30 years, from around 3 million today to over 7 million by 2043. This has a significant bearing on all three core scenarios, as these demographic challenges are central to the future demand on and for doctors. For the most part, we have also assumed that after a period of economic stagnation, the economy returns to modest growth – an assumption that excludes either economic ruin or an economic boom – expect for in the technology-led future, where we assume that strong recovery provides the economic catalyst for a sustained period of research and innovation. The positive variants assume a much more beneficial economic climate, which has myriad effects on the healthcare sector.
- 6** The potential impact of different economic scenarios is outlined in the schematic below:



- 7** An additional key variant present throughout the scenarios is the potential impact of different pictures of old age over the next few decades. There is an active and, as yet, inconclusive debate about the proportion of life likely to be lived in good health if future. An increase in healthy life expectancy would have vastly different consequences to a general worsening of health in old age, as the schematic below illustrates:



- 8** The future demand for and on doctors will be affected by a number of different factors; the three core scenarios outlined below, and their positive and negative variants, illustrate how the demand for doctors may develop over the next 30 years.

## The Patient Led Future

### Central Scenario

Key assumptions:

- Demographic trends progress as forecast, with the large generation of baby boomers ageing and eventually dying
- Economic stagnation prevails until about 2020, after which there is steady if unspectacular economic growth
- Technology developments and medical advances continue – although the extent of these developments, or the precise impact they have on healthcare delivery is uncertain
- In this scenario, major developments within the healthcare sector have been driven by patient demand

- 9** By 2043, most major changes in the UK healthcare sector have been driven by public demands and expectations, rather than by the demands of doctors or medical professionals. In some cases, this has led to an improvement in standards of care and public approval with the health sector – it has, however, prevented a large scale reorganisation of the health service.

### Demographic trends

- 10** Between 2013 and 2043, demographic trends have developed largely as expected. The average age of the population has increased by 2.5 years, and the number of over 80s has more than doubled, from roughly 2.9 million in 2010 to 6.7 million in 2041.<sup>1</sup> This dramatic ageing of society has placed

#### Expert Panel

*The expert panel agreed with the core demographic assumption here – that rising numbers of older people will lead to greater numbers of people with multiple morbidities and long term conditions. They expect this to be a significant challenge for healthcare*

unprecedented pressures on the healthcare sector, as it has been accompanied by a sharp increase in co-morbidities and chronic disease – meaning that despite overall life expectancy increasing by 3.5-4 years for men and women, there has been no increase in healthy life expectancy. For many elderly

people, the last years of their life are spent in increasingly poor health, reliant on a combination of social care and medical attention.

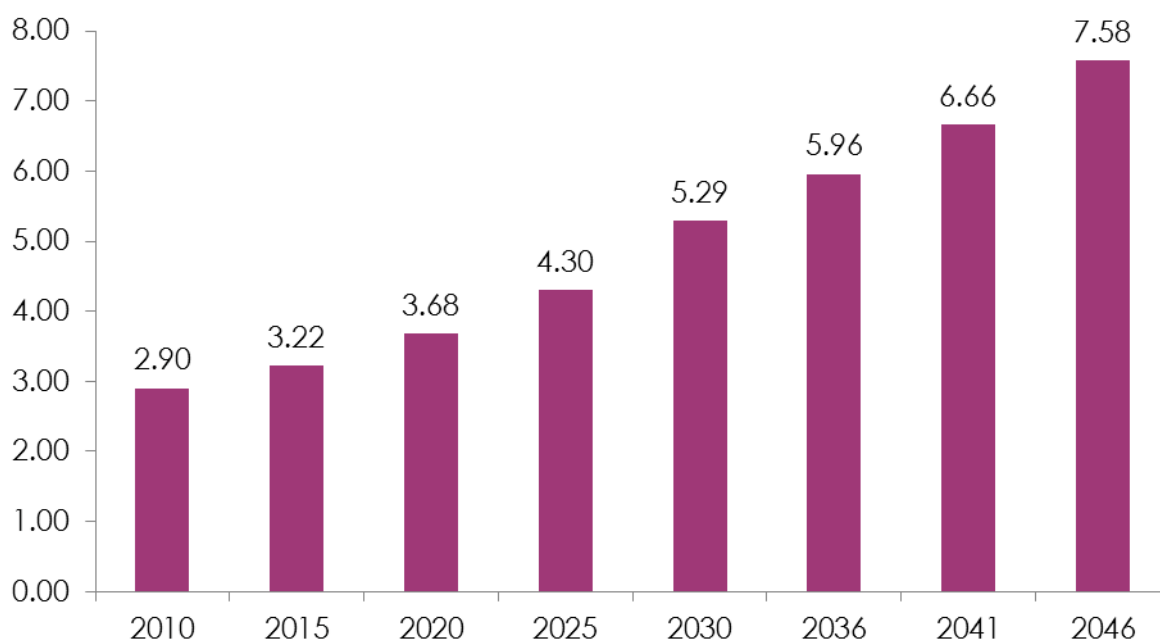
- 11** Another key demographic trend resulted from the population boom in the first decade of the new millennium. The 2011 census had found that the population

**1**

<sup>1</sup> ONS Population Projections (2010 based)

of England and Wales had grown by 3.7 million people in a decade and was at least half a million people more than expected. Half of the overall increase was among relatively young immigrants which contributed an unexpected boost to the UK birth rate from 2007 onwards. This has had repercussions for the health service ever since, which not only had to cope with the original baby boom, but also the 'echo-boom' from c. 2030 as the children of the boomers began to have their own children.

**Chart I: Number of over-80s, millions, UK**



### The fall-out from economic stagnation

- 12** These demographic challenges have been compounded by a difficult economic context. Following the crash of 2008, the economy eventually returned to growth, but only after a prolonged period of economic stagnation and public sector austerity that lasted until 2019. This stagnation led to a downturn in public health standards for a number of reasons. Those on low incomes sought to economise drastically, cutting out relatively expensive fresh food in favour of processed dishes. Stress and anxiety related disorders increased as the financial and emotional impact of stagnation wore on. The number of people with a mental health problem – 20% in 2012 – increased to over 30% by the end of the decade, and was increasingly concentrated amongst those with

#### Expert Panel

*The expert panel agreed with the core economic assumption – that the public finances would remain tight in the medium term and that the cost of healthcare would rise (largely due to the challenges of caring for an ageing society) in the long term. Some experts expected these costs to be met by introducing co-payments, but others expected the 'free at cost of delivery' model*



a long term physical health condition.<sup>2</sup> A lack of government money made available to combat 'damaging consumption' in this period also saw a temporary reverse to the decline in rates of smoking or excessive alcohol consumption. The long term effects on health of this period are still evident amongst those affected in 2043, although younger generations, born when the economy was beginning to flourish, are exhibiting much higher levels of health awareness, and lower levels of smoking and alcohol consumption (especially binge-drinking) than previous generations. Doctors have also been frustrated by successive government's laissez-faire approach to reducing the public's damaging consumption, which has led to a polarisation in standards of nutritional health. This polarisation was evident in the decline in multiple lifestyle risk factors even before the downturn began – although the proportion affected declined from 33% to 25%, these improvements were concentrated amongst the wealthiest and better educated.<sup>3</sup> The same pattern has continued since 2013, with some, empowered by technology and better access to nutritional information able to lead healthier lives, but for others, generally in poorer areas, damaging consumption has continued apace.



## Increased patient expectations

- 13** While attempting to manage the impact of economic stagnation and an ageing society, the healthcare sector has also been required to manage the growing levels of public expectation. Chief among these is the demand for increased choice, demand for access to specialist care and expectations of 24 hour care. One of the most significant patient-led changes has been the desire for more care closer to home (wherever possible). The political sentiment over the past 30 years has been, for the most part, to stay on the side of patients, and so many of these demands have been acknowledged by the healthcare sector. For most issues, patients are able to choose their course and location of treatment. Shorter procedures make increased use of ambulatory care, and most hospitals schedule procedures at all times of the day, so that minor operations or treatments can be carried out in a way that does not interfere with their working or family lives. As a matter of course, GPs surgeries are open seven days a week.

**1**

<sup>2</sup> *Long term conditions and mental health*, King's Fund (Feb 2012)

<sup>3</sup> *Clustering of unhealthy behaviours over time*, King's Fund, August 2012

- 14** In line with patient preferences, there has been an emphasis on allowing patients to die at home. Indeed, the death rate has increased significantly (by 28%) since 2013 as a result of the large baby boomer generation expiring. The level of increase led to demands for better management of the process of dying – meaning that there has been a significant increase in the promotion of geriatric and palliative care to younger doctors, in a largely successful attempt to boost the profile of the speciality. The enormous financial burden of public health – both in terms of on-going generalist care and specialist access – has been eased somewhat by the expansion of ‘end of life’ insurance plans from private healthcare providers following the Social Care Reform Bill of 2016 which introduced a cap of £100,000 personal liability for care costs.
- 15** Another area in which patient expectations have driven a change in the landscape of healthcare is in the increased demand for medical treatments for every ailment. This *‘pill for every ill’* culture led many to warn of the dangers of overtreatment, and many fear is hastening the arrival of the post-antibiotic age, leading to real concerns about the health service’s ability to treat or manage infections.

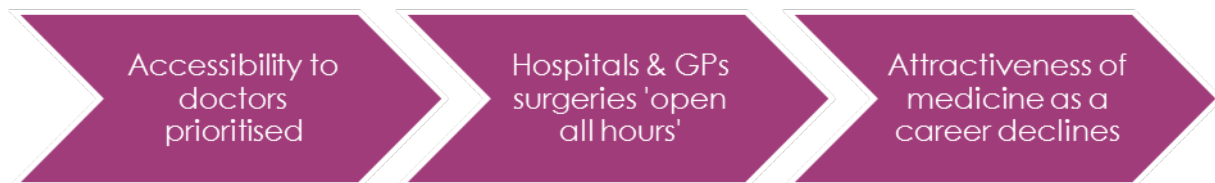


- 16** Successive governments have been receptive to public demands on healthcare, with choice and accessibility written into healthcare legislation in an attempt to keep the public onside. Within the workforce, however, morale amongst doctors is at an all-time low. The growth of ‘open all hours’ culture initially affected generalists, who were required to make themselves available 7 days a week to accommodate the demands of patients. The increased demand for specialists was seen as beneficial for a while – encouraging a greater number of younger doctors to specialise from an earlier age as it was clear demand was not going to wane. But with an ‘open all hours’ culture, and increasing public expectations of choice, the burden on specialists began to grow as well.

### **Work-life balance and job satisfaction**

- 17** The trend for a better work-life balance – burgeoning before 2013 (particularly among women, but also among men who are increasingly taking on responsibility for child care in 2043) – sat awkwardly with the requirements for shift work and long periods of time on call. Initially, this led to an increase in the number of young doctors moving into specialisms better suited to wider

lifestyle demands, such as paediatrics. Eventually the pressures placed on specialists failed, in a number of cases, to match the prestige associated with the position. This led many to leave the profession altogether, or to join the private sector. The rise in patient power over the past few decades has also seen a rise in the willingness of patients to sue their doctors or hospitals after a negative experience. This claimant culture has, rather than improve standards, led to increased caution in the profession, as doctors become increasingly willing to seek second opinions or avoid risky decisions for fear of being sued or having their professional reputations tarnished.



- 18** The demand for access to specialists in hospitals has had an affect wider than lowering their personal satisfaction – it has prevented a widescale reorganisation of the healthcare sector. In 2013 it was widely anticipated that a major reshaping of healthcare would involve a shift in emphasis from hospital care to more care within communities. As mentioned above, with end of life care, this transition has occurred, but the public still favour being treated in hospitals – they simply expect them to be closer to home. The result is a greater number of smaller district hospitals, the location designed to ensure that one is within 30 minutes of virtually any address in the country (this has not been achievable in the most remote rural areas). However, such a large number of hospitals have made standards of care incredibly difficult to maintain, and the size of such hospitals prohibits the access to specialists that patients had demanded. The overall result is that patients are generally negative of their experiences in district hospitals – but they want to see them improved, not closed.

### **Advances in medical science further raise expectations**

- 19** In part, patient expectations have been driven by significant advances in fields of medical science such as stem cell research and genomics that are, in some cases, able to reverse the progression of long term conditions or cure them entirely. Medical advances are greeted with great optimism by an expectant public, but they occasionally expect advances in research to translate into workable treatments too soon.

**20** Technological advances have had other effects over the past few decades, with both positive and negative results. In an attempt to streamline the service, and improve communications between fragmented district hospitals and regional bodies, the government

#### **Expert Panel**

*The expert panel commented that patient expectations are difficult to generalise, as they vary between disease area, but that with service developments and medical advances, patient expectations do rise. Some suggested that funding would need to increase to keep*

launched initiatives designed to move all patient records and data to a secure online server, with the ultimate intention of making all hospitals 'paperless' by 2030. Although the transition was taking longer than hoped, hospital managers were generally pleased with the progress until two severe breaches of data privacy a few months apart caused widespread embarrassment and much hand-wringing. The process – already costly and running over time – was further delayed while investigations and security reviews were set up. By 2043, a large minority of hospitals are 'paperless', but the majority are not, and the public are suspicious of the health sector's ability to competently archive their confidential information. One technological development has seen an improvement in the doctor-patient relationship. The development of apps and in-home healthcare monitors has in many cases reduced the number of cases in which patients might seek an opinion from their doctor, and when they need to, they are frequently better informed about the likely causes of their symptoms.

**21** The combined effect of higher public expectations on the health sector has been radical. Many developments have been broadly beneficial, and considered to have met the needs of a busy, expectant public. But the emergence of a shift work, claimant culture healthcare sector has alienated many existing doctors, who feel the job is not the one they initially qualified for. There are also signs that this perception is trickling down the generations, with indications that fewer and fewer top students are prepared to dedicate their lives to a profession that increasingly prohibits a life outside the job.

#### **Key Points & Implications:**

- Economic stagnation continued for a decade after the economic crisis of 2008-9, with public sector austerity continuing until 2019
- As a result of the difficult economic situation, living standards for large sections of society did not improve in this period
- Society has aged as expected, but without any increase in healthy lifestyles, leading to an overall increase in co-morbidities & chronic disease
- Major changes in healthcare have been driven by governments appeasing public demand and expectation
- Major public-driven changes include: 24/7 healthcare culture, increased desire for choice, access to hospitals & specialists & the pill for every ill culture

- Medical and political emphasis on dying at home leads to a focus on enhancing the experience of dying
- No increase in working conditions for doctors, and negative reception of other changes to doctors' working lifestyles leads to appeal of profession falling

## **Negative Scenario**

**22** Exacerbated by a devastating economic slump, healthcare in 2043 is struggling to meet the expectations of the public. In a turbulent economic period which saw 15 years of economic stagnation from 2008 and another major recession in 2030, the UK has become more isolated and less united: within a decade of Scotland voting for independence in 2014, the remaining constituents of the UK has all but left the European Union. Within the UK, health outcomes vary significantly from region to region – with the richest regions of the South East of England tending to fare notably better. However, even here population pressures, as adults of working age migrate from poorer, more remote regions, mean that many public services are under pressure.

*Public expectations are high but unmet*

**23** The public continue to have high expectations of the health service that are frequently unmet. Over the past 30 years, governments in the UK have attempted to stay on the side of the public by implementing a range of popular policies, such as requiring GPs to open their surgeries at the weekend and for hospital staff to perform procedures, where possible, at all hours of the day or night. These have caused widespread dissatisfaction amongst a workforce that was already becoming disillusioned with a lack of pay or pension rises. The result is a severe breakdown in the relationship between staff and management, with medicine losing its appeal as an attractive career option and doctors losing the trust of the public.

*Intergenerational tensions grow*

**24** While the health service is struggling to meet the demand of the ageing society, the perception has grown amongst younger people that their needs are being overlooked. Public opinion is increasingly divided along generational lines as public funds continue to dwindle.

*Post antibiotic age arrives*

**25** Although there is widespread support amongst both public and the medical profession for more treatments to be carried out at home, lack of funding has seen attempts to introduce this at a significant scale fail. One area of public demand that has matured is the 'pill for every ill' culture – but decades of over-treatment have seen the arrival of the 'post-antibiotic age'. Some hospitals have been hit multiple times in the past decade by outbreaks of superbugs that are

unresponsive to any existing antibiotic – causing not only a major public health concern, but also serving to undermine confidence in the health sector.

- 26** In 2043, the UK's health sector is characterised by divisions and discord. The public expect a responsive, adaptive health sector that is able to meet their needs efficiently and effectively, but lack of investment and a waning ability to attract the top 1% to the profession mean it is likely that its decline will continue.

### **Positive Scenario**

- 27** Buoyed by a stronger than expected economic recovery, the UK's health sector has benefitted from a number of changes – driven by public demand and expectation - over the past 30 years.

#### *Doctors compensated for public-driven changes*

- 28** Public expectations have remained very high – and increased as the economic news became more positive. Governments have been keen to implement changes that reflect public opinion – such as an open all hours culture, and maintaining access to specialists where necessary. However, doctors have also been rewarded for this change to their working lifestyles with increased pay and no increase in their retirement age. As the 'claimant culture' developed, doctors were granted greater protection against lawsuits.

#### *Changes to doctors working conditions maintain profession's appeal*

- 29** The potential for public-driven changes to health service to alienate the top 1% of students has not been realised, as the government's investment in workforce conditions – including greater pay, a retirement age lower than other professions and ability to take sabbaticals or long term breaks – has ensured that the appeal of the profession remains intact.

#### *Government takes measures to improve healthy living*

- 30** In line with public opinion, governments have been swayed away from introducing minimum unit pricing on alcohol or punitive taxes on junk food, but have responded to the medical profession's requests for other campaigns to reduce damaging consumption and unhealthy lifestyles – including widespread awareness and public information campaigns

#### *The health service utilises Big Data*

- 31** Attempts to implement complex data management systems were not without error, and caused some public dissatisfaction after some confidential data files were mislaid, but with increased funding many regions in the UK now utilise such systems. The end result is massively increased productivity and efficiency,

built on a secure and robust system. Despite their initial wariness, the public support continued investment in these systems and appreciate the benefits it brings to them

## **The Doctor Led Future**

### **Central Scenario**

#### **Key Assumptions**

- Demographic trends progress as forecast, with the large generation of baby boomers ageing and eventually dying
- Economic stagnation prevails until about 2020, after which there is steady if unspectacular economic growth
- Technology developments and medical advances continue – although the extent of these developments, or the precise impact they have on healthcare delivery is uncertain
- In this scenario, major developments within the healthcare sector have been driven by doctors and healthcare professionals

**32** In terms of the economic and demographic drivers of change, the past 30 years have presented significant challenges to the healthcare sector, with an ageing population and increasing numbers of chronic diseases and comorbidities compounded by a difficult economic climate. However, the healthcare sector in the UK has adapted to this situation, as it has been reconfigured with exactly these challenges in mind. In this and a number of other areas, doctors have been allowed to lead the debate on care and healthy lifestyles.

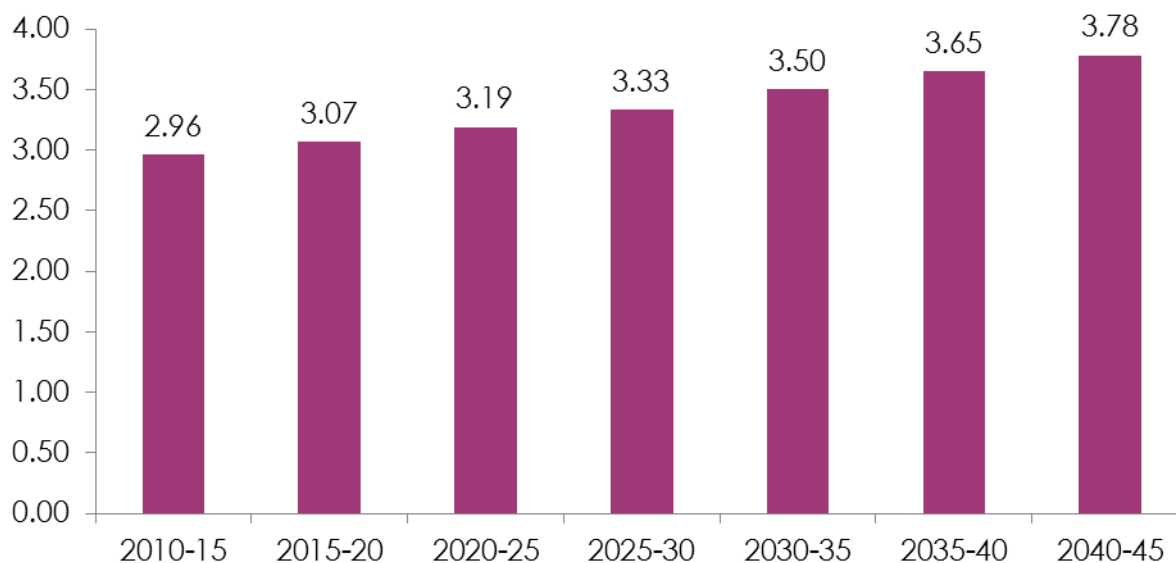
### **Coping with an ageing society and increased number of deaths**

**33** Driven by a political shift in focus from hospital care to community care, the health sector is rising to the challenges of an ageing society. The challenges are numerous - the number of deaths has increased by almost 30% since 2013, and the last year of life, for many older people, is one dominated by multiple, serious health problems. Between 2010 and 2022 alone, the number of older people with moderate or severe disabilities rose by a third, at a cost of £3.5bn.<sup>4</sup> The reconfiguration of the first point of care – in the community, by a generalist – has been of enormous benefit, as it has greatly reduced hospital costs and dramatically increased patient satisfaction.

<sup>4</sup> *Care for older people*, Nuffield Trust, Dec 2012



**Chart 2: Number of deaths, millions, UK**



Source: UN WPP 2010

### **A focus on generalism and localism**

- 34** The key aspects of this redesign have seen generalists placed as the focal point of healthcare. They are in turn supported by specialists who are able to provide consultant care either via video-link, or if necessary, in person. This shift in emphasis has been reflected by the changing structure of the country's hospitals – small, district hospitals are in the process of being removed, in

#### **Expert Panel**

*The expert panel agreed that more community care, and care in the home, was a long standing desire of patients. As well as requiring more generalists, such a shift would also require more specialists working in community settings. The panel did not foresee the closure of District General Hospitals, but did envisage a new hierarchy of healthcare: basic care at home, routine and emergency care nearby, and specialist*

*favour of larger, regional Mega-Hospitals; vast institutions which have the capacity to house hundreds of different specialists. The economic necessity of this restructure was made clear to government by doctors; in 2013 roughly 50% of*

the health budget was spent in hospitals.<sup>5</sup> Where necessary, patients are transferred to Mega Hospitals for extensive management of their conditions, but much use is made of local outpatient clinics and follow-up care being done within communities – minimising both the burden on hospitals and the inconvenience experienced by patients. A crucial aspect of the relationship between generalists and specialists has been the successful development of

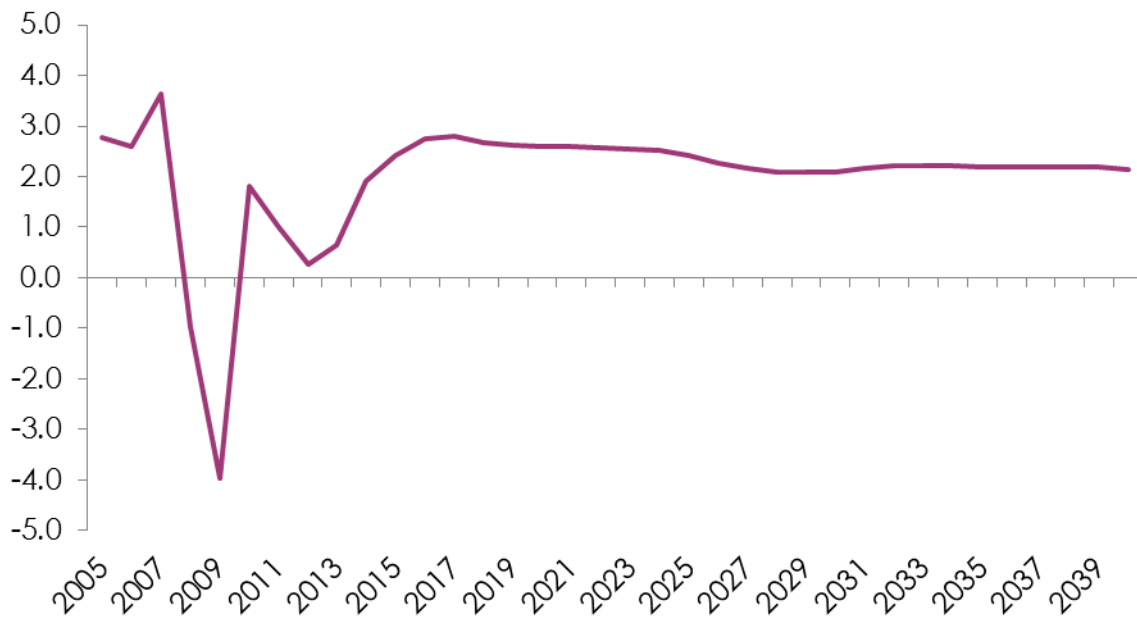
**1**

<sup>5</sup> *The Hospital is Dead, Long Live the Hospital*, Reform, Sept 11



Tele care systems. GPs have direct access to different groups of specialist consultants and where necessary, the patients themselves.

**Chart 3: Predicted Economic Growth: GDP growth, %, UK**



Source: Oxford Economics/Trajectory

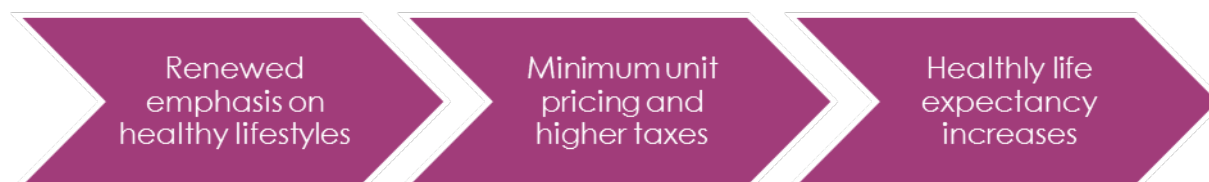


- 35** The remodelling of healthcare has had significant effects on the structure and focus of the training of doctors. A greater proportion of training is done in local communities, focusing on developing the skills required to deal with the most common problems – multiple morbidities and chronic disease – facing doctors in 2043. A lower proportion of training is completed in hospitals, until after the trainee doctor decides to specialise. Local authorities have also been given a more prominent role in managing this training, enabling them to tailor the focus of different skills according to their prevalence in that community.

### **Tighter spending constraints drive interventionist public health policy**

- 36** The economic picture in the UK has been one of stagnation and sluggish growth. Overall, living standards declined for many poorer communities in the decade following the downturns in 2008 and 2030. However, following the insistence of medical groups, after 2015 the government placed renewed pressure on campaigns to increase awareness and reduce unhealthy lifestyles, culminating in 2025 with the introduction of higher taxes on unhealthy food and

minimum unit pricing on alcohol. The public reaction to these measures was initially very mixed, but in 2043 doctors are seeing vastly improved health outcomes, and the healthiest generation of children in history. There has been some impact on older generations too, with steady declines in the prevalence of some of the most common lifestyle related illnesses. The initial positive indications from the drive to reduce damaging consumption have led some to be optimistic that healthy life expectancy will begin to increase faster than life expectancy – leading to healthier lives overall.



**37** The ageing society and economic stagnation has also influenced a wider debate, on the quality of end of life care and where priorities lie for doctors – increasing quality or length of life.

#### Expert Panel

*The experts expect a polarisation in living standards over the next 30 years, with income inequality growing. This does not mean the worst off will see a decline in living standards – but that the gap between the richest and poorest will grow. This will itself present challenges to the health sector, even if public health overall does not decline. Several experts pointed out that although issues such as rising levels of obesity posed a threat to public health, declining levels of*

After public pressure, the government started the process of adopting a maternity-style end of life care module, in which people could attain information and guidance about their choices at the end of their life. The broader debate about quality of end of life care proved a more sensitive one, with no clear public or government consensus. The debate centres on where care should be prioritised at the end of

life, especially for people with multiple morbidities or degenerative or chronic diseases. Overall, spending on healthcare is in line with forecasts from the Office for Budgetary Responsibility made in 2013 – for overall spending on health to be approaching 16% of GDP by 2060 and spending on long term care to reach 2.5% in the same period.<sup>6</sup> The economic context has intensified the pressure to reduce costs wherever possible, and this is one area in which some argue that focus on quality of life is not only the compassionate view, but also the economically sensible one. There have also been wider calls for assisted suicide to be legalised within the UK – with many opinion polls showing the majority of the public onside – but there has been little appetite within the government to legislate on this.

**1**

<sup>6</sup> *Spending on health and social care over the next 50 years*, King's Fund, 2013

**38** This radical shift in the delivery and focus of healthcare has been largely backed by successive governments, but has encountered opposition from the public, who are hostile to the sight of local hospitals closing, and often unhappy at the thought of travelling longer distances for specialist treatments. Although most are happy that their GPs are a more powerful and prominent part of community healthcare, demand for access to specialists remains extremely high. Amongst younger doctors however, specialism has become less attractive – the extraordinary emphasis placed on geriatric and generalist care over the past few decades has seen more young doctors opt to spend a large proportion of their careers in this field, which offers a number of benefits to trainee doctors – chief among them the ability to work close to home and in their local communities and more regular working patterns.

### **Extension of time spent in professional practice**

**39** Perhaps inevitably, there have also been significant changes to the working lives of doctors in the UK over the past few decades. The most notable – and most strongly opposed – is the requirement for doctors to work until they are 68. Although a source of anger amongst many in the profession, the fresh emphasis on community based, local, generalist care proved a suitable attraction for many doctors over the age of 60, including those previously based in hospitals.

**40** In 2043 the healthcare sector has been reconfigured by doctors and medical groups. The most pervasive change is visible in the focus on community care, with generalists positioned as the primary focus for healthcare, supported by consultant specialists. The infrastructure of the health service has also changed, with the old model of district hospital phased out in favour of regional mega hospitals that focus on specialist care and treatments. Doctors have also been able to lead public debates around healthy lifestyles, damaging consumption and end of life care.

### **Key Points & Implications:**

- Society has aged as expected, intensifying the debate around the standard of end of life care
- Economic stagnation continued for a decade after the economic crisis of 2008-9, with public sector austerity continuing until 2019
- As a result of the difficult economic situation, living standards for large sections of society did not improve in this period
- Major changes in the structure and focus of healthcare have been driven by doctors, who are leading the national debate in a wide range of areas
- With doctors influencing the direction of travel, there has been a sustained focus on generalism and community care

- Doctor led reform has also seen: Mega Hospitals replacing district ones, the development and widespread use of Telecare, and government adopting an interventionist health policy
- The political focus on public health has led to with modest increases in healthy lifestyles, leading to healthy life expectancy increasing
- Overall, the public have been divided on many of the doctor-led changes – especially around the restricting of hospitals – but by 2043, satisfaction with the health sector is very high.

## **Negative Scenario**

- 41** The increasingly central role doctors have played in medical provision and the organisation and management of the health service have had a series of unintended negative consequences in the UK by 2043. Overall, the public have rejected or opposed many doctor led reforms and are unhappy that their voices are not being heard. Governments have attempted to appease both sides with the result of satisfying neither, and the result is a discordant health service and declining levels of trust in the medical profession.

### *Closure of local hospitals and reduced access to specialists worries and angers public*

- 42** The announcement of plans to close local district hospitals and replace them with regional Mega-Hospitals did not find support amongst the public. Initially, the government reaction was to delay the bill and open it to wider consultation, but after it inevitably passed, there were widespread protests and demonstrations – and Mega-Hospitals remain distinctly unpopular with the public today. Their main objections lie in the perceived lack of medical centre near to them and the potential threat to health this entails, and the requirement to travel long distances for surgeries and consultations. Another sticking point has been the reduced access to specialists, the demand for which has not waned even with the emphasis given to generalism and community care by authorities and the medical profession.

### *Public oppose interventionist public health policy*

- 43** Although there was some support amongst the public for minimum unit price and punitive taxation on unhealthy food and drink, this had been exaggerated in some reports, and after it was introduced, became very unpopular with the majority of the public. Opposition was strongest from the producers of alcoholic drinks or affected foods, who accused doctors of attempting to stifle business. The results of the measures on damaging consumption were not encouraging – for the worst affect, the measures merely meant they spent a greater proportion of their income on these items – and less on healthier products.

### *Severe changes to Doctor's working lifestyles reduces workplace satisfaction*

- 44** As trust in doctors fell in the wake of their unpopular attempts to remodel the health service, the profession became less attractive to younger students and within a few years sizeable and serious gaps in the workforce had appeared. The government reacted by increasing the retirement age for doctors to 70, reducing holidays and reducing the ability to work part time or flexibly. Inevitably, the profession reacted angrily to this, with morale in the workforce dropping to an all-time low.

### **Positive Scenario**

- 45** By 2043, a series of doctor led initiatives have remodelled the health service and improved healthy lifestyles around the country, public satisfaction, doctor satisfaction and the productivity and efficiency of hospitals. Doctors have been able to delegate certain specific technical skills to other medical staff, reducing the overall cost of procedures and operations

### *Doctors delegate technical skills*

- 46** In a bid to increase efficiency in hospitals and reduce the pressures on doctors' time, the medical profession have delegated a range of administrative and technical procedures to other medical staff. This means not only that busy specialists have more time for patient consultations and other tasks, but the overall costs of procedures and operations are dramatically reduced, leading to a leaner and more efficient health service. This model has proved so successful that a host of other advanced economies – which have also experienced similar problems have begun to look at similar ways to reduce costs in their country.

### *Improved transport smoothes phasing out of district hospitals*

- 47** Potential public opposition to the introduction of Mega-Hospitals – and the corresponding phasing out of district ones – was prevented by a large scale project to radically improve the UK transport network. High speed rail was rolled out across the country by 2035, cutting more than a third off many journeys. The decision to place the majority of the new Mega-Hospitals as close to major terminals as possible also proved popular.

### *Doctors lead debate on quality and length of life*

- 48** With the ageing society an increasingly prominent national issue, the role of acute care towards the end of life has become a crucial topic. Arguing that acute care – often aimed at lengthening life rather than improving the quality of it (and at times, reducing the quality of it) – was both unnecessary and

economically unjustifiable. The public were broadly sympathetic to this view and the government have been persuaded to change policy in this area.

### *Doctors lobby successfully for substantial improvements to working conditions*

- 49** Although budgets have remained tight, the multiple efficiency savings and increased productivity visible in the health service have enabled doctors to successfully lobby for widespread and substantial improvements to their pay and working conditions, including a 6-month sabbatical on full pay after every ten years of service. This has, unsurprisingly, helped to improve morale within the workforce and maintain the attractiveness of the profession as a career. With trust in doctors very high, the public have raised no significant opposition to these improvements.

## **Technology Led Future**

### Central Scenario

- Demographic trends progress as forecast, with the large generation of baby boomers ageing and eventually dying
  - Economic stagnation prevails until about 2020, after which there is strong and sustained economic growth
  - Technology developments and medical advances continue and surpass expectations – causing major changes in healthcare demand and delivery
- 50** By 2043, the healthcare sector has been transformed by advances in medicine and technology. Huge developments in research into stem cells, genomics and imaging have led to a sea change in diagnostics, personalised medicine and treatment. Information technology has also developed rapidly, finally delivering in medicine what it always has in other sectors: raising productivity dramatically and reducing the overall cost of basic procedures. The impact of this profound technological change has had a wide range of hugely positive consequences – although there are some issues caused by the nature and the pace of change.

### **Economic growth post-2020 allows for investment**

- 51** The adaptation of new technologies has proved possible, despite sluggish economic growth up to 2020. Relatively strong economic recovery after that time has seen a public spending environment in which investment in technologies that would improve the productivity of health care delivery in the UK became a reality.

- 52** The widespread rollout of tele care technologies has been particularly crucial to the healthcare sector's attempt to meet the demands of an ageing population. Doctors have been able to save both time and expense by consulting on minor problems or conducting follow up checks by screen – helping to manage the alarming trend in increases in hospital admissions apparent before (between 2002 and 2012, hospital admissions increased by 37%).<sup>7</sup> Most systems are able to communicate key health indicators such as heart rate or blood pressure, allowing doctors to effectively track their patient's conditions. As a tool for monitoring post-hospital care, or in monitoring long term or chronic health conditions, telecare has become an indispensable part of the health service's armoury.

#### Expert Panel

*Although they did not agree that telehealth and telecare technology would reduce costs, the expert panel expected these services to benefit the health sector in the future – either by reducing hospital admissions or empowering patients. In order for telehealth to be beneficial however, the implementation and management of the services must be*

- 53** The seismic developments in some fields of medical science have had a number of deeply impactful consequences. Diagnostics and treatments have improved

#### Expert Panel

*The experts took the view that medical advances would not be universally positive for the health sector – expecting them to result in higher costs overall. The panel argued that medical advances will allow patients to live longer with long term conditions – increasing life expectancy but also increasing the amount*

to the extent that many conditions previously considered degenerative or fatal can now either be predicted or reversed. The ability to predict a genetic predisposition to certain forms of cancer and other illnesses has enabled patients to tailor their diets and lifestyles

accordingly – although some unforeseen negative side effects have emerged.

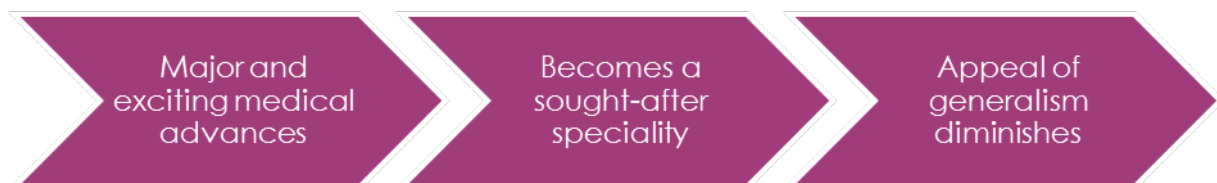
- 54** The rise in public expectations has intensified the growth of the 'pill for every ill' culture, which in turn is hastening the arrival of the post-antibiotic age – a very real fear for doctors is that they will lose the ability to treat a range of serious infections. A minority have also reacted to the medical progress in a complacent manner – believing that lifestyle changes are unnecessary due to the level of treatment available. Others have reacted to this view angrily – reigniting the longstanding debate around the deserving and undeserving recipients of public services. Generally speaking, the impact of these medical advances has been

<sup>7</sup> *Hospitals on the Edge*, Royal College of Physicians, Sept 2012



hugely positive - overall, healthy life expectancy is increasingly steadily and trust in doctors is at an all time high.

- 55** Doctors themselves have also been significantly affected by this technological and medical change. One of the most notable effects has been amongst students or trainees, who have been drawn to medicine entirely because of the perceived 'glamour' around these areas of speciality. The emergence of healthcare as a dynamic and modern industry has ensured it has maintained its appeal to the top 1% of students. While the health sector benefits from this enthusiasm (as it needs doctors trained in these areas) it has also greatly reduced the appeal of generalism – leading to significant personnel shortages as the sector attempted to cope with an ageing society.
- 56** Generalism has particularly suffered – as training has attempted to ensure all young doctors are equipped with the skills needed to manage new procedures and treatments, basic skills are prioritised less, further impacting on the supply of well-trained generalists working in the community. Another less favourable consequence has been the difficulty in keeping up with the pace of medical advance (getting the existing workforce up to speed). Although funding has increased, resource constraints remain, and even in 2043 many doctors trained more than twenty years ago are not up to date with many new medical advances.



- 57** Wider technological advances have also seen the emergence of new health tools and authorities. IT and internet companies, such as IBM or Google, who have for decades specialised in data management are increasingly influential sources of information. Google's consumer focussed health monitoring technologies and personalised health and lifestyle recommendations are in some cases diminishing the role doctors have as the first authoritative medical opinion a patient might hear. Both companies have also been instrumental in assisting hospitals and the wider health service to implement data management systems in a bid to become paperless. The need for such a system has increased in intensity in the wake of medical advances as greater and more sensitive quantities of information are being stored. Of particular emphasis is the security of people's data. Medical practitioners are increasingly finding themselves collaborating with and employing the skills of key personnel at such tech companies.



**58** Over the past three decades the landscape of healthcare has been revolutionised by a remarkable series of medical breakthroughs. Facilitated by a prosperous economy, the health service in the UK has been able to adapt and modernise, utilising not just these medical developments but also rolling out telecare and complex data management systems. Although the health service is generally more cost-effective, resourceful and dynamic, the pace of change has alienated some and led to the weakening of basic skills and has caused the appeal of generalism amongst young doctors to wane.

#### Key Points & Implications

- The economy was stagnant until 2020, but after that grew strongly, driving research and innovation in medicine and technology
- Developments in ICT have delivered efficiencies and reduced costs across the healthcare sector
- Profound medical advances have revolutionised diagnosis and treatment
- Developments in Telecare and other areas have helped meet the challenges of the ageing society
- Older doctors, trained before the technology boom, have struggled to keep up with the pace of change
- Patient expectations have risen with the advances, accelerating the rise of the 'pill for every ill' culture and reducing effectiveness of public health campaigns
- New health tools from commercial technology companies have emerged, both easing pressure on doctors and leading to the rise of new partnerships
- Medical advances have seen public concern around the privacy of their – increasingly sensitive – personal information
- The appeal of the profession remains very high - but the remarkable medical advances have resulted in the appeal of generalism declining

#### Negative Scenario

**59** The rapid evolution of medical technologies has produced a series of negative impacts on the provision of public health care services in the UK. Overall, in the public debate about the introduction of new technologies in to healthcare, there is an association between new technologies and cost-cutting. Further, public health care provision is seen to lag behind the private sector in its use of technology and those who can afford it are increasingly attracted to private sector providers. There is also a widespread perception that other countries are ahead of the UK in the adoption of medical advances. As a result, there has been an increase in medical tourism out of the UK, particularly to the growth markets of the Middle East and Asia.

### *Tele-medicine = cost cutting and poorer service*

- 60** The UK has suffered from long periods of stagnant economic growth. Since the major economic crisis of 2008, average annual GDP growth has been a mere 1% pa, compared to the average of 2.25% enjoyed in the second half of the twentieth century. However, around the world technology has continued to develop at a rapid pace. Other countries have seen massive productivity gains in from the introduction of tele-medicine. The UK system, which has fallen rapidly down the international productivity league tables, comes late to the revolution. Inevitably, given public spending constraints, the UK opted for a low cost solution. The profession and the media react against the new systems, the introduction of which is accompanied by announcements of cuts in the number of doctors and other medical professionals. In the public mind, new systems that ought to offer greater convenience and efficiency become associated with a reduced level of service. There are also a number infamous cases, given widespread media coverage, of patients left without appropriate treatment and misdiagnosed after teething troubles with the introduction of the new system.

### *Tele-medicine and privacy fears*

- 61** Fears over data privacy are also heightened after a number of the systems and databases that support the new tele-medicine delivery system are hacked by protestors that were against their introduction. There are also fears about the ability of medical professionals, many of who qualified to practice several decades ago, to adapt to the use of the new systems.

### *Private sector has a technological advantage*

- 62** Given this background, there is a widespread perception among the public that the private sector is much better at using new communications technologies in the delivery of healthcare. This has given a real boost to the likes of Google Health and Amazon Medical. Both organisations now compete increasingly effectively with public health care systems across the world to deliver routine medical services from diagnoses to the management of chronic conditions. Their success means that they can offer better salaries and working conditions for the medical professionals they employ. Working in the public sector is increasingly seen as second best and there are fears of a draining away of the best talent into the private sector.

### *UK lags behind in delivery of medical advances leading to increased medical tourism out of the UK*

- 63** Public expectation predictably rises as fresh medical barriers are broken. However, the UK has gained a reputation for being sluggish in actually delivering these advances within its health service – leading not just to

widespread dissatisfaction, but also increased medical tourism to other countries.

### Positive Scenario

**64** After 2013, the UK recovered rapidly from its economic slump and began three decades of near-uninterrupted growth. This led to a glut of both public and private money being spent on either the health sector or medical research. Some of the most immediate results came in medical science, where a succession of research breakthroughs in stem cells, imaging and genomics served to revolutionise 21<sup>st</sup> century healthcare. With more public money available, the government was able to raise health spending above inflation for the first time since 2010. The UK's strong growth, improving standards of healthcare and growing reputation as a hub of innovation and research has seen it attract both skilled migrants and medical tourism.

**Chart 4: A Strong Recovery: GDP growth, %, UK**



Source: Oxford Economics (2005-2013)/ Trajectory 2014-2040

Big productivity gains, with incentives to plough a proportion of savings back into services

*UK becomes a 'net exporter' of medical procedures*

**65** The UK's burgeoning reputation as a hub of research and innovation – buoyed by its strong economic growth has seen it redesign – and in some cases, pioneer – a range of new medical procedures. Overall, the country has become a net exporter of these, and is fast developing a reputation as the health centre of the world. Government initiatives that prioritise reinvesting that money back in the UK health service have been widely supported – leading to an

unprecedented level of pride and satisfaction in the UK's health service from both doctors and the public as a whole.

### *Wealthier public lead better lifestyles*

- 66** The remarkable economic recovery prevented many vulnerable groups drifting into nutritional poverty. As the economy improved, and the standard of living across the UK rose, people were able to choose more expensive, healthier food and drink. This was aided by the availability of public money to promote healthy lifestyles and nutritional education and awareness. The result is the healthiest generation on record and doctors are confident that even as society continues to age, health life expectancy will increase, reducing the future burden on doctors.

## **Conclusion**

- 67** Across all three of our key scenarios, a number of common assumptions are made about the major 'macro' drivers of change and how they will affect healthcare over the next 30 years. A central assumption is that demographic trends progress as forecast, with the large generation of baby boomers ageing and eventually dying. Another assumption is that there is an extended period of economic stagnation as the country continues to recover from the 2008 crash, with steady growth returning after 2020. A third assumption is that technological developments – both in ICT and medicine – continue, although the precise extent or impact of this is unknowable. These assumptions are broadly supported by the panel of experts we consulted during the generation of this report.
- 68** Beyond these there are myriad potential variances, but some common themes across the three core scenarios. One is that a focus on increasing the number of generalists and the emphasis on community care is of paramount importance. The efficacy of this focus in combating the challenges posed by the likely progression of demographic trends will be affected by a number of factors, such as the potential uses of telecare technology and whether healthy lifestyles reduce the number of chronic diseases and co-morbidities. The expert panel also contributes to these predictions. They expect a polarisation in living standards and public health that will serve to increase the number of people with co-morbidities. Public expectations of service quality will continue to increase as medical advances and technological developments progress, requiring a prioritisation of services or a central commitment to extra funding. The experts also expect the healthcare sector to manage the twin expectations of high quality service and local, community care.
- 69** Certain public expectations and demands are also common to the three core scenarios. Patients expect ready access to doctors – including specialists – at all

times, and retain an affinity for hospital care. These are at odds with the direction of travel in the doctor-led scenario, where healthcare is reconfigured in the opposite direction – with fewer district hospitals and generalists acting as the primary point of care. This balancing act, between the needs of the society and the expectations of the public is a difficult one – but where divisive reforms (e.g. an interventionist public health policy) lead to better health outcomes overall, public support for the health sector will remain high. There are also areas where the aims of the public and the aims of the medical profession coalesce – for example, in the desire for patients to be able to die at home.

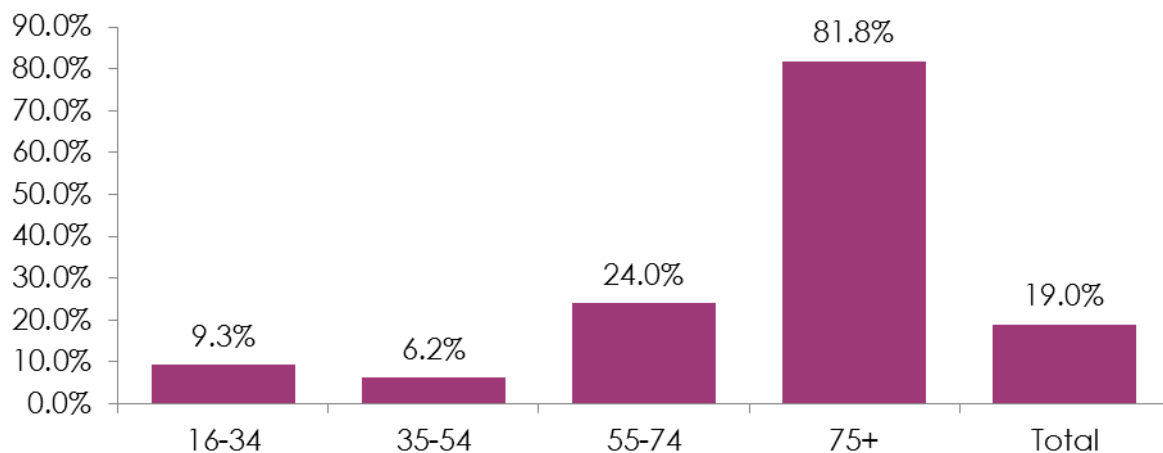
## Appendix: Quantitative analysis and Forecasts

- 70** To support these scenarios – which are based largely on qualitative assessments – we have also produced a series of quantitative forecasts, looking primarily at changing prevalence of five major areas of illness – cancer, heart disease, depression/anxiety, diabetes and dementia.
- 71** The rates of incidence were gathered using two nationally representative large surveys – the British Household Panel Survey (which surveyed over 10,000 households a year between 1991 and 2009, before being succeeded by Understanding Society) and the English Longitudinal Study of Ageing (a biennial survey of over 50s in England). Using these datasets, we were able to gather information on rates of incidence of each of the five health areas between 2002 and 2009. Using population growth forecasts from the Office for National Statistics (which run yearly until 2035) we have extrapolated these incidence rates to produce forecasts.
- 72** We have included three different forecasts in our analysis of illness incidence:
- The first assumes that incidence rates between 2010 and 2035 remain at their average between 2007-2009
  - The second assumes that incidence rates develop on the basis of the trends since 2002
  - The third assumes that incidence rates fall by 1% per annum, as a result of medical advances and/or lifestyle changes
- 73** Each forecast presents a very different picture of the potential future challenges facing doctors and the health sector in the UK. To complement the data, we have also sourced relevant external statistics – such as birth or death rates – to broaden our understanding of the potential components of change.

## Basic demographic data

- 74** An essential consideration in assessing the future incidence of disease is to understand how the population will change over the next few decades. Population growth and increasing longevity is frequently an indication of a country's success, but different demographic trends present different challenges to the healthcare sector and to doctors.

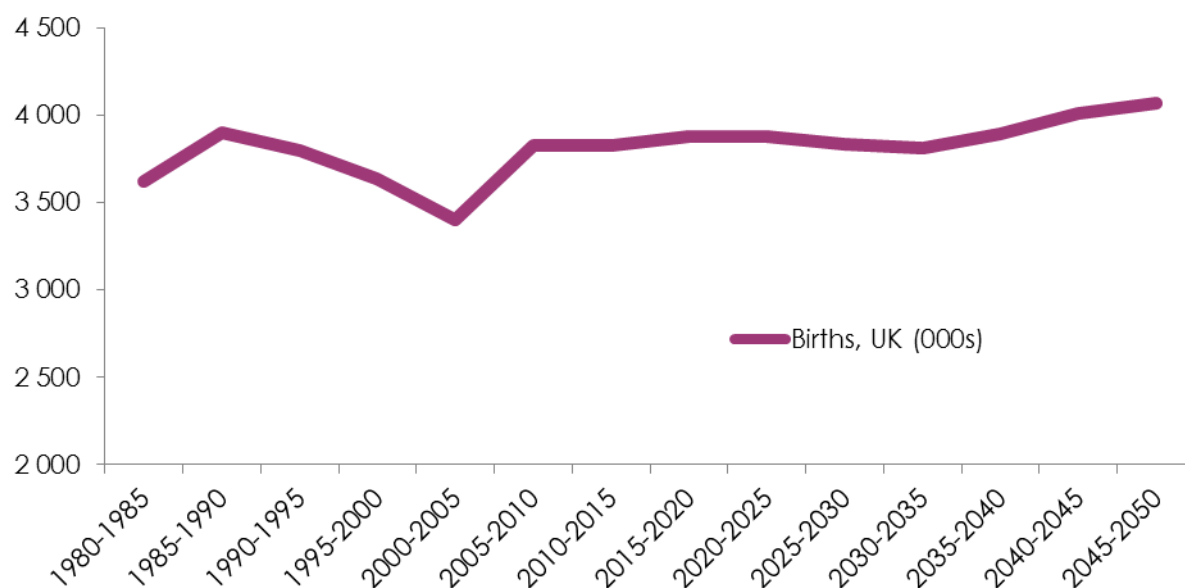
**Chart 5: change in size of population, by age group (2010-2035)**



Source: ONS

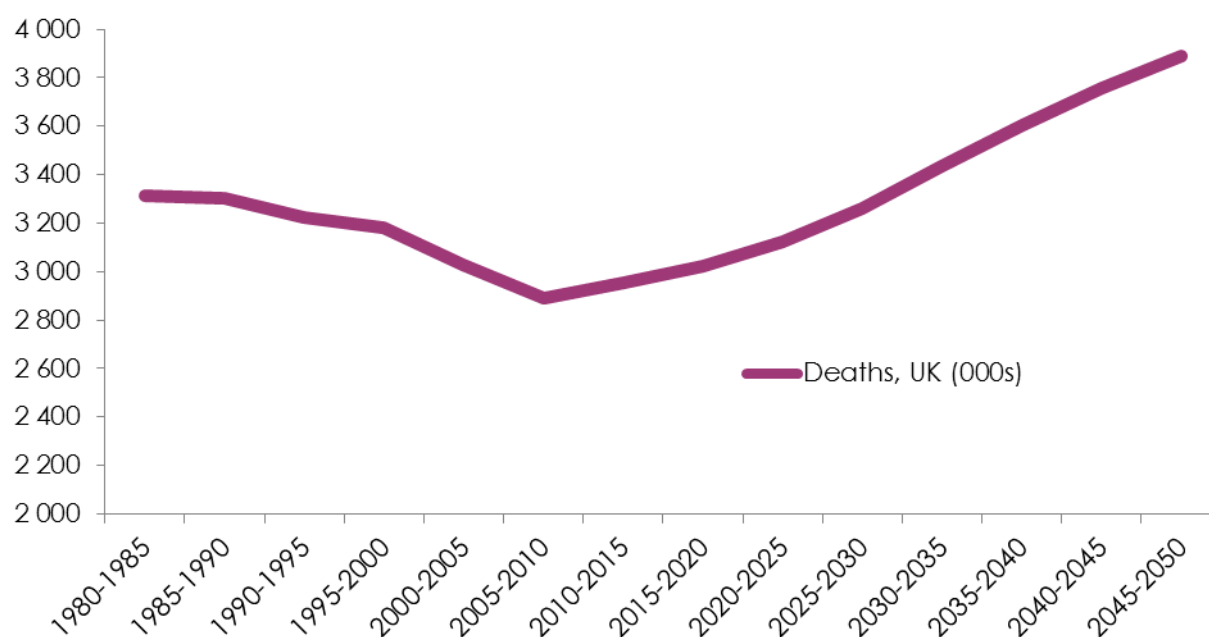
- 75** Many of the changes in the incidence rates of diseases are affected to a large extent by population growth. Many major illnesses are concentrated amongst older people, which are the age groups that will grow by the greatest amount (including an 82% growth in the very oldest).

**Chart 6: Number of births, 1980-2050 (000s)**



Source: UN World Population Prospects, 2012 revision

**Chart 7: Number of deaths, 1980-2050 (000s)**



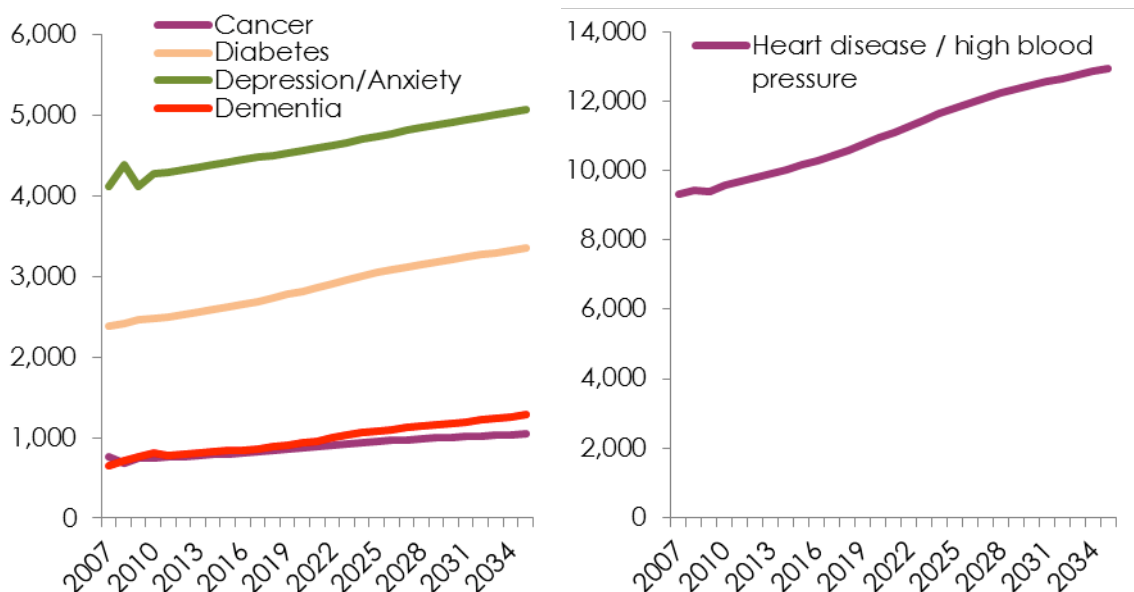
Source: UN World Population Prospects, 2012 revision

## Forecast 1

**76** In this forecast, we have assumed that the rate of incidence has remained the same as the average for the period 2007-2009, and that the only change is in population size.



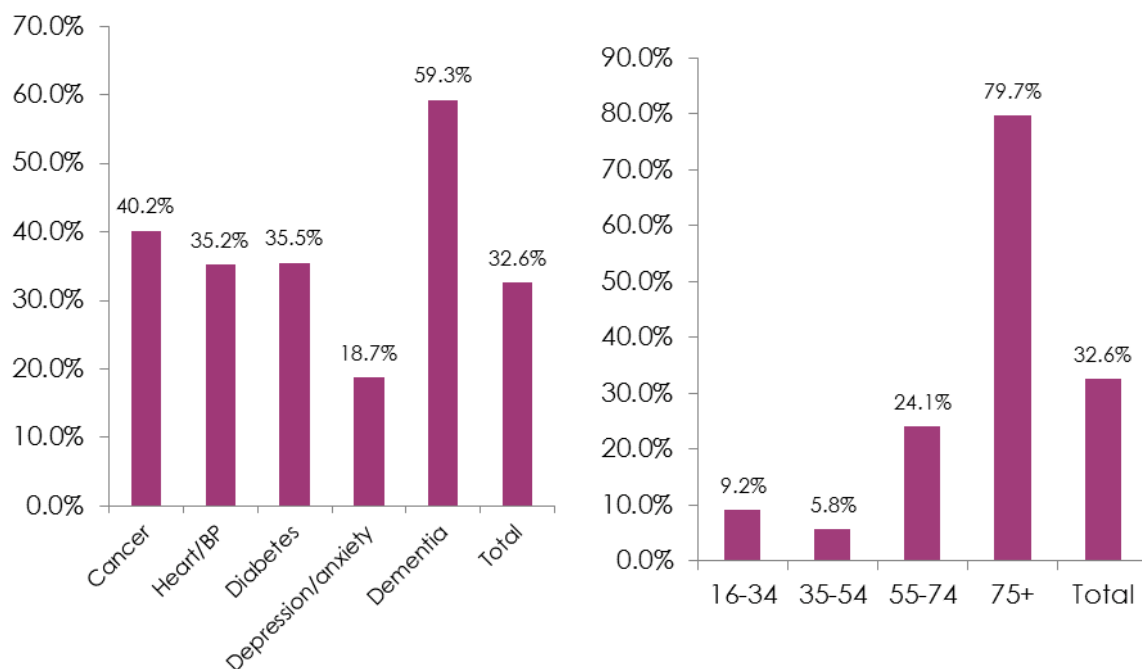
## Charts 8 & 9: Number of people with each disease 2007-2035, 000s



Source: British Household Panel Survey/English Longitudinal Study of Ageing/Trajectory

**77** The charts above show a steady increase in the number of cases of each disease. As this is driven entirely by population growth, and not by a rise in the incidence rate of these illnesses, these charts underline the challenges the health sector will face over the next few decades, even if there is no change (positively or negatively) in prevention or public health.

## Charts 10 & 11: Growth in illnesses by type and age, 2010-2035 (%)



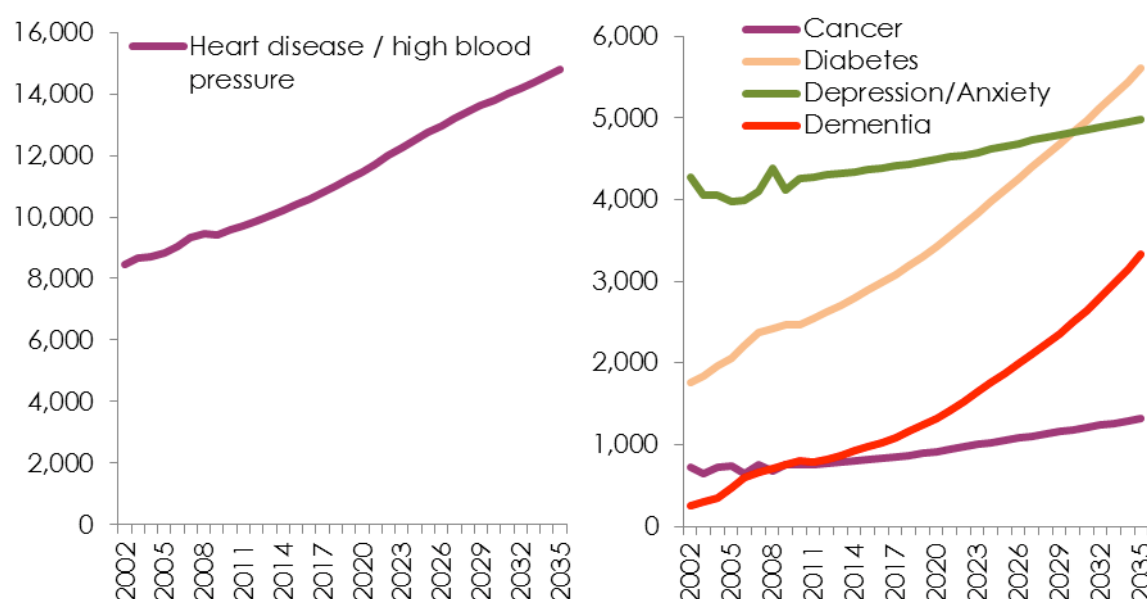
Source: British Household Panel Survey/English Longitudinal Study of Ageing/Trajectory

**78** Overall, the number of illnesses will grow by more than the population (33% growth in illnesses, compared to a 19% growth in population), because the incidence rate is highest in the fastest growing age groups – the 55-74s and the over 75s. For the younger age groups, the growth in the number of illnesses correlates very closely to the growth in population.

## Forecast 2

**79** These forecasts are affected by both the anticipated population change and the expectation that the trend in incidence for each illness since 2002 continues until 2035. This leads to much faster growth than in forecast 1, with a higher level of incidence in almost every area.

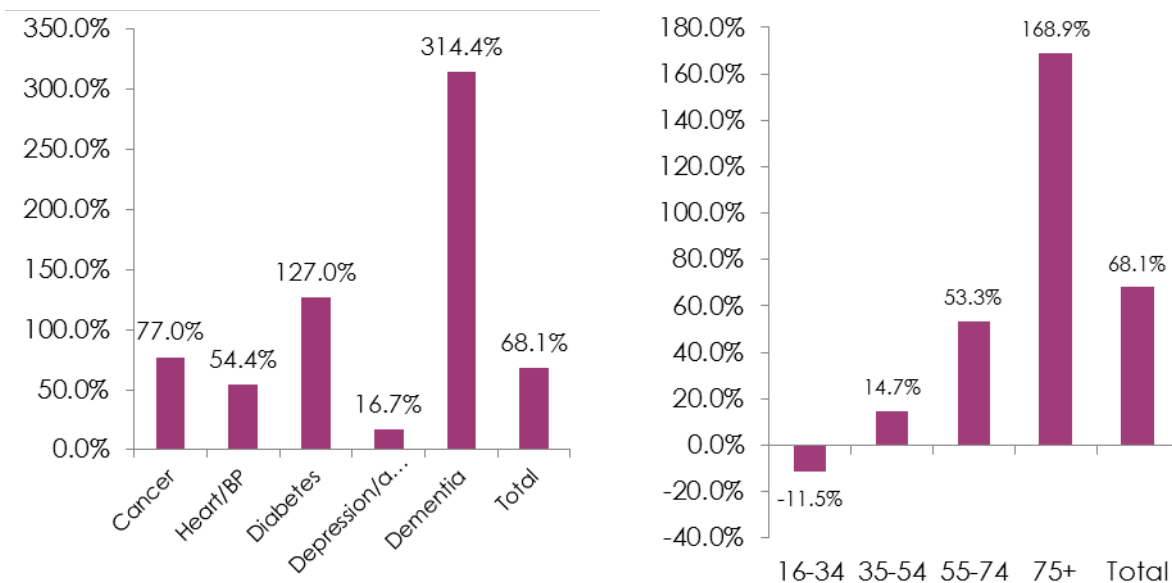
### Charts 12 & 13: Number of people with each disease 2002-2035, 000s



Source: British Household Panel Survey/English Longitudinal Study of Ageing/Trajectory

**80** Although the number of cases of depression or cancer in 2035 remains broadly similar to those expected in forecast 1, there are very significant rises in the number of cases of heart disease (from 8.5m in 2002 to 14.8m in 2035), diabetes (1.8m in 2002, 5.6m in 2035) and dementia (0.3m in 2002, 3.3m in 2035).

## Charts 14 & 15: Growth in illnesses by type and age, 2010-2035 (%)



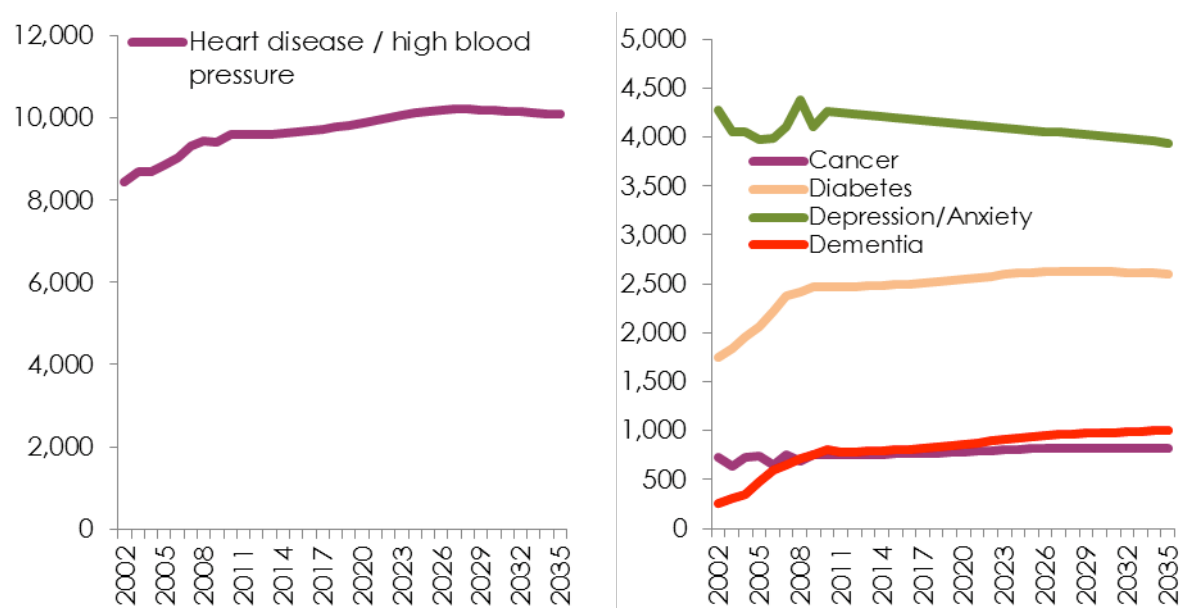
Source: British Household Panel Survey/English Longitudinal Study of Ageing/Trajectory

- 81** The charts above illustrate the rapid rate of growth for diabetes, heart disease and dementia. Overall, based on trends since 2002, the number of illnesses in the UK will increase by 68% between 2010 and 2035. This growth is especially concentrated amongst the over 75s, but growth is evident in every age group except the 16-34s. The decline in illnesses is driven by the downward trend for depression/anxiety, which is most prevalent in this group.

### Forecast 3

- 82** This forecast makes the assumption that incidence rates fall by 1% a year each year between 2010 and 2035. This allows us to examine the effect of improving public health on the demand for doctors and the impact on the health sector overall.

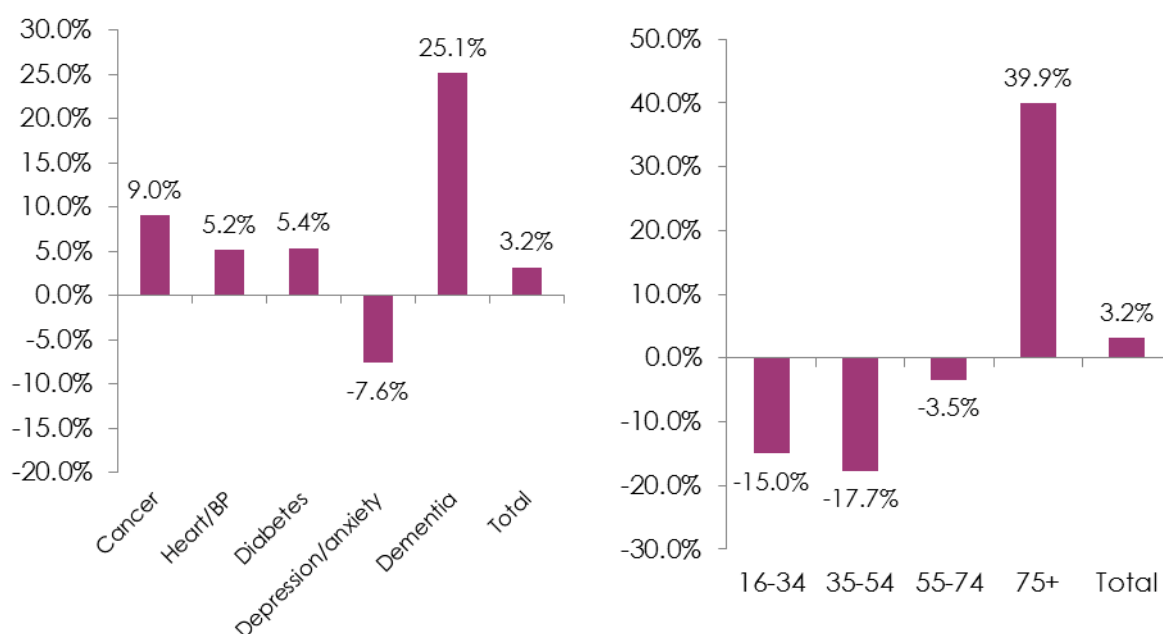
**Charts 16 & 17: Number of people with each disease 2002-2035, 000s**



Source: British Household Panel Survey/English Longitudinal Study of Ageing/Trajectory

**83** In this forecast the number of people with cancer, heart disease and diabetes rises very slowly, and the number with depression actually falls slightly. There is, however, a larger and more notable rise in the number of cases of dementia, which increase from 0.3m in 2002 to just over 1m in 2035. The increases in all illnesses (except depression or anxiety) shows that even if public health increases consistently over the next few decades, simply the rate of overall population growth will have a considerable impact on the health sector.

## Charts 18 & 19: Growth in illnesses by type and age, 2010-2035 (%)



Source: British Household Panel Survey/English Longitudinal Study of Ageing/Trajectory

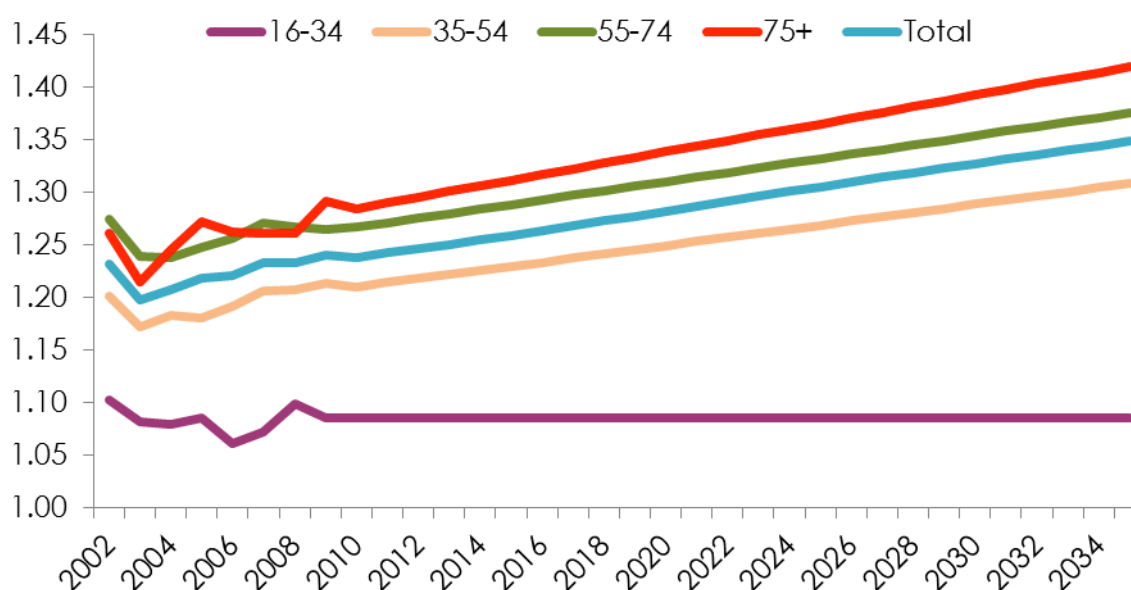
**84** Overall, this forecast presents some more positive trends in the growth in the number of illnesses. The number of cases of depression/anxiety is expected to decline, with rises in cancer, heart disease and diabetes significantly lower than in both forecasts 1 and 2. Overall, there is a modest 3.2% rise in the total number of diseases – much lower than either the 32% predicted in forecast 1 or the 68% expected in forecast 2.

**85** However, the 25% rise in cases of dementia and the 40% rise in the number of illnesses amongst the over 75s indicates that even in this optimistic forecast, population growth will still have a significant impact on the rising workload of the health sector.

### Comorbidities

**86** One of the major challenges facing doctors over the next 30 years is the anticipated rise in comorbidities. The chart below examines the growth in the comorbidity ratio (the number of illnesses people with at least one of heart disease, cancer, diabetes and depression/anxiety have) based on the trends since 2002.

**Chart 20: Illnesses per person with at least one of cancer, heart disease, depression or diabetes, by age**



Source: British Household Panel Survey/Trajectory

- 87** The forecasts for comorbidities reveal a consistent rise for all age groups, with the exception of the 16-34s, where the rate is flat. For the oldest group, the comorbidity ratio will rise from 1.28 in 2010 to 1.42 in 2035.

### Regional demographic trends

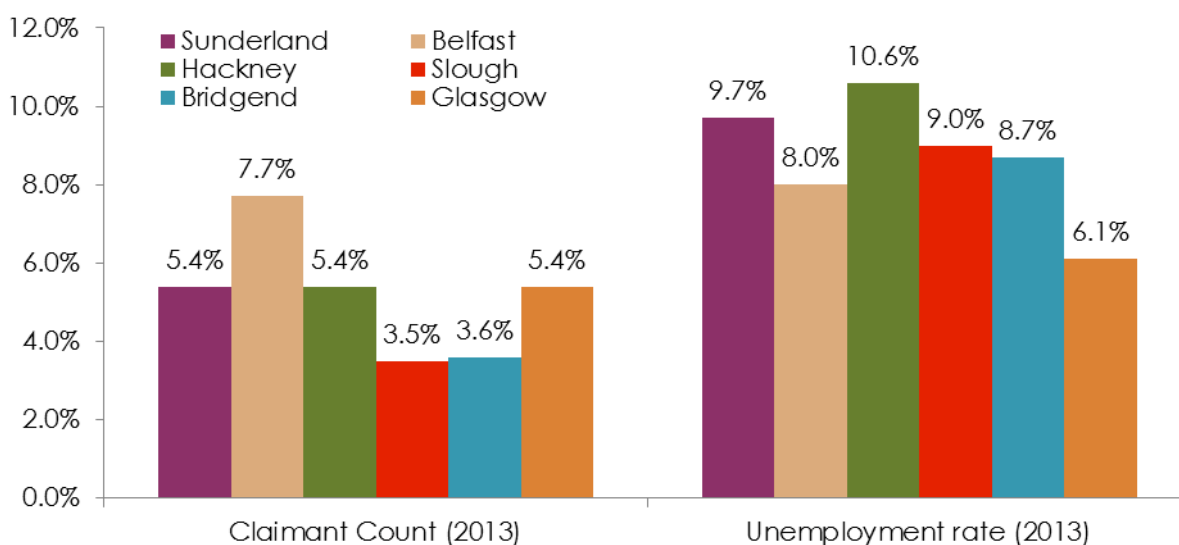
- 88** Each of the forecasts highlights different challenges in different areas of health and for different age groups. However, the future demands on doctors will not be consistent across the country, but will instead vary widely due to local and regional demographic or economic trends. The data in this section explores some of the regional variations that are currently present in different locations in England and Wales.

**Chart 21: Proportion of local authority in each age group, 2011 (%)**



**89** The chart above reveals the sharp contrasts that appear in different areas in terms of their age structure. Places such as Slough and Hackney have a high proportion of younger people – who have one set of healthcare needs – and a low proportion of older people. In contrast, areas such as Bridgend and Sunderland have a much higher proportion of older people – whose healthcare needs are very different.

**Chart 22: Claimant count and unemployment rate, June 2013 (%)**

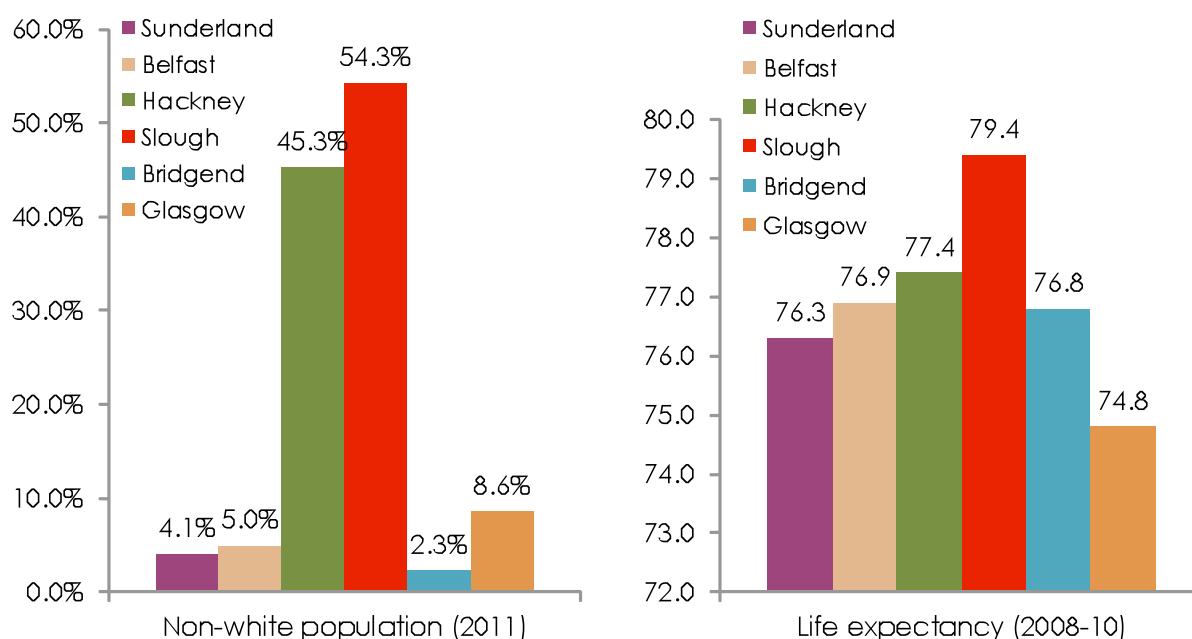


Source: ONS Labour Market Statistics, June 2013

**90** Economic factors can also have a significant effect on individual health. The chart above illustrates how, like demographic trends, economic trends vary

around the country. Unemployment rates and claimant counts in Bridgend and Slough are considerably lower than those in either Sunderland or Hackney.

**Charts 23 & 24: Proportion of non-white population, 2011 (%) and life expectancy at birth (2008-10)**



Source: Census 2011 / ONS 2008-2010 / NISRA 2011

**91** Ethnic diversity varies sharply across the country, affecting the demand on doctors in terms of illness prevalence (for certain diseases) and service delivery. In Hackney and Slough the proportion of non-white residents dwarfs the proportion in Bridgend, Belfast or Sunderland. There are also considerable variations in life expectancy at birth; residents in Slough can expect to live over five years longer than those in Glasgow.



## Expert Panel Assessment

- 92** In order to further explore the assumptions underpinning the scenarios, we also engaged a number of experts to provide commentary on a range of issues that are expected to affect the demands for and on doctors over the next 30 years. As well as gaining new perspectives on key issues, we were also able – crucially – to assess the validity of the central demographic, economic and technological assumptions driving the scenarios. The basic demographic and economic assumptions – that an ageing society would see a rise in the number of people with multiple long term conditions, and that the economic impact of this would be severe (in a wider climate, at least until 2020, of modest economic growth and constrained public finances) were not disputed. The technological impacts, by their very nature, generated more diverse debate. One assumption central to the scenarios has been undoubtedly supported by the experts: that the impact of technological and medical developments will have myriad and profound effects on the future of healthcare and the demand for doctors.
- 93** The experts themselves were recruited from a wide range of professions and medical backgrounds, and included patient representatives, health economists, demographers, employers and representatives from the Medical Royal Colleges. This mix of expertise is crucial in providing an authoritative judgement on the wide range of issues present in the scenarios. A full list of the experts is provided at the end of this appendix.

### **An ageing population and multiple co-morbidities**

- 94** One of the central assumptions in all three scenarios is that the population will age significantly over the next 30 years, with more than 7million over 80 year olds in society by 2043. One expected implication of this demographic trend is an increase in the number of patients with multiple morbidities. The expert panel emphatically supported these assumptions, suggesting that unhealthy lifestyles would lead to the prevalence of certain long term conditions (such as diabetes or heart disease) becoming more prevalent, and medical advances prolonging the length of time that patients can remain alive with such a condition. The demographic trend itself (predicting more older people) was supported unequivocally.

### **A polarisation in public health standards**

- 95** On the issue of living standards and public health, the experts were less united. For example, not all agreed that significant sections of society would be less healthy than previous generations – pointing to a long term decline in rates of smoking and better awareness of healthy lifestyles.
- 96** It was widely accepted, however, there would likely be a polarisation in living standards of the next 30 years, with the most affluent likely to become

increasingly healthy, and the health for the poorest increasing at a slower pace. This worsening inequality was itself regarded as a serious issue.

- 97** Several panellists pointed out the potential impact of targeted awareness campaigns and the effectiveness of prioritising public health and improving living standards. The implication of this would be a better quality of public health overall.
- 98** The issue of public health was seen as inherently linked to the impact of an ageing society. Several experts identified public health as a cause of long-term medical conditions, which, as outlined above, is a crucial factor in considering the impact of higher numbers of older people on the health sector.

### **Funding the future**

- 99** The panellists agreed that the cost of healthcare would increase in the future, although beyond this central view there was some variation on how these costs should be met. The core economic picture outlined in the scenarios – of no more than modest economic growth until at least 2020 and very tight public finances in that period – was not disputed.
- 100** Several of the expert panel expected the NHS to start charging co-payments on certain services such as elective surgeries, and suggested that at the very least, intense resource prioritisation would be required to meet the demands of society by the 2040s. Others, however, suggested that the 'old' methods of meeting rising costs – such as increasing taxation or simply prioritising the funding of the service – would be effective.
- 101** Several panellists identified politics as highly relevant to this issue, with the likelihood being that different governments would favour different solutions as they tried to maintain the fundamental 'free at point of delivery' model of the NHS.

### **The role of technology**

- 102** The role of technology in the future of healthcare has been integral to the formulation of the scenarios, which identify a number of areas in which technological developments will affect the future demands for and on doctors. Developments in tele care and tele health will affect how and where patients are cared for, and sophisticated ICT systems will have a central role in administering services, potentially providing efficiencies. Beyond this, medical advances will have a major part to play in determining length and quality of life.
- 103** The majority of the experts agreed that the impact of tele care and tele health technologies would have a beneficial effect on healthcare. Although this may not extend to reducing overall admissions, it could lead to a better management

of resources and patients taking greater control of their own health. Several experts argued that the implementation and management of such technologies would be crucial to their success – and that it was essential not to view them as cost cutting measures, but developments that would improve service.

- 104** The role of medical advances was also subject to debate by the experts – with widespread agreement that medical advances would continue, and will lead to people living longer lives. The expectation, however, was that medical advances would not reduce costs – in fact, quite the opposite. The experts predicted medical advances allow many people to live longer with long term conditions and multiple morbidities – adding to the resource challenges posed by the ageing society.

### **Local demand and supply**

- 105** The experts agreed that patients have a long standing desire to receive treatment closer to home. In some cases – for example, geriatric care – it is increasingly desirable to provide care *in home*. The issue of local care prompted wider debate among the experts, however, with several suggesting that patients will continue to make trade-offs in this area: they will be willing to travel for specialist services and would be willing to travel further for high quality treatment.

- 106** While recognising the patient desire for local treatment, several experts doubted the feasibility of implementing such care effectively. An alteration of healthcare sites as they currently exist is related to the increasing demand for local care, and the experts also considered the potential for more specialist community care and the replacement of district hospitals with large, regional 'mega' hospitals. The issue of more specialists (including GPs) in the community was supported, although no consensus emerged on the issue of mega hospitals. While some experts viewed this structural change as beneficial, and as justified by the quality of treatment provided, others disagreed, arguing there is not likely to be the political will to district hospitals due to the value placed on them by nearby patient communities.

- 107** This issue provided a complex range of responses to the issue of how to meet the patient demand for better and more extensive care as close to home as possible. In terms of patient need, expectations of service and the consensus view that for specialist treatment and high quality service patients are willing to travel, a broad structural outline emerged. In the future, patients will expect basic care at home or in the community; routine and emergency facilities nearby; and specialist treatment concentrated in regional centres.

## **Demands on and for doctors**

- 108** The expert panel disagreed that demand for doctors would fall in the future as more and more tasks currently undertaken by doctors would be done by other healthcare professionals. The experts pointed out that even if other professionals start to perform tasks currently performed by doctors, new areas of work will be develop and that doctors are essential for diagnosis even before treatment occurs. The experts also identified the importance of multi-skilled teams, and highlighted the growing importance of specialist nurses. The core drivers of healthcare demand are demographic ones – and all the experts agreed that the rise in the number of people with long term conditions would drive demand for doctors – a core element of the assumptions the scenarios are built upon.
- 109** Several experts also referenced broader developments in the working lives of doctors, reflecting those identified in the scenarios. One view was that the opportunities for mid-career changes should be extended, allowing doctors to shift from specialties to general practice or vice versa.
- 110** A core consideration of the expert panel – and this report as a whole – is the question of whether or not doctors are well prepared to meet the demands of an ageing society. The majority view of the experts was that where trained appropriately, medical students (and tomorrow's doctors) are well prepared, but too few of them fall into this category – making the issue less one of skill s and more one of numbers. There was widespread agreement that medical training at all levels should incorporate a sustained emphasis on communication and teamwork, as these 'softer skills' will be as essential as medical knowledge in dealing with the challenges posed by an ageing population with higher levels of co-morbidities. The need for higher numbers of generalist physicians was consistently stated by the experts.

## **The Panel**

**Dr Andrew Goddard** – Director, Medical Workforce Unit, Royal College of Physicians

**Christopher Mountford** – Royal College of Physicians of Edinburgh

**Charles Easmon** – Human Genomics Strategy Group

**Carole Longson** – Director, Centre for Health Technology Evaluation, NICE

**Jennifer Armstrong** – Medical Director, NHS Greater Glasgow and Clyde

**Bill McMillan** – Head of Medical Pay and Workforce, NHS Employers

**Sue Line** – Trustee, National Association for Patient Participation

**Anne Corden** – Research Fellow, Social Policy Research Unit, York University

**Heather Moorhead** – Director, Northern Ireland Confederation of Health and Social Services

**Jonathan Thorpe** – Project Manager, Hull University Centre for Tele health

**Prof. Nick Bosanquet** – Professor of Health Policy, Imperial College London

**Keith Dugmore** – Founder, Demographics User Group

**Prof. Gabriel Scally** – Director, WHO Collaborating Centre for Healthy Urban Environments



## SHAPE OF TRAINING

### Annex E: Information and evidence that informed the review

#### The review process

**1** We received feedback from over 1500 individuals and organisations in England, Northern Ireland, Scotland and Wales.

#### Respondents to the Review (combining organisations and individuals)

Employers/LETBs	378
Doctors in training	122
Patients	43
Trainers	98
GPs	43
Medical students	17
Academics	30
Government	16
SAS doctors	105
Bodies/people related to medical education	621
Bodies representing doctors	34
Healthcare staff	12
Other	4
<b>TOTAL</b>	<b>1523</b>

- 2 We engaged with patients, medical students, doctors in training, trainers, employers and organisations involved in delivering training. We consulted in England, Northern Ireland, Scotland and Wales, including rural and urban settings.
- 3 This extensive consultation process provided opportunities for individuals and organisations to express ideas, judgements and experiences. Responses were not formally weighted or quantified but we did recognise that some organisational responses represented the views of a large number of individuals.
- 4 The first phase helped us scope out the key issues and test whether the themes were a good way to structure evidence collection. The activities included:
  - A literature review that looked at what is already known about postgraduate medical education and training against the themes and whether there were any gaps in that information. It included a review of research on patient needs and expectations as well as a short evaluation of postgraduate training systems in other countries. The literature review is in appendix 1.
  - Ten site visits across the UK where training takes place, such as hospitals and GP surgeries. We visited Altnagelvin Area Hospital in Northern Ireland, The Royal Infirmary of Edinburgh, University College Hospital in London, University Hospitals Birmingham, Nottinghamshire Healthcare NHS Trust, Dr Gray's Hospital in Elgin, Musgrove Park Hospital in Taunton, Moray Coast Medical Practice in Elgin, Scotland, Fairwater Practice in Cardiff and the London Deanery. On these visits, we spoke with patients, doctors in training, trainers, Board members, including non-executives, and other healthcare professionals. We were interested in understanding how education providers balanced training, service provision and patient needs. A summary of these visits is in appendix 2.
  - Five large seminars aimed at people involved in postgraduate training including trainers, doctors in training and patients. A summary of these seminars is in appendix 3.
- 5 The second phase allowed us to explore key issues through a public call for ideas and evidence. We promoted this activity by having discussions with key groups, making regular announcements in newsletters and holding seminars. For example, the GMC placed a piece about the call for ideas and evidence in its e-newsletter for doctors with a circulation of 218,000, in its education update, with a circulation of over 1000.

- 6 We were interested in ideas, feedback, any trends identified by respondents and whether there were any particular patterns in the responses, especially if these showed consensus or differences between groups. We received 382 responses to the written call for ideas and evidence. We used this information to develop principles and possible approaches to medical education and training. A descriptive summary of the responses to the call for ideas and evidence are in appendix 4.
- 7 In the final phase, we tested principles and frameworks for changes to the postgraduate training structure through workshops, discussions and 54 oral evidence sessions with experts in medical education and training including doctors in training, key thought leaders and researchers, government bodies and patient groups. A summary of the oral evidence sessions is in appendix 5.
- 8 We also commissioned a forecasting and modelling exercise to develop scenarios and demographic data. The assumptions about the drivers of change identified in this exercise were tested through a Delphi-like exercise. The scenarios are available in appendix 6.
- 9 You can find all these documents at <http://www.shapeoftraining.co.uk/reviewsofar/1783.asp>.



## ***Valuing the Doctor in Training*** **A Charter for Postgraduate Medical Training**

### **Introduction**

The 2008 Consensus Statement on the Role of the Doctor<sup>1</sup> endorsed by the Academy of Medical Royal Colleges, the British Medical Association, the Medical Schools Council, the Conference of Postgraduate Medical Deans, the General Medical Council, employers, and the four UK Chief Medical Officers affirms: *'Doctors...must be capable of regularly taking ultimate responsibility for difficult decisions in situations of clinical complexity and uncertainty...The doctor's role must be defined by what is in the best interest of patients and of the population served'*. To achieve this level of autonomous practice and ensure the continued provision of high-quality patient care, the integrity and quality of medical training are fundamental.

Doctors of all grades must make the patient their first concern, behaving in accordance with the values of the National Health Service<sup>2</sup>. Training should be seen as an opportunity to cultivate the skills and attitudes necessary to deliver truly patient-centred care. This requires the doctor in training to understand the patient holistically in a way that facilitates shared decision making, and the delivery of empathic care, mediated through sensitive communication. Doctors in training should support the right of patients, the public and carers to be involved in decisions on how services are planned and delivered.

Training and service provision are inextricably linked and, to ensure excellent and safe patient care, the two cannot and should not be separated. Training must realise doctors' potential to sustain, lead and improve the national healthcare system now and in the future and the working environment must value and facilitate training. Doctors in training are uniquely placed to identify problems in institutions and must be supported to raise concerns about clinical care and training to safeguard patient safety<sup>3, 4, 5</sup>.

Doctors in training are learners, employees and medical professionals. These roles each carry with them particular responsibilities. As medically qualified professionals, they must fully comply with all elements of the GMC's *Good Medical Practice*<sup>5</sup> and behave as a medical professional in all their actions and relationships. As employees, they have legal and contractual responsibilities to comply with local and national employment requirements and be aware of organisational priorities to ensure the effective operation of the whole system. All doctors work in teams, and training should enable them to develop the ability to be an effective member of the multidisciplinary team. As learners, doctors in training have to take a personal responsibility for their own professional development in line with the requirements of their training bodies.

Successive independent inquiries and numerous surveys *'have highlighted the major difficulties within medical training which have the potential to undermine the future provision of high quality and safe patient care'*<sup>6</sup>.

The main priorities are to ensure:

- the appropriate balance between service provision and learning
- adequate induction, supervision and continuing support
- freedom from bullying and harassment
- leadership and management experience

This Charter has been developed by the Academy Trainee Doctors' Group as part of the Shape of Training Review and in line with its aims. It defines the guiding principles for the delivery of and participation in medical training across the four nations of the United Kingdom, building on the *Charter for Medical Training*, developed by the Royal College of Physicians of Edinburgh<sup>6</sup>.

The *Value of the Doctor in Training* articulates the wider value of postgraduate medical training, providing a practical foundation to ensure the highest standard of doctors' training and quality of care.

### **Guiding principles**

- Patient safety and care are paramount
- The long-term delivery of high-quality care depends on doctors receiving excellent training
- Doctors in training must at all times act professionally and within their competence, taking appropriate responsibility for patients under their care
- Service will be focused around patient needs, but the work undertaken by doctors in training should support learning wherever possible
- Doctors in training are equal partners in the training process and should be involved in its design
- Doctors in training have reciprocal responsibilities to employers, trainers and patients in return for being trained
- Training should ensure equality of opportunity for all, reflect the diverse needs of doctors in training and be commensurate with a good quality of life

### **Commitments within training**

Doctors in training, trainers, employers, Colleges and Faculties, Deans and others concerned with training should make the following commitments for medical training:

#### **1. Safety and quality of care**

- Doctors in training:
  - are assigned appropriate duties, workload and work patterns to ensure patient safety and quality of care
  - are directed to work at a level suitable to their competence and experience, seeking assistance and being supervised where appropriate
  - are actively encouraged to raise concerns about patient care and are protected from victimisation as a result of speaking out<sup>5</sup>
  - are encouraged to develop and contribute actively to quality assurance and improvement initiatives

#### **2. Responsibilities to patients and the service**

- Doctors in training:
  - recognise patients as partners with whom decisions are made on a shared basis
  - maximise the safety of patients and staff through appropriate handover, completing mandatory training, following relevant guidelines, reporting incidents, informing employers of any GMC referrals and looking after their own health
  - always treat patients, carers and staff with respect and dignity
  - should be able to work effectively with other professionals to deliver multidisciplinary care
  - must ensure that they comply with employment requirements and procedures, providing relevant information promptly to employers where necessary

#### **3. Support and development**

- Doctors in training:
  - have access to pastoral support, particularly for those in difficulty
  - are encouraged to speak out about bullying, and will be assured of robust and proportionate mechanisms to resolve problems identified and support for all staff involved

- are provided with access to meaningful career guidance and support through the Colleges and deaneries/Local Education and Training Boards
- should establish a training agreement with their educational supervisor, scheduling and attending relevant review meetings in line with an agreed personal development plan
- should discuss problems about the training process or their personal development with their accessible educational supervisor or training programme director

#### **4. Recruitment and induction**

- Processes for recruitment, selection and appointment must be open, fair, reliable and cost-effective
- Detailed information regarding training posts is available at the time of application and up-to-date information about competition ratios and quality of training should be readily available
- Training capacity should be based on accurate workforce planning
- Comprehensive induction both to the hospital and to the clinical environment should be completed in a timely way in partnership between employers and doctors in training<sup>7</sup>
- Doctors in training should be kept informed about upcoming posts as they rotate within a programme and be supported with adequate induction to ensure that they are prepared for the transitions between posts

#### **5. The relationship between training and service**

- Working patterns must comply with relevant legislation and should allow a reasonable work-life balance
- Doctors in training:
  - receive adequate time for clinical and non-clinical training
  - have their training needs and the needs of the service considered in parallel, recognising the importance of developing clinical competencies through on-the-job training, while maintaining safe, seamless patient care
  - have access to sufficient breadth and depth of clinical work to enable them to achieve and maintain the clinical competencies necessary to develop as clinicians
  - are supported in actively monitoring and accurately documenting working patterns

#### **6. Trainee involvement**

- Doctors in training:
  - have their preferences taken into account when assigning rotations, but should recognise it is not always possible to accommodate choices due to the needs of the service or others' training
  - are active partners in reviewing training quality and designing improvements in training provision
  - have elected representation in relation to education and service through employers and relevant professional and training bodies, working with them to resolve differences

#### **7. Flexibility**

- Doctors in training:
  - are supported to pursue relevant out-of-programme experience in a way that is coordinated to maintain a safe service and that safeguards others' training
  - should be able to gain enhanced competencies across a wide range of non-clinical fields, including research, leadership and education
  - have equality of access to less than full-time training across all specialties, including job-sharing arrangements and additional support if required
  - demonstrate professionalism through a flexible and responsive approach to the demands of service, particularly out-of-hours cover

#### **8. Ensuring high-quality training**

- Trainers are selected and appropriately trained, with a job plan designed to support this role
- Doctors in training:

- engage with the GMC, including completion of the annual National Training Survey and ensuring that they meet revalidation requirements
- proactively participate in the process of training, utilising learning tools, maintaining a portfolio and undertaking the required assessments
- are able to access a range of relevant high-quality, targeted educational events, appropriate to their level of training

## 9. **Assessment and curricula**

- Doctors in training:
  - are assessed using robust, reliable and fair formative and summative assessments developed by the Colleges and approved by the GMC
  - progress by achieving defined competencies and standards set by the Colleges and specialist societies, which ensure that curricula are updated to reflect innovations and match clinical practice
  - receive regular, constructive feedback during training and at formal appraisal and take forward agreed action plans for development issues with suitable support
  - are responsible for registering for training and ensuring that relevant bodies are kept updated about any significant changes in personal circumstance
  - should seek meaningful feedback from colleagues, patients and carers about their communication skills and attitudes, developing reflective skills to improve practice

## **References**

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  - 3) General Medical Council *Trainee Doctor* 2011 [http://www.gmc-uk.org/Trainee\\_Doctor.pdf\\_39274940.pdf](http://www.gmc-uk.org/Trainee_Doctor.pdf_39274940.pdf)
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  - 7) Academy of Medical Royal Colleges and NHS Employers *Recommendations for safe trainee changeover* 2013 [http://www.aomrc.org.uk/publications/reports-a-guidance/doc\\_view/9694-recommendations-for-safe-trainee-changeover.html](http://www.aomrc.org.uk/publications/reports-a-guidance/doc_view/9694-recommendations-for-safe-trainee-changeover.html)
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