This is our fourth annual report on the state of medical education and practice in the UK. It sets out what is happening in the medical profession and considers some of the key issues the profession faces.

Despite growing demands and expectations, the medical profession in the UK is still very highly regarded, and the quality is such that both medical education and practice are held in high esteem across the world. In a report that inevitably concentrates on risks and challenges, it is important that this overall message is borne in mind.

The medical workforce – doctors and medical students – has a central role in helping to meet these challenges. This report looks at the shape and size of that workforce across the UK, at the current state of medical education, and at how medical education needs to adapt to this rapidly changing environment to create even more adaptable doctors in the future. We also examine the risks of different doctors failing to meet our standards, and the challenges doctors tell us they are facing now and in the immediate future.

We hope that regulators, patient groups, employers, doctors, workforce planners and policy makers will find the data and analysis in this year’s report useful.

Our data on medical education and doctors working in the UK

Figure 1 (page 2) sets out the size of the medical workforce and some characteristics of licensed doctors and medical students in the UK.

In 2013, female doctors made up 44% of licensed doctors, 49% of general practitioners (GPs) and 32% of specialists. During 2010–13, the number of female doctors on the Specialist Register increased twice as fast as the number of male doctors. In surgery, the number of female doctors increased by 42%, compared with 12% for male doctors, but, by 2013, 90% of surgeons were still male. Emergency medicine also saw a disparity: the number of female doctors grew by 44%, compared with 28% for male doctors, meaning female doctors accounted for a third of doctors in emergency medicine in 2013.
In 2013, we knew the ethnicity of 82% of licensed doctors on the medical register. 39% of those doctors in England were black and minority ethnic (BME),¹ compared with 32% in Wales, 19% in Scotland and 10% in Northern Ireland. 34% of medical students were BME. Overall, 13% of the UK population is BME.

**Specialties**

Different specialties have a different demographic profile. Overall, 37% of doctors on the Specialist Register in 2013 were over 50 years old. Occupational medicine and public health had more doctors over 50 years old than other specialties, while emergency medicine had a younger workforce, with only a quarter over 50 years old.

**FIGURE 1: Personal characteristics of licensed doctors on the register and medical students in 2013**

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<tr>
<th></th>
<th>Medical students</th>
<th>Doctors in training</th>
<th>Doctors not on the GP or Specialist Register and not in training</th>
<th>Doctors on the GP Register</th>
<th>Doctors on the Specialist Register</th>
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<tr>
<td><strong>NUMBER OF DOCTORS</strong></td>
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<td>EEA graduates*</td>
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<td>43%</td>
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<td>69%</td>
<td>63%</td>
</tr>
<tr>
<td>Female</td>
<td>54%</td>
<td>57%</td>
<td>42%</td>
<td>31%</td>
<td>37%</td>
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* European Economic Area (EEA) graduates are doctors who gained their primary medical qualification in the EEA, but outside the UK, and who are EEA nationals or have European Community rights to be treated as EEA nationals.

† International medical graduates (IMGs) are doctors who gained their primary medical qualification outside the UK, EEA and Switzerland, and who do not have European Community rights to work in the UK.

‡ BME includes Asian, black, other ethnic groups and mixed ethnic groups.
The number of doctors on the Specialist Register continues to grow – the largest rise was 21% among EEA graduates during 2010–13, so they accounted for 15% of specialists in 2013. IMGs were most strongly represented in obstetrics and gynaecology, psychiatry, paediatrics and pathology.

In most specialties, BME doctors made up 25–35% of the population. Obstetrics and gynaecology (44%) and paediatrics (37%) had a larger proportion of BME doctors, while occupational medicine had the highest proportion of white doctors (85%).

Where the workforce comes from

In 2013, there were 58,469 doctors in training – five out of six were UK graduates, and around one in 30 were EEA graduates. 63% of all doctors were UK graduates, 10% were EEA graduates and 26% were IMGs.

In 2013, more EEA graduates joined the medical register than IMGs. A third of non-UK graduates who joined the register were from southern Europe, and a fifth were from Italy and Greece alone. The number of doctors who joined the register from Ireland also increased by over 50% compared with five years before – they made up 3% of those joining the register in 2013.

The number of IMGs joining the medical register has levelled off – increasing by just 0.3% between 2012 and 2013 – possibly as a result of changes to visa requirements.

Differences across the UK

Medical students are concentrated in areas of high population. In 2013, the number of medical students in London (9,174) was greater than the combined number for Northern Ireland, Scotland and Wales combined (8,241).

For the first time we can now locate where doctors work for around 90% of the medical register. For most doctors, we identified location from the organisation they are connected to for revalidation; where this information was not available or geographically specific, we used their employer’s address or their correspondence address.

There is little variation in the ages of doctors across the UK, but there are variations in gender and ethnicity. Scotland (52%), London (51%) and Northern Ireland (51%) had a higher proportion of female doctors aged 30-50 years in 2013, whereas the Midlands (43%), north of England (45%) and Wales (46%) had a lower proportion. 39% of doctors in England and 32% in Wales were BME, compared with only 10% in Northern Ireland and 19% in Scotland.

Proportion of licensed doctors over 30 years old who are non-UK graduates

Index relative to the UK average of 100

<table>
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<tr>
<th>Index</th>
<th>Grey</th>
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Developing our understanding of risk

It is important to understand whether some doctors are more likely to face complaints and investigations, or to receive sanctions or warnings from the GMC. A better understanding of this should help determine whether any action can be taken to reduce the risk amongst these doctors in future.

To this end we pooled data over four years (2010–13) to analyse more than 28,000 complaints made to the GMC about licensed doctors. Figure 2 summarizes some of our data on doctors who have been complained about, had the complaint investigated, and received a sanction or a warning.

Groups of doctors being complained about, investigated and receiving sanctions or warnings

Complaints and the outcomes of investigations

Non-UK graduates were more likely to receive a complaint and to have that complaint investigated than UK graduates. When looking at the outcome of the investigation, white UK graduates had a lower chance of receiving a sanction or a warning than all other groups.

For all UK graduates, BME doctors were 50% more likely to receive a sanction or a warning than white doctors. This rose to twice as likely for those aged 30–50 years.

Among white doctors aged over 50 years, EEA graduates were over twice as likely as UK graduates to receive a sanction or a warning.

Groups particularly likely to get a sanction or a warning

Some groups of doctors were more likely to receive a sanction or a warning. Four groups stood out: male doctors over 50 years old who were EEA graduates or IMGs, and male GPs aged 30–50 years who were EEA graduates or IMGs.

Specialties

Doctors working in some specialties were more likely to be complained about, have the complaint investigated, or receive a sanction or a warning. The data suggest it is much more likely to be the nature of the specialty than the demographic characteristics of the doctors that work within them that lead to an increased likelihood in some specialties.

- Doctors in three specialty groups – psychiatry, obstetrics and gynaecology, and surgery – were more likely to be complained about and to receive a sanction or a warning.
- Plastic surgeons, including many cosmetic surgeons were more likely to be complained about than other surgeons.
**FIGURE 2**: Proportion of male and female doctors who were complained about, had the complaint investigated and received a sanction or a warning during 2010–13

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>Doctors not on the GP or Specialist Register and trainees</th>
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**Male Doctors Being Complained About**

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<th>Result of Complaint</th>
<th>Doctors not on the GP or Specialist Register and trainees</th>
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<th>Doctors on the Specialist Register</th>
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**Female Doctors Being Complained About**

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**Result of Complaint**

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<th>Closed immediately or referred back to employer</th>
<th>Doctors not on the GP or Specialist Register and trainees</th>
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**Female Doctors Being Complained About**

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**Locums**

Doctors who were attached to a locum agency in 2010–13 were more likely to have their complaints investigated, and to receive a sanction or a warning. There is more work to be done to investigate and understand the patterns these data show.

**Different types of allegation contribute to some groups having a higher chance of receiving a sanction or a warning**

At the start of an investigation, we decide what types of allegations are raised by the concern. Certain allegations – such as those involving a doctor’s health or criminality – have a higher probability of resulting in a sanction or a warning.

The data suggest that some groups of doctors are more likely to be erased or suspended from the medical register, because they get into difficulty in particular areas, not because there is a general tendency for that group to receive more serious sanctions when they are investigated.

In general, a higher proportion of cases about non-UK graduates and BME doctors involved allegations about criminality, and a higher proportion of complaints about them were from employers. On the other hand, relatively more cases about white UK graduates involved allegations about clinical competence – particularly from the public – which have a lower probability of leading to a sanction or a warning.

**Place of primary medical qualification and ethnicity of doctors at panel hearings**

This year, we analysed the panel judgments on all 147 cases closed in 2013 that did not involve a criminal conviction or concerns about a doctor’s health.

A higher proportion of UK and EEA graduates’ cases tended to involve allegations about honesty, fraud and fairness than IMGs’ cases. EEA graduates tended to have a higher proportion of cases about poor diagnosis and examination than either UK graduates or IMGs.

A lower proportion of UK graduates who had a panel hearing were erased compared with non-UK graduates – five out of 48 (10%) versus 29 out of 99 (29%).

**Showing insight, apologising and remediating**

The panel takes into account whether the doctor has shown insight, sometimes through making an apology or attempting to remediate the concern, when deciding the outcome of a case. In some cases, lack of insight appeared to have a major influence on whether a doctor was erased from the medical register or given a less serious sanction.

Overall, doctors who showed insight were almost ten times less likely to be erased than those who did not – 50% of doctors who did not show insight were erased, compared with only 5.5% of those who did show insight. UK graduates were most likely to have demonstrated insight, alongside apologising or remedying the concerns. This may in part account for why some cohorts of doctors are more likely to get a serious sanction than others.
Preparing doctors through medical education and training

This year, we have focused on how prepared young doctors are for practice after leaving medical school, and whether there is a correlation with later performance. In 2013, there were 40,625 medical students. There were also 7,759 doctors in their first year of foundation training following medical school (F1 doctors), 7,636 in their second year of foundation training (F2 doctors), 10,746 doctors training to be GPs and 32,328 doctors training to be specialists.

Preparedness of foundation doctors

Our 2014 national survey of doctors in training found that seven out of ten F1 doctors believed medical school prepared them to work as a doctor in the UK health system. Equal proportions of male and female doctors felt prepared.

However, there was still some concern among both trainers and employers about how well prepared doctors in training actually are.

EEA graduates felt less prepared than either UK graduates or IMGs for their first foundation post in the 2014 national training survey – 42% of EEA graduates felt prepared, compared with 58% of IMGs and 70% of UK graduates. A higher percentage of younger doctors (under 30 years old) and white F1 doctors believed they were adequately prepared, compared with those aged 30 years and over and BME F1 doctors.

What they feel unprepared for

Medical students and F1 doctors were worried about some specific aspects of their work, particularly how to prescribe properly. Some also felt unprepared for communicating with patients, and frequently reported distress during and after particular incidents. Trainers have reported concerns about F1 doctors carrying out clinical procedures such as venepuncture, cannulation and arterial blood gas tests. The literature in this area also suggests that doctors in training are relatively unprepared for reporting and dealing with error and safety incidents.

Variation between UK medical schools

There is unsurprisingly variation between medical schools, all of which have their own curricula and assessment systems. Graduates of different medical schools vary in the degree of preparedness they feel, and in the specialties they go on to train in.

Preparedness

When asked in the 2014 national training survey whether they were adequately prepared by their medical school, the proportion of graduates who agreed or strongly agreed varied from 62% to 97%. Some medical schools have seen their graduates preparedness increase more than others – some schools saw a rise of over 50% in the proportion of graduates who felt prepared for their first F1 post between 2009 and 2014.

Specialties that doctors choose

A higher proportion of graduates from Oxford and Cambridge medical schools became physicians or surgeons, whereas other schools produced a higher percentage of GPs.
Issues being raised to us by doctors and others in the UK

This year we report on concerns that doctors and others have chosen to raise with the GMC, as the national regulator, over the past year or so, which may become issues affecting patient safety and medical practice in the future.

Doctors are still worried about raising concerns

The feedback through our regional liaison service suggests a continued lack of awareness of how to raise concerns and that doctors feel they might not be supported when they do. We receive regular requests for advice on raising concerns, although the most frequent requests to our Standards team are for advice on standards of clinical care, confidentiality and prescribing.

A new confidential helpline launched in December 2012 had received 1,235 calls by April 2014, from which 191 complaints, involving 237 doctors, had yielded 81 investigations.

Pressures on primary and secondary care

Feedback from our liaison services and offices across the UK shows that both primary and secondary care are under pressure. But we know more about the issues in primary care because we receive more detailed feedback from GPs than from doctors in secondary care. Although there were some differences in the pressures on GPs between rural and urban areas, there were many general concerns about GPs having too much work and being at risk of burning out.

Doctors report high levels of stress. In one part of the UK, the proportion of GPs presenting to local occupational health services increased nearly five times from 2000 to 2012 and, in another part of the UK, 2013 was described as the busiest year for two decades for the number of GPs burning out from stress.

Other issues raised to the GMC

Standards of end of life care

End of life care is one of the most challenging areas of medicine. We get a large number of questions and requests for guidance, particularly about the ethical considerations and logistical difficulties around managing care outside of hospitals. Even experienced doctors say they can sometimes lack the support, confidence or skills needed to effectively communicate on these distressing issues.

Balancing conflicts of interest

Ethical concerns have been raised about the commissioning of services, particularly in England where doctors balance commissioning and care provider roles. Guidance cannot solve conflicts of interest, only help doctors to manage them, and we will review whether there is more we can do to support doctors.

Use of social media by doctors

Medical students and doctors are concerned about using social media unguardedly, especially to voice how they are coping professionally and concerns about time pressures, tiredness on the wards and making clinical mistakes.

Patient confidentiality and use of patient data

We consistently receive a lot of queries about protecting and sharing patient data, and will be consulting on an updated edition of our guidance on this in 2015.