General Medical Council

How do doctors progress through key milestones during training?

Contents

The GMC is a charity registered in England and Wales (1089278) and Scotland (SC037750)

Reporting on doctors' progress through postgraduate training

The annual publication of data relating to doctors' performance or progress of doctors at critical training milestones helps us investigate factors associated with variation – such as location, specialty or demographic characteristics.

We have published the information to support doctors in training and those responsible for delivering training programmes to identify areas for improvement and allow all of us to explore patterns of attainment and progression across the UK.

Doctors apply to enter postgraduate training through competitive entry and are regularly assessed through workplace based assessments, annual reviews, and high stakes examinations. Progression to the next stage of training requires them to demonstrate they have acquired the necessary levels of knowledge, competency or behaviours to do so safely.

Those entering training meet the minimum requirements set out for that training programme. However, there is likely to be variation in the knowledge, experiences and capabilities each doctors brings with them, and this may influence the rate at which they develop the knowledge, skills and behaviours they need to pass each stage of assessment.

Progression and attainment at different stages are influenced by a wide variety of factors. For example, whether and when doctors progress from foundation into specialty training will be influenced by their own personal preferences, such as whether they have chosen to take time out of training to gain additional experience. If they choose to apply for specialty training, their chance of success can be affected by their own personal capabilities as well as by the level of competition for their preferred specialty and location.

It is recognised that some variation in attainment is associated with personal characteristics such as age, gender and ethnicity and also with whether a doctor's undergraduate medical qualification is from the UK or overseas.[*] We are continuing our programme of work to understand these differentials and how we might respond effectively. Success should be determined through demonstrating the behaviours, knowledge, skills and abilities required by the curriculum.

[*] McManus I C, Wakeford R. PLAB and UK graduates' performance on MRCP(UK) and MRCGP examinations: data linkage study. *BMJ*. 2014;348:g2612 and McManus C, Elder A, Dacre J. Investigating possible ethnicity and sex bias in clinical examiners: An analysis of data from the MRCP(UK) PACES and nPACES examinations. *BMC Medical education*. 2013;13.

What data have we published?

The 2016 data set examines factors that may be associated with doctor's success across a range of assessments or markers of progression. These include the training specialty and the country or region of the UK in which they are training. They also include the doctor's personal characteristics: their age range, gender, ethnicity and also where they studied their undergraduate medical degree.

The following progression markers or milestones are analysed.

- The proportion of doctors who apply to enter specialty training programmes.
- The annual review of doctors' in training – the Annual Review of Competence Progression (ARCP).
- Pass rates at medical royal college and faculty examinations

We report on the following by the location of doctors' undergraduate degree.

- How confident doctors feel in their first year of foundation training.
- The proportion of doctors from each medical school who go on to become general practitioners (GPs) or consultants in other specialty groups.

How the reports on progression data have developed over time

Since we first published ARCP outcomes in 2011, we have expanded the information we collect to investigate further the links between training organisations and progression.* In 2015, we published outcomes by demographic characteristics for the first time.

In 2016 we added the following new analysis to our reports:

- Progression outcomes by socioeconomic status.
- ARCP outcomes by demographic characteristics.
- ARCP and recruitment outcomes by medical school measured against doctors' prior attainment at medical school.

We have developed a programme of research into the variation in attainment associated with the demographic characteristics shown in our reports. We are publishing our latest

* In 2015 we acquired a data set from the higher education statistics agency (HESA) which collects data each year from all UK universities and higher education bodies. The data includes the socioeconomic status of medical school applicants.

research into barriers to and enablers for successful training, alongside of the 2014/15 data.

How can this information to be used to improve the quality and fairness of training programmes?

Medical students and doctors in training should use the data and research findings on barriers and enablers to open up a discussion with their training supervisors about their own progress and what support might benefit them.

By highlighting training programmes in which a lower proportion of doctors achieve successful outcomes, we enable those responsible for managing and delivering the training to investigate and identify opportunities to drive up the quality of each component of training.

Similarly, by identifying programmes in which doctors achieve statistically higher rates of success, we can investigate whether there is good practice that could be shared.

Graduate performance in post-graduate training should enable medical schools to assess how well they have prepared their students for the next stage of their careers. Over the last few years schools have sought to widen access to medicine as a career[*] – over time, these data should help them assess the performance of particular cohorts as they progress through training.

We also hope that workforce planners and policy makers will use the recruitment data and reports showing the specialty in which graduates completed training to compare behaviour or preferences across the UK by regional, national, specialty and demographic factors. This may help inform policies that encourage applications into shortage specialties.

[*] Selecting for Excellence: www.medschools.ac.uk/AboutUs/Projects/Widening-Participation/Selecting-for-Excellence/Pages/Selecting-for-Excellence.aspx

Summary of key findings

Successful training outcomes vary depending on demographic characteristics

Training outcomes data for the academic year 2014/15 show patterns of variation by demographic characteristics similar to those identified in the 2013/14 data set.[*] These same concerns were highlighted in research[†] into examination pass rates set by the Royal College of General Practitioners, the Royal Colleges of Physicians and the Royal College of Psychiatrists.

Broadly, the data show:

- Groups with a primary medical qualification from overseas have a lower proportion of successful outcomes than graduates from medical schools in the UK.
- When split by ethnicity, white cohorts have a higher proportion of successful outcomes than black and minority ethnic (BME) cohorts.
- As a group, women have a higher proportion of successful outcomes than men.
- A higher proportion of doctors in younger age bands have successful outcomes than those in older age bands.
- This year, we report for the first time by socioeconomic status. Our data show that a smaller proportion of doctors from a deprived socioeconomic background achieve successful outcomes compared to those from an affluent background.

We have analysed unsatisfactory ARCP outcomes by demographic factors for the first time and have found the patterns are broadly similar to that described above even when unsatisfactory outcomes associated with an exam failure are excluded.

These are broad findings based on analysis of one, or at most two, variables at any one time. Clearly, the performance of individuals within each cohort will vary, and many outperform as well as underperform when compared with the average of their cohort group.

[*] See our 2015 progression data report, *Interactive reports to investigate factors that affect progression of doctors in training*, available at www.gmc-uk.org/Briefing_note___Exams_and_recruitment_outcome_reports.pdf_60060997.pdf_60086828.pdf.

[†] Esmail & Roberts (2013) *Independent Review of the Membership of the Royal College of General Practitioners (MRCGP) examination*, available at www.gmc-uk.org/MRCGP_Final_Report__18th_September_2013.pdf_53516840.pdf.

Fewer foundation doctors are going on to further training directly after F2

As part of our quality assurance activity we collect data each year on applications made by Foundation Programme doctors in the **first round** of national recruitment into specialty training. We also take an annual census of all doctors in specialty training in the UK. [*]

Specialty training programmes may run multiple rounds of recruitment depending on how quickly they fill the training posts available. Doctors in the second year of their Foundation Programme (F2 doctors), due to complete their programme in July/August can first apply in round one of national recruitment to specialty training from November to December the previous year. They receive offers in March for, generally, an August start.[†]

Foundation doctors may choose to take some time out of training and wait for a year or more before applying to enter specialty training. We can monitor their progress over time through our annual census.

Analysis of these data suggest a reduction in the proportion and number of F2 doctors applying and entering specialty training in August 2015 compared to the previous three years.

- 65.7% of F2 doctors who completed foundation training in summer 2015 applied in round one to enter specialty training in August 2015. This is compared with 77.7% of F2 doctors who completed in summer 2012.
- Although the number of F2 doctors has increased since 2012, the lower proportion meant 582 fewer F2 doctors applied in 2015 than 2012.[‡]
- Our national training survey census shows doctors the number of doctors in UK training on the census date each year. It shows 50.8% of F2 doctors who completed in summer 2015 were in specialty training in March 2016. This can be compared with 65.6% of F2 doctors who completed in 2012 in specialty training in March 2013.

Doctors other than those completing F2 may apply to specialty training, including those that completed F2 in previous years or doctors applying to join training from overseas.

[*] The 2016 NTS census date was 22 March. Annual dates are recorded in GMC briefing notes www.gmc-uk.org/education/nts_documents.asp

[†] See Kennedy (2015) http://careers.bmj.com/careers/advice/Specialty_training_applications_for_entry_in_2016%3A_competition_ratios_and_the_application_process.

[‡] 5761 doctors graduating foundation in 2012 applied in round one, compared to 5179 doctors graduating foundation in 2015

What is the regulator doing to address these issues?

Following publication of the progression reports showing that progression varied by demographic characteristics, we have commissioned research to help us:

- Build a better understanding of these findings
- Look at potential cause and whether any interventions had been successful elsewhere.

In our 2015 report, *The state of medical education and practice in the UK*,* we explored different factors that may be relevant to understanding variation in attainment. These include individuals' prior attainment, their approaches to learning, institutional support systems and quality of teaching, as well as wider sociocultural factors including personal support networks.

We are committed to making sure training pathways are fair and have developed a long-term programme of work to support this aim.†

Driving change through our standards and quality assurance framework

The principle of fairness has been integrated into our new standards for undergraduate and postgraduate training, *Promoting excellence: standards for medical education and training.* We have also updated questions designed to test the fairness and equality standards outlined in the exploratory questions that are used to assess compliance with our standards during quality assurance reviews and visits.

Monitoring and improving understanding of differential attainment

We will continue to develop and analyse the data we use to report on patterns of variation in outcomes at more local levels so that action may be taken. We are exploring the reporting of outcomes by personal characteristics and by training programme and medical school, accounting for the prior attainment of the programme or schools cohort. This may help to better compare the impact of training and support systems.

Refinements in information sets, such as the ability to identify all appointable candidates within a recruitment round would give even greater depth to the data.

Our aim is to be able to measure the impact of the actions of local education and training offices and deaneries intended to address factors associated with differential attainment, as well the impact of any UK-wide interventions.

* See www.gmc-uk.org/Chapter_5_SOMEP_2015.pdf_63501310.pdf.
† For more on the Differential Attainment work programme see www.gmc-uk.org/education/27486.asp

Sharing knowledge with others and promoting good practice

We have promoted discussion around our reports on progression and research findings at conferences and events throughout the year.

This has allowed us to engage with a wide a range of perspectives to develop our understanding of the factors that influence training outcomes and any potential mechanisms to improve them.

Commissioning qualitative research with doctors in training and trainers, published alongside the progression reports this year, has given us a deeper understanding of their experience of medical education and any barriers and enablers to progression.

We are keen to support others research into this area. In 2015, we provided a researcher hoping to investigate variation in trainees' perception of their training by demographic factors, with anonymised national training survey outcomes.[*] This research found both BME and international medical graduate (IMG) doctors gave lower satisfaction scores than other cohorts.

We are committed to raise awareness of variation in training outcomes at UK-wide fora and work with senior leaders to evaluate and promote effective action across the sector.

At the same time we will monitor developments in other sectors of education and in other professions as we know that these patterns are not unique to medical education. The Higher Education Funding Council for England (HEFCE) has carried out research documenting differential outcomes for a range of groups in higher education and Teach First recently identified questions about fairness in relation to primary school admissions.[†]

A 2014 analysis of the Scottish higher education sector by the Equality Challenge unit highlighted different rates of success in further education programmes between the poorest 20% of BME students and more affluent white students.[‡]

[*] See Gill (2016) shr.sagepub.com/content/7/4/2054270416632705.full

[†] www.teachfirst.org.uk/news/national-primary-offer-day-schools-low-income-areas-face-challenges-recruiting-teachers-provide

[‡] Equality Challenge Unit (2014) *Equality in colleges in Scotland* http://www.ecu.ac.uk/publications/equality-in-colleges-in-scotland-statistical-report-2014/

Detailed analysis

What new information is available to help understand differences in outcomes related to demographic characteristics?

ARCP outcomes show the same patterns of variation by demographic characteristics

We have analysed ARCP outcomes for the first time by demographic characteristics and the findings are broadly in line with the trends outlined in other measures of progression.

In our reports you can choose to focus on unsatisfactory ARCP outcomes excluding those awarded for an exam failure, to separate failure to progress associated with high stakes examinations from failure to progress associated with other reasons.

An unsatisfactory ARCP outcome might be awarded for several reasons; a doctor may not have acquired sufficient clinical experience, may not have demonstrated the expected level of competence across the skills and behaviours necessary or they may not have engaged with their supervisor, others in the training programme, or their training portfolio.

First we look at variation in unsatisfactory ARCP outcomes excluding exam fails between UK graduates and international medical graduates (IMGs).

- In general practice training programmes (2014/15), 10.3% of ARCP outcomes awarded to IMG doctors were rated unsatisfactory. This is a higher proportion than for UK graduates for whom 3.5% of ARCP outcomes were unsatisfactory. Similar results are seen across other training programmes such as core anaesthetics training, core medical training and paediatric training.

- In core medical training, we can see the proportion of unsatisfactory ARCP outcomes awarded to both UK graduates and IMGs reducing over time. The rate of unsatisfactory outcomes for UK graduates decreased from 13.1% in 2011/12 to 5.3% in 2014/15. For IMG doctors it has decreased from 26.8% to 12.0% over the same period.

Next we look differences in ARCP outcomes excluding exam fails, and whether successful outcomes are associated with gender and age. Some training programmes showed differences in outcomes awarded to men when compared to women within the same age band for academic years 2010/11 to 2014/15.

- For doctors aged 25-29 in general practice training, 1.9% of the ARCP outcomes awarded to women were unsatisfactory (excluding exam fail) compared with 4.5% of outcomes awarded to men in this age group.

Finally, we compare unsatisfactory ARCP outcomes excluding exam failure which have been awarded to UK graduates from different ethnic groups.

As a group, UK-BME doctors received higher proportions of unsatisfactory outcomes than UK-white doctors from 2010/11 to 2014/15.

- In core psychiatry training for example, 7.0% of ARCP outcomes awarded to UK-white doctors were unsatisfactory for reasons other than exam failure. In comparison, 10.1% of ARCP outcomes awarded to UK-BME doctors were unsatisfactory.

What is the relationship between unsatisfactory ARCP outcomes and future exam failure?

We are interested to investigate whether doctors who fail a specialty exam, received an unsatisfactory ARCP outcome unrelated to exam failure prior to their exam sitting. Are ARCPs providing useful indicators to doctors, of the areas they need to improve in order to be successful in high stakes exams.

In general practice (2014/15), 10.3% of all ARCP outcomes awarded to IMG doctors were rated unsatisfactory for reasons other than exam failure. In the same year, 43.8% of IMG doctors in UK specialty training programmes* sitting the Membership of the Royal College of General Practitioners (MRCGP) passed their exam attempt.

This difference should not be over-interpreted; ARCP panels take into account a broad range of assessments and evidence of competencies which may be different to those being tested by specialty exams. However these data might indicate that the ARCP process is not giving doctors adequate signals of their development needs before they take specialty exams.

Over time, the development of this analysis will let us, and deaneries and local Health Education England (HEE) offices, explore the robustness of ARCP processes and the relationship between different assessment hurdles.

* Excluding those in Foundation programmes

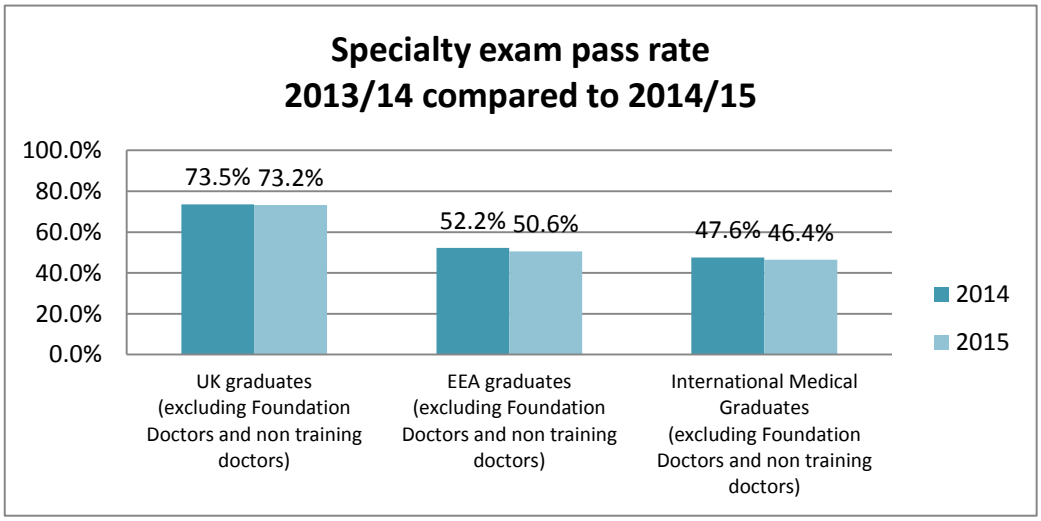
The gap in exam pass rates between UK and overseas graduates remains a concern

Last year we reported that a significantly smaller proportion of overseas qualified doctors pass specialty exams when compared with groups who graduated from a UK medical school.

Chart 1, below**,** looks at the proportion of different groups of doctors' successfully passing exam taken while on a specialist training programme* from 2013/14 to 2014/15. It shows the gap in exam pass rates between UK graduates and IMG doctors increased slightly, (0.9% points) in 2014/15 compared with the previous academic year.

Both UK graduate and IMG groups have seen a fall in average pass rate in 2014/15 compared to the previous year, across all specialty exams. IMG doctors saw a greater decrease of 1.2% points compared with a drop of 0.3% points for UK graduates. The change in pass rate within each cohort may be due to natural variation.

Chart 1: Pass rates for candidates taking specialty exams while in a core and run-through training programmes (2013/14 and 2014/15) split by UK, EEA and international medical graduates and academic year



Taking a broader view and considering all candidates, registered with the GMC, sitting an exam during foundation training or outside of a training programme, the difference in pass rates between UK and international graduates cohorts widened by 1.9% from 2013/14 to 2014/2015. 72.4% of UK graduates in 2013/14 passed compared to 42.9% of IMG doctors. In 2014/15, UK graduates had a pass rate of 71.4% compared to 40.1% for IMG doctors.

* all doctors on core and run-through training excluding doctors sitting exams whilst in Foundation Training or outside of a formal training programme.

The gap between white and BME doctors graduating medical school in the UK

Looking with the UK graduates cohort taking specialty exams, a significant gap between the proportion of UK-white doctors passing exams and the proportion of UK-BME doctors remains.

The average pass rate for UK-white doctors was 75.8% and 74.8% in 2013/14 and 2014/15 respectively. The average pass rate for UK-BME doctors in the same years was 63.4% and 63.0%. The small narrowing of the gap between the two groups, by 0.6% may be due to natural variation. The difference between the two groups remains statistically significant.*

These numbers represent the average proportion of doctors within particular cohorts passing their exam attempts across all specialty exams. This hides considerable variation in pass rates within individual exams some of which results from natural fluctuations, especially for those with small cohort sizes. We are working with medical royal colleges and faculties to investigate changes in pass rates to understand better the underlying cause.

Barriers and enablers to success

We continue to be concerned about this pattern of difference between different groups of doctors. To investigate it further, we have explored doctors' perceptions of the supportiveness of their training environment through the national survey of doctors in training. And we commissioned research to investigate barriers and enablers to success perceived by doctors in training and their trainers.

We publish the findings from this commissioned research along with the outcome data, with the aim of facilitating doctors in training and local training programme directors to explore the effectiveness of support systems.

We hope that together the reports and research findings will encourage a conversation between doctors in training and their trainers what support they might benefit from.

The research highlights the central role of the trainer in enabling doctors in training to make the most of training opportunities and that trainers also need support to be effective in their role.

Improving the rates of success for doctors in training could help reduce workforce planning issues and gaps in shortage specialties. This issue is of increasing importance and activity to recruit addition GPs including by attracting more overseas applicants is

* Note candidates sitting an exam in 2013/14 may have retaken the same exam or a different exam in 2014/15.

already underway.[*] The Scottish Government plan to advertise an additional hundred GP training posts this summer, meaning 439 GP posts will have been advertised in Scotland this year.[†] The Northern Ireland government have also announced an increase of 20 GP training posts, bringing the total to 85 posts in 2016.[‡]

It is important that trainees are supported to progress successfully through training. We are in the process of reviewing the standards for curricula and assessment, which medical royal colleges and faculties must adhere to when developing curricular and assessment programmes. We will capture lessons from our research into barriers and enablers to progression to develop standards that promote fairness and safeguard against bias in specialty training programmes, exams and assessments.

Alongside commissioning research, we continue to monitor the wider landscape for lessons we may learn on enabling success and removing barriers.

The Department for Business Innovation and Skills in England has reported changing patterns of participation in higher education with the proportion of BME pupils attending highly selective universities increasing (BIS 2015).

In contrast, research carried out by HEFCE[§] showed that in England, BME groups in higher education continue to have poorer outcomes than white groups. In addition, within NHS England, a study by Kline[**] found that people from a BME background were less likely to be recruited. This may point to wider barriers affecting doctors training and perhaps links to research identifying the importance of having role models, and a feeling of belonging.

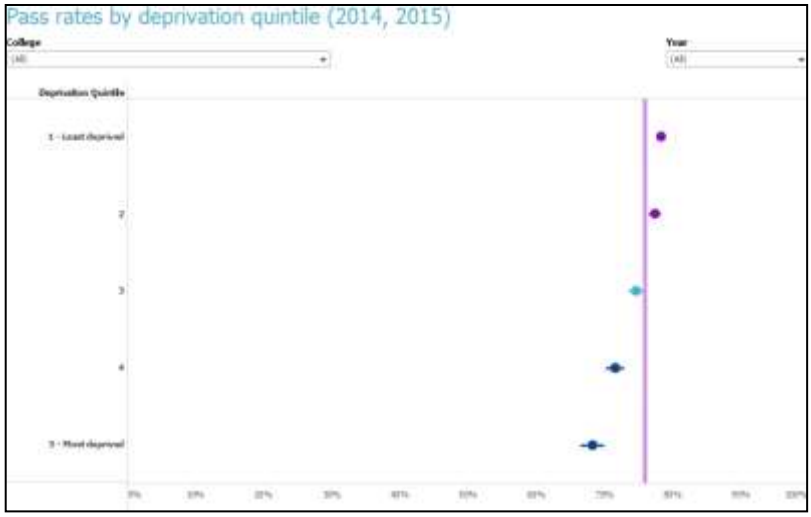
[*] *BMJ,* (12 April 2016), http://www.bmj.com/content/353/bmj.i2091/rapid-responses
[†] news.scotland.gov.uk/News/Junior-doctors-attracted-to-Scotland-25e0.aspx
[‡] www.bma.org.uk/news/2016/january/gp-training-numbers-increase
[§] HEFCE (2015a)http://www.hefce.ac.uk/pubs/year/2015/201521/
[**] Kline, R (2013), *Discrimination by appointment: How black and minority ethnic applicants are disadvantaged in NHS staff recruitment*, www.publicworld.org/pubs/

What is the relationship between socioeconomic status and attainment for UK graduates?

In 2013, McManus at al showed that socioeconomic status can be related to attainment in education.[*] This year, for the first time, we are able to report on training outcomes by a measure of socioeconomic status for UK graduates – the deprivation quintile. This measure is based on the UK postal address given on their medical school applications and is applicable to UK graduates only.[†]

Chart 2 shows pass rates reducing as deprivation levels increase. This is based on all GMC registered candidates taking an exam 2013/14 and 2014/15 including foundation doctors and those not in a UK training programme. There is a 10% point difference between the pass rates of the most and least deprived cohorts.

Chart 2: Pass rates for all specialty exams for all candidates including foundation doctors and those taking exams outside a UK training programme (2013/14 & 2014/15) by socioeconomic status



Similar patterns are seen in other measure of attainment. In 2015, of all ARCP outcomes awarded to core medical training doctors, (excluding those associated with exam fails), doctors from the most deprived backgrounds received the highest proportion of unsatisfactory outcomes: just under 12.6% compared to the average of 5.2%.

[*] McManus etc al (2013).

[†] Taken from HESA dataset. Index of Multiple deprivation (IMD), a measure which ranks areas by their relative affluence or deprivation structured into quintiles – with quintile 1 representing the most affluent households.

HEFCE's research identified similar patterns across higher education in England, with higher attainment from more affluent groups (HEFCE 2015)[*]. Similarly, in Scotland, the Equality Challenge Unit showed these patterns by socioeconomic status looking at Scottish further education providers in 2014.[†]

Attracting doctors from non-traditional backgrounds, such as those from lower socioeconomic areas, is necessary if medicine is to reflect the diversity within the wider population, allow for social mobility and attract the widest possible pool of talent.[‡]

The data indicates that widening entry at medical school may only be the first step in ensuring these graduates go on to achieve their potential.

[*] See, for example, HEFCE's 2015 publication *Causes of differences in student outcomes* which describes 'the tendency for socioeconomically disadvantaged groups to do least well at university, even when prior attainment is controlled for', Page ii.

[†] See www.ecu.ac.uk/wp-content/uploads/2014/09/Equality-in-FE-stats-2014.pdf.

[‡] See the MSC's report, *Selecting for excellence* (2014).

The relationship between socioeconomic status and ethnicity for UK graduates

Having explored the association between both ethnicity and socioeconomic status and attainment, we are now interested to see whether these are each independent factors which influence attainment.

The population of doctors in training is dominated by certain demographic groups. Between 2012 and 2015, there were 25,128 white F2 doctors and 9,788 BME F2 doctors. **Chart 3** shows that the more affluent groups tend to be dominated by white doctors and BME doctors make up a greater proportion of most deprived quintile.*

Chart 3: F2 doctors between 2011/12–2014/15 split by socioeconomic group and ethnicity

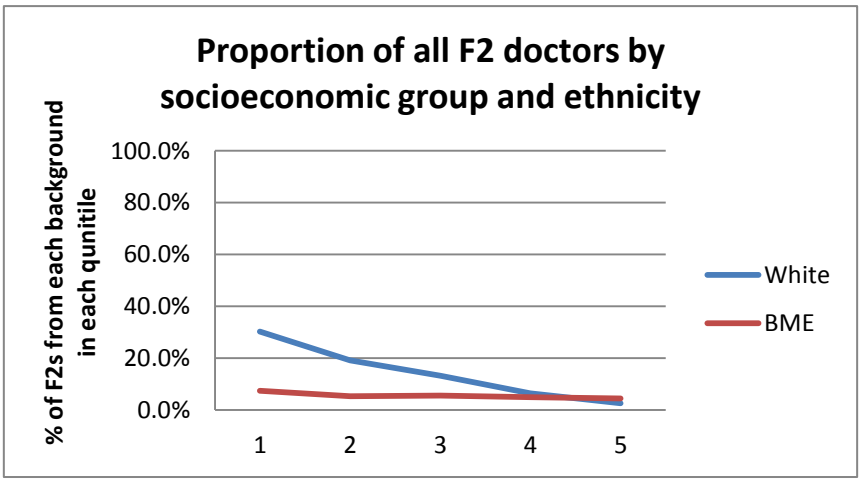
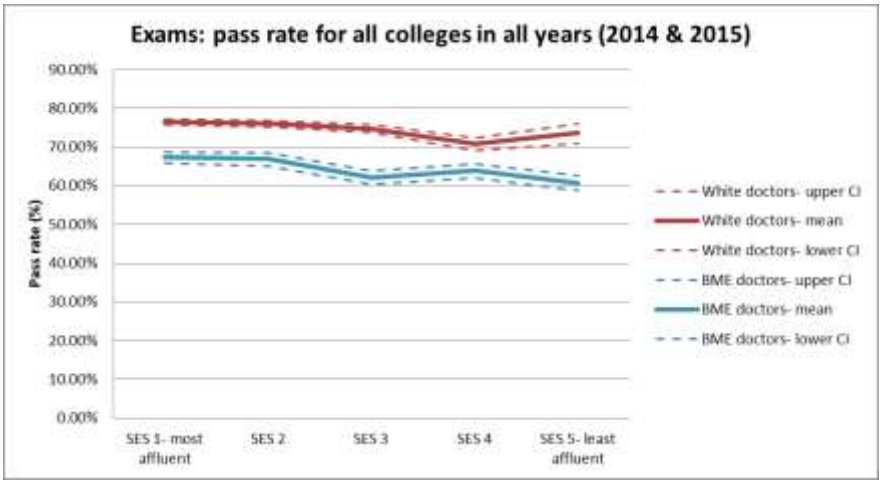


Chart 4 suggests that ethnicity and socioeconomic status are independent factors, each affecting outcomes. White doctors outperform BME doctors in exam attempts even when comparing individuals from the same socioeconomic background.

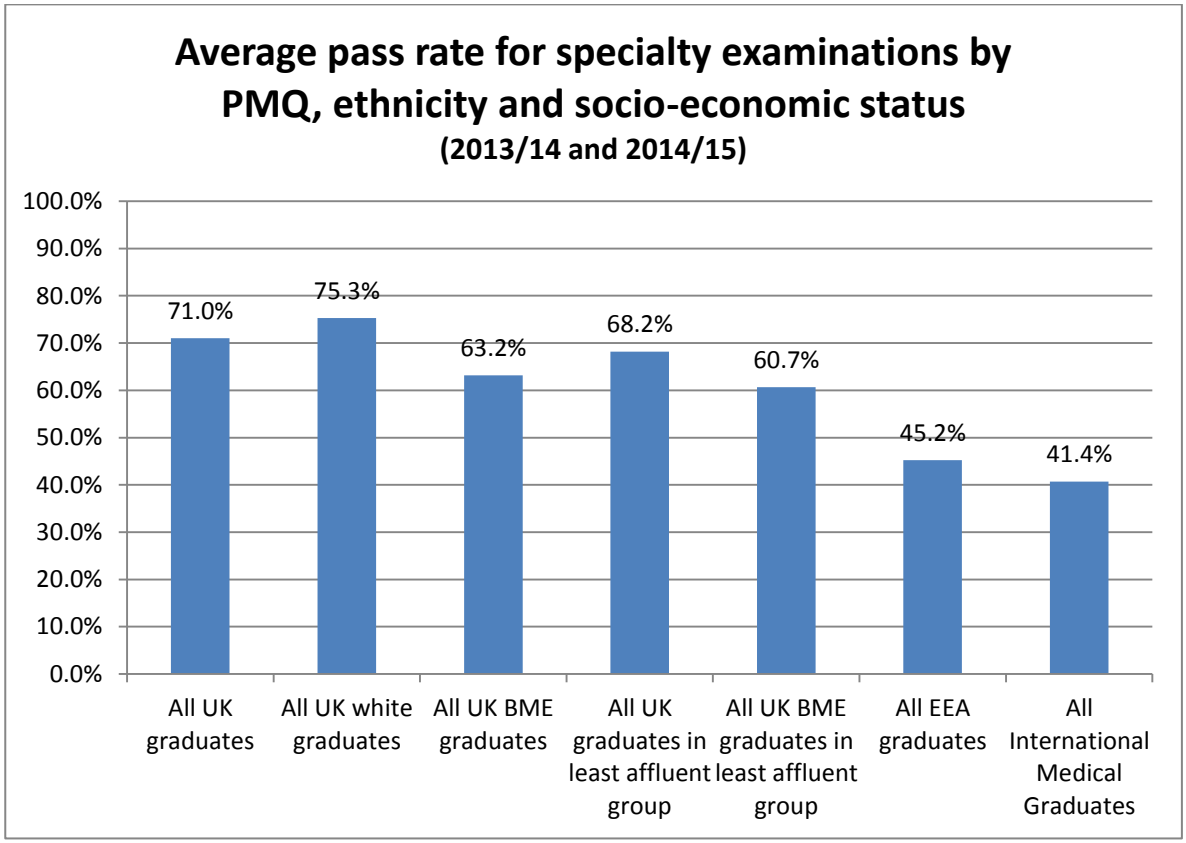
Chart 4: Specialty exam pass rates for candidates with a UK medical degree split by ethnicity and socioeconomic group (2013/2014 and 2014/2015).



If we split exam outcomes by place of primary medical qualification, ethnicity and socioeconomic status for GMC registered candidates (including those in Foundation Programmes and not on a UK training programme), **chart 5** shows that within the UK graduates, the group with the lowest average pass rate are UK-BME doctors from the most deprived socioeconomic group. On average, this group has a pass rate of 60.7% which can be compared to all UK-BME doctors with an average pass rate of 63.2% and all UK-white doctors with an average pass rate of 75.3%.

UK graduates as a group however, maintain at least a 19% higher average pass rate than IMG doctors.*

Chart 5: Specialty exam pass rates by place of primary medical qualification and ethnicity and socioeconomic status for UK graduates (2013/14 and 2014/15)



Indications of a decline in the proportion of foundation doctors entering specialty training

On completing the Foundation Programme, doctors may apply to core or run through training. Typically, foundation doctors apply to these training programmes in their F2 year, although some may delay an application for one or more years, or choose not to apply for further training at all.

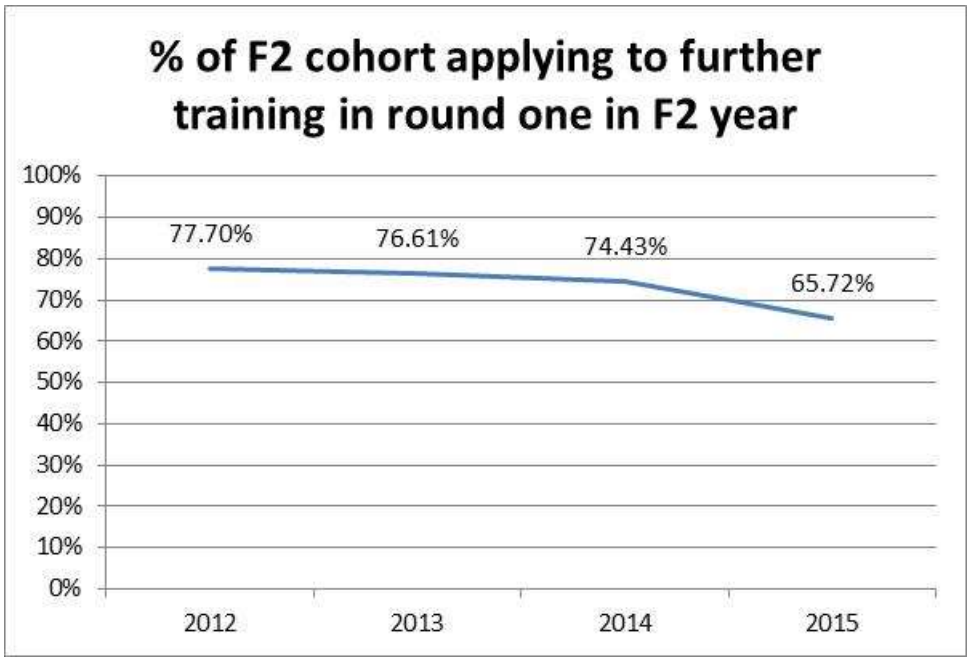
Last year, we reported that of those who completed the Foundation Programme in 2012, the overwhelming majority, 92.5%, were in specialist training or continued to work in the UK as doctors by March 2015.

This year, we have identified a decrease in the proportion of F2 doctors applying directly into further training.

The reducing proportions of F2 doctors entering further training shown in **Chart 6** mean that, although there has been an increase in the number of F2 doctors from 7414 in 2011/2012 to 7685 in 2014/15, the number of F2 doctors applying to enter training in round one has decreased from 5,761 in 2012 to 5,179 in 2015.

It will take another two or three years before we have the data to see if this drop continues over time.

Chart 6: F2s who applied to specialty training in ***round one*** recruitment during their F2 year

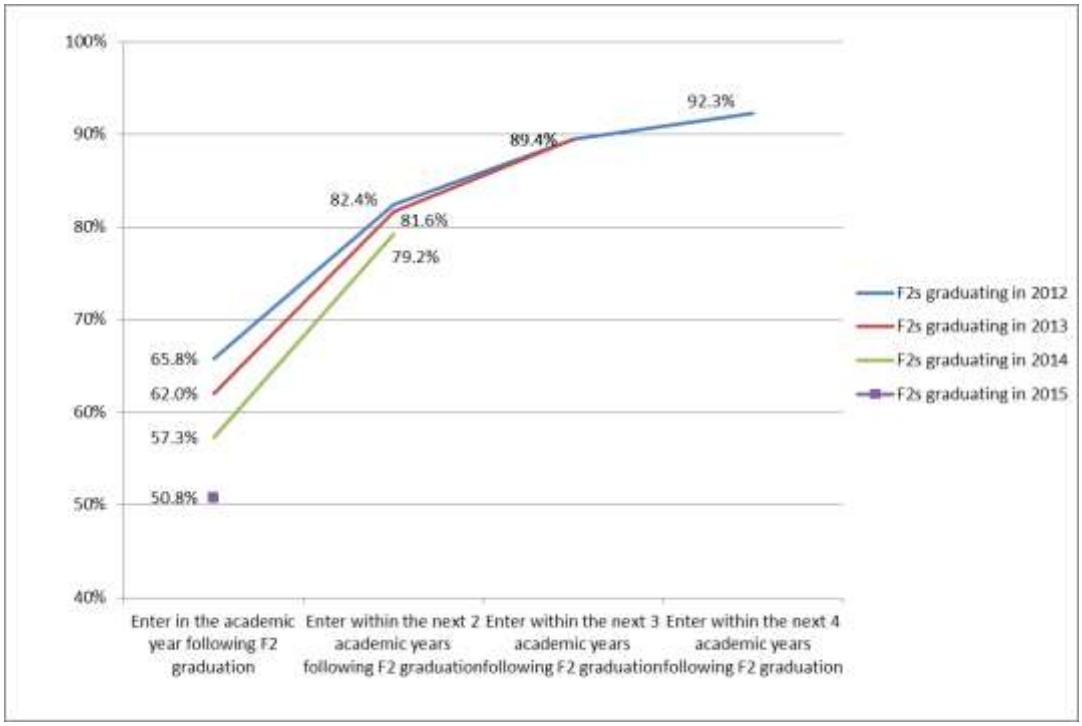


Our annual census data allows us to see which doctors have progressed from foundation to specialty training programmes each March.

The proportion of each F2 cohort entering further training by March in the academic year after finishing F2 has declined with each year. The March 2016 census indicates that the rate of decline has increased for the August 2015 academic year.

- 65.6% of the 2012 cohort were in training in March 2013 (4861 doctors) compared to 50.8% of the 2015 F2 cohort by March 2016 (3905 doctors).

Chart 7: Proportion of each F2 cohort in training by each NTS census following F2 completion.



There will be many reasons for doctors choosing to delay further training. Doctors may choose to take career breaks for personal reasons or to improve their experience or confidence before entering specialty training. Others may take up non-training work to improve their chances of successful application to their preferred specialty. Others still may choose to leave the NHS (or medicine) entirely if they find better opportunities overseas or in a different career.

In the long term, a decreasing number of F2 doctors entering further training could result in more unfilled training places. This would increase pressure on other staff and doctors in training, which could affect patient care and the quality of training provided in environments carrying vacancies. Some of the impact may be offset by increasing training numbers or increased recruitment of doctors returning from a career break or from overseas.

Recent data from Health Education England for 2016 *round one* national specialty recruitment shows an occupancy rate of 80.9% compared to 81.7% in 2015.[*] As the number of posts had increased, this meant 69 more doctors accepted posts in 2016.

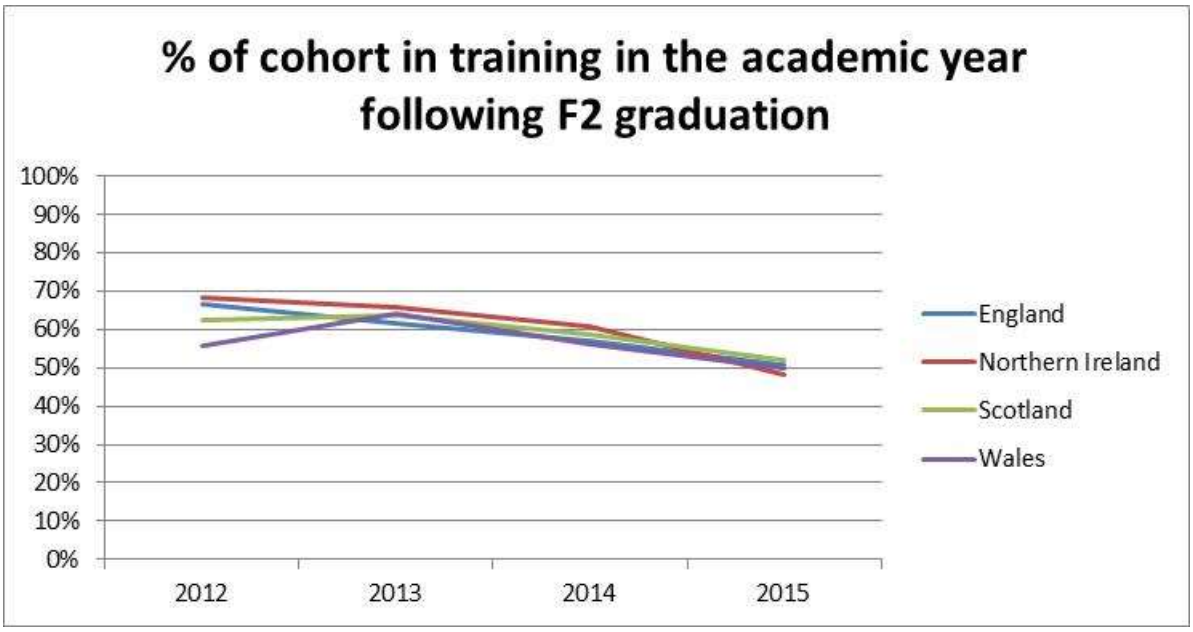
Recent data from NHS Education Scotland show over 96% occupancy rate for all medical training posts in Scotland for 2016/2017 academic year at the close of recruitment. They also noted a 27% increase in the number of foundation doctors from across the UK applying to train north of the border[†].

This perhaps suggests doctors from outside of the foundation programme are applying to specialty training or those who have taken time out following F2. Further investigation is needed.

Is there a difference in the pattern of doctors entering specialty training across the four nations and might this help us understand the cause?

We explore whether the changing pattern of F2s entering specialty training within a year of F2 varies across the four nations.

Chart 8: Proportion of F2s in further training by the NTS census in March following their F2 year split by country



[*] HEE acceptance figures (correct as at 22/04/2016) www.hee.nhs.uk/news-events/news/specialty-recruitment-round-1-acceptance-fill-rate-update-0

[†] news.scotland.gov.uk/News/Increase-in-junior-doctors-250a.aspx

Northern Ireland and England show steady decline in the proportion of F2s in training a year on, with each year.

In Wales and Scotland, the proportion of 2013 F2s in further training after a year was higher than the 2012 cohorts, but a lower proportion of the 2014 and 2015 cohorts are in training a year later.

It is possible that the dispute between the ministers and junior doctors in England about contracts may be a factor in reducing application rates in 2015 in England. However F2 doctors would have decided to apply in round one in November/December 2014 for specialty or general practice programmes generally starting in August 2015. This process would have been completed before the British Medical Association's decision to ballot for strike action in September 2015.

The pattern of decline is not only observed in England; all countries have seen decreases in the proportion of F2s progressing directly to further training. It will take some time until we can determine whether this represents an increase in doctors taking time out of UK training or it will translate into a longer term increase in attrition.

Bringing together the recruitment data from across the four countries with National Training Survey at can help identify patterns related to preferences and behaviours of doctors in training. It may help organisations responsible for workforce policy and planning in each country to identify any issues that may need further exploration.

Further work and monitoring is needed to understand how doctors progress through training pathways and any differences by country or region.

Rates of application to further training vary by demographic characteristic and are affected by differential attainment

Our data show that UK-BME doctors and IMG doctors were more likely to apply to further training directly following their F2 year; 87.8% of IMG-BME F2s compared to 67.9% of UK-White F2s. This could influence workforce planning and vacancy rates.

Doctors from certain demographic groups are more likely to apply to shortage specialties. 39.1% of UK-qualified BME doctors made an application to general practice compared to 28.9% of white UK-qualified doctors and 55.8% of IMG-BME F2s. UK-White doctors were more likely to apply to core anaesthetics than any other specialty.

F2 doctors from the least affluent backgrounds* are more likely to make applications to further training in round one in their F2 year than those from least deprived areas.

* Defined by their quintile within the index of multiple deprivation (IMD) – the most affluent is quintile 1, the least affluent is in quintile 5.

Appendix – What are the limitations of the reports?

There will be many factors affecting the progression outcomes for doctors in training and the progression reports themselves do not draw any conclusions as to the cause of variation. Progression reports can't be used in isolation to identify training programmes delivering poor or exceptional quality training.

Report users should look across all of the data sets to get a broad overview of outcomes and indictors of progress to identify possible areas for further investigation.

For example, training programmes with high rates of unsatisfactory ARCP outcome, may have more robust ARCP panels identifying concerns with progression or it may be that doctors on this programme are less well supported during their training or are finding it more difficult to acquire the skills they need to progress. We can't know the root cause without further investigation.

Similarly, recruitment offer rates for doctors F2 doctors can be affected by the specialty they apply to or their preferred training location as well as by their clinical competency. In future, as data quality and systems improve we hope to provide more detailed reports such as on the proportion of appointable applicants rather on the number appointed.

Nevertheless, while the reports do not tell the whole story, they provide a starting point for individuals, organisations and policy makers to identify issues and explore how they might be addressed.

Broad and aggregated categorisation

To maintain anonymity while reporting on relatively small cohort sizes by multiple factors, we report by broad or aggregated categories (eg white and BME) and in some instances have reduced the number of filters available in reports. The categories we have used to describe ethnicity are used by the Office for National Statistics for the UK census.

Broad cohorts are made up of highly diverse populations and may well hide important variation within them. While this is a recognised approach for research and enables us to highlight broad patterns related to the experience and attainment of doctors from BME backgrounds, as our data sets grow, we aim to present the results at an increasingly granular level.

Limited population size and data sets may not be complete or unique

The size of the population we have remain limited, at present representing two years of exam outcomes and four years of round one recruitment data to core and run-through programmes and a single year of round one recruitment into higher specialty training programmes.

The population of each year's data is not unique. The exam reports show pass rates for all attempts within a single year and may include doctors taking the exams for the first time and those resitting, perhaps after several failed attempts.

In general, recruitment is coordinated nationally for the first round, with subsequent rounds being run locally, however, variations occur across the four nations. Currently, we collect outcomes data only from this first round of national recruitment. We are working with all four countries to improve and expand the recruitment data we hold for example by collecting applicants considered appointable.

Small cohort sizes and natural variation can mean that drilling down to individual specialties or locations reduce the sample size and widen the confidence intervals meaning year on year comparisons are often not statistically significant.

No indication of causality or interplay of different factors

The reports present data broken by one or two factors. Effects on performance are multi-factorial and may be related to factors we are unable to measure; the Equality Challenge Unit indicates that individual's unique perspectives and experiences will be shaped by a range of factors, and can't be reduced to a single issue.[*] Over time, we aim to explore multi-factorial modelling of the data and share our findings.

Individual behaviour and preference will affect the outcomes. For example, doctors preferring to remain in the south east after foundation training will be applying to the most competitive programmes and therefore are less likely to receive offers. In round one, 2015 application ratio to general practice in London was 3.0 compared to Wales with 1.3 applications per training post.[†]

Other doctors may choose not to apply straight into specialty training but take time out overseas, for example, and so the application rates may also appear low.

Valid variation may occur across specialties, regions and nations

We don't intend that pass rates for different exams, or ARCP outcomes for different specialty groups be compared. Exams set by medical royal colleges and faculties can be made of multiple components, each assessing a different skill set or area of knowledge and, often at different points in the curriculum. In addition, colleges report exam results in different ways; some report by individual component and others aggregate all parts of an exam. ARCP variation between different specialties may represent different structures on training, eg the presence of high stakes examinations to exit or at key stages of training.

[*] Equality Challenge Unit (2015).
[†] see https://gprecruitment.hee.nhs.uk/Recruitment/Competition-Ratios.

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