Introduction

Every year the Royal College of Physicians of London (RCP) conducts a census on behalf of the Federation of the Royal Colleges of Physicians. The aim of the census is to provide the RCP, its partners and others with robust data on the state of the consultant and higher specialty trainee (HST) physician workforce in the UK.

In conjunction with other data – such as our 2018 wellbeing survey\(^1\) – the census data help us plan for the future. This is particularly important in 2018 as Health Education England (HEE) and its partners develop a 10 year health and care workforce strategy for England.\(^2\)
Key points

The census revealed continuing pressure on the medical workforce and the systems in which we work. This pressure is demonstrated by ongoing problems with rota gaps, unfilled posts and high levels of reported sickness absence.

- **45%** of advertised consultant posts went unfilled due to a lack of suitable applicants.

- **53%** of consultants and **68%** of trainees said rota gaps occurred frequently or often, with significant patient safety issues in **20%** of cases.

- Trainees reported that a fellow junior doctor was absent due to sick leave in **46%** of their on-call shifts.

- Both consultants and trainees estimated that they worked on average **10%** more than they were contracted to work.

- The number of consultants working less than full time (LTFT) has risen to **23%**. This was particularly noted among older consultants who have moved to LTFT, supplementing those working this way on a longer term basis. The number of trainees working LTFT rose to **15%**.

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23% of consultants worked less than full time

88% of consultants enjoyed specialty work

55% of consultants enjoyed GIM work

59% of HSTs would not train in GIM again
The data demonstrate a mixed picture in terms of the consultant and trainee experience of general internal medicine (GIM). Satisfaction among consultants and trainees with working or training in GIM remains significantly lower than satisfaction with their specialty, but there have been modest improvements in job satisfaction in GIM for trainees since last year:

> 88% of consultants always or often enjoyed working in their specialty, but only 55% always or often enjoyed working in GIM, although that has risen from 49% last year.

> 86% of HSTs always or often enjoyed working in their specialty, but only 40% in GIM, although that has risen from 25% last year.

However, 59% of trainees would not train in GIM if they had their training period again, compared to 58% last year. A worrying 27% of trainees reported that if they could turn back time, they would take a medical job outside the NHS and 31% a job outside medicine.

The reason for the dissatisfaction was made clear when we asked trainees what would improve the quality of their GIM training. 87% said no rota gaps, 82% a better balance between service and training, and 72% protected time for professional development.

The pressure all physicians are under, as demonstrated by these findings and in the RCP NHS reality check reports, appears to be the main factor behind these negative experiences documented by the 8,579 doctors who contributed to this year’s census. Reducing rota gaps and filling vacant posts is vital if we are to realise the Shape of Training’s vision of more doctors with general medical skills.
Census of consultant physicians and higher specialty trainees 2017–18

Next steps

We will use the data in our discussions with government about the current pressures on the NHS. In particular, the data support our response to the workforce strategy consultation in which we called for:

> the number of medical school places to be doubled to 15,000 per year, with the aim of a small surplus of supply

> doctors in training to be encouraged to take up posts in specialties and locations with the largest recruitment gaps, by providing them with incentives such as protected time for leadership, education, training, research and quality improvement

> the UK to be made more accessible to doctors and other professionals from other countries, with an immediate increase in the size of the Medical Training Initiative to 2,000 places

> more flexibility in terms of working patterns, regulation, moving between training programmes, moving between specialties, and meeting the aspirations of current and future physicians

> a single, robust source of data that brings together the various datasets that tell us about how many people are in the system, how they move within it, and when and why they leave, to enable us to plan well for the long term

> more investment in public health initiatives, including the public health workforce, that reduce demand.

Methodology

The census was compiled by the RCP’s Medical Workforce Unit. Forms were sent electronically on 30 September 2017 to all substantive UK consultants and all HSTs on the Joint Royal Colleges of Physicians Training Board (JRCPTB) database. The Medical Workforce Unit verified consultant numbers by working in partnership with the GMC to check data for those UK consultants who are members or fellows of the RCP, RCPE or RCPSG. Additional consultant data were checked with representatives of each medical sub-specialty, and finally each trust was telephoned to confirm data at a trust level. Following this process, data from new consultant appointments compiled by the RCP during the year were added. This allowed us to create a database of all substantive UK consultant physicians. In addition, a full dataset of current HSTs was provided by the JRCPTB. Reporting from these datasets did not require completed census returns and so numbers, specialty, gender, age-groupings and locations are derived for the entire physician workforce. However, for other areas of the census we are reporting on the census responses. In total, 5,859 substantive consultants (37%) and 3,677 HSTs (51%) completed the census.
Consultant workforce

There were 15,727 consultant physicians in the UK in 2016/2017 available for the census; 84% work in England, 3% in Northern Ireland, 8% in Scotland* and 4% in Wales. The largest medical specialties were cardiology and geriatric medicine (both with 10% of total consultant physicians), gastroenterology and hepatology (9%) and respiratory medicine (9%). Acute physicians were 5% of consultant physicians.

There has been a further modest increase in the number of consultant female physicians, so that the consultant workforce is now 64% men and 36% women. There remain striking variations between the specialties: men make up 86% of cardiologists and 79% of gastroenterologists/hepatologists, whereas 76% of palliative physicians and 59% of GU physicians and dermatologists are women.

70% of consultant physicians described themselves as being of white ethnic origin. The next largest ethnic group was those of Indian origin (13%). Other ethnic groups were much smaller, with the largest being consultants of Pakistani and Chinese origins (both 2%).

93% of consultant physicians are UK citizens. 77% of consultant physicians graduated in the UK, 6% in Europe and 17% outside Europe. 91% of consultants who had graduated in medicine abroad and moved to the UK planned to stay in the UK for the next five years. 94% wanted to stay if this was allowed following exit from the EU. 33% reported that the EU referendum had affected their decision to stay in the UK – very much 7%, quite a lot 6%, somewhat 12%, a little 8%.

Consultant appointments

Overall, as in 2015/16, 45% of advertised consultant physician posts were not filled due to a lack of applicants or suitable applicants.†

For the fifth consecutive year, the specialties advertising the highest numbers of posts in England and Wales were geriatric medicine (191), gastroenterology/hepatology (158) and acute internal medicine (155). The highest number of successful appointments was in geriatric medicine (44% of those advertised were filled), then acute medicine (50% filled), cardiology (57% filled), and gastroenterology/hepatology (46% filled).

Regionally, the Midlands & East region had the highest proportion of unsuccessful appointments (57%), followed by the South (50%) and North (49%). It was easier to appoint consultants in London – only 27% of appointments were unsuccessful. There were also lower

* Any discrepancies in consultant numbers in Scotland between Focus on physicians and Information Services Division (ISD) figures may reflect the fact that individuals who hold more than one appointment are included under each area of work in ISD data.
† Data for Scotland unavailable.
rates of unsuccessful appointments in Wales (31%) and Northern Ireland (43%), compared with 46% in England.

As in previous years, trainees clearly regarded geographical location as the most important factor when applying for a consultant job. The second most important factor was the proportion of specialty time in their job plan. LTFT working or the ability to work flexibly was the third most important factor for women, and for men it was academic opportunities and links. The inclusion of 7 day working/on call, GIM and unselected GIM take were the factors ranked as the lowest in importance among those suggested when applying for a consultant job.

Given trainees’ prioritisation of geographical location, illustrated by the fact that only 34% of medical CCT holders reported applying for a consultant post outside their deanery, it is crucial that in future the geographical distribution of trainees in the UK better matches the geographical demand for consultant physicians.

Trainee workforce

According to data from the JRCPTB, there were 7,254 medical HSTs during 2016–17. The overall distribution of trainees almost exactly the same as the distribution of consultants. The largest specialty numerically for trainees was cardiology (11% of total), followed by geriatric medicine (11%), respiratory medicine (10%) and gastroenterology/hepatology (10%). Trainees in acute medicine comprised 6% of all trainees. If the number of trainees were to accurately match the consultant posts advertised, there would need to be a greater number of trainees in geriatric medicine and acute internal medicine.

Consistent with the last two years of the census, 53% of trainees were women. The variation in gender balance between specialties followed a similar pattern to consultants in many specialties. For example, 73% of cardiology trainees were male, in an already male-dominated specialty. Encouragingly, there were signs of change in other male-predominant specialties: 40% of gastroenterology/hepatology trainees were women.

66% of trainees described themselves as being of white ethnic origin. The next largest ethnic group was those of Indian origin (9%). The number of trainees from other ethnic groups was much smaller, with the largest being trainees of Pakistani (5%) and Chinese origins (4%).

85% of trainees were UK citizens. 83% of trainees had graduated in the UK, 5% in Europe and 12% outside Europe. 88% of trainees who had graduated in medicine abroad and moved to the UK planned to stay in the UK for the next five years. 88% wanted to stay if this was allowed following the UK leaving the EU.
reported that the EU referendum had affected their decision to stay in the UK – very much 9%, quite a lot 11%, somewhat 17%, a little 11%.

**Consultant job satisfaction**

Despite the pressures many consultant physicians face, their job satisfaction remained remarkably resilient. Consultants usually enjoyed working in their specialty:

- 39% always
- 49% often
- 11% sometimes
- 1% rarely.

These figures are reassuringly almost identical to last year’s census. However, consultant physicians reported enjoying working in GIM rather less:

- 15% always
- 39% often
- 32% sometimes
- 11% rarely
- 2% never.

There were clear regional variations in reported job satisfaction. Consultants in Wales reported higher levels of enjoyment working in both their specialty and GIM than those in Northern Ireland and Scotland. 47% of Welsh consultants always enjoyed working in their specialty and 25% always enjoyed working in GIM. 29% of Northern Irish and 34% of Scottish consultants always enjoyed working in their specialty, and 11% and 10% respectively always enjoyed working in GIM. Individual specialty, gender and LTFT working had no significant impact on job satisfaction.

Our recent wellbeing survey found consultants in Wales were also at lower risk of burnout than those in Northern Ireland and Scotland. Consultants and healthcare providers from other areas of the UK – particularly Northern Ireland and Scotland – may wish to find out why working in Wales appears more enjoyable and less stressful than other areas of the country, despite apparently similar challenges.

**Trainee job satisfaction**

Higher specialist trainees generally enjoyed working in their specialty:

- 31% always
- 55% often
- 13% sometimes
- 1% rarely.

Gender, LTFT working, being an academic and choice of specialty had little influence on job satisfaction for trainees in their specialty.

However, trainees clearly enjoyed working in GIM much less:

- 5% always
- 35% often
> 40% sometimes
> 15% rarely
> 3% never.

Gender, LTFT working, being an academic and choice of specialty again had little influence on GIM job satisfaction.

There were similar, but less marked, regional variations in job satisfaction for trainees. Welsh trainees appeared more likely to report always or often enjoying their specialty (90%) and GIM work (49%), with a similar pattern in Scotland (specialty 88%, GIM 47%). However, trainees in England (specialty 85%, GIM 39%) or Northern Ireland (specialty 81%, GIM 37%) reported lower job satisfaction. This is a similar pattern to consultants. Doctors in Wales in particular seemed to enjoy their work more than other areas of the UK.

Rota gaps

Gaps in trainees’ rotas were reported frequently or often by 53% of consultants:

> 19% reported that rota gaps cause significant problems in patient safety in their hospital
> 77% stated that gaps could potentially cause problems but there is a workaround solution so that patient safety is not compromised
> only 2% said rota gaps have no impact on patient safety.

Rota gaps were reported as occurring in all areas of the UK, with similar frequency and patient safety implications, with the exception of Northern Ireland, where only 7% reported that rota gaps cause significant problems in patient safety in their hospital and there were more workaround solutions.

Impact on consultants

Consultants again reported covering gaps in junior doctors’ rotas: 7% regularly and 23% as a one-off. This is a reduction from 13% and 32%, respectively, in 2015–16. Consultants in Northern Ireland were again less likely to be affected – 4% regularly, 8% as a one off.

57% of consultants reported receiving no compensation at all for acting down (compared with 72% last year); 19% received extra payment; and 21% took time off in lieu. Of those taking time off in lieu, 6% took time off the next day and elective work was cancelled, 7% took time off and a colleague was asked to cover the planned work, and 9% took time off at a later date. The reduction in consultants receiving no compensation from last year may reflect the introduction of formal policies for ‘acting down’, including compensation arrangements, given the continuing high frequency of rota gaps.

When consultants were asked what was not being done due to rota gaps, they most commonly reported informal teaching, management or committee work, formal teaching sessions and research.
Impact on trainees
Trainees reported high levels of sickness related to being on call among their junior colleagues. 46% reported at least one junior colleague being absent due to illness the last time they were on call during the day in the week. When on call during the night in the week, 34% reported at least one junior colleague being absent due to illness. There was a similar pattern with weekend on calls: 41% reported at least one junior colleague being absent due to sickness in the daytime and 31% at night. This pattern was reflected in the core medical trainee (CMT) rotas, with HSTs reporting a higher prevalence of rota gaps than consultants – 41% frequently and 27% often. Such reports predominantly came from HSTs taking part in the acute take.

Like consultants, only 2% of trainees felt the rota gaps had no impact on patient safety. 21% felt they caused significant patient safety issues in their hospital, and 74% that they could potentially cause patient safety problems, but there was a workaround solution.

29% of HSTs had been asked to cover gaps in the CMT rota. 8% had done this regularly or occasionally, and an additional 12% reported having done so as a one-off. 7% of trainees had been asked to cover a consultant vacancy. 2% had done this regularly or occasionally, and a further 5% as a one off. These are similar figures to last year’s census.

When trainees were asked what was not being done due to rota gaps and consultant vacancies, they most commonly reported an adequate work–life balance, informal and formal teaching, elective work and training.

In compensation for acting down as a CMT, HSTs were offered nothing in 52% of cases, were paid more in 33% of cases and offered time off in lieu in 25% of cases. There was a similar pattern when covering HST rota gaps: 50% received nothing, 31% more pay and 22% time off in lieu.

For acting up to cover consultant vacancies, 71% received no compensation, 18% more pay and 15% time off in lieu.

78% of trainees had been asked to cover rota gaps in the HST rota. 44% had done this regularly or occasionally, and a further 26% as a one off.
### Less than full time working

The majority (89%) of consultant posts advertised were contracted for 10–10.9 programmed activities (PAs) per week. However, LTFT working increased again: 23% of consultants now work LTFT or are paid fewer than 10 PAs per week (a 3% increase on last year and 5% on two years ago).

42% of female consultants and 10% of male consultants reported working LTFT. Variations in LTFT working between specialties, as would be expected, depended on their relative gender split. For example, 53% of palliative care consultants reported working LTFT, but only 9% of cardiologists.

LTFT working is particularly prevalent in the later stages of consultants’ careers. The highest proportions of consultants working LTFT are among those aged 60–65 (38%) and over 65 (62%). This reflects the increasing importance to the consultant workforce of consultants who ‘retire and return’.

There was an increase in the proportion of trainees working LTFT to 15%, of whom 91% were women. 25% of all female trainees and 3% of all male trainees work LTFT.

### General internal medicine

The proportion of consultants participating in the acute unselected medical take and looking after GIM patients on wards was identical to last year’s census. This trend is unlike previous years of the census, in which participation in both consistently fell.

The unselected medical take was undertaken by 33% of consultants. 29% of female consultants and 35% of male consultants reported that they participated. GIM inpatients were looked after by 41% of consultant physicians, including 35% of female and 45% of male consultants.

Consultants contributing to the acute medical take came principally from five large specialties:

- 21% from geriatric medicine
- 17% from respiratory medicine
- 16% from endocrinology and diabetes mellitus
- 16% from acute internal medicine
- 11% from gastroenterology and hepatology.

The proportion of consultants participating in the acute take has fallen for two of these specialties: 59% of respiratory physicians (66% previously) and 35% of gastroenterologists (42% previously). The proportions of geriatricians and endocrinology/diabetes consultants participating has remained stable.
Specialty take was regularly undertaken by 63% of consultants, predominantly in those specialties that do not participate in the unselected medical take, such as cardiology, haematology, medical oncology, dermatology, GU medicine, neurology and palliative medicine. 22% of consultants worked a hybrid of the specialty take with the acute unselected medical take. 15% worked a specialty take, over and above the unselected medical take.

LTFT consultants were less likely to undertake the acute medical take or care for GIM inpatients: 33% compared with 53% of full time consultants. It also became less common in older consultants:

- > 44–49 years – 52%
- > 50–54 years – 46%
- > 55–59 years – 43%
- > 60–65 years – 40%
- > over 65 – 33%.

There are regional variations in undertaking the acute take and caring for GIM inpatients:

- > 60% of consultants in Wales
- > 49% of consultants in England and Scotland
- > 43% of consultants in Northern Ireland.

There was a further small drop in the proportion of trainees dual-accrediting in GIM, from 59% to 58% in 2016–17. 63% of male trainees and 54% of female trainees were dual accrediting in GIM.

Specialties with very high numbers of trainees participating in the acute take or looking after non-specialty GIM inpatients included:

- > acute internal medicine (99%)
- > geriatric medicine (98%)
- > endocrinology and diabetes mellitus (92%)
- > respiratory medicine (90%)
- > gastroenterology/hepatology (86%).

This was less common among other large specialties in which consultants do not usually undertake GIM:

- > rheumatology (73%)
- > renal medicine (63%)
- > cardiology (49%)
- > infectious disease (47%).

In general, fewer than 5% of trainees in other specialties were involved in GIM.

Specialty take was regularly undertaken by 63% of consultants, predominantly in those specialties that do not participate in the unselected medical take.
Overall, and similar to last year’s census, 73% of trainees described their specialty training as ‘excellent’ or ‘good’. Only 22% felt this way about their GIM training (a fall from 28% reported in the 2015–16 census).

Trainees in acute medicine rated their specialty training lowest among large specialties: 16% of trainees rated it excellent, 41% good, 28% satisfactory, 9% poor and 5% very poor. There were similar patterns, though less marked, in cardiology and haematology: around a third of trainees rated the training poor or satisfactory. There was no significant variation in the quality of specialty training by region of the UK, but trainees rated GIM training more highly in Wales and Scotland than in England and Northern Ireland.

4% of trainees reported that they had discontinued GIM training in the previous 6 months and an additional 26% had considered doing so. This was largely related to 18% of cardiology trainees discontinuing GIM training. In comparison, 1% of trainees had discontinued specialty training and 23% had considered doing so.

If they were able to turn back time, 59% of GIM trainees would not choose to train in GIM, but only 10% of trainees would alter their specialty.

For GIM training, trainees felt the following would improve the quality of their training:

- no rota gaps (87%)
- better service/training balance (82%)
- protected time for professional development (72%)
- full time working but more flexibility (35%)
- modular training (33%)
- more study leave (30%)
- LTFT working (19%).

For specialty training, trainees felt the following would improve the quality of their training:

- protected time for professional development (85%)
- better service/training balance (69%)
- no rota gaps (63%)
- full time working but more flexibility (38%)
- more study leave (38%)
- modular training (32%)
- LTFT working (17%).

If they were able to turn back time, 59% of GIM trainees would not choose to train in GIM, but only 10% of trainees would alter their specialty. In addition, 20% of trainees would prefer to train in a different location. More worryingly, if they could turn back time, 27% of trainees reported they would take a medical job outside the NHS and 31% a job outside medicine.

Mean contracted and estimated worked time
For consultants and HSTs

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Quality of training

Overall, and similar to last year’s census, 73% of trainees described their specialty training as ‘excellent’ or ‘good’. Only 22% felt this way about their GIM training (a fall from 28% reported in the 2015–16 census).

Trainees in acute medicine rated their specialty training lowest among large specialties: 16% of trainees rated it excellent, 41% good, 28% satisfactory, 9% poor and 5% very poor. There were similar patterns, though less marked, in cardiology and haematology: around a third of trainees rated the training poor or satisfactory. There was no significant variation in the quality of specialty training by region of the UK, but trainees rated GIM training more highly in Wales and Scotland than in England and Northern Ireland.

4% of trainees reported that they had discontinued GIM training in the previous 6 months and an additional 26% had considered doing so. This was largely related to 18% of cardiology trainees discontinuing GIM training. In comparison, 1% of trainees had discontinued specialty training and 23% had considered doing so.
Job planning

A current, agreed job plan is a key contribution to consultant productivity and job satisfaction. 92% of consultants had a current job plan. This was consistent throughout the UK, although a little less common in Wales (84%).

The job plan of 82% of consultants had been reviewed and agreed within the last year, as is recommended. Again this was a little less common in Wales (76%) and also Northern Ireland (72%).

It is good practice to undertake job planning together in teams but this was less common and more variable between and within the four nations: England 34%, Wales 29%, Scotland 19%, and Northern Ireland 10%.

Contracted PAs

Consultant job plans are split into four hour periods of work called programmed activities (PAs). The mean number of contracted PAs per consultant was 10.5. On average, 7.4 PAs were spent in direct clinical care (DCC), 1.9 in supporting professional activities (SPAs), 0.6 in academic work and 0.6 in ‘other’ work.

Full time consultants were contracted for a mean of 11.4 PAs – 8 DCC, 2 SPA, 0.7 academic and 0.7 other. LTFT consultants were contracted for a mean of 7.4 PAs – 5.2 DCC, 1.4 SPA, 0.4 academic and 0.4 other.

The mean number of PAs consultants estimated they worked was 11.5. 7.9 were spent in DCC, 2 in SPAs, 0.8 in academic work and 0.8 in ‘other’ work.

Full time consultants estimated they worked a mean of 12.4 PAs – 8.5 DCC, 2.2 SPA, 0.9 academic, 0.9 other. LTFT consultants estimated they worked a mean of 8.2 PAs – 5.7 DCC, 1.6 SPA, 0.5 academic, 0.5 other.

These numbers are in keeping with previous years of the census, when it was estimated that 10% of time above contract was worked. LTFT consultants proportionally work more above their contract (11%) than full time consultants (9%).

An average of 44 hours was rostered for trainees on full-time contracts, but a mean of 5.3 hours was worked above this.

The European Working Time Directive specifies a maximum average 48-hour working week and from their estimates, some full time consultants and trainees may be close to this limit.

Retirement plans

It is expected that 23% of the current consultant workforce will reach 65 years of age in the next 10 years. The mean reported age of planned retirement among consultants was 63 years (with a range of 60–66). Based on this, it is expected that 33% of the current consultant workforce will reach their intended retirement age in the next decade, so we need to ensure there are sufficient numbers of new physicians to replace them.

Women reported a slightly lower mean age of planned retirement (62 years) than men (63 years). There was variation by specialty, such as a mean age of 60 years for HIV/AIDS and 66 years for allergy. Current age of consultants, LTFT working, a GIM commitment and region of the UK had no influence on planned age of retirement.
References


Get involved

To be more responsive to current issues, the RCP’s Medical Workforce Unit (MWU) will undertake a series of further short surveys of representative portions of the consultant workforce during the year. Our aim is not to survey any consultant more than one additional time, and to publish online to provide quick, accurate and relevant data on the present issues affecting doctors. Please get involved!

For more census info, visit
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