

RCPCH State of Child Health short report series

# 2017 workforce census: focus on Scotland

Published March 2019



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# 1. Introduction

This report is a workforce profile for Scotland, supported by the Royal College of Paediatrics and Child Health (RCPCH) workforce census 2017, and other data on the paediatric workforce and services collected by the College. It follows on from the Workforce Census 2017 Overview Report<sup>[1]</sup> that provides a UK-wide analysis of the census data. Further reports will focus on the workforce in the other UK nations, safeguarding provision, the workforce in paediatric specialties and Specialty and Associate Specialist (SAS) doctors.

This report makes recommendations specific to Scotland in 4 key areas:

1. Planning the child health workforce
2. Recruiting, training and retaining more paediatricians
3. Incentivising the paediatric workforce
4. Planning for and expanding the non-medical workforce

The reports are supported by the following Census Resources on the RCPCH [website](#):

- An interactive dashboard of paediatric workforce data which allows users to apply filters and customise for their own use and interest.
- A set of detailed tables in Excel format for those who wish to see further breakdowns of the census data.
- An explanation of how we arrived at our estimate of consultant workforce demand and supply of trained doctors.
- The census data collection methodology and response rate.

# 2. Executive summary

Scotland has 11 Health Boards that provide paediatric services across the total 14 Health Boards, and NHS Scotland is responsible for workforce planning in this nation. Consultant growth in Scotland between 2015 and 2017 was 5%, lower than the England growth of 8.2% and the UK growth of 7.8%. Growth of consultant numbers in Scotland has slowed since 2015: between 2013 and 2015 WTE consultant growth in Scotland was 14.2%.

Rates of less than full time consultant working in Scotland have remained lower than the other UK nations, and the average number of consultant Programmed Activities (PAs) is the highest in the UK. In contrast, medical paediatrics in the UK has a trainee workforce which increasingly wishes to work less than full time (LTFT)<sup>[2]</sup>. The LTFT trainee workforce is both female and male. Modelling needs to consider how the shift towards LTFT in trainees may extend into consultant LTFT working patterns in future. This could lead to a potential dramatic fall in the whole time equivalent (WTE) workforce in Scotland unless there is an increase in the head count of doctors in training.

The shortfall in medical paediatric staffing across Scotland is clearly seen in rates of rota gaps and vacancies, which are higher than the UK overall. To meet the RCPCH standards set out in Facing the Future<sup>[3]</sup>, Scotland needs to appoint an additional 82.5 whole time equivalent (or 100 headcount) consultants. This would be an expansion of the current workforce of 25%, which contrasts with the 5% actual rise.

There are particular concerns in Scotland about workforce provisions to remote and rural areas. As in the rest of the health service, remote and rural areas face higher costs<sup>[4]</sup>, and paediatrics faces issues of recruitment and retention and a reliance on a small number of paediatricians in smaller centres.

The general paediatric workload is shifting, and we report a year-on-year upwards trend of admissions. A more effective way of working across primary and secondary care, as described in Facing the Future Together for Child Health<sup>[5]</sup>, is needed to keep up with this surge in admissions.

The number of paediatric trainees and consultants are unlikely to rise by the amount needed to meet demand any time soon, especially as only 6% of foundation year 1 (F1) doctors consider specialising in paediatrics<sup>[6]</sup>. Therefore, workforce planners need to develop non-medical workforces, and see their potential in helping paediatric services meet standards and demand. For example, the current lack of children's community nurses in Scotland, and absence of post graduate training opportunities in Scotland for this role<sup>[7]</sup>, presents a major gap in the child health workforce.

Furthermore, according to the 2017 census, there are now more specialist than generalist paediatricians in the Scottish workforce. This may reflect the fact that trainees tend to work more in tertiary centres rather than smaller district general hospitals (DGH), where they are able to develop a specialty. However, this leaves them unprepared to work as general paediatricians in DGHs after CCT.

The RCPCH are conducting a Paediatric 2040 project<sup>[8]</sup> to look at the future of paediatrics and would encourage NHS Education Scotland (NES) to consider this timeline too. This project will develop predictions and models of children and young people's health outcomes by 2040 and aims to understand what future requirements for paediatric services may look like and to identify innovations that will change the way paediatric services are delivered.

There are some positives to see in this report from Scotland. First, trainees want to train in Scotland, and there is twice the national average of applicants for each available post. Second, UK (and likely Scottish) trainees want to be consultants in Scotland since 78% of consultants and SAS doctors in Scotland are UK graduates, compared to 64% across the whole of the UK. Third, the paediatric community is keen to work to address the problems we all face, and Scottish centres had a 100% 2017 workforce census return. The Scottish government and Transition Group acknowledged the need to increase the number of paediatric trainees and will fund an additional eight posts for 2019.

### 3. Acknowledgements

The RCPCH would like to thank the clinical directors and clinical leads of Health Boards in Scotland who submitted data to the census, conducted from autumn 2017 to summer 2018. We received a 100% response rate in Scotland, the only one of the four UK nations to achieve this. Your input is invaluable in allowing the College to provide evidence-based recommendations and ensure the pressures facing the child health workforce are prioritised.

Dr Carol Ewing, RCPCH Vice President for Health Policy has provided essential guidance in the production of this report.

The RCPCH acknowledges the hard work of all the staff who have been involved in designing the workforce census, collecting and cleaning data, analysing the findings and producing the reports: Emily Arkell, Melissa Ashe, Heather Clark, Jacqueline Fitzgerald, Wingsan Lok, Martin McColgan, Anita Pau, Marie Rogers, Donella Williams, Rachel Winch, and Lucas Woodward.

**Professor Steve Turner, RCPCH Officer for Scotland**

**Dr Simon Clark, RCPCH Officer for Workforce Planning and VP for Health Policy elects**

## 4. Recommendations

### 4.1 Plan the child health workforce

There has been an incoherent and inconsistent approach to planning for the child health workforce.

NHS Education for Scotland (NES) must develop a bespoke child health workforce strategy.

The strategy must identify all the child health workforce which provide care to infants, children and young people (ICYP) including medical, midwifery, nursing, allied health professionals, pharmacists, health visitors and school nurses. RCPCH wants to continue to work with NES in a constructive and collaborative manner to develop the workforce strategy.

The plan must model the paediatric and child health workforce at least up to 2030, based on what future services will look like and existing service demand projections.

The strategy must be sufficiently robust to deliver professional and service standards.

The strategy must acknowledge and support differential participation rates and the development of portfolio careers to enable retention of staff.

### 4.2 Recruit and train more paediatricians

The RCPCH supports the Royal College of Physicians call<sup>[6]</sup> to double the number of medical students. In addition, the RCPCH wants to see:

- a) The Scottish Government maintain the 2019 uplift in the number of paediatric trainee places in Scotland.
- b) The Scottish Government to fund an additional year of General Practice (GP) training. This additional year must include paediatric and child health training for all GP trainees as proposed in the Royal College of General Practitioners (RCGP) curriculum submission in 2016. The extended programme would be subject to approval by the General Medical Council.
- c) NES and the Deaneries in Scotland must support existing Specialist and Associate Specialist (SAS) grade doctors and their professional development, ensuring that this important part of the child health workforce is recognised as a viable, attractive alternative career pathway. Improved recognition of SAS doctors' experience, professional and clinical skills is important to improve attitudes, morale and retention. The RCPCH is also recommending that the SAS grade is included in workforce planning.

### 4.3 Incentivise the paediatric workforce

Pay premia have been used in other hard to recruit medical specialties. Paediatrics is now facing severe shortages with falling applications and recruitment challenges.

The Scottish government, NHS Boards and NHS Education Scotland must improve recruitment and retention to rural areas of Scotland, for example by using pay premia in those areas.

### 4.4 Plan for and expand the non-medical workforce

The delivery of paediatric services to children and young people and their families requires a multidisciplinary workforce.

NES must develop a national career strategy for advanced clinical practitioners including Advanced Nurse Practitioners in neonatology and paediatrics, and Physician Associates.

Health Boards should implement new models of care which deliver general paediatrics across primary and secondary care (as described in RCPCH Facing the Future<sup>[5,10]</sup>) and include the use of modern technologies including consultation over video link.

Scotland's managed clinical networks (MCN) are a good example of clinical staff working together, across across the boundaries between the different professions and parts of the health service<sup>[11,12]</sup>.

## 5 Findings

### 5.1 Consultant demand modelling

There were 323.5 WTE consultants in 2017 and the RCPCH estimates that between 393 and 419 WTE in total are needed to meet demand. Taking a midpoint of 406 WTE, we recommend an increase of 82.5 WTE (or 100 headcount) consultants.

To calculate this, we use standards that outline best practice in paediatric care, including the RCPCH Facing the Future standards<sup>[3]</sup>, which state there should be 12-hour consultant presence 7 days a week in inpatient units. Furthermore, the British Association of Perinatal Medicine (BAPM) standards<sup>[13]</sup> which state that there should be 8 consultants per NICU, and the RCPCH Covering all Bases report<sup>[14]</sup> which calculated demand for consultants in community child health (CCH) on the basis of population and referrals.

We have based our modelling on these assumptions:

- Service structure remains as it was in 2017-2018 in terms of the number of inpatient units, neonatal units, paediatric intensive care units (PICUs), number of community child health services.
- The number of SAS doctors will not increase significantly.
- The number of GP trainees, nurses and other workforce groups who can work on rotas will not grow under current workforce policies operated by governments in the four UK nations.

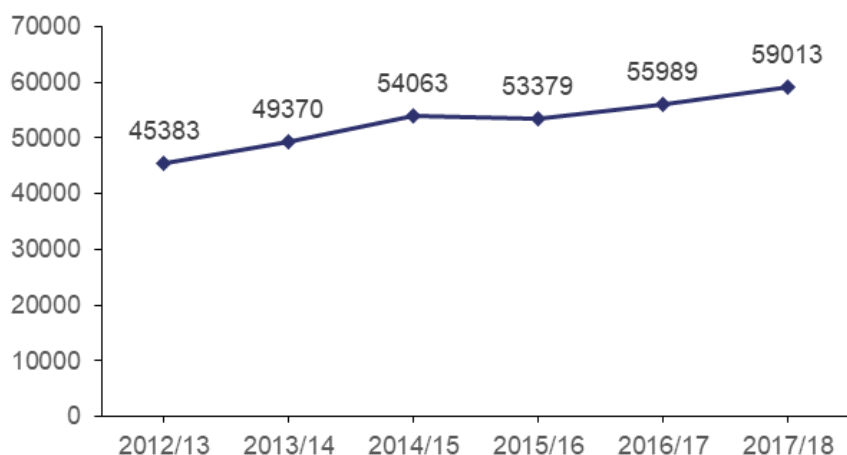
The area with greatest difference between demand and actual consultant numbers is general paediatrics, accounting for around 60% of the increase needed.

The key factors influencing current demand level are:

- Between 2015/16 and 2017/18 paediatric emergency admissions in Scotland have risen 9.3%. Whereas, the WTE paediatric consultant workforce in Scotland between 2015 and 2017, according to RCPCH census data, has only risen by 4.8%. See Figure 1
- The growth in workload especially paediatric emergency admissions where there has been an increase of 13.4% between 2013/14 and 2015/16.
- The level of paediatric admissions in some units mean that double rotas are increasingly needed (i.e. 2 trainees in service at one time).

- The College's Facing the Future Audit <sup>[15]</sup> shows continued challenges to meet standards for presence throughout all hours of peak activity and consultant review within 14 hours of admission .
- The number of neonatal consultants on separate consultant rotas in 4 of the 8 NICUs in Scotland is lower than the BAPM standard.
- In 2017, the College and the British Association for Community Child Health (BACCH) published Covering all Bases <sup>[14]</sup> which found that there was a need for substantial increase in the community child health medical workforce. This is necessary to meet the current and anticipated demand due to a rising number of co-morbidities, long delays in diagnosis for autism and ADHD, and growing safeguarding concerns.

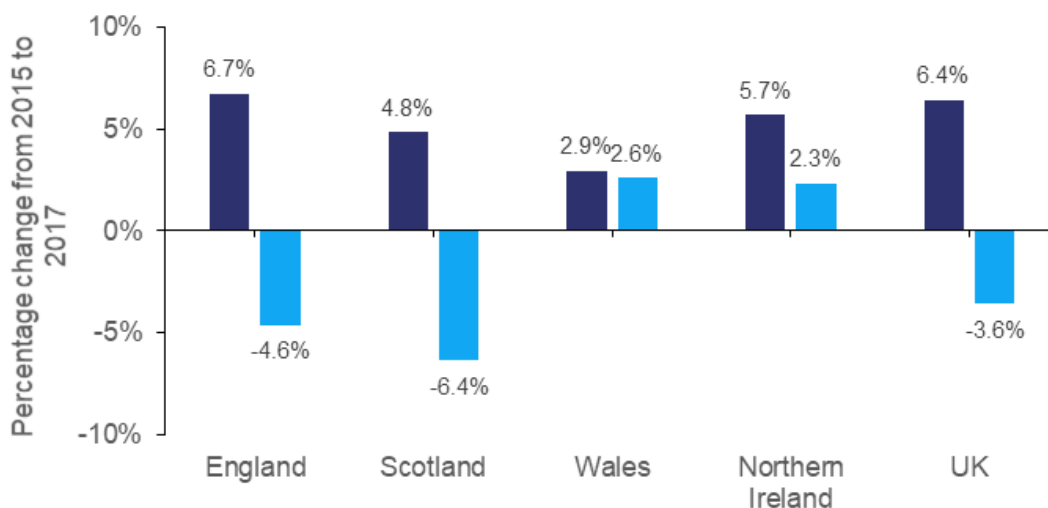
**Figure 1. Number of Emergency Admissions to Health Boards in Scotland, 2012/13 to 2017/18 <sup>[16]</sup>.**



## 5.2 Career grade paediatric workforce

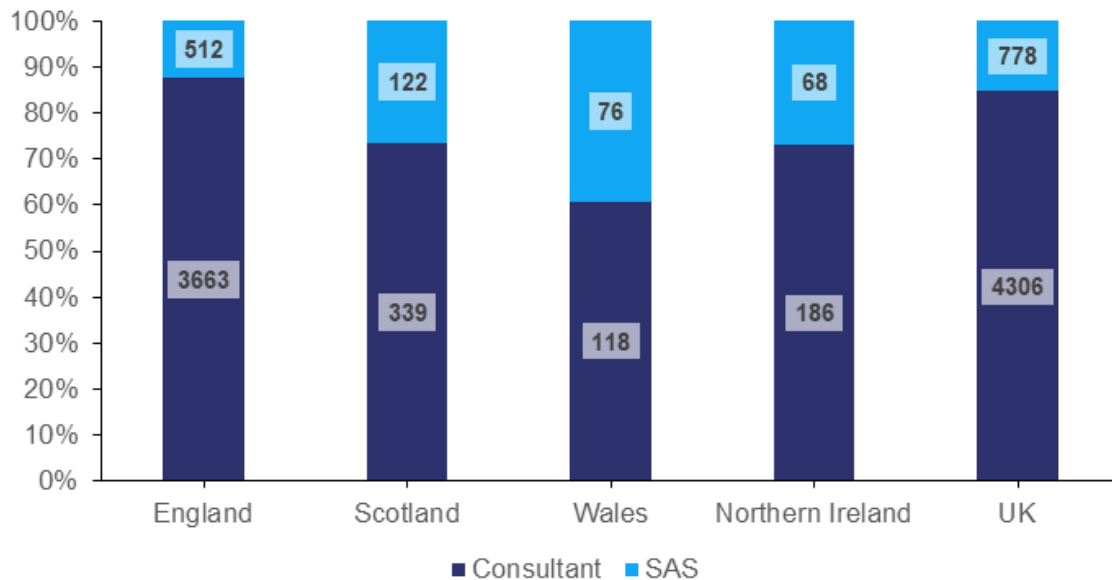
In 2017 in Scotland, there were 339 paediatric consultants, a 5% increase from 2015 when there were 323 paediatric consultants. Consultant growth in England over the same time period was 8.2%. In terms of Whole Time Equivalent (WTE), in 2017 in Scotland there were 323.5 WTE compared to 309.5 WTE in 2015; an increase of 4.8%. Whereas between 2013 and 2015 there was a 14.2% increase in consultant WTE. Consultant growth appears to be slowing.

**Figure 2. Percentage change from 2015 to 2017 in WTE of consultant and SAS grade**



There were 122 headcount (99.5 WTE) SAS doctors in 2017, a 3.9% decrease in headcount (6.4% decrease WTE), compared to 2015 when there were 127 (106.3 WTE). This decrease in SAS doctors continues the trend seen since the first RCPCH workforce census in 1999. Compared to the UK as a whole, Scotland's career grade workforce has a higher proportion of SAS doctors. Across the UK, 15.3% of the career grade workforce are SAS doctors, whereas in Scotland 26.5% are SAS doctors, see Figure 3.

**Figure 3. Headcount consultant and SAS grade doctors by nation, 2017.**



## 5.3 Factors influencing workforce demand

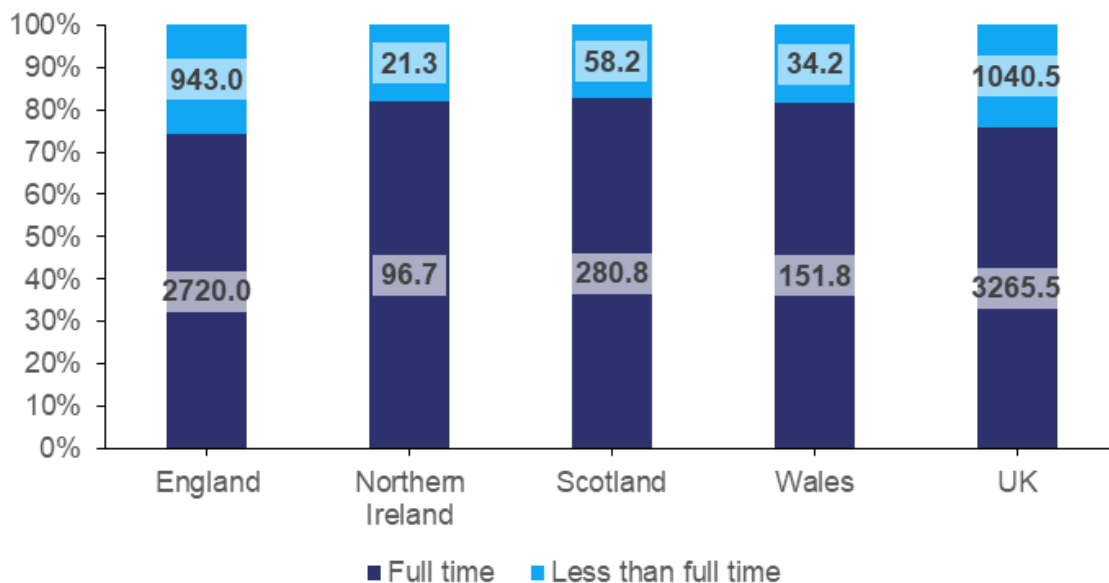
### 5.3.1 Less than full time working

Consultants in Scotland have the lowest rate of less than full time (LTFT) working of the four nations (see Figure 4). In 2017, 17.2% of consultants in Scotland worked less than full time, compared to 25.7% in England and 24.5% overall in the UK. In 2015, 18.0% of consultants in Scotland worked LTFT, compared to 22.6% in England and 21.5% overall in the UK. The slight decrease in LTFT working in Scotland is the opposite trend to the rest of the UK, which has seen an increase in LTFT.

Therefore, the slower growth in WTE consultants between 2015 and 2017, compared to between 2013 and 2015 (see section 4.2) in Scotland, cannot be attributed to increased levels of LTFT working.

Rates of LTFT working are higher in SAS doctors than consultants, with 54.9% working LTFT in Scotland in 2017. This is higher than the overall UK rate of SAS doctors LTFT working, at 45.8%.

**Figure 4: Proportion of full time vs less than full time consultants, with WTE, by nation in 2017.**

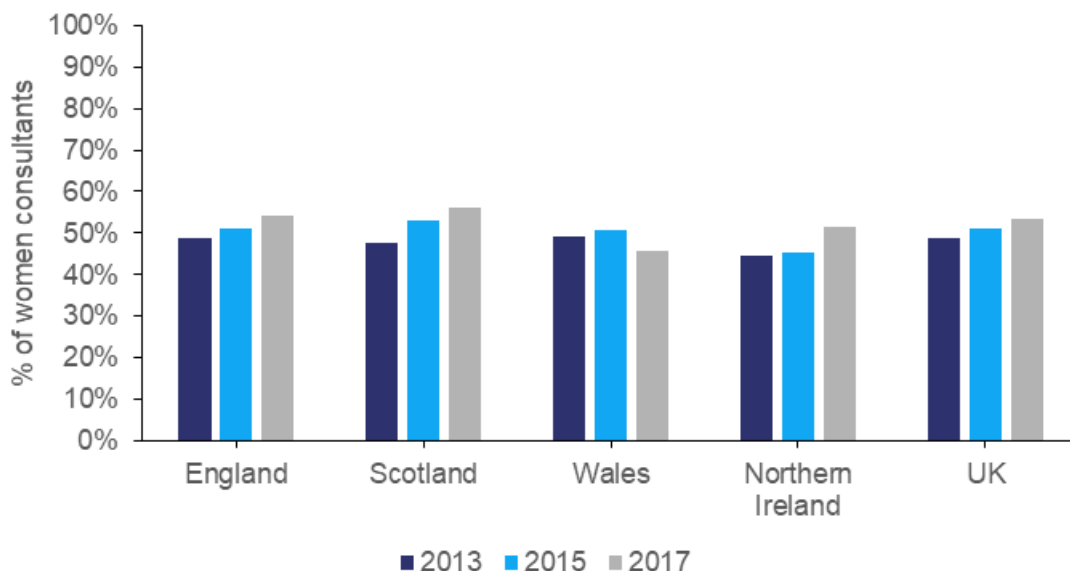


Rates of LTFT working varies widely between job type, which should be considered when workforce planning. For example, 44.0% of consultants in 2017 worked LTFT compared to 8.0% of specialists. More than one headcount consultant would be needed in community child health to replace one WTE consultant.

### 5.3.2 Gender changes in the workforce

Scotland has the highest proportion of female consultants of the four nations. In 2017, 56.0% of consultants in Scotland were women, compared to 54.2% in England and 53.5% across the UK. An increasing proportion of consultants are female in Scotland, a trend seen across the UK (see Figure 5).

**Figure 5. Proportion of women consultants by country, from 2013 to 2017.**

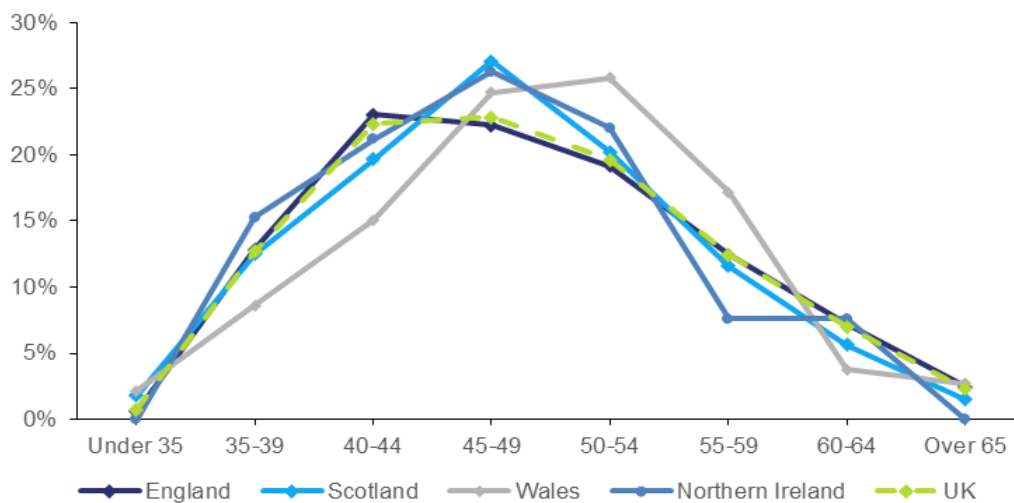


SAS grade doctors are comprised of an even higher proportion of women: in 2017, 89.3% (109/122) of SAS grade doctors were female in Scotland. In England, this was 73.7% and 78.2% across the UK.

### 5.3.3 Age characteristics of the workforce

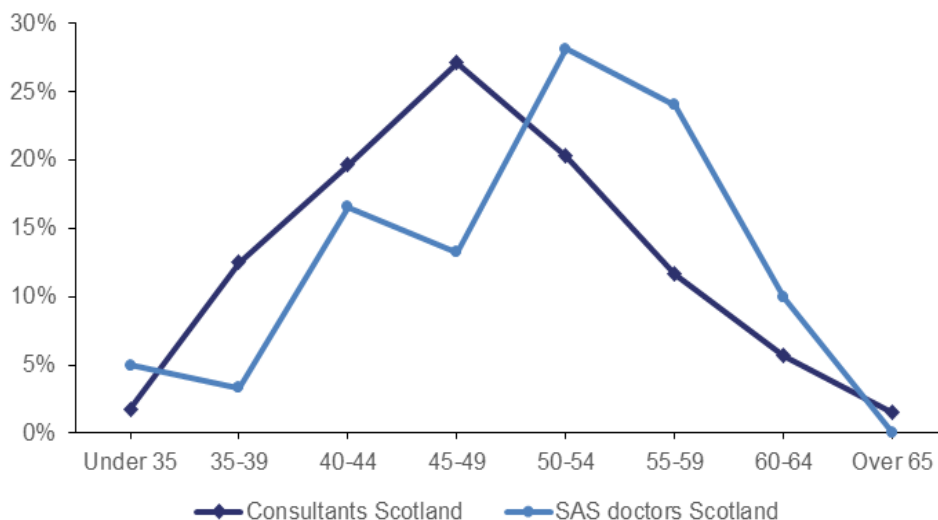
The age profile of consultants in Scotland is broadly similar to that of the rest of the UK (see Figure 6). The largest proportion of consultants in Scotland are aged 45-49. Workforce planners in Scotland need to be aware of this peak in age group, as there may be a large number of consultants retiring at the same time, around 15-20 years on from 2017.

**Figure 6. Proportion of consultants in each age group by nation, 2017.**



Similar to the UK as a whole, SAS doctors in Scotland tend to be older than consultants (see Figure 7). With the ending of new SAS contracts, there are not new SAS doctors replacing retirements, contributing to decline in numbers.

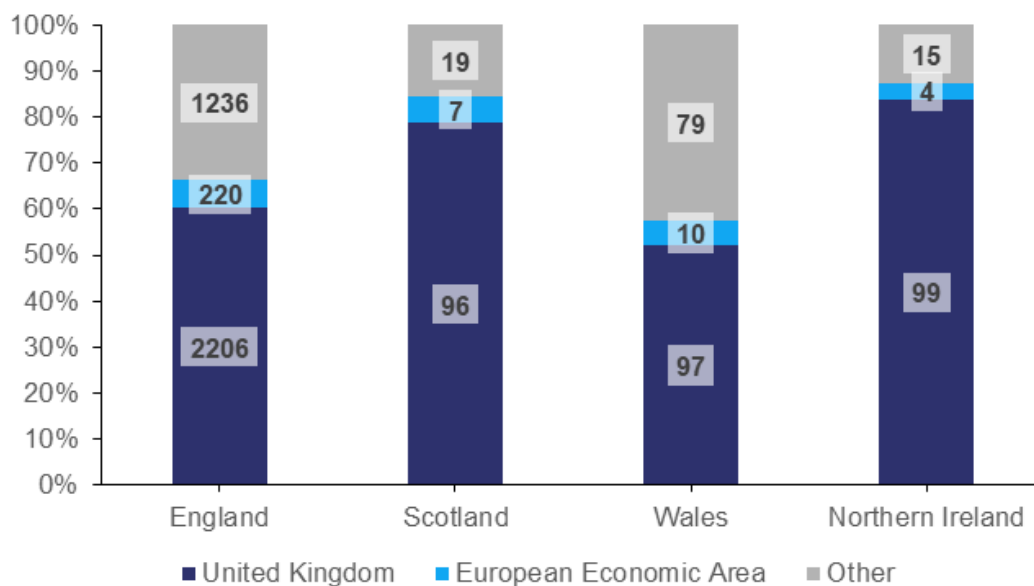
**Figure 7. Proportion of consultants and SAS doctors in Scotland in each age group, 2017.**



### 5.3.4 Place of Primary Medical Qualification (PMQ)

In 2017, 78.7% of consultants in Scotland obtained their primary medical qualification (PMQ) in the UK, 5.7% graduated Europe and 15.6% from outside UK and Europe. For the UK career grade workforce as a whole in 2017, 33.0% got their PMQ from outside UK and Europe (“Other”), possibly indicating a more self-sufficient workforce in Scotland. The proportion of consultants who got their PMQ in from EEA countries is comparable across the four UK nations, from 3.4% in Northern Ireland to 6.0% in England, see Figure 8.

**Figure 8. Consultant PMQ<sup>i</sup> by nation, 2017.**



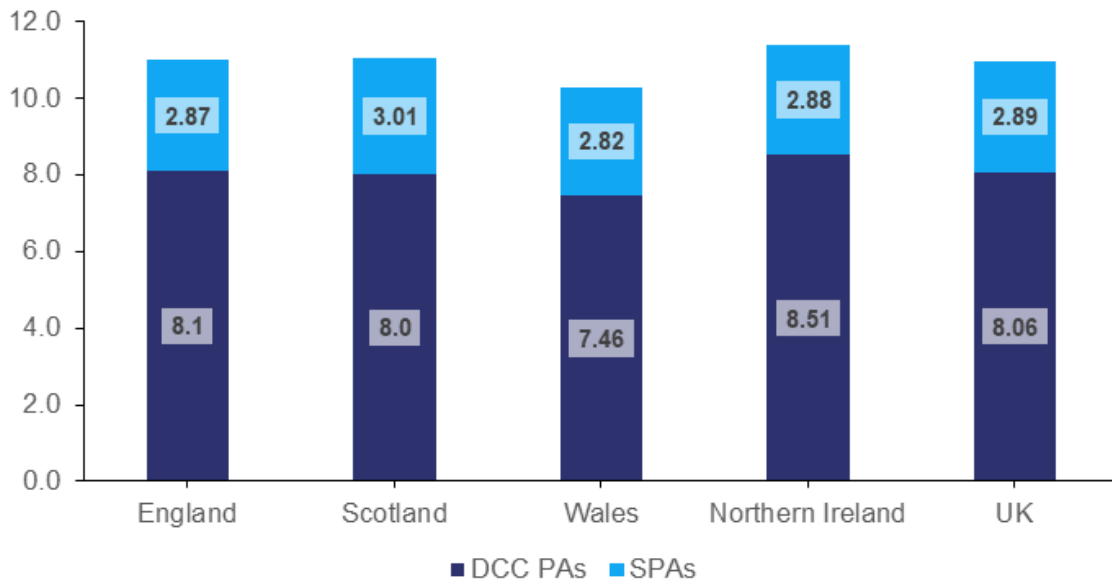
### 5.3.5 Consultant programmed activities (PAs)

The average number of contracted PAs for all consultants in Scotland is 10.4, higher than the UK average of 10.1 and the average for England of 10.0. This is likely due to lower rates of LTFT working in Scotland, as seen in Figure 4. The average PAs for a full-time consultant in Scotland is 11. The British Medical Association (BMA) recommends that full time contracts should be 10 PAs<sup>[7]</sup>.

Programmed activities in a contract are broken down into time for Supporting Professional Activities (SPAs) and time for Direct Clinical Care (DCC). For full time consultants in Scotland, the average number of DCCs is 8.0 and the average for SPAs is 3.0. This is despite the fact that the Scottish Government state that contracts for new consultants should be “9+1” where there is only one session for SPA and nine allocated to direct clinical care. It may be the case that the average contract is over 10 PAs to accommodate an inflation in DCCs but keeping the essential SPA time. Average PAs vary according to job type; ranging from 9.1 for community child health consultants to 10.9 for specialty paediatricians.

<sup>i</sup> PMQ data missing for 218 consultants

**Figure 9. Average number of Direct Clinical Care (DCC) PAs and Supporting Professional Activities (SPAs) in full time consultant contracts by nation, 2017.**

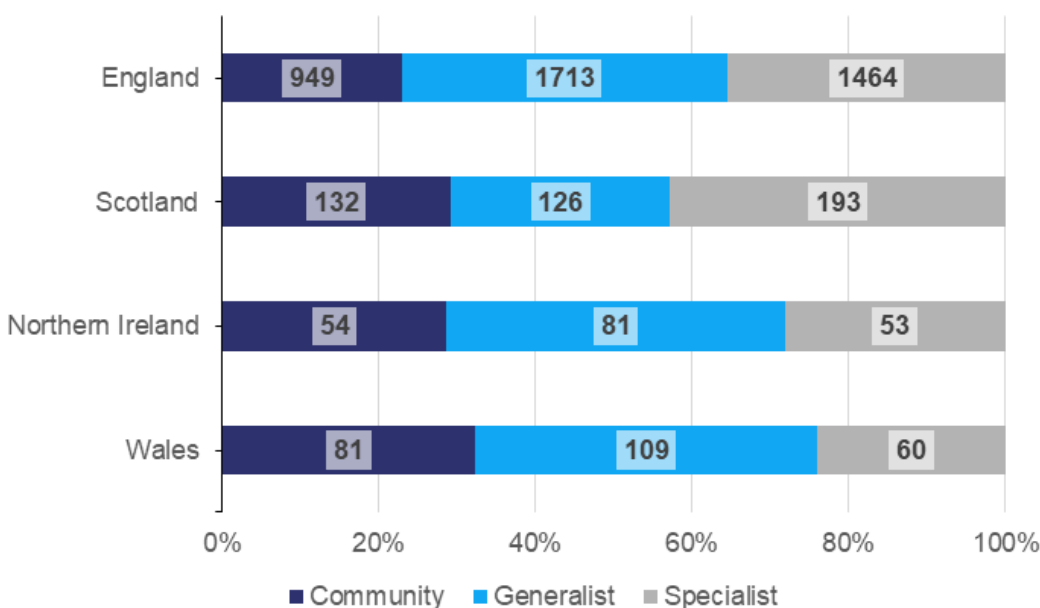


### 5.3.6 Job type breakdown of workforce

A rise in number of paediatric subspecialists, from 143 in 2015 to 175 in 2017, is mostly responsible for the increase in non-training grade staffing. There was a fall in the number of general paediatricians, from 126 in 2015 to 105 in 2017. The majority of SAS doctors in Scotland work in Community Child Health, 67.2%. Scotland has a higher proportion of specialist career grade doctors compared to the other UK nations.

The academic workforce is not reported here as there are concerns consultants with academic contracts have not been recorded as such, resulting in an underestimate. We plan to investigate this, and further information on the academic workforce will be available in the Census Resources section in the coming months.

**Figure 10. Headcount numbers of all career grade doctors by job type and nation in 2017.**



### 5.3.7 Consultant vacancies

There were 14 WTE career grade (consultant plus SAS doctor) posts vacant for longer than 3 months across 7 of the 11 Health Boards in the 2017 census. This represents 3% of the total workforce in Scotland, a better vacancy rate than other UK nations. England had 3.9% rate vacancy and the UK overall has 4.1%.

The vacancies reported in this section reflect the established posts not filled. They do not give an indication of the shortfall against the College standards, rather they are the shortfall against the workforce establishment of the organisation. The gap between the 2017 workforce and that required to meet standards is considerably larger (see section 5.1 Consultant demand).

**Table 3. Headcount (HC) vacancies and vacancy % levels, by nation and grade group<sup>ii</sup>. Percentages as a proportion of each nation’s overall workforce.**

	England		Northern Ireland		Scotland		Wales		UK total	
	HC	%	HC	%	HC	%	HC	%	HC	%
<b>Consultant</b>	130.1	3.6%	13	11.0%	9	2.7%	8	4.3%	160.1	3.7%
<b>SAS doctor</b>	32.8	6.4%	9	11.8%	5	4.1%	3	4.4%	49.8	6.4%
<b>Total</b>	163.0	3.9%	22	11.3%	14	3.0%	11	4.3%	210.0	4.1%

## 5.4 Factors influencing workforce supply

### 5.4.1 New Certificate of Completion of Training (CCT) and Certificate of Eligibility for Specialist Registration (CESR) holders

Across the UK, there has been minimal change in the number of new paediatric CCT and CESR holders each year. There was a gradual increase between 2011 and 2014, where the number of new certificate holders went up from 247 to 332. But numbers have fallen slightly each successive year, down to 300 in 2017.

The RCPCCH conducts a yearly survey of new CCT and CESR holders, one year on from their certification, to identify career pathways and views on transition to consultant posts. Findings from the 2016 cohort survey indicate that that it is becoming a buyer’s market for new CCT and CESR holders. There has been an increase of those who are working in the same specialty as their specialist registration with the GMC, from 77% in 2015 to 89.2% in 2016. Furthermore, fewer doctors are working in a different region from their training region after CCT: 31.7% of 2015 cohort respondents and 27.7% of 2016 cohort respondents.

### 5.4.2 Paediatric trainees

According to GMC data<sup>ii</sup> the headcount number of doctors in training in paediatrics and child health increased by 2.7% between 2012 and 2018. As 37.7% of paediatric trainees are now working LTFT this represents a whole time equivalent fall of 2.5%.

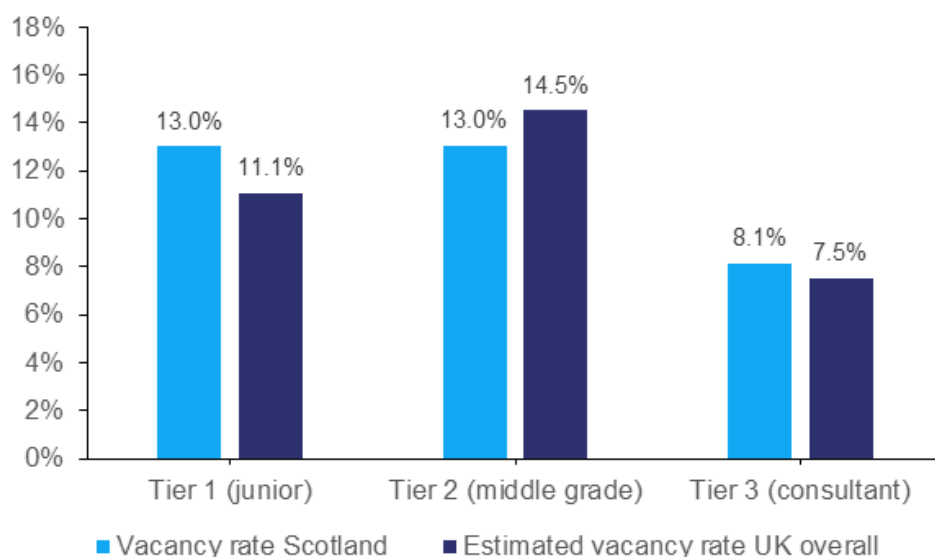
ii Organisations in Scotland, Northern Ireland and Wales returned complete vacancy information. In England, 140 out of 168 organisations responded (83.3%). The vacancies in England were weighted up to reflect this response rate.

Scotland has much higher rates of applications for paediatric training posts than the rest of the UK. In January 2018, the first preference applications to posts ratio was 3.3 to 1 in Scotland compared to 1.4 to 1 for the UK overall. For ST2 posts it was 3 to 1 compared to 1.8 to 1 for the whole of the UK. This shows that competition for posts is higher in Scotland compared to the rest of the UK, which potentially is of benefit to the quality of the workforce. Applicants can keep changing their preferences right up until the very last set of offers have been made, therefore the numbers stated here are a snapshot.

### 5.4.3 Rota gaps and vacancies

The Census asks clinical leads to provide information about the number of rota vacancies for each service tier. It also asks for vacancies broken down by the main types of rota: general paediatrics, neonatal and for combined general/neonatal (depending on the set up in each unit). The vacancy rates tier 1 and tier 3 tend to be higher in Scotland compared to the UK as a whole, see Figure 11.

**Figure 11. Vacancy rate by rota tier, comparing Scotland to whole of UK, 2017.**



Facing the Future<sup>[3]</sup> states that there should be 10 whole time equivalent posts on training rotas, Table 2 shows that general paediatric rotas fare much better than general/neonatal or neonatal rotas, with 9.8 WTE average on tier 1 and 12.7 WTE average on tier 3. However, the average across all rota services is around 9 for every tier in Scotland. Caution must be taken with this data, as the averages are slightly skewed upward by double rotas at hospitals with large workloads (i.e. 2 trainees in service at one time).

58.1% of all rotas have fewer than 10 WTE, this is slightly better than the UK overall where 60% of all rotas have fewer than 10 WTE. Having fewer doctors and other staff on the rota inevitably means there is less time for trainees for teaching, research and carrying out audit and other quality improvement work. The RCPCH standard of 10 WTE is used because of analysis undertaken by the Academy of Medical Royal Colleges for how many doctors are required to protect adequate daytime training time and comply with European Working Time Regulations<sup>[18]</sup>.

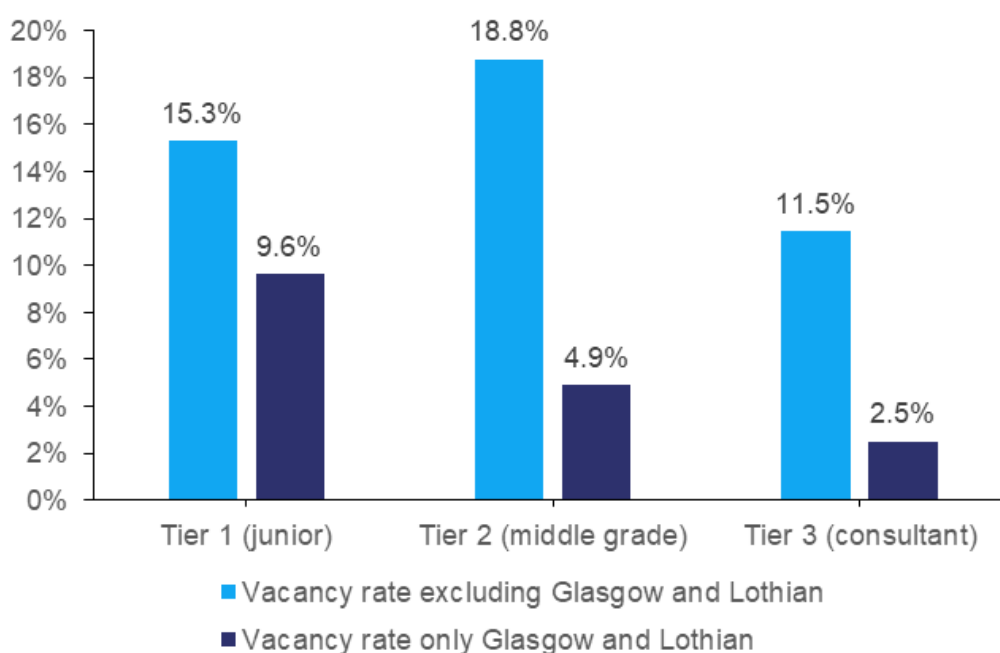
**Table 2. Average WTE and proportion of rotas with less than 10 staff, by rota tier and service.**

	General paediatrics	General / neonatal	Neonatal medicine	Total
<b>Average WTE</b>				
<b>Tier 1 (Junior)</b>	9.8	9.7	8.2	9.3
<b>Tier 2 (middle grade)</b>	10.6	8.4	8.9	9.2
<b>Tier 3 (consultant)</b>	12.7	8.4	7.0	8.9
<b>Total</b>	<b>11.0</b>	<b>8.9</b>	<b>7.9</b>	<b>9.1</b>
<b>Proportion of rotas with less than 10 staff</b>				
<b>Tier 1 (Junior)</b>	42.9%	57.1%	57.1%	52.4%
<b>Tier 2 (middle grade)</b>	28.6%	60.0%	85.7%	57.9%
<b>Tier 3 (consultant)</b>	28.6%	71.4%	87.5%	63.6%
<b>Total</b>	<b>33.3%</b>	<b>63.2%</b>	<b>77.3%</b>	<b>58.1%</b>

### 5.4.5 Regional variation.

To comment on remote and rural areas difficulties in staffing, we have compared data from NHS Greater Glasgow & Clyde and NHS Lothian (which serve more densely populated areas), to the other nine Health Boards which serve more rural and less densely populated areas of Scotland (NHS Ayrshire & Arran; NHS Borders; NHS Dumfries and Galloway; NHS Fife; NHS Forth Valley; NHS Grampian; NHS Highlands; NHS Lanarkshire; and NHS Tayside). If rotas in Greater Glasgow and Lothian are excluded from the rota analysis, the 2017 vacancy rates rise to 15.3% (Junior) and 18.8% (MG). See Figure 11.

**Figure 12. Vacancy rate by rota tier and region across Scottish Health Boards, 2017.**



There is a heavy reliance on FY doctors and GP trainees to staff tier 1 (junior) rotas i.e. 44 ST1-3 doctors, 73 FY docs and 60.5 GP trainees out of 213 total staff.

## 5.4.6 Other paediatric and child health workforce groups

The RCPCH is supportive of an increased skill mix where other types of appropriately trained and competent non-medical and other medical groups can support paediatric services. In Scotland, 81.8% of units employed Advanced Nurse Practitioners (ANPs), higher than the overall UK figure of only 60.6%. No units in Scotland employed Physician Associates (PAs) in 2017.

The RCPCH support ANPs by providing e-portfolio for their training at reduced membership rates. 72.8 WTE advanced children's or neonatal nurse practitioners are employed to work within the hospital setting with children and young people across the 11 Health Boards. The proportion of GP trainees recorded as working on junior paediatric rotas has remained virtually identical between 2015-2017 at approximately 28%.

## 5.4.7 Trainee supply requirements

With a consultant demand figure of 406 WTE, we can determine roughly how many new CCT and CESR holders in paediatrics are needed to meet demand.

We estimate there will be 20.3 WTE expected leavers each year (mainly retirements) and 22.6 CCTs to be needed to replace these based on current LTFT working.

However, more CCTs are needed because 10% of CCT holders either go abroad or go into non-clinical roles. This has been fairly constant across the UK since 2010/2011. Attrition from training is expected to be 8 WTE from each cohort. 30.6 WTE trainees are therefore needed to start at ST1 which given current participation rates would require:

- 38 doctors needed at ST1
- From our previous cohort studies of training<sup>[19]</sup> we've seen that somewhere between 3-5% of trainees leave the programme permanently each year. This is supported by comparing the number of trainees starting paediatrics and CCT outputs

## 5.5 Service structure and pressures

Eleven Health Boards employ paediatricians to deliver acute, community and specialist (including neonatal) care for children and young people in Scotland. All 11 Health Boards provide acute and community paediatrics, and in 9 other community services are provided such as community children's nursing and therapists. Four Health Boards (Lothian, Glasgow, Grampian and Tayside) provide tertiary paediatric services and tertiary neonatal care, with different specialties provided. Nine provide child and adolescent mental health/learning disabilities services.

### 5.5.1 Paediatric inpatient units

There are 18 hospitals within the 11 Health Boards, of which 14 hospitals see paediatric inpatients and 17 have paediatric outpatients. Three have a dedicated children's emergency department and the other 15 see children in their emergency department. Three also have a dedicated adolescent ward. In six hospitals there is no paediatric critical care (PCC) provision, in six there is level 2 PCC and in two there is level 3 PCC<sup>[20]</sup>.

Thirteen hospitals have Short Stay Paediatric Assessment Units (SSPAUs), of which six are SSPAUs, five are paediatric assessment units and two are short stay wards. 10 are co-located with the paediatric inpatient unit. The other three are co-located with the emergency department (ED); co-located with the ED and paediatric inpatient unit; or on-site with an ED but not co-located. Eight are open 24 hours/7 days a week, two are open office hours and evening weekdays only, a further two are open office hours weekdays only and one is open 24 hours/5 days a week.

Paediatric inpatient units in Scotland had to close to new admissions for 137 days in total in the previous year to 30 September 2017. See Table 3.

**Table 3. Inpatient unit closures to new admissions by country, year to 30th September 2017.**

Nation	No. units closed 1 or more times	Average No. times unit closed	Max No. times closed	Total responses
England	27	1.6	30	117
Northern Ireland	2	1.8	8	8
Scotland	5	9.8	85	14
Wales	5	3.3	15	12
<b>Total</b>	<b>39</b>	<b>2.5</b>	<b>85</b>	<b>151</b>

### 5.5.2 Neonatal Care

There are eight Neonatal Intensive Care Units (NICUs), one local neonatal unit (LNU) and four Special Care Baby Units (SCBU). Neonatal units had to close on 120 days in the previous year.

### 5.5.3 Workforce pressures

Census respondents were asked to “select the service and workforce pressures or issues that you feel pose a significant risk to your service or to children, young people and their families.” Respondents could select more than one response to the question. In Scotland, the most frequently selected pressures were “Difficulty recruiting paediatric consultants” and “Nursing, allied health professionals and other staff shortages” (90.9% of respondents). The second most selected were “Patient/Public expectations on services” and “Paediatric training post vacancies and gaps” (81.8%). The third most selected was “Funding” (72.7%).

### 5.5.4 Children’s champion

In Scotland, two out of 11 (18.2%) of the organisations did not have a Board level lead/champion for children’s services. This is similar to the overall UK level of 17.3% of organisations which did not have a children’s champion. Of the nine Health Boards that did have a children’s champion, in six this role was provided by a Child Health Commissioner. In the other three this role was provided by a medical director, a non-executive director, and a nursing director.

### 5.5.5 Lead roles and safeguarding

In all Health Boards, there is a lead paediatrician in child protection (provided by paediatric

consultant or SAS doctor), and there is an average of 0.26 WTE provided in their contracts to fulfil this role. In 36.4% of Health Boards, there is no designated doctor for looked after children, and in 54.5% there is no named doctor for looked after children. Where the lead roles were provided by another organisation, these were 2 secondments, 2 public health organisations and, 1 social care partnership. See Table 5.

The safeguarding rota data will be reported in a focused report to follow.

**Table 4. Lead roles in Health Boards (HB)**

Lead role	Role exists					Role does not exist	
	Provided by the HB	Filled by the HB	Provided by another org	Overall fill rate	Total Average of Lead WTE	No HB role does not exist	% where role does not exist
Lead Paediatrician in Child Protection	10	9	1	81.8%	0.26	-	0.0%
Paediatrician with a special interest in child protection	9	8	1	81.8%	0.38	1	9.1%
Named general practitioner for safeguarding children (or equivalent)	2	1	-	90.9%	0.20	9	81.8%
Designated medical officer for Special Educational Needs and Disability	3	3	-	100.0%	0.10	8	72.7%
Medical adviser for adoption/ fostering	10	10	-	100.0%	0.37	1	9.1%
Designated doctor for looked after children	7	7	-	100.0%	0.26	4	36.4%
Named doctor for looked after children	5	5	-	100.0%	0.32	6	54.5%
Child death overview panel child health representative	1	1	-	100.0%	0.00	10	90.9%
Designated doctor for Sudden Unexpected Death in Infancy	10	10	-	100.0%	0.12	1	9.1%
Immunisation coordinator	4	4	2	81.8%	0.31	5	45.5%
Healthy Child Programme coordinator	2	1	1	81.8%	0.50	8	72.7%

## 6 Methodology and response rate

The RCPCCH workforce census 2017 asked the clinical leads or directors at all 191 organisations providing paediatric services in the UK to respond on behalf of their service. This included the 11 Health Boards in Scotland providing paediatric services. Scotland provided a 100% response rate for all census questions.

Across the UK as a whole, 80.6% (156/191) of core hospital and staffing information was completed or validated by the clinical lead/director. Some responses were missing to individual questions within the census, for example information on the number of unit closure days was difficult to obtain. Response rates to individual questions are reported in footnotes beside the relevant analysis throughout the report. See Census Resources for further detail.

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Royal College of  
Paediatrics and Child Health,  
5-11 Theobalds Road,  
London, WC1X 8SH

[www.rcpch.ac.uk](http://www.rcpch.ac.uk)

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