

The Paediatric Workforce: Focus on Scotland

Introduction

The RCPCH has carried out a census of paediatricians and child health services every two years since 1999. This briefing focusses on data from the RCPCH Workforce Census 2015 which relates specifically to Scotland. Data collection was launched on 30 September 2015 and closed in summer 2016. In Scotland, we received full responses from 81.8% (9/11) of health boards providing child health services. Where no or partial response was received, we used alternative sources of data, including organisation websites, the GMC register and Specialist Info, to ensure basic information was known.

For more detail on the UK wide picture and our key recommendations, see the State of Child Health short report on The Paediatric Workforce and the Paediatric Workforce Data and Policy Briefing. All documents are available from: www.rcpch.ac.uk/workforce.

The RCPCH is responsible for the postgraduate training of paediatricians in the UK. We provide career support and run examinations and are responsible for setting the curricula for general paediatric and subspecialty paediatric training. We also aim to improve outcomes through research, standards, quality improvement and policy. We use our workforce intelligence to inform national planning bodies and to advocate for the right workforce to meet the needs of infants, children and young people.

Key findings

Child health services in Scotland

In Scotland, there are:

- 11 health boards providing child health services to 14 health boards,
- 14 paediatric inpatient units
- 15 neonatal units
- 17 paediatric outpatient services
- 12 short stay paediatric assessment units
- 4 hospitals with dedicated paediatric emergency departments
- 4 health boards providing tertiary level services¹

25.0% (3/12) of responding inpatient units in Scotland had to close to new admissions due to shortages of nurses and/or doctors in the year before the census date. This compares to 31.3% (41/131) of inpatient units across the UK. Units in Scotland had to close on average 0.8 times, compared to 2.9 times across the UK.

41.7% (5/12) of responding neonatal units in Scotland had to close to new admissions due to shortages of nurses and/or doctors in the year before the census date. This compares to 41.1% (46/112) of neonatal units across the UK. Units in Scotland had to close on average 8.3 times, compared to 3.8 times across the UK. It should be noted that in Scotland one unit reported having to close 73 times.

Facing the Future¹ recommends at least 10 whole time equivalent (WTE) posts per general paediatric training rota. The average WTE establishment (if all rota posts were filled) on tier 1 (junior)² general paediatric rotas in Scotland is 11.1 WTE and on general/neonatal shared rotas is 9.0 WTE. On tier 2

¹ A tertiary level service provides one or more of the 16 paediatric subspecialist services (not including community child health) which accepts referrals from another hospital or other consultants.

² As part of a 3 tier hospital rota arrangement, the tier 1 or junior rota may comprise a combination of specialty trainees from years 1-3, GP trainees, Foundation Year 1 and 2 doctors, and nurses.

(middle grade)³ general paediatric rotas the average establishment was 11.0 and on tier 2 shared general/neonatal rotas it was 9.8 WTE. However this is before vacancies due to failure to recruit or out of programme activities are considered. The vacancy rate reported across all Tier 1 (junior) rotas (including neonatal only rotas) was 1.9% in Scotland and across all Tier 2 (middle grade) rotas was 11.9%. This means that in practice, some rotas may be falling short of Facing the Future recommendations. Across the UK, the vacancy rate on Tier 1 rotas was 7.1% and on Tier 2 rotas it was 13.7%. It should be noted that vacancies are constantly changing due to the nature of trainee rotations, so these data provide a snapshot.

Separate consultant rotas (not shared with general paediatrics) exist in 92.6% of neonatal intensive care units (NICUs) in the UK, as per British Association for Perinatal Medicine standardsⁱⁱ, with an improvement since 2013. In Scotland, 8/9 NICUs reported having separate consultant rotas.

In Scotland, 71.4% (25/35) of responding subspecialty services deliver planned work as part of a funded/managed clinical network; compared to 45.8% (76/166) across the UK. There are funded/managed clinical network arrangements for emergency work in 65.7% (23/35) of subspecialty services, compared to 39.8% (66/166) across the UK.

Workforce challenges in Scotland

Workforce pressures (i.e. recruitment and retention) were the predominant challenge in Scotland; almost half (14/31) of all workforce pressures cited by health boards in Scotland related to recruitment, with the remaining 17 relating to funding (4), quality and safety (4), workload (3), infrastructure (3) policy and political issues (2) and expectations on services (1). Concerns about recruitment relate specifically to difficulty recruiting paediatric consultants, nursing, allied health professionals and other staff shortages, difficulty recruiting paediatric trainees, difficulty recruiting paediatric non-consultant, non-training grade staff, reliance on locums, and recruitment and training of advanced nurse posts.

Paediatrics is experiencing similar pressures across the whole of the UK – with recruitment being the biggest issue for all four nations. The RCPCH is calling for an increase across the UK of at least 752 whole time equivalent (WTE) consultants in order to meet Facing the Future standards for acute general paediatricsⁱ and specialist service standards^{ii,iii,iv,v}. This is coupled with a required increase in the number of paediatric trainees each year to 465^{vi}.

In Scotland, we estimate that given the current configuration of services an extra 84-110 WTE consultants are required to meet the RCPCH Facing the Futureⁱ and specialist services standards^{ii,iii,iv,v}; an increase of 27-35% above the 309.5 WTE consultants recorded in our 2015 Workforce Census. For more information about the relevant standards and the method used to calculate this demand, see the RCPCH Paediatric workforce data and policy briefing, available at: www.rcpch.ac.uk/workforce.

Requirement for paediatric and neonatal trainee numbers in Scotland

In order to guarantee the supply of consultants in the future, the Scottish Government will need to set out a plan for deciding how many trainees to train and doctors to recruit. They should also be minded that the numbers of trainees, along with other medical staff will need to be adequate to meet RCPCH Facing the Futureⁱ, and specialist service standards^{ii,iii,iv,v} for safe cover on rotas and to minimise the high level of rota gaps which we have seen in recent years. This will require recruitment and retention initiatives. Scotland has a good track record of recruiting and retaining paediatric trainees, as demonstrated by the proportion of the career grade workforce who are UK trained, and ST1 recruitment fill rate and competition ratios. The RCPCH is happy to work with Scottish Government to model future requirements.

³ As part of a 3 tier hospital rota arrangement, the tier 2 or middle grade rota may comprise a combination of specialty trainees from years 4-8, SAS doctors, advanced nurse practitioners and resident consultants.

The paediatric career grade workforce in Scotland

In Scotland, there was a 13.3% (285 to 323) growth in paediatric consultant headcount and a 2.4% (124 to 127) rise in staff, associate specialist and specialty (SAS) doctor headcount between 2013 and 2015. The 323 consultants work an estimated 309.5 whole time equivalent (WTE), and the 127 SAS doctors work an estimated 106.3 WTE. Across the UK there was a 7.5% (3718 to 3996) growth in the consultant headcount and a 12.5% decline (923 to 808) in SAS doctor headcount. It should be noted that in 2013 we received full responses from 72.7% (8/11) of health boards. Where no or partial response was received, we used alternative sources of data to estimate staffing numbers.

In Scotland, there were an estimated 19.3 WTE career grade vacancies. Across the UK, career grade vacancy rates have increased since 2013.

Paediatric services in Scotland are reliant on doctors trained outside of the UK; 4.4% (20/451) graduated with their primary medical qualification in the EEA (outside UK) and 19.1% (86/451) in the rest of the world. Across the UK, 6.2% graduated with their primary medical qualification in the EEA (outside UK) and 33.9% in the rest of the world.

In Scotland, 53.3% (172/323) of paediatric consultants are women. For the first time, there are more female paediatric consultants than male across the UK and 76.7% of paediatric trainees are women^{vii}.

Advanced nurse practitioners (ANPs) are now employed to work with children and young people in 70.6% (12/17) of hospitals in Scotland (60.3% across the UK); an estimated 48 WTE ANPs. However, across the UK there has been little increase in the proportion working on paediatric medical rotas. No hospital in Scotland reported employing physician's associates (5 in England).

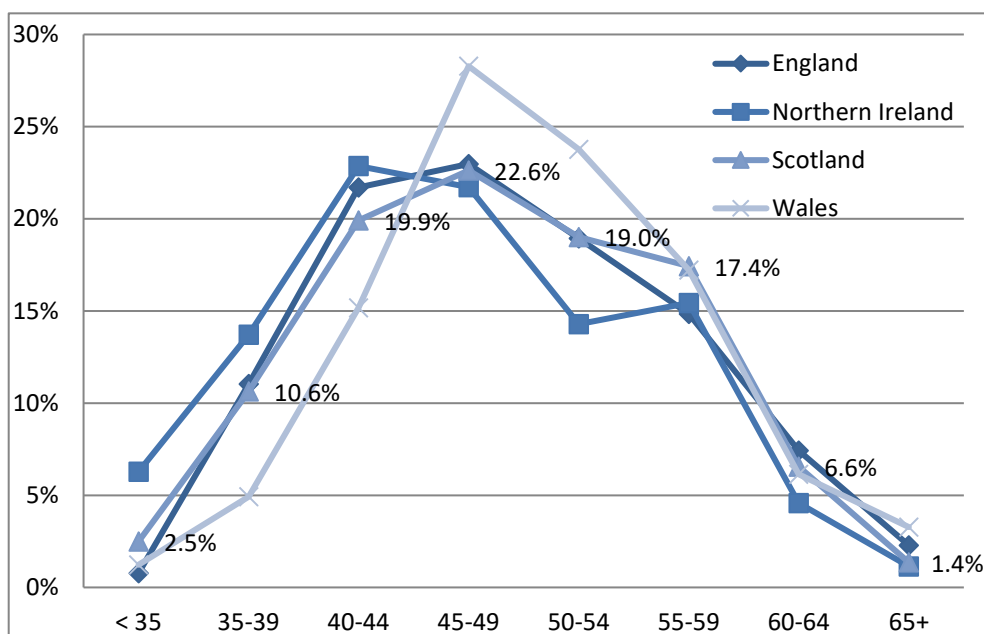


Figure 1 shows the age profile of consultant and SAS doctors by UK nation. England, Scotland and Northern Ireland have similar age profiles, with the largest proportions in the 40-44 and 45-49 age groups. Wales appears to have an older age profile, with the largest proportion in the 45-49 age group and a higher proportion in the 50-54 age group than the other three nations.

Figure 1: Consultant and SAS doctor age profile by UK nation

The paediatric trainee workforce

In 2017, recruitment into paediatrics at ST1 level achieved 100% fill rate in Scotland, as it did in 2015 and 2016. Across the UK, the fill rate in 2017 was 89.9%. In 2016 the competition ratio at ST1 in Scotland was 3.0, compared to 1.7 across the UK as a whole. 21.7% of trainees in the UK are working less than full time (with a further 15.5% not stated)^{vii}.

Table 1: Recruitment at ST1, fill rate

Country	2015	2016	2017
England	96.5%	93.1%	89.4%
Northern Ireland	100%	100%	92.9%
Scotland	100%	100%	100.0%
Wales	95.5%	100%	87.5%
Overall ST1	96.8%	94.0%	89.9%

Academic paediatric medicine

There are fewer and fewer clinical academic paediatricians in Scotland. In Tayside there are no university employed clinical academics. Academic activity is mostly focussed in tertiary centres^{viii}. There is a reasonable anticipation that academic activity will increase in light of all trainees completing an MSc as part of their training and the new RCPCH curriculum reflecting the GMC's desire for more emphasis on general professional activities (which includes research). To deliver Realising Realistic Medicine in Scotland^{ix} support is required from NHS Boards for NHS consultants to deliver high quality research in Scotland (including recruitment for clinical trials) and also investment from Scottish Universities in paediatric clinical academics.

Summary

Scotland continues to attract high quality paediatric trainee, achieving 100% fill rate at ST1 recruitment in the last three years. However, there is still a shortfall in the paediatric workforce in Scotland. Despite growth in career grade paediatricians, high vacancy rates remain, particularly on tier 1 and tier 2 rotas. Service leads are highly concerned about recruitment issues and the pressure exerted on already stretched services, as demonstrated by the proportion of units closing to new admissions. Whilst Scotland has a lower proportion of doctors who trained overseas than the rest of the UK, the service is still reliant on overseas doctors. Workforce planning in Scotland must take into account the changing demographics and working patterns of paediatricians by recruiting the right number of trainees to allow for less than full time working, parental leave and experience in research, education, leadership or overseas medicine. On a positive note, despite the challenges detailed above, provision of acute care in Scotland is rarely affected by hospital closures and the model of working through networks provides patients with long-term conditions with high quality care close to home.

Recommendations

The Royal College of Paediatrics and Child Health calls for the following actions from Scottish Government:

1. Call upon and work with the UK Government to ensure that paediatrics continues to be on the Scottish shortage occupation list, with exemption from the resident labour market test and ensure that immigration rules allow entry to Scotland of healthcare professionals whose clinical skills will benefit the Scottish NHS
2. Call upon and work with the UK Government to provide immediate reassurance regarding maintenance of terms and conditions of employment, and migrant status, to EU nationals working in the NHS
3. Commit to driving service improvements and quality of care through implementing guidance and standards, for example, Facing the Future standards^{i,x}, Service Standards for Hospitals Providing Neonatal Careⁱⁱ, Standards for Short-Stay Paediatric Assessment Units^{xi} and Quality Standards for Paediatric Gastroenterology, Hepatology and Nutrition^{xii}
4. Fund an increase in the number of paediatric trainee places to achieve an expansion in the paediatric consultant level workforce of 84-110 WTE doctors in Scotland
5. Promote an expansion in the academic paediatric workforce

To read the full set of recommendations made in our UK-wide report, see State of Child Health: The Paediatric Workforce, available at: www.rcpch.ac.uk/workforce.

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- ⁱ RCPCH. Facing the Future: Standards for Acute General Paediatric Services. 2015. Available at: www.rcpch.ac.uk/facingthefuture. Accessed 16 June 2017.
- ⁱⁱ BAPM. Service Standards for Hospitals Providing Neonatal Care. 2010. Available at: http://www.bapm.org/publications/documents/guidelines/BAPM_Standards_Final_Aug2010.pdf. Accessed 16 June 2017.
- ⁱⁱⁱ BACCH. Community Paediatric Workforce Requirements: To meet the needs of children in the 21st century, 1999. Available at: <http://www.bacch.org.uk/downloads/training/bacch-cpworkforce-21c.pdf>. Accessed 16 June 2017.
- ^{iv} NHS England. 7 Day Service Clinical Guidance – Paediatric Intensive Care, 2016.
- ^v RCPCH, BAPM, Care NK. Improving the standard of care of children with kidney disease through paediatric nephrology networks 2011. Available at: http://www.bapm.org/publications/documents/guidelines/BAPM_Standards_Final_Aug2010.pdf. Accessed 16 June 2017.
- ^{vi} RCPCH. Workforce Data and Policy Briefing. 2017. Available at: www.rcpch.ac.uk/workforce. Accessed 16 June 2017.
- ^{vii} GMC. The state of medical education and practice in the UK report: 2016. Available at: <http://www.gmc-uk.org/publications/somep2016.asp>. Accessed 13 July 2017.
- ^{viii} Turner S, Research activity, barriers and competencies among senior paediatricians in Scotland. *Archives of Disease in Childhood* 2014;99:91-93. Available at: <http://dx.doi.org/10.1136/archdischild-2013-305187>. Accessed 13 July 2017.
- ^{ix} Scottish Government. Chief Medical Officer for Scotland Annual Report 2015/16 Realising Realistic Medicine. 2017. Available at: <http://www.gov.scot/Publications/2017/02/3336>. Accessed 5 July 2017.
- ^x RCPCH, RCGP and RCN. Facing the Future: Together for child health. 2015. Available at: <http://www.rcpch.ac.uk/facing-future-together-child-health>. Accessed 26 June 2017.
- ^{xi} RCPCH. Standards for Short-Stay Paediatric Assessment Units. 2017. Available at: <http://www.rcpch.ac.uk/sspau>. Accessed 26 June 2017.
- ^{xii} BSPGHAN and RCPCH. Quality Standards for Paediatric Gastroenterology, Hepatology and Nutrition. 2017. Available at: <http://www.rcpch.ac.uk/improving-child-health/better-nhs-children/service-standards-and-planning/paediatric-gastroenterolog>. Accessed 26 June 2017.