RCPCH Workforce Census 2022 Report

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RCPCH
Royal College of Paediatrics and Child Health
Leading the way in Children's Health

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Background

The RCPCH Workforce Census 2022 provides an overview of consultants and SAS doctors working in the UK. The Census was sent directly to College members for individual response in contrast to previous efforts where clinical leads/directors were asked to respond on behalf of their trusts/health boards. The Census was open for two and a half months with each recipient answering 20 questions via a dedicated microsite. Targeting individuals, the final number of respondents was 1515 from across the ten NHS Regions (seven in England, Northern Ireland, Scotland and Wales); this is compared to 129 fully complete clinical lead/director responses for the 2017 Census (1). For 2022, the response rate was approximately 19%, which is comparable to the College Membership Survey, 2021 (2) (as previous workforce Censuses were sent to clinical leads/ directors only, we cannot compare with previous Census response rates).

Within this report, we have analysed and discussed each of the key questions pertaining to primary job type, specialty, working pattern, programmed activities, on-call duties and retirement plans. We have also included demographic data that were provided equally from Census responses, from our College database and from equality, diversity and inclusion (EDI) data collected as part of a separate EDI survey in addition to the Membership Survey (2, 3). We have provided descriptive analyses of each of the key categories and in addition, explored the relationships between them, such as, the association between sex and region in terms of paediatric numbers or the effect of job type on working pattern.

Introduction

Paediatric workforce

Demand on the paediatric workforce continues to escalate rapidly. Pandemic-driven staff shortages and increases of 30% in paediatric waiting lists (4–8) have exacerbated a service already heavily strained due to increasing chronic disease, delivery of new treatment options and changes in neonatology care provision, such as, lower gestation resuscitation. This is in addition to significant increases in emergency department attendances, particularly in under 5s (9) across the UK, unsurprisingly highest in the most deprived areas (10, 11) and which have led to double rotas and a shortage of consultant-led care (11).

At the time of the last College Workforce Census in 2017, paediatric workforce demand across the UK had outstripped capacity by 21% (12) with a forecast need for 856 additional whole time equivalent (WTE) consultants (11). This need is only likely to increase in the current climate, compounded by increasing numbers of consultants and trainees moving toward less than full time working (10). In 2022, for example, we have 39% of trainees working less than full time with a projected increase to 60% by 2040; this is unlikely to be alleviated by current projected increases in trainee numbers (10, 13). Furthermore, while increases in the number of general paediatricians has slowly risen, that of community paediatricians has declined by a third (forecast to halve by 2040 without intervention) (14).

Community health services have been especially impacted with significant waits for speech and language therapy, occupational therapy, physiotherapy and neurodevelopmental assessments (5). Furthermore, the long-term effects of neonatal and developmental disorders are projected to increase alongside rising mental health and substance abuse issues in adolescents and young adults (10). Child poverty is escalating (10, 15), with a surge in health inequality between those from wealthy and deprived areas (15), exacerbated by both the pandemic and the rising cost of living (16).

To cope with this changing landscape and to mitigate the potential doubling of emergency department and outpatient attendances over the next twenty years (10), changes in paediatric working are urgently needed. With some level of integrated care already present in Wales, Scotland and Northern Ireland, the establishment of this approach across primary and secondary healthcare, social services, education, voluntary sector and other essential components for the whole of the UK will be vital in preventing the strain on an already overextended paediatric workforce and in turn improving the quality of child healthcare (10).

Integrated care: new ways of working and models of care

New models of integrated care systems are currently being developed and rolled out across the UK. Scotland created health and social care partnerships in 2016 (17); Wales has established regional partnership boards that comprise health boards, local authorities and the third sector (18), while in Northern Ireland, a new Integrated care system model is being developed to replace existing commissioning processes. In England, the new Integrated care board approach (19, 20) similarly focusses on redistributing the burden of care and health improvement by promoting greater collective responsibility across primary care, secondary care and community services.

Paediatric workforce planning is essential to successful integrated care systems. The NHS England (NHSE) people plan will require implementation within each region by its Integrated care system, whereby it will be essential for each Integrated care system to develop a paediatric workforce plan (21). The College's Paediatrics 2040 report pinpointed four key areas to support improved child healthcare and service provision: innovation and digital care, communication at scale, evolution of clinical skills and training in non-clinical skills, all of which will support the implementation and ongoing success of integrated care (10).

Workforce planning and funding should also target the development of new roles such as physician associates and advanced clinical practitioners through alternative training, education and access routes (10, 21, 22); this is particularly important given the ongoing pressures/demands on staff in hospital and community settings across the UK. There is a need for paediatricians and children's workforce as a whole to be provided with necessary upskilling opportunities with an emphasis on integrated working. This will enable them to offer a broader range of services, such as mental health assessments providing continuity for complex disorders and/ or long-term care, as the landscape of child health needs changes (10). All of the above can be facilitated by the ongoing move towards regional redistribution designed to improve growing service inequity (23) and integration of services in Northern Ireland, Wales and Scotland.

With an unprecedented number of consultants having returned to NHS service following the pandemic, it was shown that around half were interested in returning to support the social and healthcare systems, with 50% aged below 60 years (21). NHS Improvement (NHSI) and Health Education England (HEE), for example, have pledged to support returners who wish to continue working as this could provide a vital source of additional workforce across services to support the new integrated system (21). The proportion of those returning to service from the paediatric workforce during the pandemic was relatively low. This is a trend that should be encouraged by ensuring conducive working patterns and pension arrangements.

Paediatric working life

To ensure successful implementation of new ways of working within a rapidly-changing and challenging climate it is fundamental that the working lives of all paediatric staff are placed front and centre with a focus on flexibility, inclusivity and wellbeing (3, 10, 13, 24). The option to work less than full time is considered essential (25) and while this will undoubtedly improve the working lives of future consultants, it does present a challenge given increasing concerns regarding the impact of wider social issues on ways of working within an already under resourced workforce, in particular, community paediatricians. The benefits of integrated care will invariably take significant time and effort to be realised, especially in the most deprived areas where the shortfall in quality service provision is greatest; a factor that can be improved by regional redistribution (23) and integration of services across the whole of the UK. To ensure the smoothest transition it is imperative that the wellbeing and work-life balance of the paediatric workforce is awarded the highest priority.

Recommendations

1. Each nation should develop a bespoke child health workforce strategy

- NHSE/HEE, Health Education and Improvement in Wales (HEIW), Scottish Government, Convention of Scottish Local Authorities (COSLA) and NHS Education for Scotland (NES) and the Department of Health in Northern Ireland should continue to develop a **bespoke child health workforce strategy** with an integrated approach across the four nations. The plans should include transparent and independently verified projections of workforce supply and demand, and should cover the next five, ten, and twenty years, fully costed by governments across UK.

- Each strategy should:
  (a) Respond to immediate needs and financial pressures and take into account new and emerging models of care to deliver robust professional service standards. Furthermore, the plans should consider future and growing CYP need.
  (b) Be based on robust data and modelling of future trends, eg growing less than full time working, which should be collected on a national and local level so that there is better insight of workforce pressures and tackle the healthcare workforce staff shortages to deliver the best care for children throughout the country.
  (c) Develop a multi-disciplinary workforce in all parts of the UK including remote, rural, and large urban areas and take a whole system approach that considers sustainable working of advanced clinical practitioners, doctors, physician associates, nurses, health visitors, allied health professionals, and support roles across community, mental health, schools, education and hospitals.
  (d) Consult children and young people on what they would like the workforce to look like and the knowledge and skills they require to deliver a safe and sustainable, high-quality service.

2. NHS organisations and senior leaders should support the wellbeing of the child health workforce and modern ways of working

- NHS organisations and senior leaders should support staff to work in the pattern they want to and improve their health, wellbeing, and work-life balance. This should include:
  (a) Protecting staff from burnout by ensuring that all staff take annual leave, necessary breaks, and that they have access to health and wellbeing support when needed.
  (b) Engaging with staff to develop an inclusive and caring environment so that staff are happy in the workplace, quality of service is improved, and patients are safe.
  (c) Employers looking positively on requests for less than full time training and job sharing, in line with modern ways of working including flexible employment models.
  (d) Better understanding of the workplace culture profile and demographics and identifying the reasons why staff leave, and the development opportunities that might have encouraged them to stay. This should include urgent reform of the pension tax rules that are punishing doctors for working extra shifts.

3. NHS organisations and senior leaders should ensure equality, diversity and inclusion are integral to workforce planning

- NHS organisations and senior leaders should:
  (a) Set up equality, diversity and inclusion initiatives and groups to ensure the workforce and leadership reflects the diversity of the population that it serves.
  (b) Support a diverse workforce by establishing inclusive working models for all including those who have neurodiversity and accessibility needs and reduce barriers to developing their careers.
  (c) Ensure EDI processes are monitored and measured for success so that equal opportunities, fair recruitment and development processes are available for all.
  (d) Provide training on the importance of diversity and recognising unconscious bias.

Demographics

This section focuses on the sex and age of Census respondents and distribution across NHS regions.

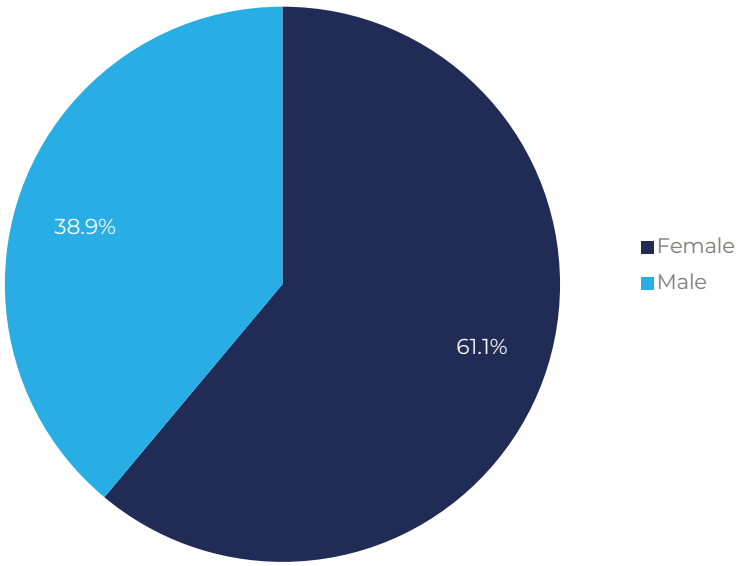
Sex

Of 1515 respondents, the highest proportion identified as women (61%), 38.7% identified as men, and less than 1% preferred not to specify.

Table 1. Count of respondents by sex

Sex	N
Female	923
Male	588

Figure 1. Percentage respondents by sex



Relationship between sex and NHS region

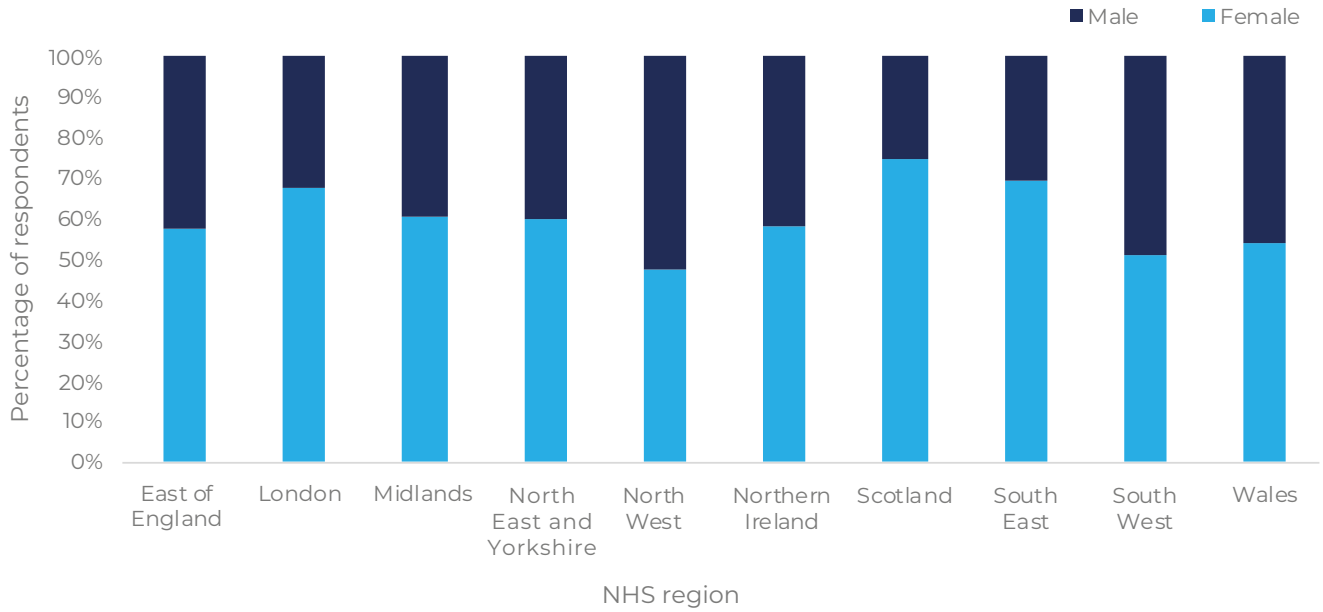
There was a significant relationship between sex of respondents and their NHS regional location ($\chi 2$ (9) =36.1, p=0.001) with proportionally more female paediatricians in Scotland (3), while in the North West (-3.6) the proportion of male paediatricians is greater than expected*.

Table 2. Number of female and male paediatricians per NHS region; (percentage of female/ male per region)

	London	Midlands	North East and Yorkshire	South East	Scotland
			N (%)		
Female	175 (67.6)	137 (60.6)	137 (60.1)	106 (69.3)	75 (75)
Male	84 (32.4)	89 (39.4)	91 (39.9)	47 (30.7)	25 (25)

	North West	South West	Wales	East of England	Northern Ireland
			N (%)		
Female	68 (47.2)	61 (51.3)	52 (54.2)	50 (54.2)	21 (58.3)
Male	76 (52.8)	58 (48.7)	44 (45.8)	37 (45.8)	15 (41.7)

Figure 2. Relationship between sex and NHS region

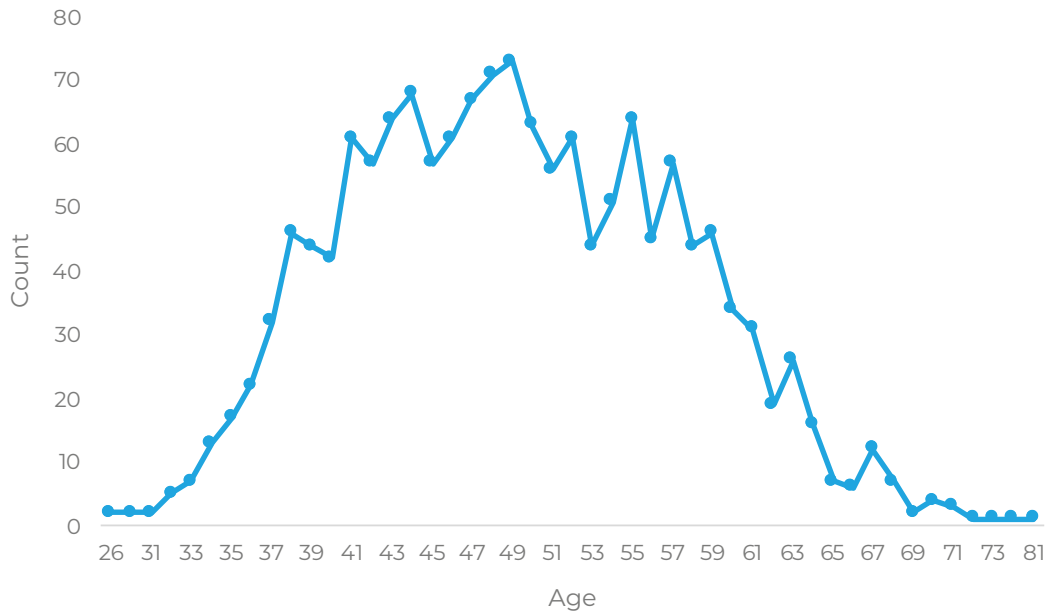


Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/ negative) it was considered to contribute to a significant result ie the **observed frequency of a relationship was above/below the **expected** frequency.*

Age

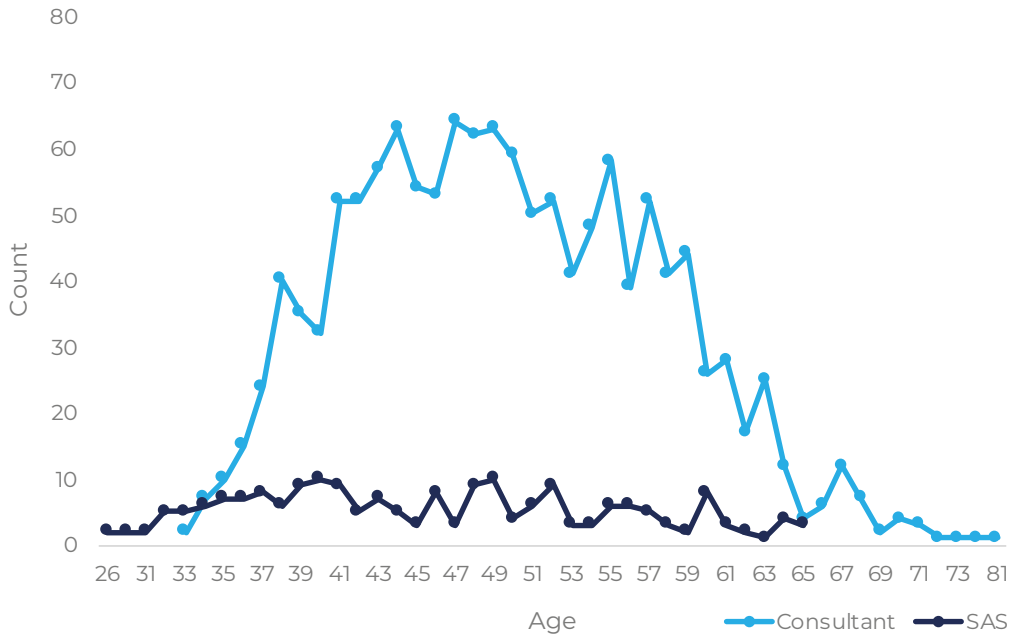
The majority of respondents were aged between late 40s and early 50s.

Figure 3. Number of respondents by age



The chart below shows the count of respondents by age and grade.

Figure 4. Number of consultants and SAS doctors by age



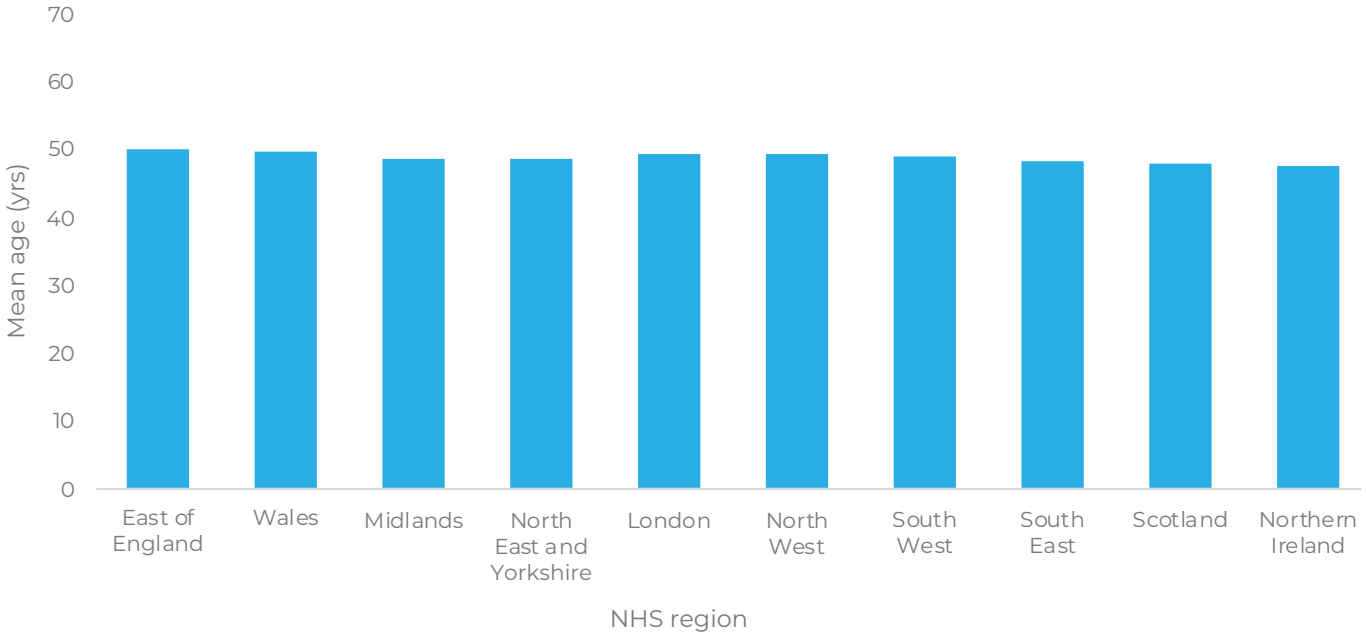
Relationship between age and NHS region

With mean age of respondents ranging from 47.6 years in Northern Ireland to 49.9 years in the East of England, there was no significant relationship between age and NHS region ($F(9,1442) = 0.77$, $p=0.64$).

Table 3. Mean age of respondents for each NHS region (n = number of respondents; S.D = standard deviation)

NHS region	n	Mean age (yrs)	S.D.
East of England	87	49.9	8.0
Wales	96	49.6	8.3
Midlands	228	48.8	8.0
North East and Yorkshire	228	48.7	7.6
London	259	49.5	9.7
North West	144	49.4	7.8
South West	120	49.0	7.6
South East	153	48.3	7.8
Scotland	100	48.1	7.8
Northern Ireland	37	47.6	8.2

Figure 5. Mean age of respondents for each NHS region



Consultants and SAS doctors

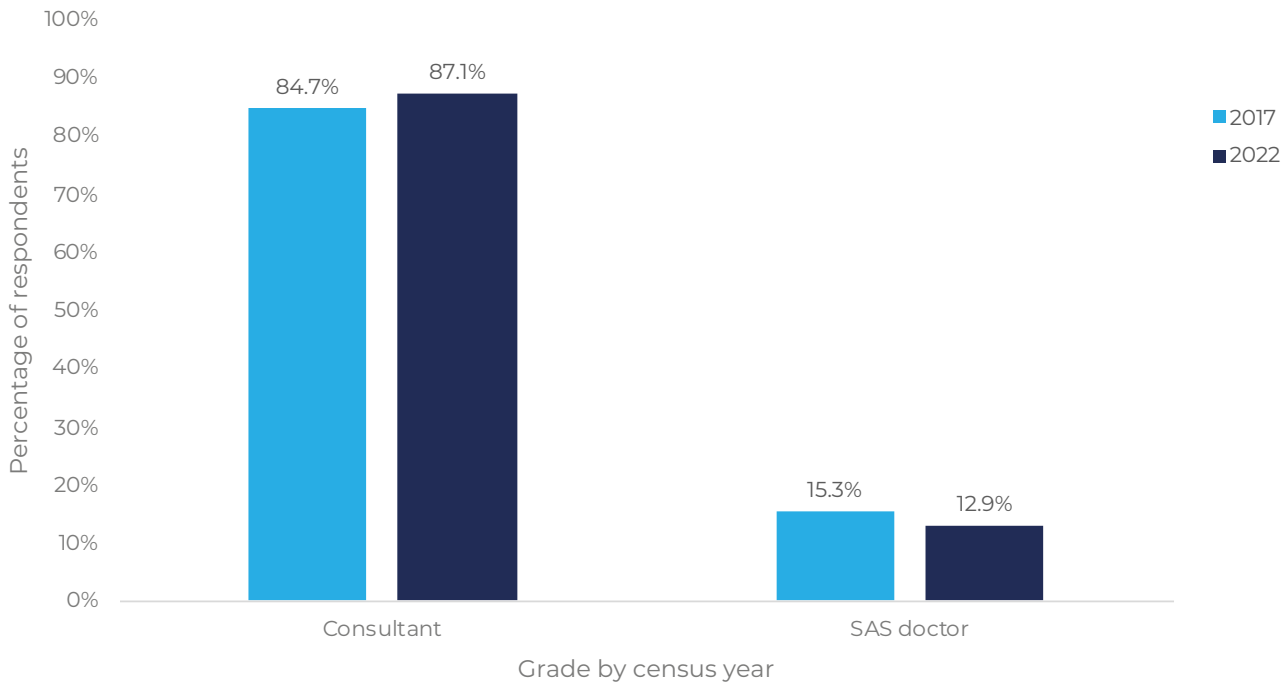
This section explores the demographic profile of consultants and SAS doctors including age, sex and regional location; plus working pattern, ie full time and less than full time.
Of the 1515 respondents 1319 were consultants and 196 SAS doctors.

Table 4. Consultant and SAS doctors, percentage and mean of PAs in contract

	n	Percentage	Mean of total PAs
Consultant	1319	87.1%	10.4
SAS doctor	196	12.9%	5.8
Overall	**1515**	**100%**	**9.8**

The ratio between consultants and SAS doctors is similar to that of Census 2017

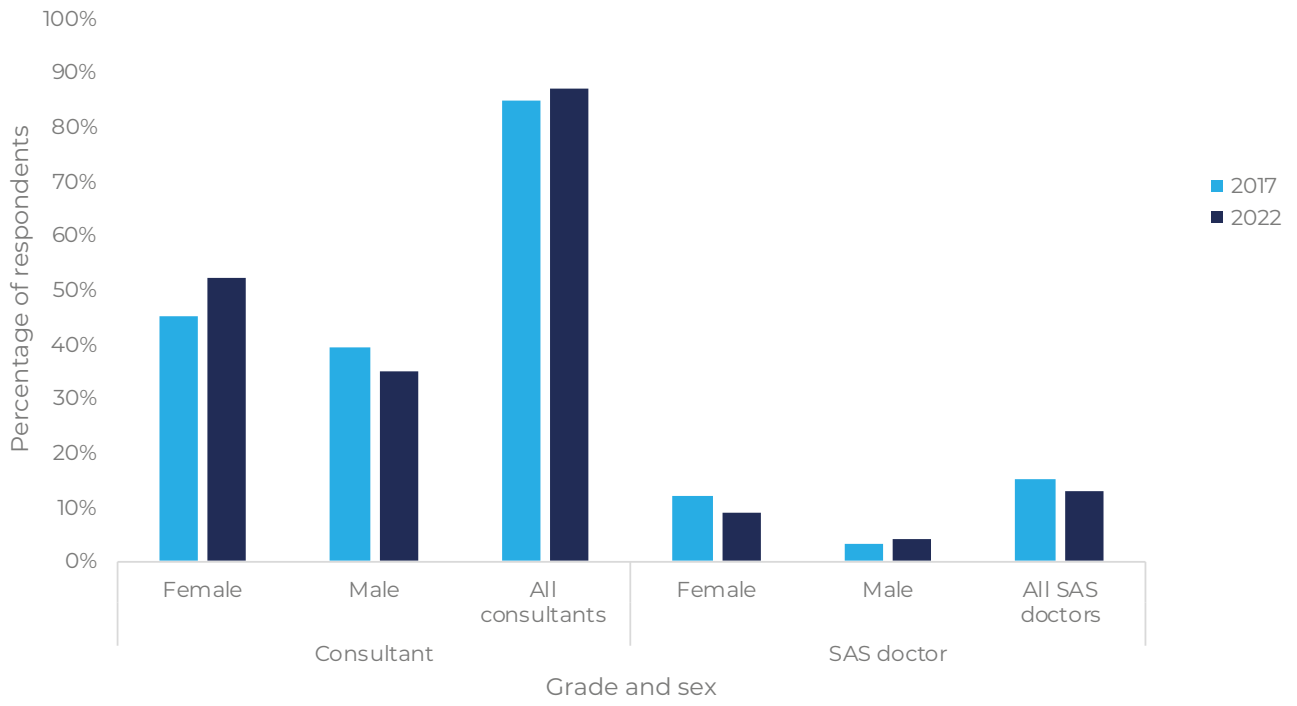
Figure 6. Breakdown by grade and sex comparing Census 2017 and Census 2022



Sex

When looking at the paediatric consultant workforce only, 59.8% of consultants were women and 39.9% men; less than 1% preferred not to say. In past iterations of the Census, 51.6% (2015) and 53.5% (2017) of consultants were women.

Figure 7. Percentage of consultants and SAS doctors in Census 2017 and 2022



Amongst respondents for the current Census, there was a significant difference in the proportion of female and male paediatricians ($\chi 2$ (1) =5.02, p=0.03) who were consultants and SAS doctors with a higher-than-expected* numbers of female SAS doctors (2.34) compared to male.

Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/ negative) it was considered to contribute to a significant result ie. the **observed frequency of a relationship was above/below the **expected** frequency.*

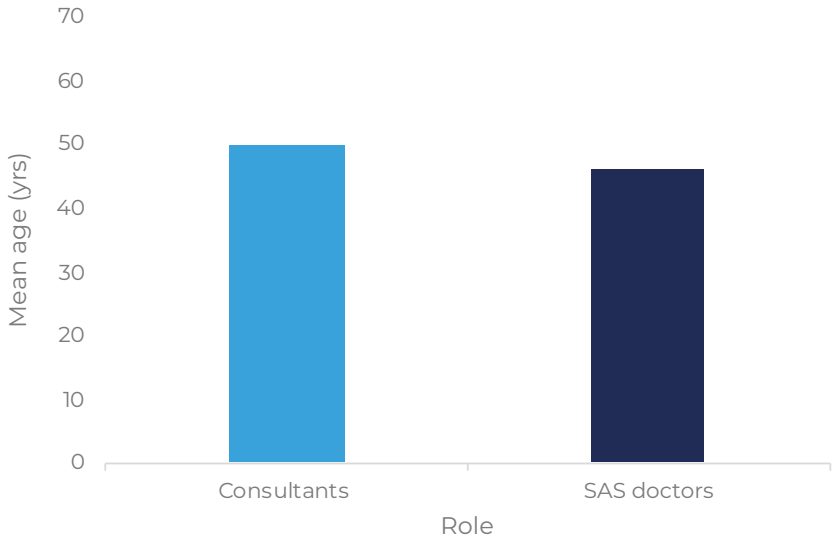
Age

The mean age of consultants was 49.7 years and SAS doctors 45.9 years, representing a significant difference in age (t=-6.09, p=0.001). SAS doctors were on average around 3.5 years younger than consultants where for 2017 SAS doctors tended to be older than consultants.

Table 5. Mean age and standard deviation (S.D.) of consultants and SAS doctors

	Consultants	SAS doctors
Mean age (yrs)	49.7	45.9
S.D.	8.0	9.3

Figure 8. Mean age of consultants and SAS doctors



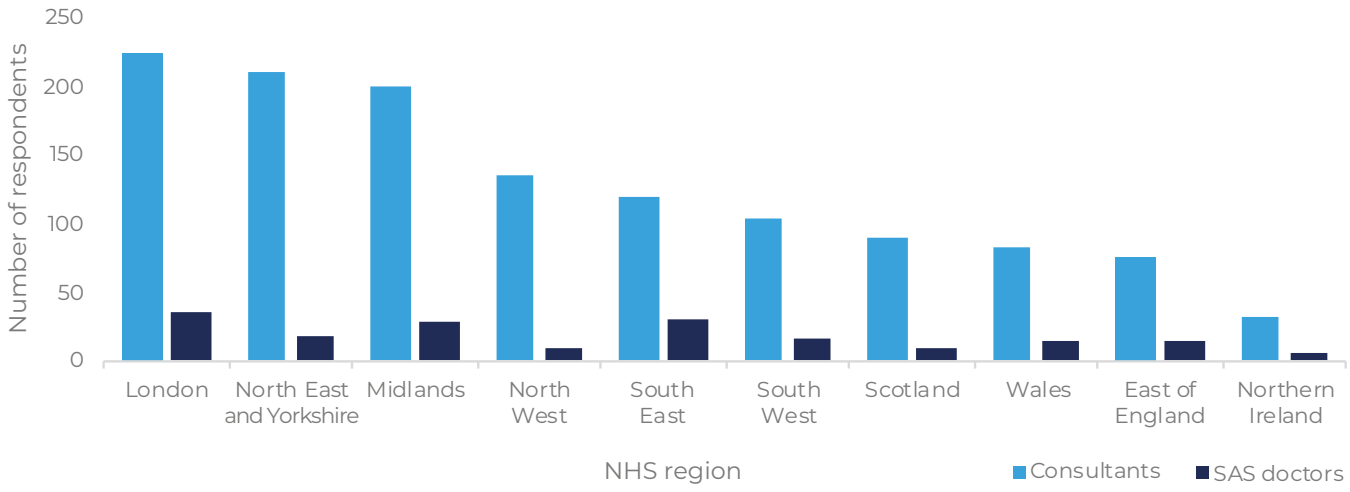
Region

There was a difference in the regional distribution of consultants with respect to that of SAS doctors ($\chi 2(9) = 20.43$, p=0.015). This was driven by a trend pattern showing a higher-than-expected* number of consultants in the North East (2.3) and North West (2.4) relative to SAS doctors; the reverse pattern was seen in the South East (2.9).

Table 6. Number of consultants and SAS doctors per NHS region (percentage of consultants and SAS doctors within each region)

	Consultants	SAS doctors
	n (%)	
London	223 (17.6)	36 (19.7)
North East and Yorkshire	210 (16.6)	18 (9.8)
Midlands	199 (15.7)	29 (15.9)
North West	135 (10.6)	9 (4.9)
South East	119 (9.4)	30 (16.4)
South West	103 (8.1)	17 (9.3)
Scotland	90 (7.1)	10 (5.5)
Wales	82 (6.5)	14 (7.7)
East of England	76 (6)	15 (8.2)
Northern Ireland	32 (2.5)	5 (2.7)

Figure 9. Number of consultants and SAS doctors per NHS region



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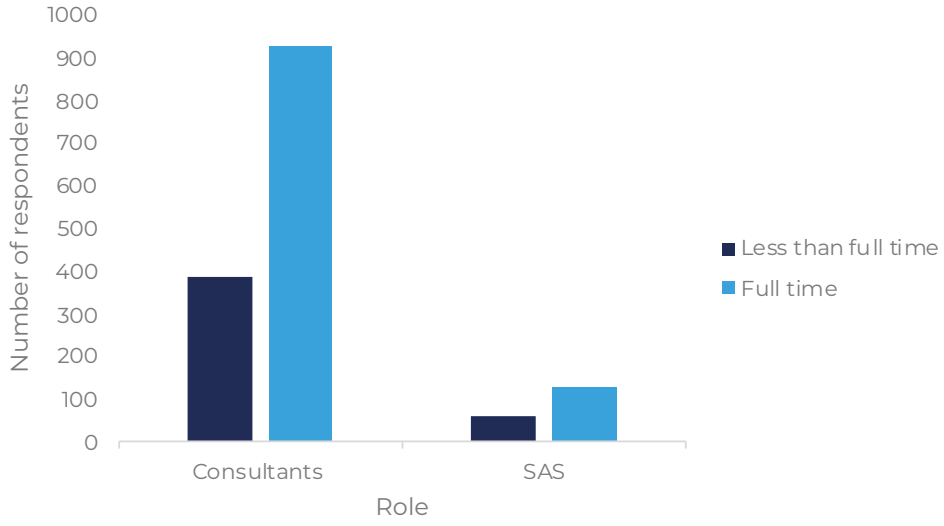
Working pattern

There was no significant difference in working pattern between consultants and SAS doctors ($\chi 2$ (1) =0.87 p=0.35).

Table 7. Number of consultants and SAS doctors per working pattern (percentage per working pattern for consultants and SAS doctors)

	Consultants	SAS doctors
	n (%)	
Less than full time	387 (29.5)	63 (32.8)
Full time	924 (70.5)	129 (67.2)

Figure 10. Number of consultants and SAS doctors per working pattern

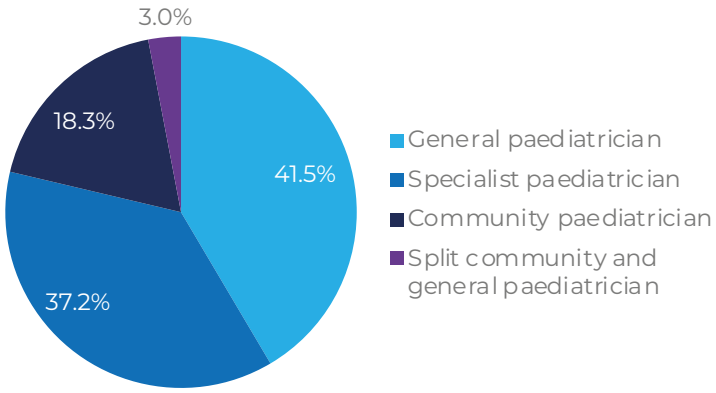


Primary job type

This section explores the primary job of respondents defined according to their role in general, community, joint general and community and specialty paediatrics plus corresponding demographic information.

The majority of paediatricians were working in general paediatrics (41.5%)[i], followed by specialists (37.2%), and 18.3% in community child health. 3% were working as split community and general paediatrics.

Figure 11. Percentage of respondents by primary job type



There was a significant difference in primary job type between consultants and SAS doctors ($\chi 2$ (3) =15.3, p=0.002) with a lower-than-expected* number of SAS doctors working as specialist paediatricians (-3.7). In the 2017 Census, SAS doctors predominantly worked as community paediatricians.

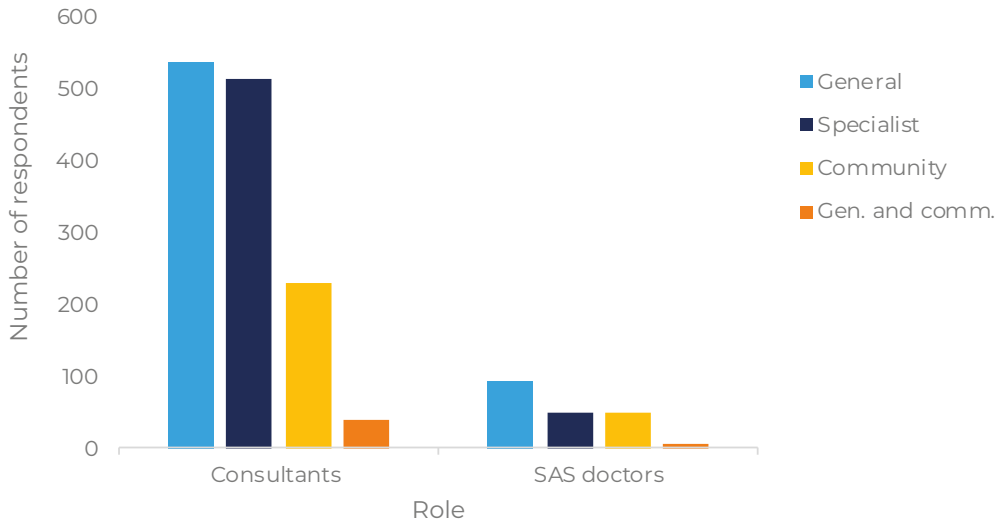
Table 8. Number of consultants and SAS doctors per primary job type (percentage per primary job type for consultants and SAS doctors)

	Consultants	SAS doctors
	n (%)	
General	536 (40.7)	92 (47.2)
Specialist	513 (39)	49 (25.1)
Community	229 (17.4)	49 (25.1)
General and community	39 (3)	5 (2.6)

Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/ negative) it was considered to contribute to a significant result ie the **observed frequency of a relationship was above/below the **expected** frequency.*

i *1512/1515 valid responses, 3 blanks (removed).*

Figure 12. Number of consultants and SAS doctors per primary job type



Sex

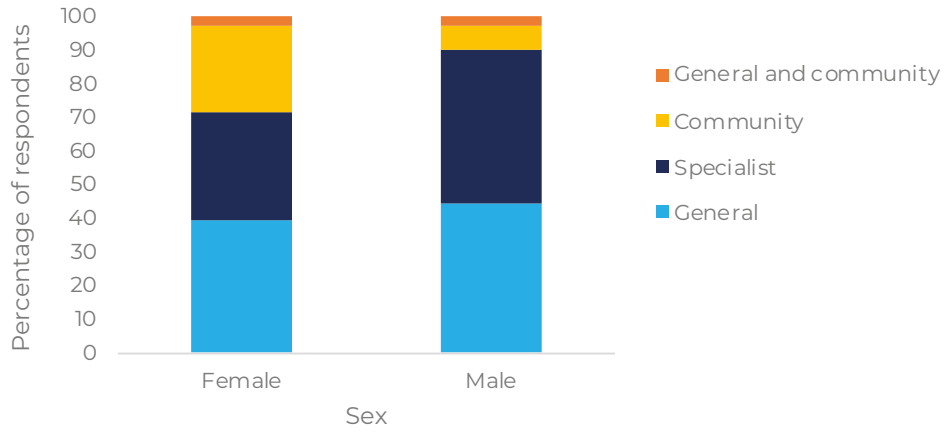
There was a significant relationship between primary job type and sex ($\chi 2$ (3) =80.32, p=0.001) with a higher-than-expected* number of male paediatricians working as specialty paediatricians (5.2) compared to a higher-than-expected* number of female paediatricians working in community (8.7).

Table 9. Number of paediatricians in each primary job type according to sex (percentage of primary job type by sex)

	Female	Male
	n (%)	
General	365 (39.7)	261 (44.4)
Specialist	295 (32.1)	266 (45.2)
Community	232 (25.2)	44 (7.5)
General and community	28 (3)	17 (2.9)

Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/ negative) it was considered to contribute to a significant result ie the **observed frequency of a relationship was above/below the **expected** frequency.*

Figure 13. Number of paediatricians in each primary job type according to sex



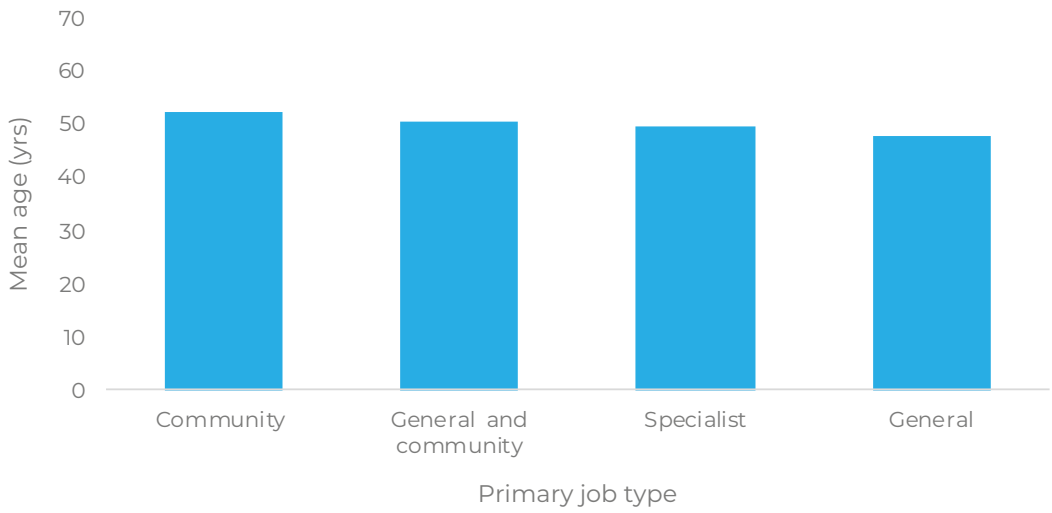
Age

There was a significant relationship between primary job type and age (F (3, 1508) = 19.27, p=0.001) with community paediatricians being older than both generalists (post-hoc 4.36, p=0.001) and specialists (post-hoc 2.65, p=0.001). Specialist paediatricians were also on average older than generalists (post-hoc 1.71, 0.002). In the 2017 Census general paediatricians were on average younger than community paediatricians at between 45–54 years.

Table 10. Mean age of respondents for each primary job Type (S.D = standard deviation)

	n	Mean age (yrs)	S.D.
Community	277	52	8.2
General and community	45	50.5	8.3
Specialist	562	49.4	8.6
General	628	47.7	7.6

Figure 14. Mean age of members for each primary job type



Region

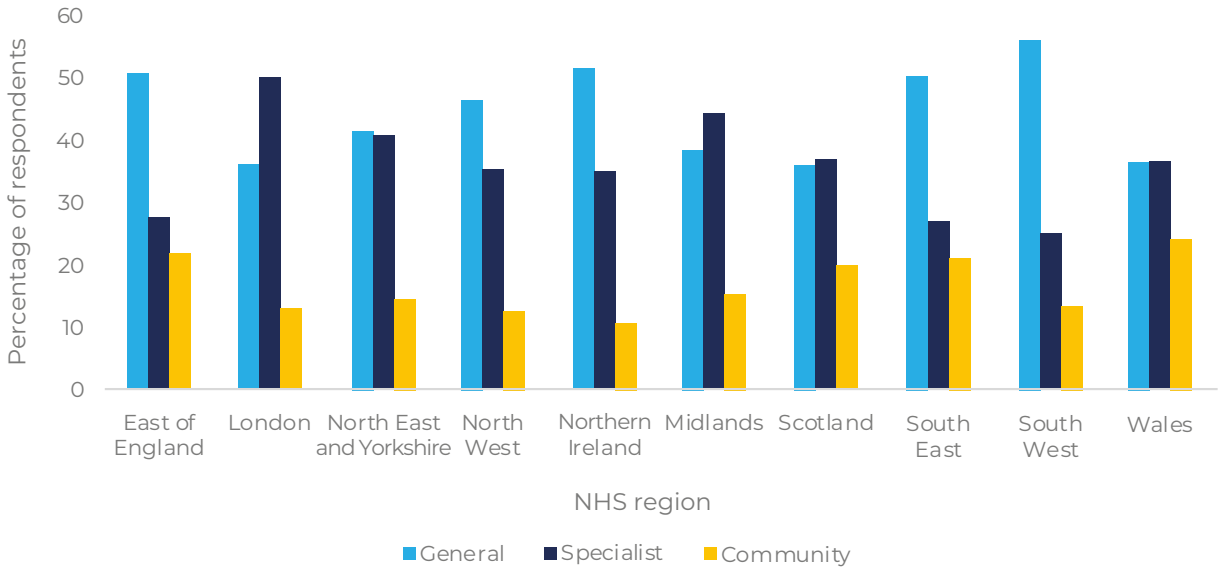
There was a significant relationship between primary job type and region ($\chi 2$ (27) =71.2 p=0.001). This was driven by the distribution of Specialist paediatricians where there is a higher-than-expected* number in London (4.3), but a lower-than-expected* number in the South West (-3.1), where instead there were a greater number of general paediatricians (3.1).

Table 11. Percentage of paediatricians in each NHS region per primary job type

	East of England	London	North East and Yorkshire	North West	Northern Ireland
General	50.6	35.9	41.2	46.5	51.4
Specialist	27.6	49.8	40.8	35.4	35.1
Community	21.8	13.1	14.5	12.5	10.8
General and community	0.0	1.2	3.5	5.6	2.7

	Midlands	Scotland	South East	South West	Wales
General	38.2	36.0	50.0	55.8	36.5
Specialist	44.3	37.0	27.0	25.0	36.5
Community	15.4	20.0	21.1	13.3	24.0
General and community	2.2	7.0	2.0	5.8	3.1

Figure 15. Percentage of paediatricians in each NHS region per primary job type



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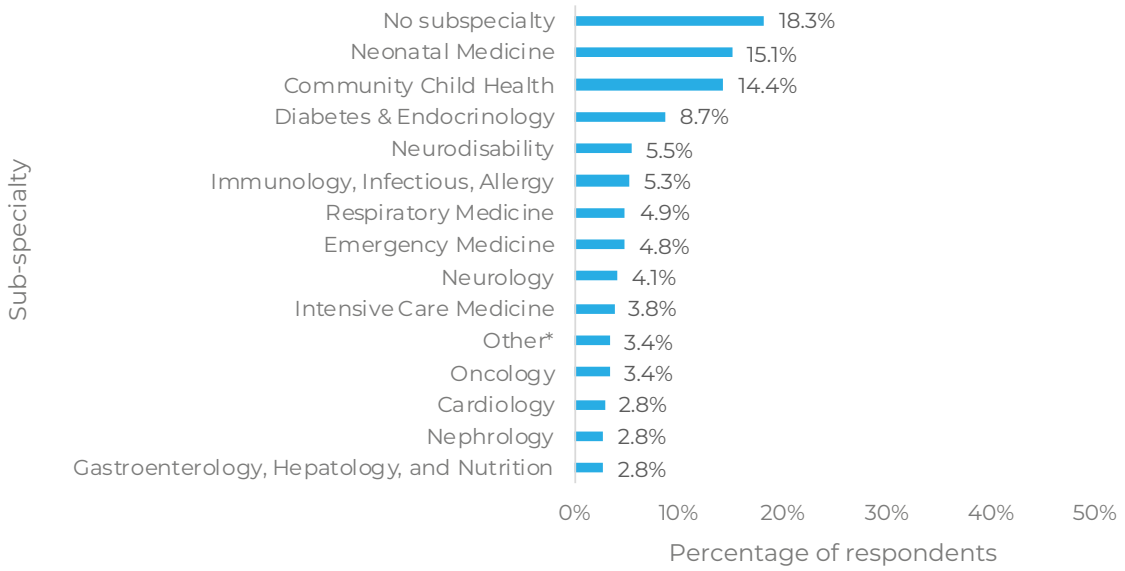
Sub-specialty

The majority of respondents were generalists[ii] (no sub-specialty, 18.3%), specialised in neonatology, followed by community child health, and diabetes and endocrinology.

Figure 16. Percentage of respondents by sub-specialty. Other* comprises of Rheumatology, Palliative Care Medicine, Children's Mental Health, Metabolic Medicine, Clinical Pharmacology and Therapeutics



ii 277/1515 not applicable (not specialists) 3/1239 blanks removed.

Contract and working pattern

This section explores the working pattern (full time and less than full time) of respondents in terms of corresponding demographic and working information.

86.6% of respondents were employed on a permanent contract, 7.4% on a fixed term contract, less than 5% were locums (2.6% known term and 2.2% unknown term) and 1.2% were on an honorary contract. 20 respondents did not specify their contract type and were removed from the total 1515 respondents.

Table 12. Count and percentage of contract type – permanent, fixed term, locum, honorary (20 blanks removed)

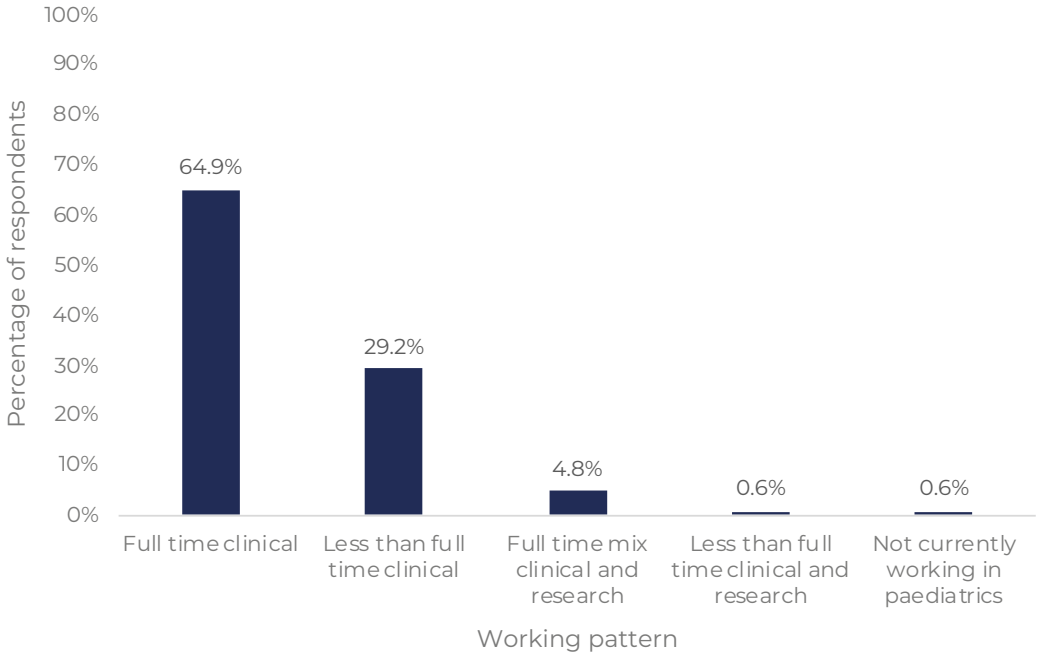
Contract type	n	%
Permanent	1295	86.6%
Fixed term	110	7.4%
Locum – known term	39	2.6%
Locum – term unknown	33	2.2%
Honorary	18	1.2%
Total	**1495**	**100%**

69.6% of respondents were working full time, 29.8% were less than full time and a very small proportion (less than 1%) were not currently working in paediatrics. The number of consultant paediatricians working less than full time was 25.5%; in 2015 this figure was 21.5% and in 2017, 24.2%.

Table 13. Number and percentage of respondents by working pattern: full time, less than full time, clinical, mix clinical and research

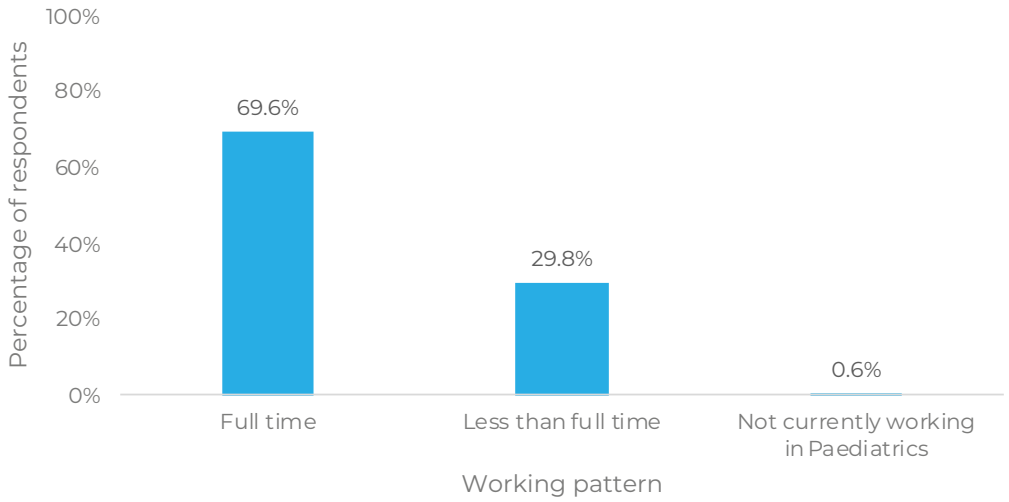
Working pattern	n	%	Mix clinical and research aggregated	n	%
Full time clinical	981	64.9%	Full time	1053	69.6%
Full time mix clinical and research	72	4.8%			
Less than full time clinical	441	29.2%	Less than full time	450	29.8%
Less than full time clinical and research	9	0.6%			
Not currently working in paediatrics	9	0.6%		9	0.6%
Total	**1512**	**100%**		**1512**	**100%**

Figure 17. percentage of respondents by working pattern



Aggregating full time and less than full time:

Figure 18. Percentage of full time and less than full time working patterns, combined clinical, research, clinical and research



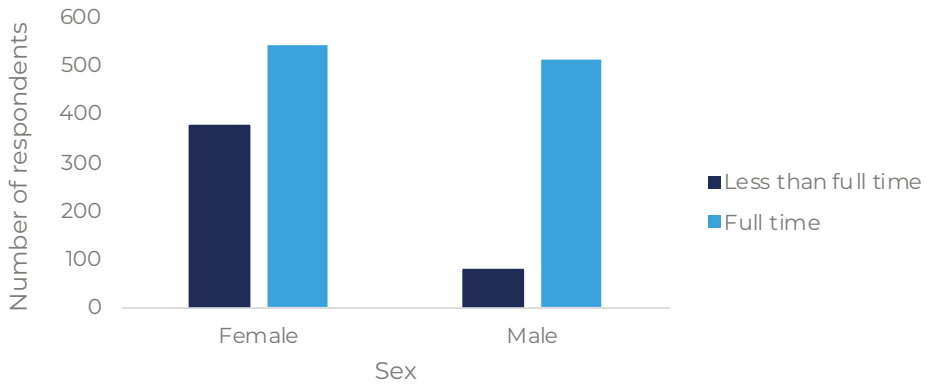
Sex

There was a significant relationship between working pattern and sex (χ2 (1) =132.12, p=0.001) with a higher-than-expected* number of female paediatricians working less than full time (11.5) compared to a lower-than-expected* number of male paediatricians (-11.5). (For this analysis clinical only and mixed clinical research have been combined).

Table 14. Number of paediatricians for each working pattern according to sex (percentage of working pattern by sex)

	Female	Male
	n (%)	
Less than full time	372 (40.8)	76 (12.9)
Full time	540 (59.2)	511 (87.1)

Figure 19. Number of paediatricians for each working pattern according to sex



Age

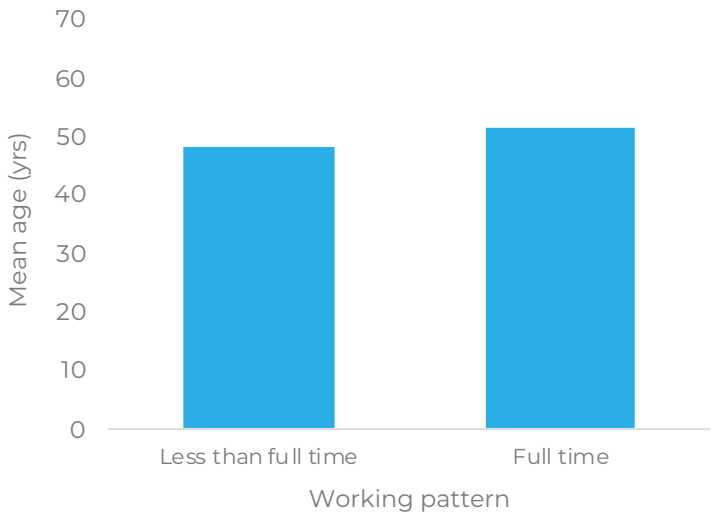
There was a significant relationship between working pattern and age (F (1, 1501) = 44.26, p=0.001), whereby the average age of those working less than full time was three years lower than that of those working full time. (For this analysis clinical only and mixed clinical research have been combined).

Table 15. Mean age of respondents for working pattern (S.D = standard deviation)

Working pattern	n	Mean age (yrs)	S.D.
Less than full time	1053	48.2	7.7
Full time	450	51.3	9.0

Expected in this context refers to the results of the statistical analysis. A chi-squared (χ2) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/ negative) it was considered to contribute to a significant result ie the **observed frequency of a relationship was above/below the **expected** frequency.*

Figure 20. Mean age of respondents for working pattern



Subspecialties by working pattern

There was a significant relationship between working pattern and sub-specialty ($\chi 2$ (17) =127.08, p=0.001), which was driven by a higher-than-expected* number of paediatricians working less than full time in community (9.4).

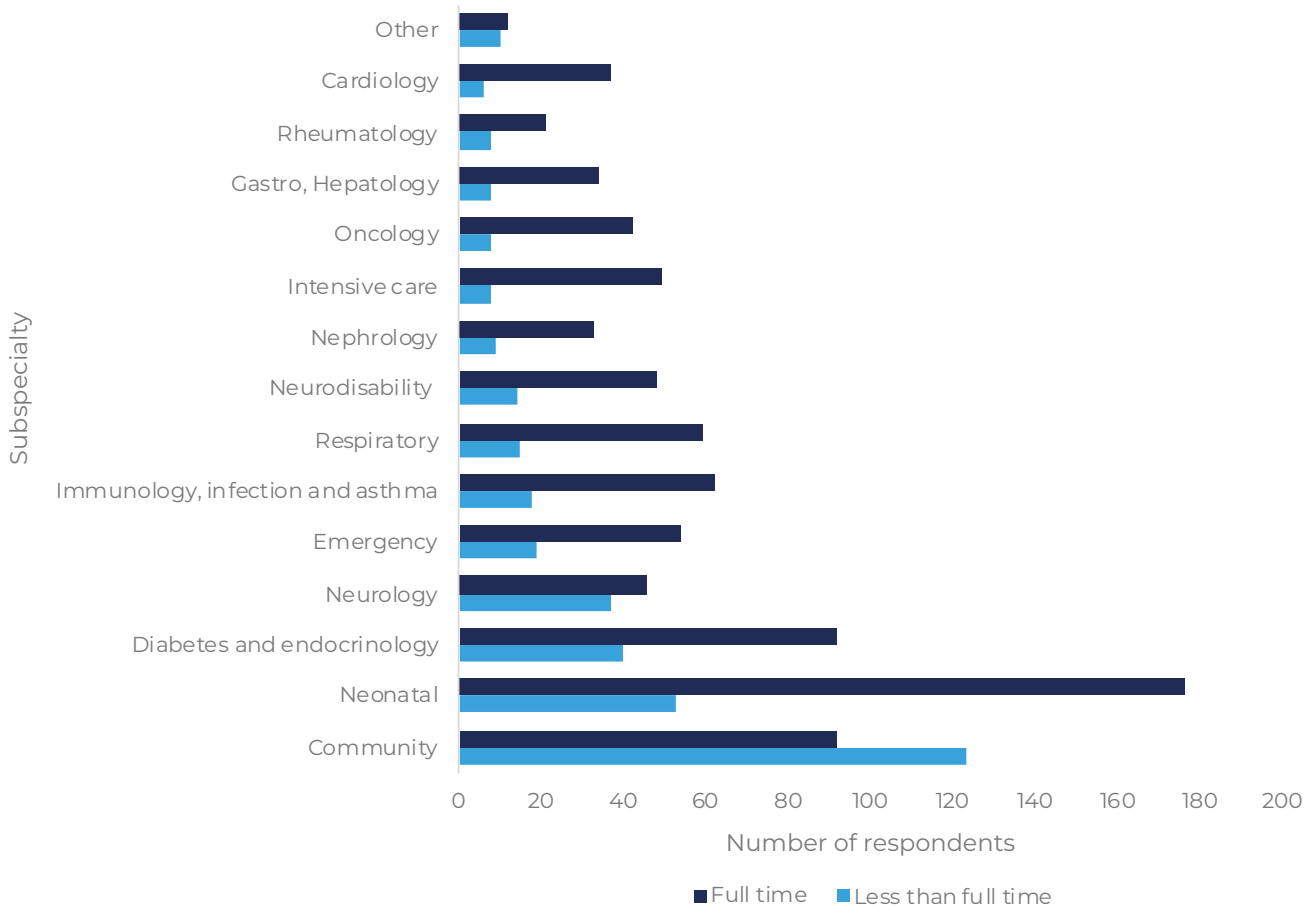
Table 16. Number of paediatricians for each working pattern by sub-specialty (Other includes Palliative care, Mental health, Metabolic disorders and Pharmacology)

	Less than full time	Full time
Community	123	92
Neonatal	53	176
Diabetes and endocrinology	40	92
Neurology	37	46
Emergency	19	54
Immunology, infection & asthma	18	62
Respiratory	15	59
Neurodisability	14	48
Nephrology	9	33
Intensive care	8	49
Oncology	8	42
Gastro, Hepatology	8	34
Rheumatology	8	21
Cardiology	6	37
Other	10	12

Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/ negative) it was considered to contribute to a significant result ie the **observed frequency of a relationship was above/below the **expected** frequency.*

Over half of respondents were working less than full time for children's mental health, palliative care medicine, and community child health. However, for the top two subspecialities, this could be driven by the low numbers working in those areas – only eight respondents specialised in these, three working full time and five working less than full time in each.

Figure 21. Number of paediatricians for each working pattern by sub-specialty



Primary job type

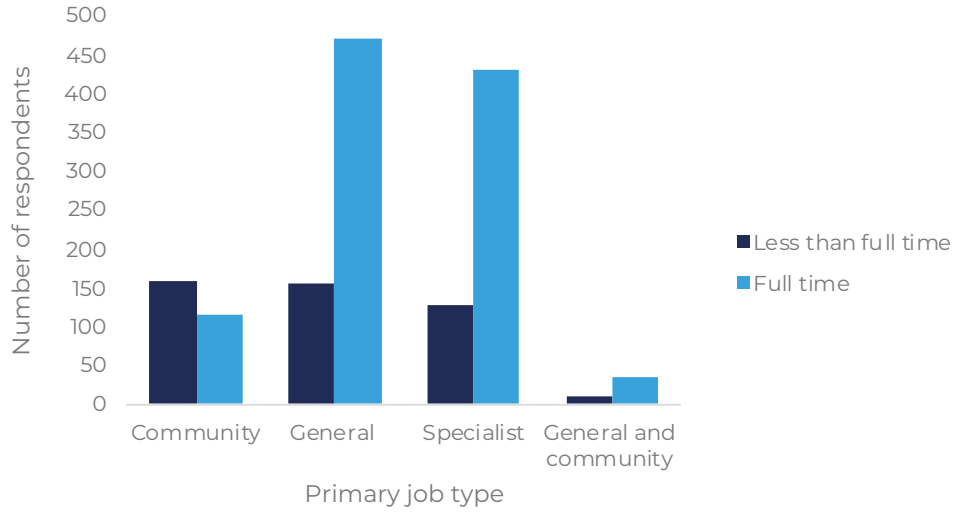
There was a significant relationship between working pattern and primary job type ($\chi 2$ (3) =123.6, p=0.001). This was driven by a higher-than-expected* number of community paediatricians working less than full time (11.1), with a higher-than-expected* number of generalists (3.7) and specialists (4.6) working full time. (For this analysis clinical only and mixed clinical research have been combined).

Table 17. Number of paediatricians for each working pattern by primary job type (percentage of primary job type for each working pattern)

	Community	General	Specialist	General and community
Less than full time	158 (57.7)	155 (24.8)	128 (22.9)	9 (20)
Full time	116 (42.3)	470 (75.2)	431 (77.1)	36 (80)

Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/ negative) it was considered to contribute to a significant result ie the **observed frequency of a relationship was above/below the **expected** frequency*

Figure 22. Number of paediatricians for each working pattern by primary job type



Programmed activities

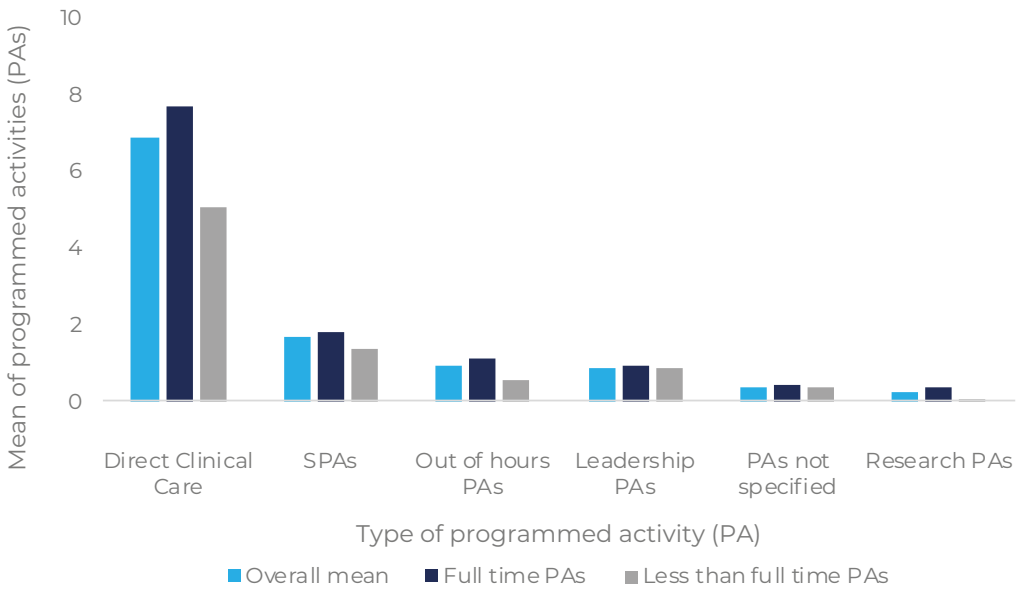
This section explores the programmed activities (PAs) of respondents in terms of corresponding demographic and working information.

PAs are blocks of time in which contractual duties are performed. These are usually equivalent to four hours[iii] and can be divided into four main categories: direct clinical care (DCC), supporting professional activities (SPAs), additional responsibilities, and external duties. A doctor working full time will normally work ten PAs, however local and national variations may apply (26).

Programmed activities by type

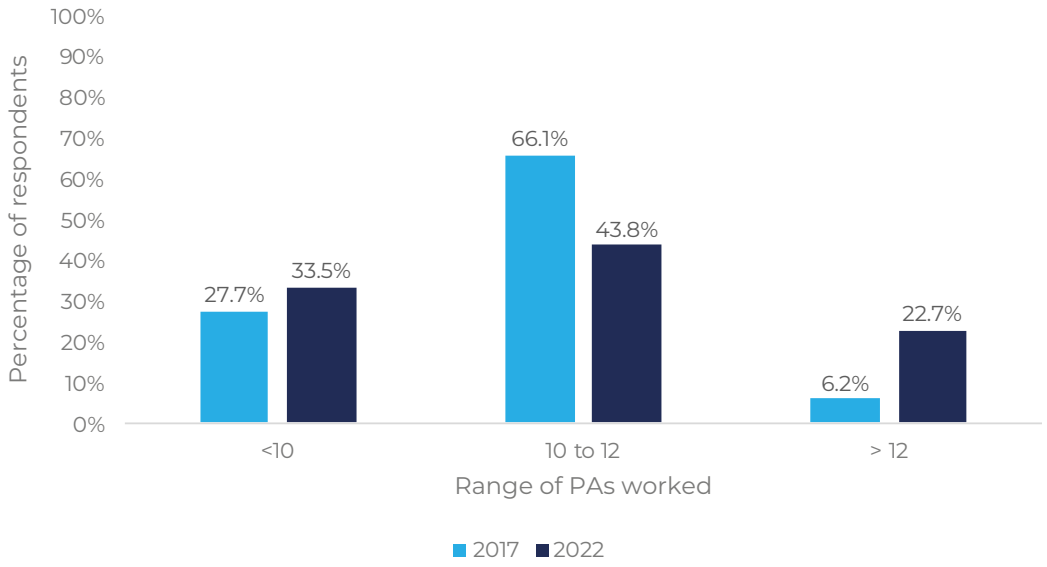
The average DCC PAs for consultant contracts overall was 6.9; with 7.6 for those working full time and 5.1 for those working less than full time. DCC PAs were 7.6 and 7.4 in 2015 and 2017 respectively. The average SPAs for consultant contracts overall was 1.7; with 1.8 for those working full time and 1.4 for those working less than full time.

Figure 23. Mean of PAs for DCC, SPAs, Research, Leadership, Out of Hours (OOH), and PAs not specified overall and by working pattern, full time (FT) or less than full time (LTFT)



iii A PA during normal working hours – between 7am and 7pm, Monday to Friday – is equivalent to four hours, if outside of normal working hours, a PA is equivalent to three hours.

Figure 24. Proportion of respondents working less than 10 PAs, between 10 and 12 PAs, and over 12 PAs in 2017 and 2022. 2017 n=3305; 2022 n=1515



Sub-specialty, region, and programmed activities

The average PAs for full time working goes beyond the recommended 10 PAs in contract for the majority of subspecialties[iv].

Table 18. Full time and less than full time respondents – count, mean of PAs in contract

Sub-specialty	n of respondents		Mean of PAs	
	Full time	Less than full time	Full time	Less than full time
Neonatal medicine	176	53	11.6	7.3
Diabetes and endocrinology	92	40	11.7	7.2
Community child health	92	123	10.4	6.9
Immunology, infectious, allergy	62	18	11.1	7.2
Respiratory Medicine	59	15	11.7	8.1
Emergency Medicine	54	19	10.3	7.9
Intensive Care Medicine	49	8	11.3	10.4
Neurology	48	14	11.6	6.2
Neurodisability	46	37	10.0	7.1
Oncology	42	8	11.0	7.7
Cardiology	37	6	10.4	9.3
Gastroenterology, hepatology, and nutrition	34	8	11.0	9.7
Nephrology	33	9	11.0	8.4
Rheumatology	21	8	11.8	7.0
Other	12	10	12.1	7.9
Total/Overall	**857**	**376**	**11.2**	**7.3**

iv 1236/1515 of respondents were specialists, 276 responded not applicable (no sub-specialty), 3 blank entries were removed.

Programmed activities by region and working pattern

Table 22 below provides a breakdown of PAs by type and working pattern for each UK nation and region in England.

Looking at full time SPAs only, none reach the recommended 2.5 PAs. The highest mean is Wales with 2.3, however the recommended SPAs for Wales is 3 PAs.

Table 19. Breakdown of number of respondents and average PAs by NHS region, full time (FT) or less than full time (LTFT) working, and type of PA

Nation	NHS Region	n of respondents		DCC PAs		SPAs		Research PAs		OOH PAs		Leadership PAs		PAs not specified	
Working pattern		*FT*	*LTFT*	*FT*	*LTFT*	*FT*	*LTFT*	*FT*	*LTFT*	*FT*	*LTFT*	*FT*	*LTFT*	*FT*	*LTFT*
ENG		**847**	**362**	**7.6**	**5.1**	**1.8**	**1.4**	**0.4**	**0.04**	**0.6**	**1**	**0.9**	**0.4**	**0.4**	**1.4**
	East of England	66	19	7.8	5.8	1.5	1.2	0.5	0.1	0.4	0.1	1	0.3	0.9	1.2
	London	170	87	7.6	5.2	1.8	1.3	0.5	0.1	0.6	1.1	0.7	0.3	0.2	1.3
	Midlands	169	56	7.6	4.7	2	1.5	0.3	0.03	0.6	0.8	0.9	0.4	0.3	1.5
	North East & Yorkshire	148	79	7.6	7.6	5.1	1.7	1.3	0.4	1.1	0.6	1	0.9	0.4	1.7
	North West	109	35	7.6	4.9	1.8	1.4	0.6	0.1	0.6	1.2	1.5	0.5	0.2	1.4
	South East	109	43	7.8	4.8	1.8	1.3	0.5	0.03	0.4	0.8	1	0.5	0.5	1.3
	South West	76	43	7.7	5.6	1.9	1.5	0.2	0	0.7	0.8	0.6	0.5	0.3	1.5
NI		**30**	**7**	**8.4**	**3.5**	**1.7**	**1.8**	**0**	**0**	**0.3**	**0.7**	**0.8**	**0.3**	**1**	**1.8**
SCO		**72**	**28**	**8.0**	**5.4**	**1.8**	**1.4**	**0.6**	**0**	**0.9**	**0.4**	**0.5**	**0.4**	**0.4**	**1.4**
WAL		**71**	**25**	**7.5**	**5.1**	**2.3**	**1.8**	**0.01**	**0**	**0.9**	**0.8**	**1**	**0.3**	**0.1**	**1.8**

On-call

This section explores on-call duties of respondents looking at both type and frequency with respect to demographic and working pattern information.

On-call arrangements are in place to provide service cover across the NHS. Upon agreement with their employer, members of staff provide availability outside their normal working hours, either in their workplace (resident on-call), at their place of residence, or elsewhere (27).

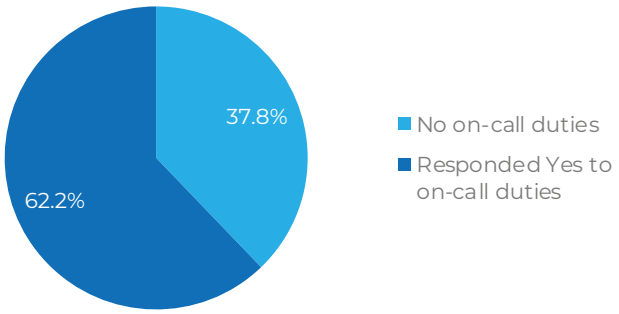
On-call duties

62% (942/1515) of respondents carry out on-call duties[v].

Table 20. Percentage of respondents who undertake on-call duties

On-call duties	n	%
No on-call duties	586	37.8%
Responded Yes to on-call duties	929	62.3%
Total	**1515**	**100%**

Figure 25. Percentage of respondents who said they undertake on-call duties

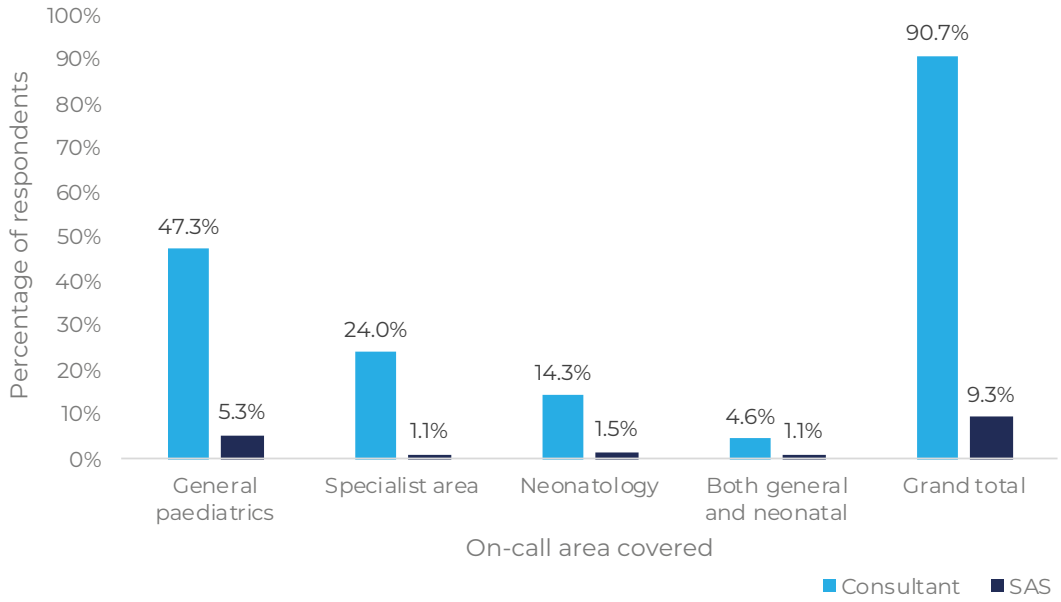


The majority of those undertaking on-call duties were consultants, with 64.8% undertaking on-call duties. 50.8% were working full time, 14% were working less than full time, 0.1% were not working in paediatrics. 37.8% of consultants doing on-call duties were female, 12.9% male, 0.08% preferred not to say.

With regards to SAS doctors, those undertaking on-call duties were 44.4% of all SAS, 38.8% working full time, and 5.6% working less than full time. 25.5% were female, 18.9% male.

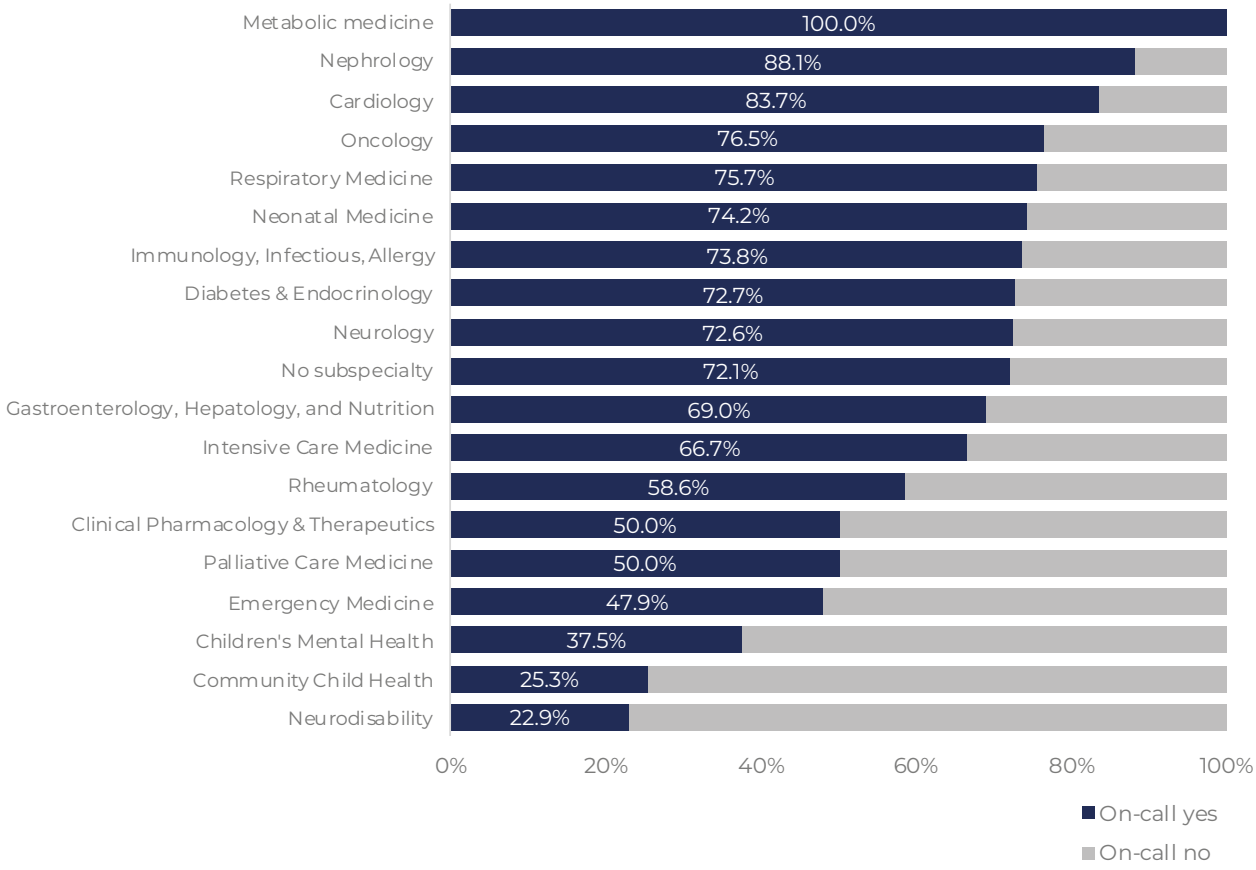
v 13 respondents entered *on-call* frequency but did not specify the type of *on-call* duties undertaken.

Figure 26. On-call duties by consultant or SAS doctor



Below shows the proportion of respondents undertaking on-call duties by sub-specialty:

Figure 27. Proportion of respondents undertaking on-call duties by sub-specialty



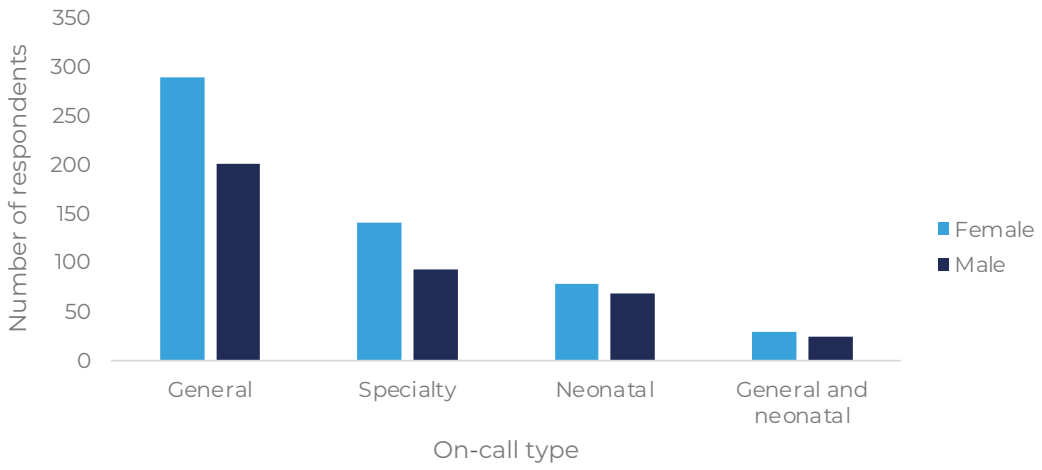
Sex

There was no significant relationship between on-call type and sex ($\chi 2$ (5) =3.85, p=0.57).

Table 21. Number of paediatricians for each on-call type by sex

	Female	Male
General	288	200
Specialty	140	93
Neonatal	78	68
General and neonatal	29	24
General and specialty	<5	<5

Figure 28. Number of paediatricians for each on-call type by sex. (General and specialty; and general, neonatal and specialty have been excluded from figure as numbers are <5)



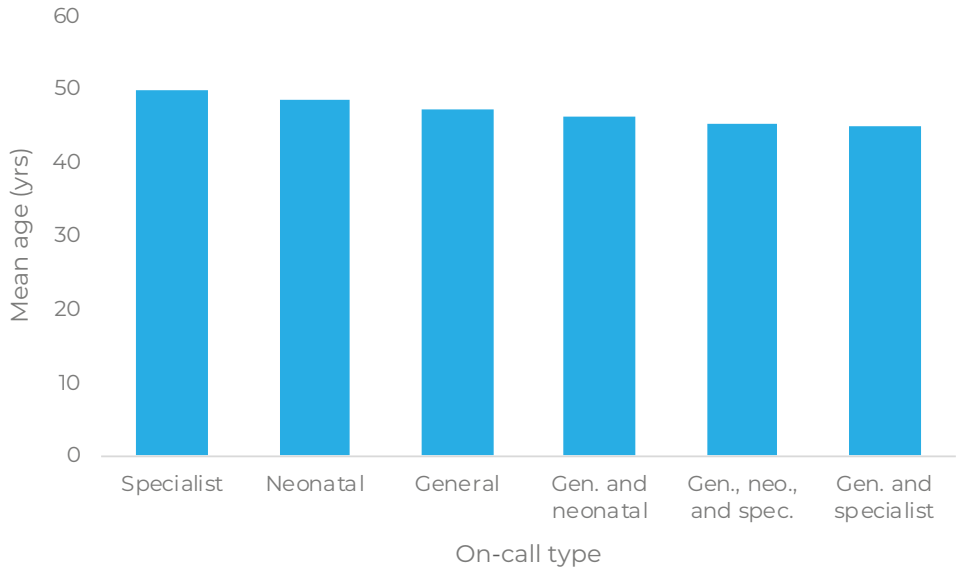
Age

There was a significant relationship between on-call type and age (F (5,923)=5.54, p=0.001), whereby specialist paediatricians were older than generalists (post-hoc 2.65, p=0.001) and those performing both general and neonatal on-call (post-hoc 3.51, p=0.019).

Table 22. Mean age of respondents for on-call type (S.D = standard deviation)

	n	Mean age (yrs)	S.D.
Specialist	233	49.6	7.3
Neonatal	147	48.5	7.9
General	488	47	6.8
General and neonatal	53	46.1	7.4
General, neonatal, and specialist	<5	45	1
General and specialist	5	44.8	5.5

Figure 29. Mean age of respondents for on-call type



On-call frequency

Frequency of on-call duties represents how often paediatricians cover on-call shifts. A higher frequency indicates a higher number of on-call shifts.

On-call frequency was grouped into three categories: 1:5 or higher; between 1:6 and 1:10; and less than 1:10[vi].

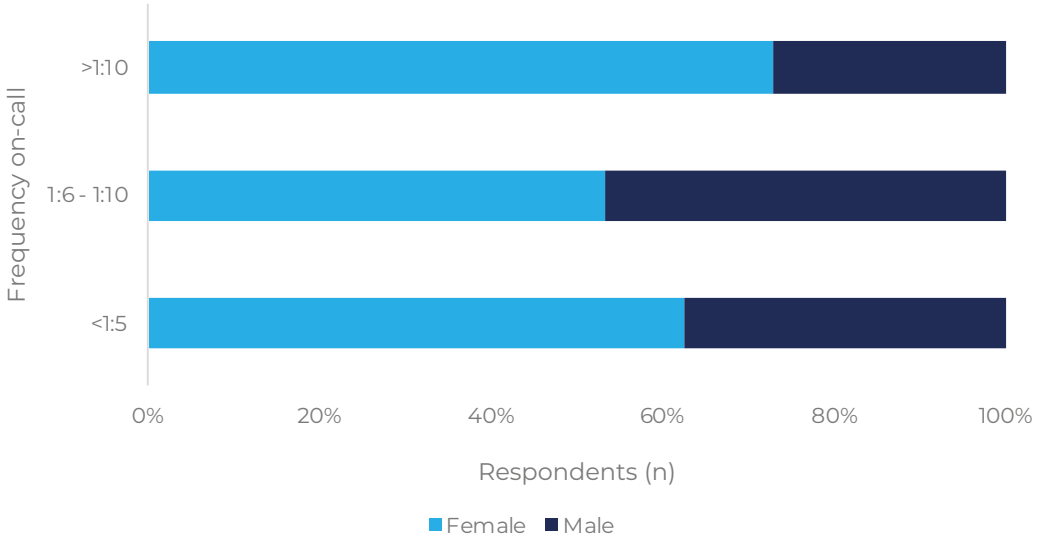
Table 23. On-call frequency by age groups

Frequency	<1:5		1:6 – 1:10		> 1:10		Total	
Age group	n, %							
30–34	5	0.6%	7	0.8%	<5		13	1.5%
35–39	27	3.1%	62	7.1%	11	1.3%	100	11.4%
40–44	39	4.4%	129	14.7%	20	2.3%	188	21.4%
45–49	38	4.3%	148	16.8%	29	3.3%	215	24.5%
50–54	36	4.1%	134	15.2%	17	1.9%	187	21.3%
55–59	40	4.6%	76	8.7%	16	1.8%	132	15.0
60–64	16	1.8%	20	2.3%	<5		38	4.3%
65–69	<5		<5				5	0.6%
70–74			<5				<5	
Total	**203**	**23%**	**580**	**66%**	**96**	**11%**	**879**	**100 %**

The highest proportion of respondents (66%) doing on-call were doing so with between 1:6 and 1:10 frequency. 11% were doing less frequent on-call shifts, with 23% undertaking shifts every 1:5 or more.

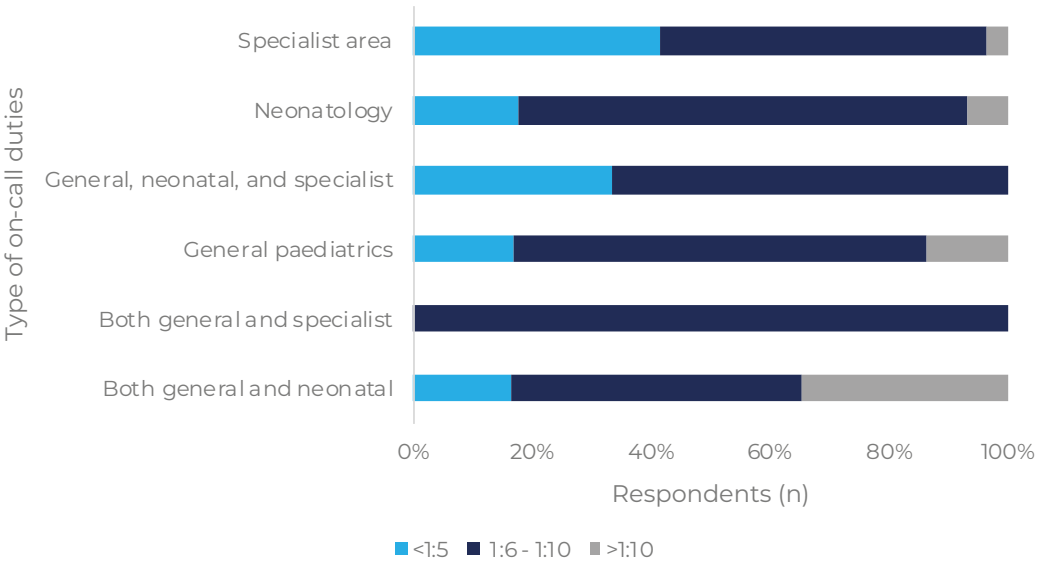
vi 879 entered on-call frequency. 50 blank entries removed.

Figure 30. Frequency on-call by sex of respondents



A higher proportion of women undertake on-call duties in all frequency groups, particularly for higher and lower frequencies. The difference is less marked for 1:6 to 1:10.

Figure 31. On-call frequency by type of on-call duties undertaken



Relationship between on-call type and frequency

There was a significant relationship between on-call type and frequency (F (5,860) =15.69, p=0.001). This was largely driven by the fact that on-call frequency was significantly higher for specialty paediatrics compared to both general (-2.2, p=0.001) and neonatal (-1.29, p=0.005). On-call frequency for general and neonatal as a single on-call type was significantly lower than that of neonatal (1.75, p=0.02) and specialty (3.04 p=0.001).

Table 24. Average on-call frequency by on-call type (S.D. = standard deviation)

	On-call frequency	
	Mean	S.D.
General	8.3	3.4
Neonatal	7.4	3
Specialty	6.1	3.2
General and neonatal	9.1	4.3
General and specialty	8.4	1.1
General, neonatal and specialty	5.8	2

Retirement

This section explores retirement intentions of respondents in terms of age and the likelihood of returning to NHS work with respect to both demographic and working pattern information.

Intended retirement age

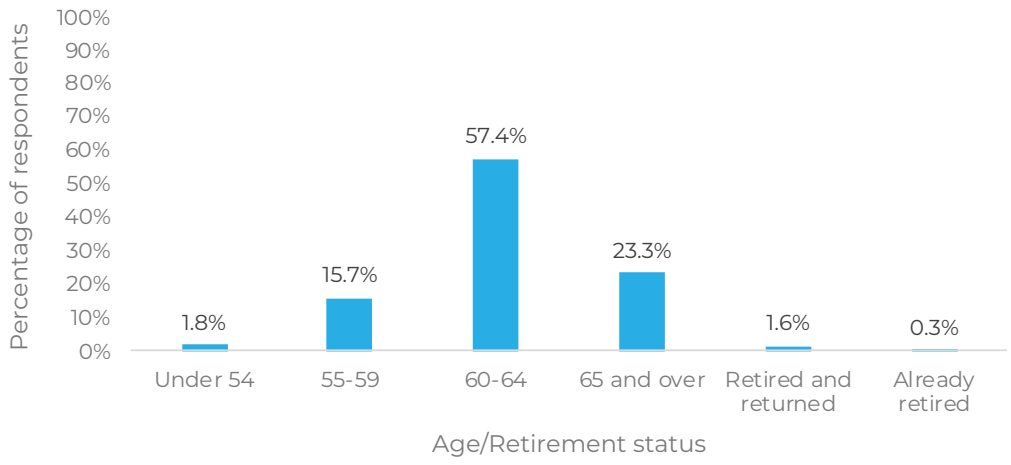
Respondents were asked at what age they were planning to retire and, therefore, reflects intent rather than actual choices ie it does not mean that 15% of paediatric consultants and SAS will necessarily retire between 55–59 in 7–8 years' time.

Of 1515 respondents, 137 were 61 years and above; assuming a national retirement age of 66 years, it is possible that 9% of our respondents will have retired within the next five years. This should also be read in the context that 57% of respondents intend to retire earlier than the national retirement age, between 60–64 years.

Table 25. Intended retirement age bracket and mean age of each group

Intention to retire/ retirement status	Percentage of overall respondents	Number of respondents	Mean age of respondents
Under 54	1.8%	26	41.8
55–59	15.7%	229	47.3
60–64	57.4%	838	49
65 and over	23.3%	340	50.6
Already retired	0.3%	5	60.6
Retired and returned	1.6%	23	61.1
Total/Overall	**100%**	**1461**	**49.2**

Figure 32. Intended retirement age and retirement status
Percentage of respondents



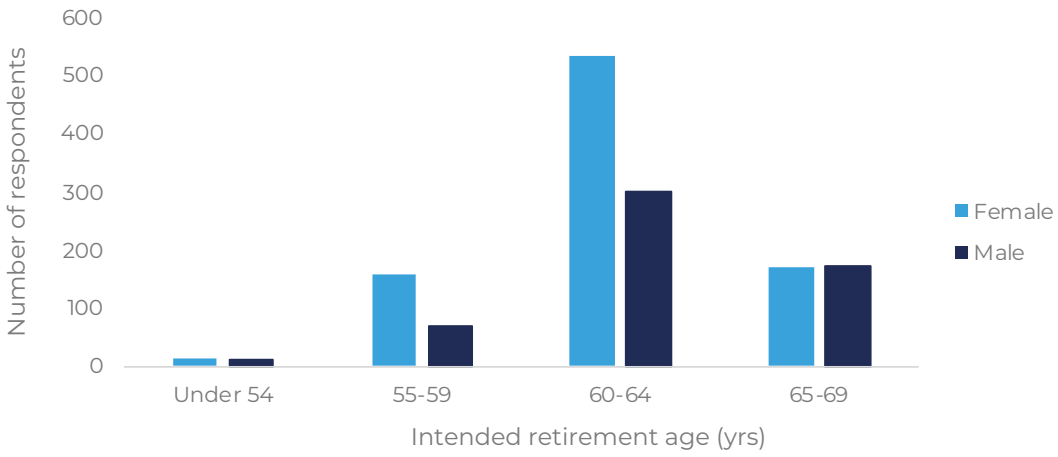
Sex

There was a significant relationship between intended age of retirement and sex ($\chi 2$ (3) =28.14 p=0.001). This was driven by a higher-than-expected* proportion of female paediatricians looking to retire at 55–59 years (2.8) and a lower-than-expected* proportion at 65–69 years (-5) with respect to male paediatricians. (The categories already retired and retired and returned were removed for the purpose of this analysis).

Table 26. Number of paediatricians in each intended retirement age bracket (years) according to sex (percentage of in each intended retirement age bracket by sex)

	Female	Male
	n (%)	
Under 54	14 (1.6)	12 (2.2)
55–59	158 (18.1)	70 (12.6)
60–64	533 (61)	302 (54.1)
65–69	169 (19.3)	171 (30.8)

Figure 33. Number of paediatricians in each intended retirement age bracket according to sex



Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/ negative) it was considered to contribute to a significant result ie the **observed frequency of a relationship was above/below the **expected** frequency.*

Region

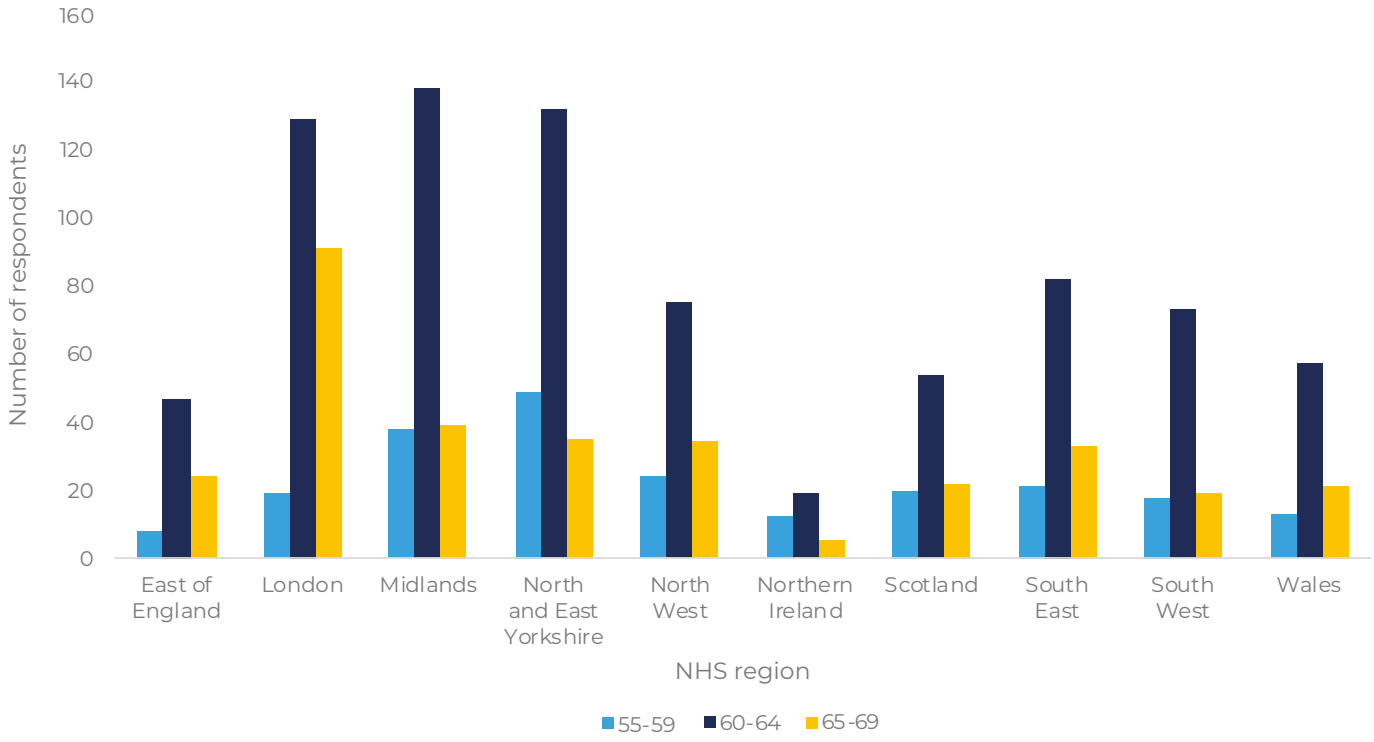
There was a significant relationship between intended age of retirement and region ($\chi 2$ (27) =71.83 p=0.001). In London, paediatricians predicted that they would retire later than other NHS regions with a higher-than-expected* number providing an intended age of retirement of 65–69 years (5.6), but lower-than-expected* for 55–59 years (-3.9).

Table 27. Number of paediatricians in each intended retirement age bracket according to NHS region

	East of England	London	Midlands	North East and Yorkshire	North West
Under 54	<5	6	<5	<5	<5
55–59	8	19	38	49	24
60–64	47	129	138	132	75
65–69	24	91	39	35	34

	Northern Ireland	Scotland	South East	South West	Wales
Under 54	<5	<5	6	<5	<5
55–59	12	20	21	18	13
60–64	19	54	82	73	57
65–69	5	22	33	19	21

Figure 34. Number of paediatricians in each intended retirement age bracket according to NHS region for 55–59; 60–64; 65–69 years. (Under 54 has been excluded from figure as numbers are <5)



*Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/negative) it was considered to contribute to a significant result ie the **observed** frequency of a relationship was above/below the **expected** frequency.*

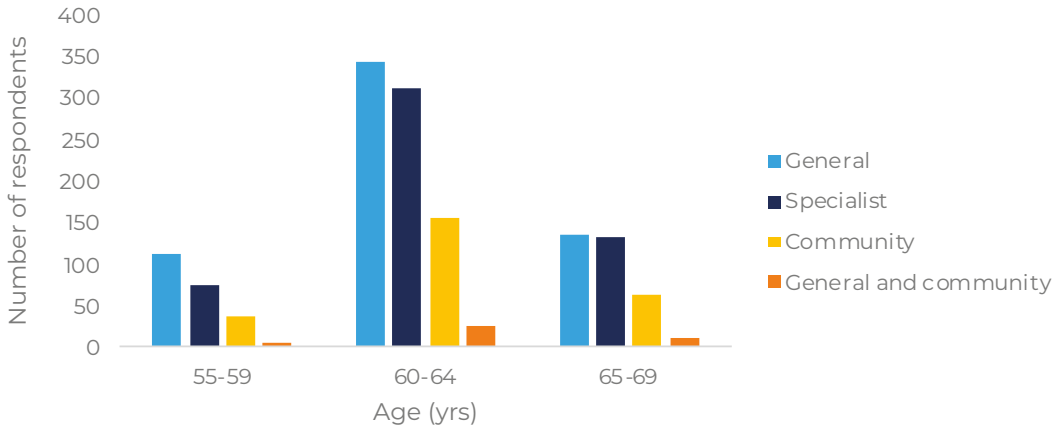
Primary job type

There was no significant relationship between intended age of retirement and primary job type ($\chi 2$ (12) =14.03, p=0.3). (The categories already retired and retired and returned have been removed for the purpose of this analysis).

Table 28. Number of paediatricians in each intended retirement age bracket according to primary job type

	General	Specialist	Community	General and community
Under 54	14	9	<5	<5
55–59	112	76	37	<5
60–64	344	313	156	25
65–69	135	133	62	10

Figure 35. Number of paediatricians in each intended retirement age bracket according to primary job type (Under 54 has been excluded from figure as numbers are <5)



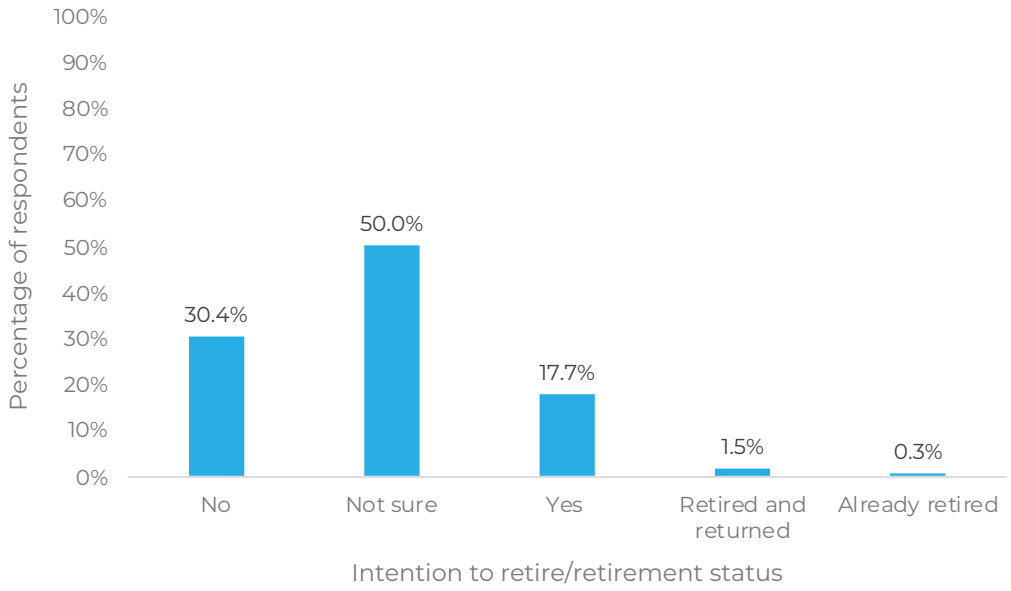
Returning to work after retirement

Almost 18% of respondents stated they intended to return to work for the NHS after retirement. Half of respondents were not sure, and just over 30% stated that they had no intentions of returning to work after retirement. A small percentage of respondents (less than 2%) had already retired and returned to work for the NHS.

Table 29. Breakdown of respondents' retirement intents and/or retirement current status (21 blank entries removed)

Work after retirement	n	%
No	454	30.4%
Not sure	747	50%
Yes	265	17.7%
Retired and returned	23	1.5%
Already retired	5	0.3%
Grand Total	**1494**	**100%**

Figure 36. Intention to work after retirement and already retired and returned to work for the NHS



Sex

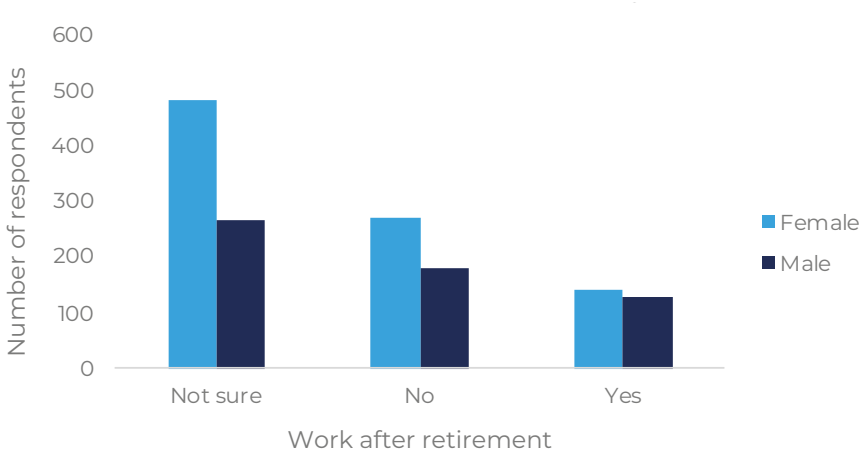
There was a significant relationship between intention to work after retirement and sex ($\chi 2$ (2) =12.02, p=0.002), driven by more male paediatricians than expected* predicting that they will work after retirement (3.2) relative to female paediatricians, while more female paediatricians are unsure if they will return to work post-retirement (2.7) relative to men.

Table 30. Number of paediatricians predicted to work post-retirement according to sex (percentage of in each predicted to work group by sex)

	Female	Male
	n (%)	
Not sure	481 (53.9)	265 (46.5)
No	272 (30.5)	179 (31.4)
Yes	139 (15.6)	126 (22.1)

*Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/ negative) it was considered to contribute to a significant result ie the **observed** frequency of a relationship was above/below the **expected** frequency.

Figure 37. Number of paediatricians predicted to work post-retirement according to sex



Region

There was a significant relationship between intention to work after retirement and region ($\chi 2$ (18) =57.35, p=0.001). This was largely driven by a higher-than-expected* number of paediatricians indicating that they do not plan to work after retirement in the North East (4.1), and a lower-than-expected* number of paediatricians planning to work after retirement in Scotland (-3.4). In London, the reverse pattern was seen with a lower-than-expected* number of paediatricians not planning to work after retirement (-3.5).

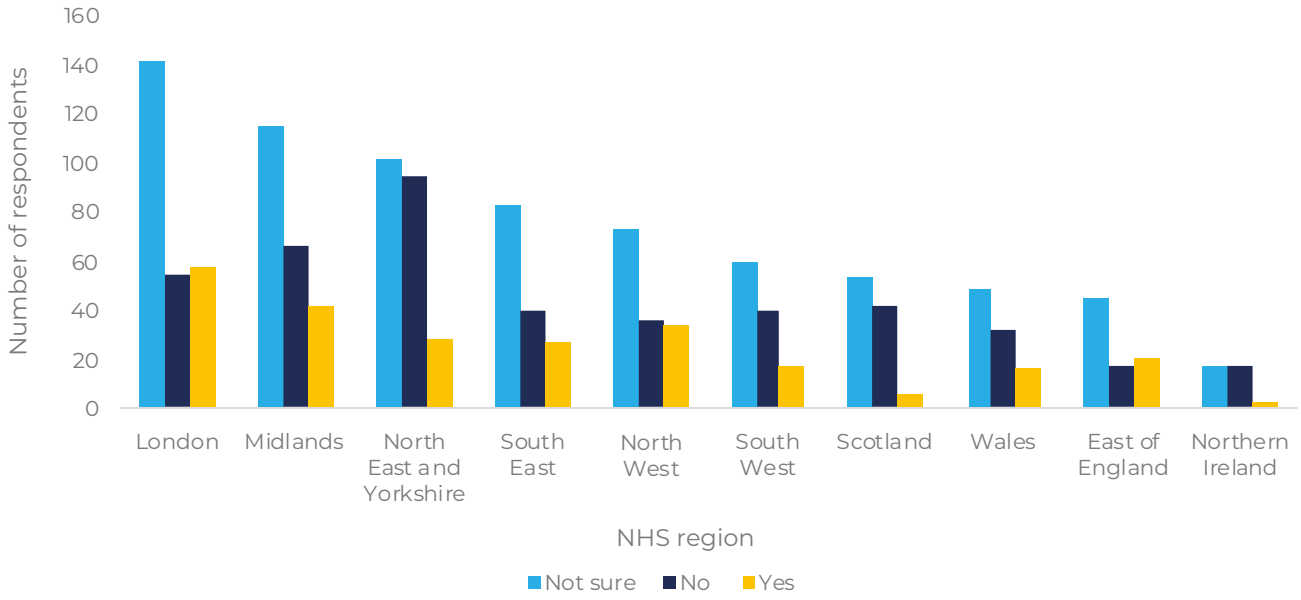
Table 31. Number of paediatricians predicted to work post-retirement according to NHS region

	London	Midlands	North	North East and Yorkshire	North West
Not sure	140	114	100	82	72
No	54	65	94	39	35
Yes	57	41	27	26	33

	South West	Scotland	Wales	East of England	Northern Ireland
Not sure	59	53	48	44	17
No	39	41	31	17	17
Yes	17	5	16	20	<5

Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/ negative) it was considered to contribute to a significant result ie the **observed frequency of a relationship was above/below the **expected** frequency*

Figure 38. Number of paediatricians predicted to work post-retirement according to NHS region



Equality, diversity and inclusion (EDI)

For this section, we have explored EDI in our Census respondents. These data were collected as part of an independent College EDI survey and as part of the Membership Survey 2021 (2, 3). We feature below findings using the information previously collected by the above but limited to those who also responded to the Workforce Census.

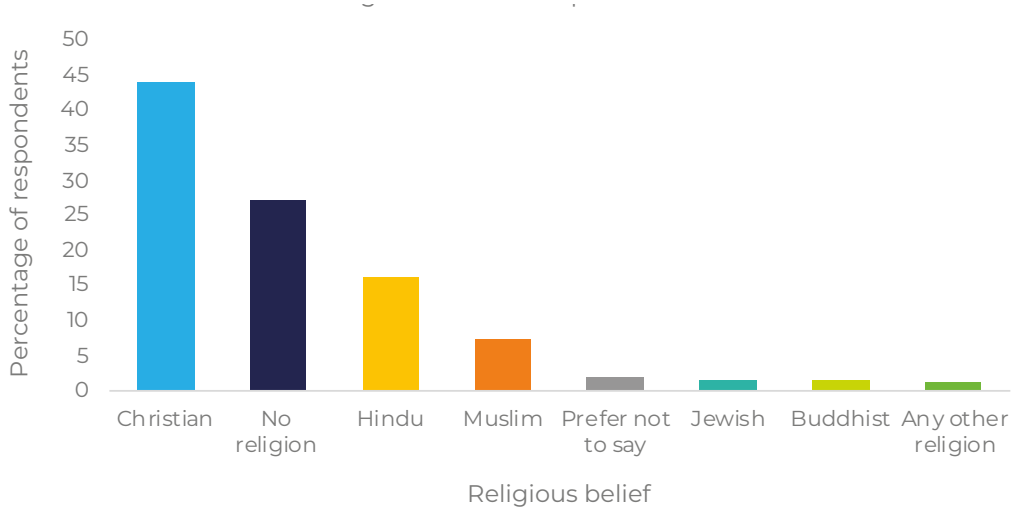
Religious belief

Of the Census respondents within the EDI data collection platform, 43.7% identified as Christian, 27% as no religion and 16.1% as Hindu.

Table 32. Religious belief of respondents

Religious belief	n	%
Christian	416	43.7
No religion	257	27
Hindu	153	16
Muslim	70	7.4
Prefer not to say	17	1.8
Jewish	15	1.6
Buddhist	14	1.5
Any Other Religion	9	1

Figure 39. Religious belief of respondents



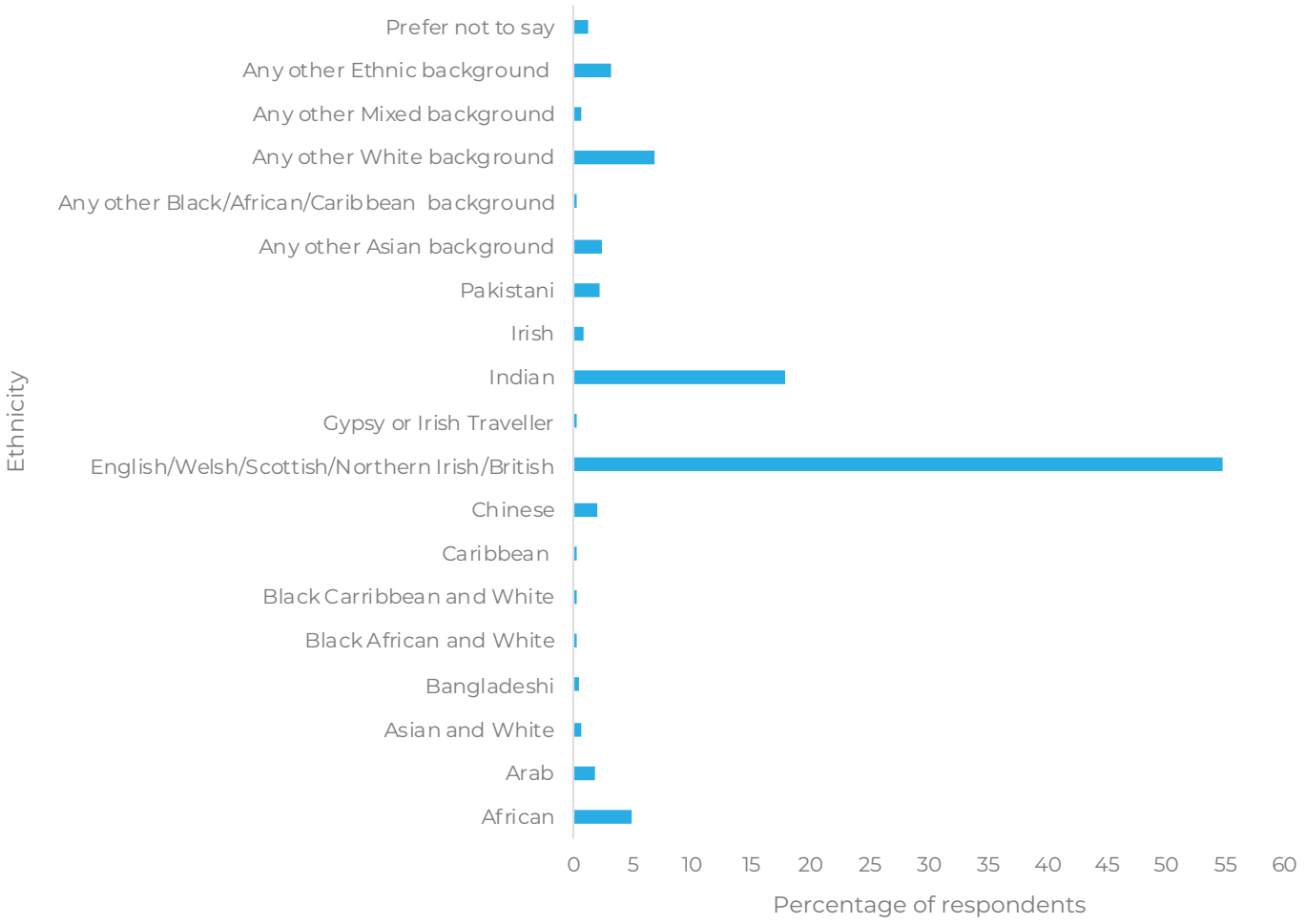
Ethnicity

Of the Census respondents within the EDI data collection platform, over half identified as English/Welsh/Scottish/Northern Irish/British with the second largest group identifying as Indian.

Table 33. Ethnicity of respondents

Ethnicity	%
African	4.8
Arab	1.8
Asian and White	0.7
Bangladeshi	0.4
Black African and White	0.1
Black Caribbean and White	0.1
Caribbean	0.1
Chinese	2.0
English/Welsh/Scottish/Northern Irish/British	54.8
Gypsy or Irish Traveller	0.1
Indian	17.7
Irish	0.7
Pakistani	2.1
Any other Asian background	2.3
Any other Black/African/Caribbean background	0.2
Any other White background	6.9
Any other Mixed background	0.6
Any other Ethnic background	3.2
Prefer not to say	1.2

Figure 40. Ethnicity of respondents



Disability

Of the Census respondents within the EDI data collection platform, a third identified as having a disability or long-term condition.

Table 34. Number of respondents with a disability or long-term condition

Disability/Long term condition	n
No	422
Yes	211
Prefer not to say	<5

Over three quarters of those with a disability or a long-term condition did not feel there was a barrier/ limitation to their ability to work as a paediatrician.

Table 35. Respondent Barriers/Limitations related to a Disability or Long-Term Condition

Barriers or limitations	n
Yes a lot	<5
Yes a little	39
Not at all	67
Not applicable	101

There was no significant relationship between disability and working pattern across the four types of considered barrier/limitation type ($\chi 2$ (3) = 6.75, p=0.08).

Table 36. Respondent barriers/limitations related to a disability or long-term condition and working pattern

Barriers or limitations	Full time	Less than full time
Yes a lot	<5	<5
Yes a little	22	16
Not at all	45	22
Not applicable	78	22

Being a child carer

Of the Census respondents within the EDI data collection platform, the number of respondents were relatively split between those who were child carers and those who were not.

Table 37. Number of respondents caring for a child

Child carer	n
Yes	350
No	296
Prefer not to say	<5

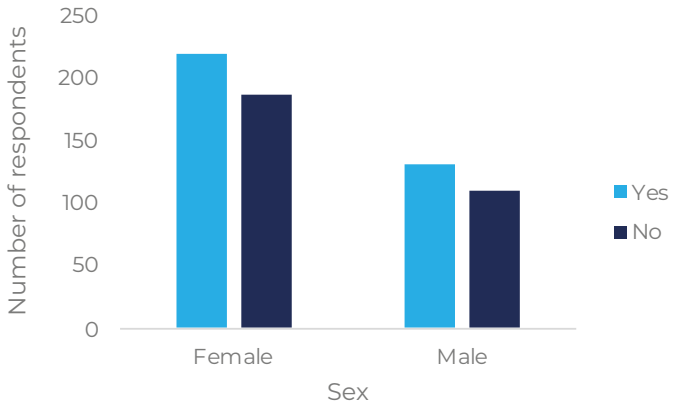
Sex

There was no significant relationship between being a child carer and sex ($\chi 2$ (1) = 0.03, p=0.87).

Table 38. Number of respondents who care for children by sex

Child carer	Female n (%)	Male n (%)
Yes	219 (53.9)	131 (54.6)
No	187 (46.1)	109 (45.4)

Figure 41. Number of respondents who care for children by sex



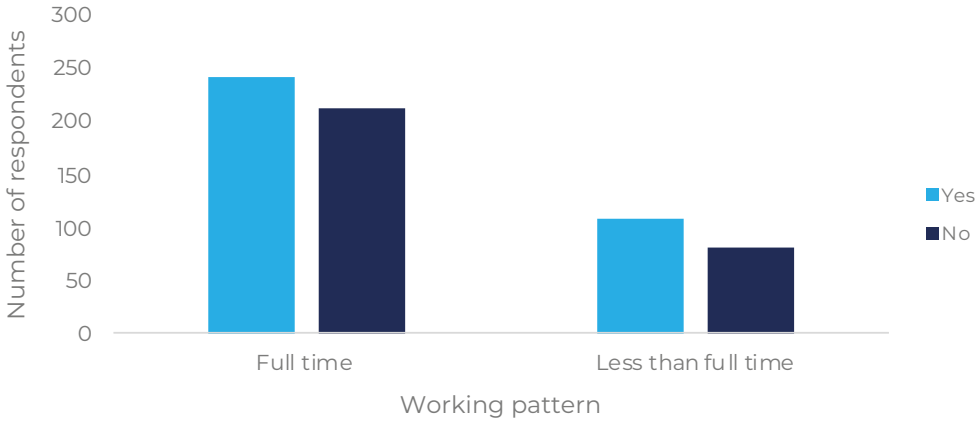
Working pattern

There was no significant relationship between being a child carer and working pattern ($\chi 2$ (1) = 0.739, p=0.39). (For this analysis clinical only and mixed clinical research have been combined).

Table 39. Number of respondents who care for children by working pattern

Child carer	Full time n (%)	Less than full time n (%)
Yes	241 (53.2)	107 (56.9)
No	212 (46.8)	81 (43.1)

Figure 42. Number of respondents who care for children by working pattern



Working pattern and region

There was a significant relationship between working pattern, caring for children and region ($\chi 2$ (27) = 52.64, p=0.002). The pattern of trend effects indicates that in London and areas of the South those caring for children are less likely to be working full time. For example, there are a lower-than-expected* number caring for children and working full time in London (-2.7) and a higher-than-expected* number caring for children and working less than full time in the South West (3); this is also the case in the North East. However, in the North West there is a higher-than-expected* number caring for children and working full time (2.4) and in the Midlands a lower-than-expected* number caring for children and working less than full time (-2.5). (For this analysis clinical only and mixed clinical research have been combined).

Table 40. Number of child carers by working pattern and NHS region

Child carer status	Working pattern	NHS region (n)				
		Midlands	North East and Yorkshire	London	South East	North West
Carer child	Full time	42	38	30	28	27
	Less than full time	7	24	16	13	<5
No carer child	Full time	31	23	48	28	9
	Less than full time	13	12	15	5	10

Child carer status	Working pattern	NHS region (n)				
		Scotland	South West	East of England	Northern Ireland	Wales
Carer child	Full time	19	19	16	6	14
	Less than full time	12	16	<5	<5	6
No carer child	Full time	13	12	15	7	15
	Less than full time	6	<5	6	0	<5

Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/negative) it was considered to contribute to a significant result ie the **observed frequency of a relationship was above/below the **expected** frequency.*

Being an adult carer

Of the Census respondents within the EDI data collection platform, over a quarter were caring for adults.

Table 41. Number of respondents caring for adults

Adult carer	n
No	463
Yes	177
Prefer not to say	10

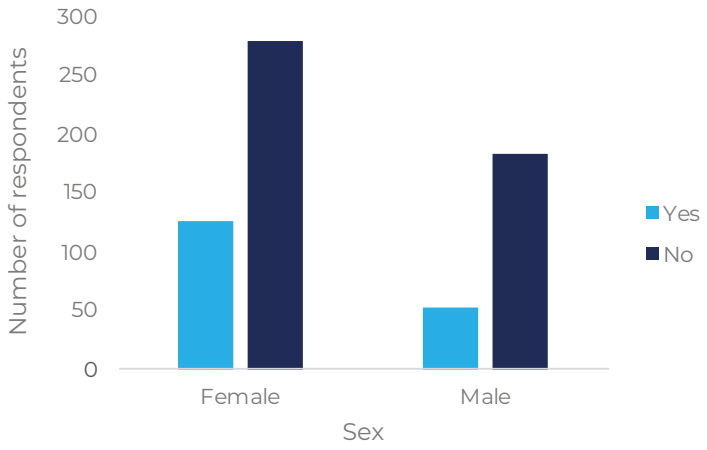
Sex

There was a significant relationship between being an adult carer and sex ($\chi 2$ (1) = 5.91, p=0.015) with a higher-than-expected* number of female paediatricians caring for adults (2.43) compared to male paediatricians.

Table 42. Number of respondents who care for adults by sex

Adult carer	Female	Male
Yes	125 (30.9)	52 (22)
No	279 (69.1)	184 (78)

Figure 43. Number of respondents who care for adults by sex



*Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/ negative) it was considered to contribute to a significant result ie the **observed** frequency of a relationship was above/below the **expected** frequency.*

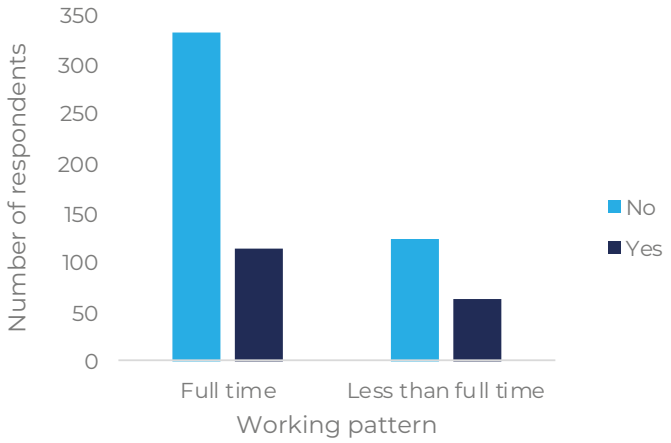
Working pattern

There was a significant relationship between being an adult carer and working pattern ($\chi 2$ (1) = 4.22, p=0.04) indicative of a lower-than-expected* number caring for adults and working full time (-2.05). (For this analysis clinical only and mixed clinical research have been combined).

Table 43. Number of respondents who care for adults by working pattern

Adult carer	Full time n (%)	Less than full time n (%)
No	333 (72.71)	125 (27.29)
Yes	114 (64.41)	63 (35.59)

Figure 44. Number of respondents who care for adults by working pattern



*Expected in this context refers to the results of the statistical analysis. A chi-squared ($\chi 2$) test was performed followed by post-hoc testing utilising adjusted residuals. If the adjusted residual for the relationship between two factors was >2 (positive/ negative) it was considered to contribute to a significant result ie the **observed** frequency of a relationship was above/below the **expected** frequency.*

Working pattern and region

There was no significant relationship between being an adult carer, working pattern and region ($\chi 2$ (27) = 26.9, p=0.47). (For this analysis, clinical only and mixed clinical research have been combined).

Table 44. Number of carers for adults by working pattern and NHS region

Adult carer status	Working pattern	NHS region (n)				
		London	Midlands	South East	North East and Yorkshire	South West
Carer adult	Full time	20	17	14	11	11
	Less than full time	10	5	8	11	7
No carer adult	Full time	57	54	42	50	20
	Less than full time	21	15	10	25	13

Adult carer status	Working pattern	NHS region (n)				
		North West	Scotland	East of England	Wales	Northern Ireland
Carer adult	Full time	11	10	9	7	<5
	Less than full time	5	7	5	0	0
No carer adult	Full time	25	21	22	21	11
	Less than full time	8	11	<5	10	<5

Conclusion

Our Census sample of 1515 consultants and SAS doctors has shown that the paediatric workforce is on average aged 40–50 years with a predominance of female paediatricians, and 12% SAS doctors. Nearly a third of our respondents overall were working less than full time including over half of community paediatricians. Most respondents were working more than the recommended ten PAs per week, but supporting professional activities never reached the recommended weekly number of 2.5. Two thirds of consultants (and just under half of SAS doctors) performed on-call duties with almost a quarter performing more frequently than 1 in 5. Finally, in terms of retirement, more female paediatricians plan to retire earlier than their male counterparts with less than 20% overall planning on returning to work after retirement.

The COVID-19 pandemic has shown many aspects of the health and care system at its best with child health services in the UK responding rapidly to the challenge of the pandemic without precedent or playbook. However, with the additional pressure placed upon an already stretched workforce, glaring concerns were exposed whist exacerbating existing issues. We saw that paediatric and child health services were affected by many factors including redeploying staff and space, cancelling outpatient clinics, and concerns relating to staff wellbeing (28). Data revealed that 15% of Trusts and Health Boards reported staff absence due to stress and 45% concerned about future absences as a result of staff wellbeing (28). Heightened anxiety about safety, especially in higher-risk groups such as Black, Asian and minority ethnic (BAME) staff, was also reported (29). Prior to the pandemic, paediatric services and workforce already could not meet the demand for care, and child health outcomes in the UK were poorer compared with similar countries, with rising inequality (15, 30). Inadequate workforce planning, funding, and failure to expand healthcare professional numbers in line with population need poses a real threat to delivering flexibility for paediatricians.

It is essential that the workforce at all levels is appropriately supported. Each generation will expect something different from their medical careers. It is therefore important to determine what medical students want to see in their future careers as well as making provision for career development. Employers should tackle the ongoing attrition, retention, and early retirement concerns. There is a need to develop retention strategy to diagnose potential areas of focus drawing together multiple workstreams to support and incentivise the workforce. There should be effective use of data and diagnostics to understand the workplace culture profile and demographics. Identifying areas of high turnover, understanding reasons as to why staff leave and the development opportunities that might have encouraged them to stay, are key elements to developing a strong recruitment and retention programme. These strategies must be fair and inclusive. It is highly important that equality, diversity and inclusion initiatives are established and embedded in the workforce, with no room for discrimination.

The recommendations included in this report are important to improving the working lives of consultant and SAS doctors. It is crucial that the workforce is appropriately supported, accounting for the wellbeing of staff, ensuring that different work arrangements and work facilities are available, along with new ways of working and delivering quality care as part of multidisciplinary teams to reach the ultimate goal of improving child health outcomes.

The Census gives us an updated source of information on the paediatric workforce that will help inform the next phase of workforce strategy by the College.

Acknowledgements

We would like to thank all respondents who submitted invaluable information to the RCPCH Workforce Census 2022.

With the support of the RCPCH Officer for Workforce Planning and Health Services, Dr Nicola Jay, this work was led by the RCPCH Workforce Information team: Nawsheen Boodhun (Head of Workforce Information), Sarah Gregory (Project Manager), and Davide Carzedda (Analyst). This involved question consultation, data collection and cleaning, analysis, and producing the Census reports.

Many thanks to Emily Arkell (Director of Research & Quality Improvement), Daniel Waeland (Director of Education & Training) and our colleagues from across the College who provided feedback on the report.

Methodology

The data were collected via a bespoke microsite specifically designed for the Census data collection (31). Compared to past Census data collections, the number of questions was greatly reduced, and shifted to a single user response, as opposed to previous Censuses when clinical leads/ directors responded on behalf of their trusts/ health boards.

Data collection was open for two months plus an extra two weeks of deadline extension between January and March 2022. The responses were stored in the College internal database and extracted for analysis upon closure of data collection.

EDI data were not collected as part of the Workforce Census, but instead were collected as part of an independent College EDI survey and as part of the Membership Survey 2021 (2, 3). EDI analysis included in this report is only for those members who responded to the Workforce Census.

All medical staffing data published has been anonymised and aggregated. Where the number of consultants or doctors is fewer than five, results have been suppressed to avoid inadvertent identification, in line with the Census privacy notice. It should also be noted that while overall we received responses from 1515 members, there were numerous instances whereby specific question responses were not provided and, therefore, numbers may vary across analyses according to missing data.

Statistical Analyses

Many of the statistical analyses in this report involved two or more categorical variables eg sex, region. For those analyses, the statistical approach was a Chi-squared ($\chi 2$) test. Where the Chi-squared test was significant post-hoc tests were then performed to identify which factors were driving this significant test. Here, the tabchi command in STATA was used to produce adjusted residuals, whereby it is assumed that if adjusted residuals are greater than 2 (positive/negative) that this factor contributes to a significant result, ie the observed frequencies or occurrences of a particular relationship are above/below expected frequencies as calculated via Chi-Squared. To ensure statistical rigour, only those factors where residuals are significant following multiple comparisons correction (ie removing the potential bias towards a significant result due to chance in cases where there are a high number of post-hoc tests) have been included (in brackets for each analysis). Trend effects refer to those relationships that do not meet the stringent multiple comparison testing but may be informative in terms of the underlying pattern of activity.

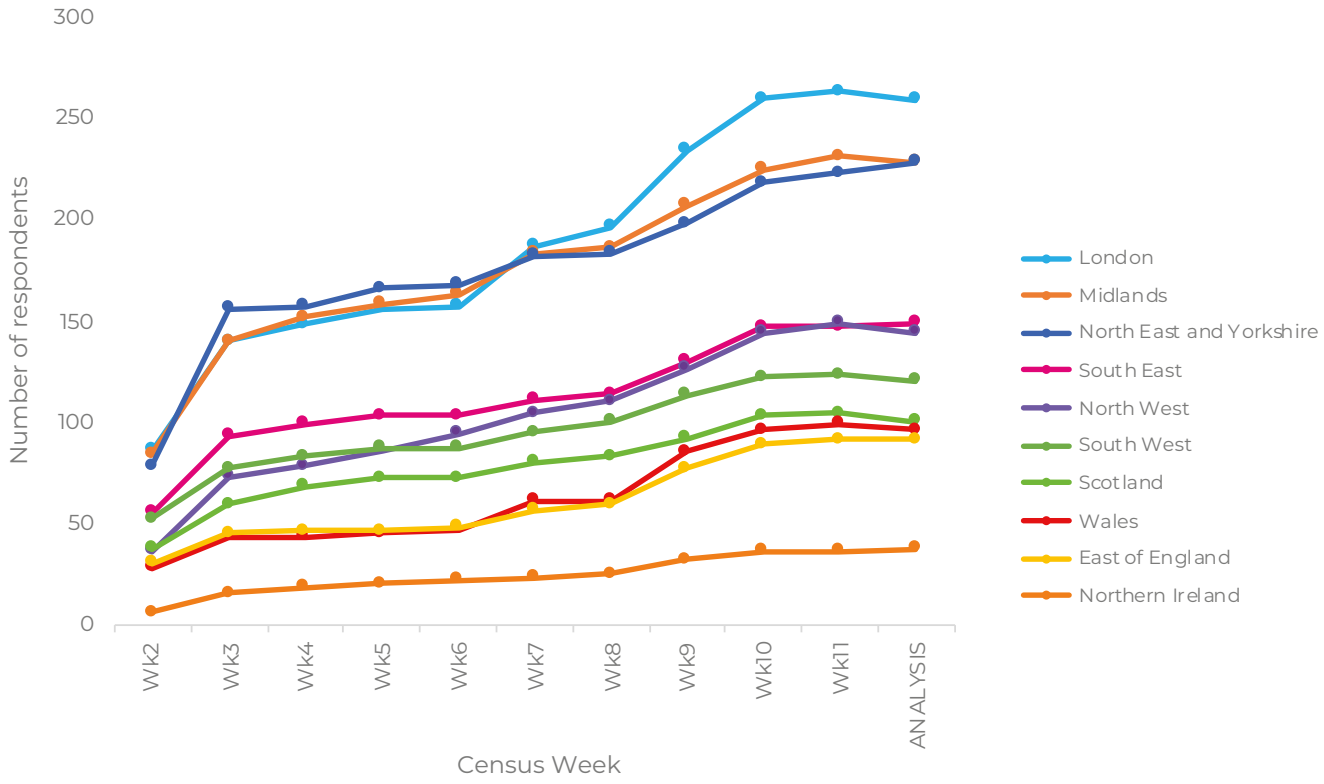
NB: When we refer to 'expected' in the text, this is in a statistical context ie the Chi-squared categorical analysis approach examines observed frequency with respect to expected frequency. For statistical analyses involving continuous variables eg Age, an independent t-test or ANOVA was used, with post-hoc testing using Bonferroni correction; also included in brackets.

Engagement data

The Census was distributed to Consultant and SAS doctors who are College members across all ten NHS regions. This includes seven regions in England and one each in Northern Ireland, Scotland and Wales.

By the end of Census data collection and subsequent data preparation, the total number of respondents included in our analysis was 1515. As a percentage of our baseline number, this was an overall response rate of 18.8%, comparable to the response rate for the Membership Survey (2).

Figure 45. Breakdown by NHS region of respondent numbers per week



Trust hospitals for which no responses were received

Table 45. List of hospitals per NHS region for which no responses were received

Region	Trust
East of England	East of England Ambulance Service NHS Trust
	Essex Partnership University NHS Foundation Trust
	Norfolk and Suffolk NHS Foundation Trust
	Royal Papworth Hospital NHS Foundation Trust
London	Central London Community Healthcare NHS Trust
	Hounslow and Richmond Community Healthcare NHS Trust
	London Ambulance Service NHS Trust
	Moorfields Eye Hospital NHS Foundation Trust
	Royal National Orthopaedic Hospital NHS Trust
	South London and Maudsley NHS Foundation Trust
	South West London and St George's Mental Health NHS Trust
	West London NHS Trust
Midlands	Birmingham and Solihull Mental Health NHS Foundation Trust
	Coventry and Warwickshire Partnership NHS Trust
	Derbyshire Community Health Services NHS Foundation Trust
	East Midlands Ambulance Service NHS Trust
	Lincolnshire Community Health Services NHS Trust
	Lincolnshire Partnership NHS Foundation Trust
	North Staffordshire Combined Healthcare NHS Trust
	Northamptonshire Healthcare NHS Foundation Trust
	Nottinghamshire Healthcare NHS Foundation Trust
	The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust
	The Royal Orthopaedic Hospital NHS Foundation Trust
	West Midlands Ambulance Service University NHS Foundation Trust
North East and Yorkshire	Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust
	Humber Teaching NHS Foundation Trust
	Leeds and York Partnership NHS Foundation Trust
	North East Ambulance Service NHS Foundation Trust
	Rotherham Doncaster and South Humber NHS Foundation Trust
	South West Yorkshire Partnership NHS Foundation Trust
	Tees, Esk and Wear Valleys NHS Foundation Trust
	Yorkshire Ambulance Service NHS Trust

North West	Cheshire and Wirral Partnership NHS Foundation Trust
	Greater Manchester Mental Health NHS Foundation Trust
	Lancashire & South Cumbria NHS Foundation Trust
	Liverpool Heart and Chest Hospital NHS Foundation Trust
	Liverpool University Hospitals NHS Foundation Trust
	Mersey Care NHS Foundation Trust
	North West Ambulance Service NHS Trust
	North West Boroughs Healthcare NHS Foundation Trust
	Pennine Care NHS Foundation Trust
	The Christie NHS Foundation Trust
	The Clatterbridge Cancer Centre NHS Foundation Trust
	The Walton Centre NHS Foundation Trust
	Wirral Community Health and care NHS Foundation Trust
Northern Ireland	NI Ambulance Service Health & Social Care Trust
Scotland	NHS Orkney
	NHS Shetland
South East	Brighton and Sussex University Hospitals NHS Trust
	Kent and Medway NHS and Social Care Partnership Trust
	Oxford Health NHS Foundation Trust
	Queen Victoria Hospital NHS Foundation Trust
	South Central Ambulance Service NHS Foundation Trust
	South East Coast Ambulance Service NHS Foundation Trust
	Southern Health NHS Foundation Trust
	Sussex Partnership NHS Foundation Trust
South West	Cornwall Partnership NHS Foundation Trust
	Devon Partnership NHS Trust
	Dorset Healthcare University NHS Foundation Trust
	Gloucestershire Health and care NHS Foundation Trust
	Poole Hospital NHS Foundation Trust
	South Western Ambulance Service NHS Foundation Trust
	The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust
Wales	Velindre NHS Trust
	Welsh Ambulance Services NHS Trust

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