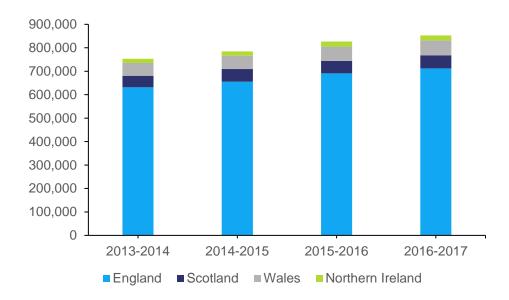
RCPCH – supporting evidence for paediatric doctors to be included on the Shortage Occupation List

1. Workload pressures – increasing workloads

a. Paediatric emergency admissions

Between 2013/14 and 2016/17, paediatric emergency admissions¹ in England rose 12.7%, from 631500 to 711805. In Scotland, over the same period, emergency admissions rose 13.1%, from 49370 to 55862. In Wales, emergency admissions rose 17.2%, from 54627 to 64002. And in Northern Ireland, emergency admissions rose 17.8% from 17762 to 20922.



Paediatric Emergency Admissions UK. 2013/14 to 2016/17

b. Births and neonatal workload

Increased maternal age and morbidity is leading to more premature births and more urgent deliveries, leading to more neonatal admissions.

• Number of births

 Using 2016 ONS projections, the number of births is expected to remain at around 660,000 births in 2020;²

• Women are giving birth later in life:

the average age of mothers in England and Wales increased from 27 in 1984 to 30 in 2014;

¹ An emergency admission in hospital episode statistics (HES) is defined as an admission which is unpredictable and at short notice because of clinical need.

² ONS (2017b); ONS (2017c).

- the number of births of mothers over 35 increased from just over 139,000 in 2011 to just under 149,000 in 2016;³
- The number of birth complications is increasing from just over 237,000 in 2012-13, to just over 336,000 in 2016-17⁴;

c. Safety

General and neonatal paediatrics is more and more an urgent care service requiring 24/7 medical rotas. Because of the nature of this work and the need to ensure safe care, busy night shifts should be served by experienced doctors. With shortages this is not always possible and sometimes using GP trainees and trust grade doctors to support training rotas increases the potential risk to patients, although of course many in these groups are highly skilled and competent professionals.

Further, because of shortages of specialty trainees, many paediatric and neonatal rotas are supported by Foundation Year doctors, many of whom will have relatively little experience in paediatrics. From the RCPCH Census responses, Foundation doctors represent approximately 17.5% of all occupied posts on tier 1 (junior rotas).

d. Community Child Health

Demand has increased in most aspects of CCH over the last 10 years. Increased recognition and treatment of key conditions e.g. ADHD, Autism Spectrum Disorder (ASD) and increasing numbers of children and young people (CYP) entering local authority care and being referred for child protection assessments has put pressure on services and affected access to timely care⁵.

- A BACCH/RCPCH survey in 2016⁶ showed:
 - In 42.5% of services CYP wait over 18 weeks for a first appointment for ASD.
 Referral to treatment (RTT) times of 35.5 weeks on average, breach the 18-week RTT rule.
 - o The average RTT time for ADHD is 29.9 weeks also breaching the 18-week RTT rule.
 - Only 11.4% of services can always see ADHD patients for follow up appointments when they are due. 60% can do so no more than half the time, raising issues of medication safety.
 - Fewer than half (43%) of services can see 90% or more of newly looked after children (children in care) within the required 4 weeks, risking children failing to receive the care they need swiftly at an intensely traumatic time in their lives and breaching statutory requirements.

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³ ONS (2017a).

⁴ NHS Digital (2013); NHS Digital (2017a)

⁵ Royal College of Paediatrics and Child Health. State of child health short report series: community paediatrics workforce. London: Royal College of Paediatrics and Child Health; 2017 Available at:

https://www.rcpch.ac.uk/resources/state-child-health-short-report-series-community-paediatric-workforce

⁶ British Association for Community Child Health & Royal College of Paediatrics and Child Health. Covering All Bases UK survey of community child

health services 2016: Results. London: Royal College of Paediatrics and Child Health; 2017. Available at: https://www.rcpch.ac.uk/resources/covering-all-bases-community-child-health-paediatric-workforce-guide

 NHS Digital figures show that children and young people with neurodevelopmental disorders (mostly ADHD and ASD) have the longest waits for assessments compared with others with mental health issues⁷.

2. Recruitment – fall in applications for specialty training and declining fill rates.

a. Applications for paediatric specialty training

In round 1 of specialty recruitment for 2018, Paediatrics has the lowest competition ratio amongst the medical specialties. There were 585 applications for 451 ST1 posts; a ratio of 1.3:18. This is close to the figures for 2017 places i.e. 580 applications for 440 posts9. In 2015 there were 743 applications and 800 in 2015. The number of available posts in these years was similar, so there has been a substantial decline in applications.

The number of applicants who are European Economic Area graduates declined from 97 in 2015, 43 in 2016 to 41 in 2017 (a 58% fall in 2 years.).

Looking further back in RCPCH records we find that for England only there were 679 applications for ST1 posts in 2012 when there were 357 posts available – a ratio of 1.9:1

b. Recruitment fill rates, geographical differences

The fill rate for paediatric ST1 places in the UK has been close to 80% after each of the recruitment rounds in 2017 and 2018. The fill rate is the number of posts accepted by applicants as a percentage of the number of places available. These fill rates represent a decline from 97.5% in 2015 and 94% in 2016.

There is also concern about the geographical distribution of accepted places. In 2018 for example there were particularly low fill rates in the East of England (42.1%), East Midlands (59.4%) and West Midlands (60%)

c. Falling numbers of foundation doctors moving into specialty training

Looking at recruitment problems more generally, an analysis of foundation training by the BMA in 2017^{10} found that fewer people are applying to the UK Foundation Programme – a 1.8% decline between 2013 and 2016. It also found that fewer people are applying to specialty training a 5.46% decline between 2013 and 2016.

⁷ NHS Digital. Mental Health of Children and Young People in England 2017. Summary of key findings. 2018. https://files.digital.nhs.uk/F6/A5706C/MHCYP%202017%20Summary.pdf

⁸ Health Education England. Quick Guide to Specialty Recruitment 2019. http://www.foundationprogramme.nhs.uk/sites/default/files/2018-11/Quick%20Guide%20to%20Specialty%20Recruitment%202019 0.pdf

⁹ https://www.rcpch.ac.uk/resources/800#past-application-numbers-and-competition-ratio

¹⁰ BMA. The state of pre- and post-graduate medical recruitment in England, September 2017. 2017. https://www.bma.org.uk/collective-voice/policy-and-research/education-training-and-workforce/state-of-medical-recruitment

The BMA report also shows that in 2016, just 50.4% of F2 doctors reported that they would progress directly into specialty training following completion of their Foundation Programme training. This number has fallen steadily since 2011. Although we know that many enter specialty training after their "F3" year and this data is not specialty specific, delays entering training will inevitably have an impact on the number of applications made in total.

3. Rota gaps and vacancies and their impact

a. Vacancy rates

The RCPCH Census¹¹ and Rota Vacancies Surveys continue to provide evidence of service gaps and their impact on the workforce. All data in this section relates to UK unless otherwise stated.

In 2017, these data show a 11.1% vacancy rate on tier 1, 14.6% on tier 2 and 7.5% on tier 3 (consultant) rotas. Vacancy rates are highest for combined general/neonatal training rotas – 14.1% on tier 1 and 17.1% on tier 2. Vacancy rates have increased since the RCPCH 2015 census which showed 6.3% vacancy rate on tier 1, 13.7% on tier 2 and 7.1% on tier 3 rotas.

The 2017 Census vacancy rates were not as high as those recorded in the RCPCH rota gaps and vacancies report of early 2017¹², when we estimated there were 23.7% gaps on tier 2. The difference in findings may be due to different samples of units responding to each survey, the timing of the surveys (the Census data relates to autumn, whereas the rota gaps survey is undertaken in winter). Comments made in the Census returns also indicate that respondents may have been unsure whether to include gaps due to out of programme activity (particularly maternity leave). Thus, vacancies may be underestimated if they were not included in some organisation's returns.

The RCPCH area officer for Wales reported that in 2018 around 30 vacancies were identified in Paediatrics & Neonatology at junior doctor level. This is from the number of posts that were put out to be filled with International Fellows as local doctors were not available.

When asking for evidence from paediatric clinical directors about current shortages we received several comments, some of the more typical replies are set out here:

"At Chesterfield we have been having increasing problems with middle grade rota as in rest of the country. Ours is an integrated paediatric service with Trust providing community and acute paediatrics. At present we have 3.4 registrars down out of 9 - vacancies - 2 speciality doctors and 1 maternity and 0.4 because of LTFT"

"I cannot remember for the last 5 years at least if having a full house for junior doctors at Doncaster."

Exeter also has staffing issues within the paediatric department. We have 3 separate rotas in Exeter for junior medical staff. Neonatal Unit Tier 1: a 7-person rota staffed by a combination of ST1-2 Dr's, Trust grade SHO and ANNP's. We are currently 1.0 wte short on this rota. General Paediatrics Tier 1: Staffed by a combination of GP trainees ST-2; Paediatric Trainees ST1-2; Trust grade SHO's. We are currently short 0.6 wte short on this rota and one person unable to work nights, weekends or evenings."

¹¹ RCPCH Workforce Census 2017 https://www.rcpch.ac.uk/resources/workforce-briefing-winter-2018

¹² RCPCH. Rota Gaps and Vacancies Survey. 2017. https://www.rcpch.ac.uk/sites/default/files/2018-02/paediatric rota gaps and vacancies survey wingsan final.pdf

In the Yorkshire deanery, the paediatric Head of School has supplied rota vacancy rates for the 3 areas of the region below which illustrate increases year to year and considerable geographic diversity.



Rotations – gaps without maternity and sick leave for August 18 (2017 numbers in brackets)

Gaps
41% 0 0% (21%) (5.9%)
28.6% 1.5 2% (3.5%)
(

b. Impact

Despite these reservations, the vacancy rates found are still cause for considerable concern. The GMC National Training Survey for 2018 shows that paediatric is one of the specialties with greatest pressures e.g. approximately 48% of paediatric trainees consider intensity of work heavy or very heavy, this is only exceeded by emergency medicine and medicine and approximately 65% of paediatric trainees feel somewhat, to a high degree or a very high degree burnt out by their work, placing it 4th of 11 specialties¹³.

There has also been a decline in the number of vacant posts on rotas filled by locums compared to the 2015 census. For middle grade rotas the percentage of vacancies filled by locums has decreased from 58.2% in 2015 to 42.8% in 2015 and on tier 1 the proportion fell from 56.5% to 55.6% indicating that organisations are less able to find locum cover.

Vacancy rates have been calculated for District General Hospitals (DGHs) only, i.e. excluding tertiary/training hospitals. As might be expected, this results higher vacancy rates, highlighting where shortages are most keenly felt.

¹³ General Medical Council, *Training environments 2018: Key findings from the national training surveys*. 2018: https://www.gmc-uk.org/-/media/documents/training-environments-2018 pdf-76667101.pdf.

Estimated WTE of vacancies, vacancy rate and locum fill by rota tier and service14.

	Est. WTE of vacancies	Est. vacancy rate	Est. vacancy rate for DGHs only	% filled by locum (all)
Tier 3				
General paediatrics	33.8	8.3%	10.0%	79.6%
General/neonatal	63.8	7.7%	7.7%	58.0%
Neonatal medicine	18.1	9.9%	4.9%	66.3%
Total	115.7	7.5%	7.8%	65.6%
Tier 2				
General paediatrics	35.7	10.1%	12.1%	42.3%
General/neonatal	121.2	17.1%	17.1%	48.6%
Neonatal medicine	39.9	13.7%	14.5%	25.8%
Total	196.8	14.5%	15.6%	42.8%
Tier 1				
General paediatrics	40.0	7.7%	8.5%	59.3%
General/neonatal	101.4	14.1%	14.3%	57.7%
Neonatal medicine	40.2	10.1%	10.7%	46.7%
Total	181.6	11.1%	11.9%	55.6%

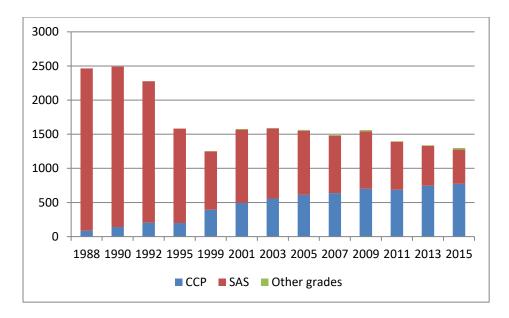
4. Community child health shortfalls

Alongside increased demand for community child health services and conditions, the number of community paediatricians in the UK has declined significantly. In 2015 (the most recent RCPCH census figs), there were 1299 WTE doctors working in community paediatrics, 265 (17%) fewer than in 10 years previously in 2005 (Fig 1).

Early analysis of RCPCH Census 2017 shows that the proportion of paediatric consultants in community child health posts in 2017 was 17.4%, a reduction from 18.5% in 2015.

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¹⁴ WTE of vacancies is weighted to account for missing responses.



RCPCH census figs for career grade community paediatricians.

The RCPCH estimates that 'an increase in the order of 25% in the size of career grade (community) paediatric workforce is required to meet ... demand' ¹⁵, an increase of about 77 new consultants per year for the next 5 years ⁵.

The RCPCH has also reported that only 9.6% of paediatric trainees are awarded a CCT in CCH, whereas 18.5% of existing consultants work in CCH (Table 1)¹⁶.

Number of CCTs and consultants in general paediatrics, CCH and other subspecialties.

			In 2018,
CCT survey 2016	In post (%)	CCTs awarded (%)	the
CCH	18.5	9.6	
Other subspecialties	37.4	34.2	number
General paediatrics	42.5	56	of
	<u> </u>	<u>. </u>	advertise

ments for consultant community paediatricians was estimated to be about 150 (C Ni Bhrolchain audit 2018). Only 25 or so CCTs being awarded each year.

These figures all point to a serious shortfall in the staff needed to meet demand.

5. Attrition, less than full time working and other workforce groups

a. Increases in less than full time working in the paediatric workforce

Paediatrics is one of the specialties where less than full time working is most common for doctors which has as considerable impact on the time available for both training and service.

¹⁵ Royal College of Paediatrics and Child Health. CCT and CESR Class of 2016: Where are they now? London: Royal College of Paediatrics and Child Health; 2018. Available at:

https://www.rcpch.ac.uk/sites/default/files/2018-07/CCT%20class%20of%202016%20-%20full%20report.pdf

¹⁶ Royal College of Paediatrics and Child Health. CCT and CESR Class of 2016: Where are they now? London: Royal College of Paediatrics and Child Health; 2018. Available at:

https://www.rcpch.ac.uk/sites/default/files/2018-07/CCT%20class%20of%202016%20-%20full%20report.pdf

According to GMC data¹⁷ the headcount number of doctors in training in paediatrics and child health increased by only 2.7% between 2012 and 2018. As 37.7% of paediatric trainees are now working

The RCPCH LTFT Advisor for Wales reports

"It is very clear that there is a work force problem in Paediatrics. There are also increased numbers of LTFT trainees across all specialities in Wales. Paediatric LTFT trainees present about 10% of all LTFT trainees in Wales at present (381 in total, 36 paediatric) However, the number of new applications to train LTFT have been constantly rising since 2014. We have also more male LTFT trainees and more applications on grounds of mental health issues some of which are associated with high workload and work pressures. This is obviously very challenging to manage rotas and training needs. I am concerned that an increased LTFT workforce in Paediatrics needs to be factored in future modelling."

LTFT this represents a whole time equivalent fall of 2.5%.

b. Attrition from training

It is difficult to establish accurate data about the number and percentages of leavers from the paediatric training scheme. Anecdotally, members of the College report that it is worryingly frequent.

Between 2009 and 2015, the RCPCH undertook a cohort study¹⁸ of the first group of trainees to take part in run through training. From the response we received in 4 separate surveys, we estimated that attrition was 5% in each of the 3 years ST1-3, 4% ST4-5 and 3% ST6-8.

Further, there were 457 trainee recruits into paediatrics in 2009, and 8 years later (2017) the number of completed CCTs and CESRs was 265. This indicates that around 40% of paediatric doctors do not finish their training (equivalent to 5% per annum).

c. Other workforce groups

There has been little development of other staff groups over recent years to support rotas.

Staff, Associate Specialist and Specialty (SAS) doctors continued to decline in every RCPCH census since 2001, with only 778, or 646 WTE reported in 2017. This represents a 3.7% decline in headcount and 3.6% in WTE since 2015. This is a smaller magnitude of decline than in previous censuses, but SAS doctor numbers are now only 51.9% of the total number of SAS doctors reported in the RCPCH Census of 2001. This partly negates much of the benefit of increases in the consultant workforce.

RCPCH is supportive of an increased skill mix where other types of appropriately trained and competent non-medical and other medical groups can support paediatric services. However, our census shows that only (60.6%) of organisations employed Advanced Nurse Practitioners (ANPs) in 2017, unchanged from 60.3% in 2015.

¹⁷ General Medical Council, *The state of medical education and practice in the UK 2018*. 2018: https://www.gmc-uk.org/-/media/somep-2018/version-one---0412pm/somep-book-20186.pdf?la=en&hash=624AE93A17BDC777C4EAE231020957F8E4C02F51.

¹⁸ Royal College of Paediatrics and Child Health. Modernising medical careers (MMC) cohort study. 2018-2016. https://www.rcpch.ac.uk/resources/modernising-medical-careers-mmc-cohort-study

Only 5 of the 160 responding organisations to the RCPCH census (3.1%), all in England, employ Physician Associates; the same number as in 2015. There was a total of 7.6 WTE Physician Associates recorded in 2017, down from 9 WTE in 2015.

The proportion of GP trainees recorded as working on junior paediatric rotas has remained virtually identical between 2015-2017 at approximately 28%.

6. Failure to meet staffing standards

a. Posts on general paediatric and neonatal rotas

Facing the Future¹⁹ states that there should be 10 whole time equivalent posts on training rotas, **Error! Reference source not found.** shows that although tier 1 rotas (equivalent to ST1-3) are on average close to meeting this standard, tier 2 rotas only have an average of 9 staff, and there are shortfalls on the neonatal only rotas. Caution must be taken with this data, as the averages are slightly skewed upward by double rotas at hospitals with large workloads (i.e. 2 trainees in service at one time).

60% of all paediatric rotas have fewer than 10 WTE; 68% on tier 2. Having fewer doctors and other staff on the rota inevitably means there is less time for trainees for teaching, research and carrying out audit and other quality improvement work. The RCPCH standard of 10 WTE is used because of analysis undertaken by the Academy of Medical Royal Colleges for how many doctors are required to protect adequate training time and comply with the Working Time Regulations.

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

	General paediatrics	General / neonatal	Neonatal medicine	Total
Average WTE				
Other (non-standard)	-	10	7.1	8.6
Tier 1 (Junior)	10.3	10.2	8.5	9.8
Tier 2 (middle grade)	9.5	8.9	9.1	9.0
Tier 3 (consultant)	10.2	9.7	7.2	9.3
Total	10.0	9.6	8.2	9.4
Proportion of rotas with less than 10 staff				
Other (non-standard)	-	-	100.0%	50.0%
Tier 1 (Junior)	48.7%	50.7%	72.7%	55.3%
Tier 2 (middle grade)	72.0%	65.8%	71.4%	68.0%
Tier 3 (consultant)	58.1%	48.8%	90.0%	59.3%
Total	57.9%	54.9%	78.8%	60.5%

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¹⁹ https://www.rcpch.ac.uk/r<u>esources/facing-future-standards-paediatric-care</u>

b. Other workforce groups in paediatrics and child health: Advanced Nurse Practitioners, Physician Associates and GP Trainees.

RCPCH is supportive of an increased skill mix where other types of appropriately trained and competent non-medical and other medical groups can support paediatric services. Our census shows that only (60.6%) of organisations employed Advanced Nurse Practitioners (ANPs) in 2017, unchanged from 60.3% in 2015. The RCPCH support ANPs so that they can use e-portfolio for their training at reduced membership rates. See table 6

Only 5 of the 160 responding organisations (3.1%), all in England, employ Physician Associates; the same number as in 2015. There was a total of 7.6 WTE Physician Associates recorded in 2017, down from 9 WTE in 2015.

The proportion of GP trainees recorded as working on junior paediatric rotas has remained virtually identical between 2015-2017 at approximately 28%.

As there are no comprehensive national policies to increase numbers in these non-paediatric groups, there remains and imperative to increase the medical workforce.

Units employing ANPs by country

	Count of units with ANPs	% of units with ANPs	Estimated total WTE ²⁰	Average WTE ANPs per unit
England	81	58.7%	378.3	3.8
Northern Ireland	5	100.0%	22.0	4.4
Scotland	9	81.8%	72.8	8.1
Wales	2	33.3%	7.0	3.0
Total	97	60.6%	491.3	4.2

As RCPCH have found in previous censuses, not all neonatal intensive care units meet the British Association of Paediatric Medicine (BAPM) standard stating that NICUs should have separate rotas. In 2017, 89.9% of NICUs had a separate tier 3 (consultant) rota, compared to 92.6% in 2015²¹.

7. Lack of time for training/education/CPD/research

The GMC Training Environments Survey²² considers trainees' perception of their training arrangements in all medical specialties.

https://www.bapm.org/sites/default/files/files/Service Standards%20for%20Hospitals Final Aug2010.pdf.

²¹ British Association of Perinatal Medicine, *Service Standards for Hospitals Providing Neonatal Care*. 2010, British Association of Perinatal Medicine:

²² General Medical Council. *Training Environments 2018*. https://www.gmc-uk.org/-/media/documents/training-environments-2018 pdf-76667101.pdf

In response to the statement "In my current post education/training opportunities are rarely lost due to gaps in the rota", only 38.8% of paediatric trainees agreed or strongly agreed. This is the second lowest of all the specialties behind Obstetrics and Gynaecology (30.8%).

The RCPCH trainees committee conducted its own survey in 2016/2017 (over 1000 responses) and found -

- Only 43.1% of trainees surveyed were hopeful about the future of paediatric training (either "strongly agreed" or "agreed").
- Only 58.6% of trainees surveyed felt that staffing levels where they worked were safe (either "strongly agreed" or "agreed").
- Approximately 25% felt they did not have acceptable access to study leave ("strongly disagreed" or "disagreed").

8. Consultant demand and supply

a. Demand

RCPCH currently estimates that the demand for paediatric consultants in the UK outstrips 2017 workforce levels by around 21%. That is, an increase of approximately 850 WTE consultants from the 2017 workforce is required to meet demand. This is to ensure service standards are met and services are provided safely, particularly when coping with the increased demand for child health services. Some of the elements driving demand are:

- The growth in paediatric emergency admissions²³. Between 2013/14 and 2016/17, emergency admissions in England rose 12.7%, from 631500 to 711805. In Scotland, over the same period, emergency admissions rose 13.1%, from 49370 to 55862. In Wales, emergency admissions rose 17.2%, from 54627 to 64002. And in Northern Ireland, emergency admissions rose 17.8% from 17762 to 20922.
- The level of admissions seen in some units mean that double rotas are increasingly needed i.e. 2 consultants or two trainee doctors on call at the same time.
- The College's 2017 Facing the Future Audit showed that only 48% of children admitted to the paediatric department with an acute medical problem are seen by a consultant paediatrician within 14 hours of admission. Our estimate therefore calculates demand in general paediatrics based on providing consultant resident cover for 12 hours per day and 7 days a week.
- NHS England data show that Paediatrics compliance with the standard for first consultant review within 14 hours is one of the lowest among medical specialties.
- Not all Neonatal Intensive Care Units (NICUs) meet the British Association of Paediatric Medicine standard stating that NICUs should have separate rotas. In 2017, 89.9% of NICUs had a separate tier 3 (consultant) rota compared to 92.6% in 2015.
- In 2017, the College and the British Association for Community Child Health (BACCH) published Covering all Bases which found that there was a need for substantial increase in the community child health medical workforce. This is necessary to meet the current and

²³ An emergency admission in hospital episode statistics (HES) is defined as an admission which is unpredictable and at short notice because of clinical need.

anticipated demand due to a rising number of co-morbidities, long delays in diagnosis for autism and ADHD, and growing safeguarding concerns.

b. Trainee Supply Requirements

The GMC's report, the State of Medical Education and Practice in the UK 2018²⁴ recognises the workforce shortages across professions working in the NHS. For the paediatric consultant workforce to reach the RCPCH's calculated demand level, increases are needed in trainee numbers to ensure greater levels of less than full time working and attrition from training are mitigated. Importantly,

we need to increase the recruitment of trainees to ensure compliance with Facing the Future Standards²⁵ to alleviate rota shortages.

Given the current lack of growth in other workforces to support paediatric services and little expected changes in configuration of services, we estimate that there is a need to recruit approximately 600 doctors into ST1 training posts each year for approximately the next 5 years. And there is no supporting evidence that we have the doctors to fill the required posts currently within the UK. This estimate accounts for the growth in less than full time working, prevailing rates of out of programme activity and reflects the high level of attrition we have seen throughout the training programme

Martin McColgan Workforce Information Manager 14th January 2019

²⁴ General Medical Council, *The state of medical education and practice in the UK 2018*. 2018: https://www.gmc-uk.org/-/media/somep-2018/version-one---0412pm/somep-book-20186.pdf?la=en&hash=624AE93A17BDC777C4EAE231020957F8E4C02F51.

²⁵ Royal College of Paediatrics and Child Health, *Facing the Future: Standards for Acute General Paediatric Services*. 2015:

http://www.rcpch.ac.uk/sites/default/files/page/Facing%20the%20Future%20Standards%20web.pdf.