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# British Thoracic Society survey of the career intentions of respiratory medicine specialty trainees in the UK

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## ABSTRACT

There were respiratory consultant post vacancies in 82% of surveyed UK hospitals in 2021. Understanding respiratory trainees' career intentions is vital to plan and train a future respiratory workforce. In 2020, the British Thoracic Society surveyed trainee members (n=144) to assess career plans and perceived barriers and facilitators when applying for consultant posts. Most trainees (79, 55.6%) report intending to pursue UK-based posts with general internal medicine responsibilities. Consultant applications are influenced by location, hospital type, previous local experience and availability of subspecialty posts. Insufficient guidance is available regarding consultant applications.

## BACKGROUND

A British Thoracic Society (BTS) survey of UK respiratory departments in 2021 found that 82% of hospitals had vacant respiratory consultant posts, a sizeable increase from the 40% of hospitals reporting vacancies in 2016.<sup>1</sup> Fifty-four per cent of departments with advertised posts reported significant problems in recruitment, mainly due to lack of applicants or appointable candidates; and there were 35 vacancies in respiratory subspecialty posts nationally.<sup>1</sup> These were in addition to vacancies among allied respiratory professions including nurses, physiotherapists and sleep technicians.<sup>2</sup>

It is vital to ensure that the increasing demand for respiratory care can be met in future.<sup>3</sup> To gain insight into how respiratory consultant vacancies could be addressed, the BTS conducted a survey of its trainee members regarding their career intentions and the perceived barriers and facilitators when applying for consultant posts. Here we present the outcomes of this survey.

## METHODS

An online survey was developed by trainee members of the BTS Workforce and Service Development Committee. Questions sought

information regarding trainee demographics, career intentions, subspecialty interests, preferred working patterns and perceived support when applying for consultant posts. In November 2020, the survey was distributed by email to 715 BTS trainee members. The survey was open for a 4-week period. The BTS routinely conducts such surveys as part of its remit to support the respiratory workforce. The surveys are not defined as research requiring ethical approval by the National Health Service (NHS) Health Research Authority. Trainees are aware that the data that they provide for surveys conducted by the BTS may become publicly available and therefore additional formal consent was not acquired.

## RESULTS

A total of 144 responses were received, representing 20.1% of BTS trainee members and equating to 18.8% of all respiratory trainees in the UK.<sup>4</sup> Sixty-seven (46.5%) respondents identified as female; 74 (51.4%) as male. This comprised trainees in 21 deaneries across all four UK nations. Specialty trainees (STs) at all training stages were represented: 9 ST3s, 26 ST4s, 19 ST5s, 32 ST6s, 30 ST7s and 1 ST8. Twenty-six respondents were out of programme. The training stage for one trainee was not reported.

Of the 142 who responded regarding their consultant job intentions, 79 (55.6%) reported planning to pursue a UK-based post with general internal medicine (GIM) responsibilities; 19 (13.4%) a post with a subspecialty interest and GIM; 6 (4.2%) a post without GIM; and 9 (6.3%) a post in clinical academia. Eight (5.6%) trainees reported intending to pursue posts outside the UK ([figure 1](#)). No respondents indicated an intention to leave medicine.

The top five considerations for trainees when applying for a specific consultant post

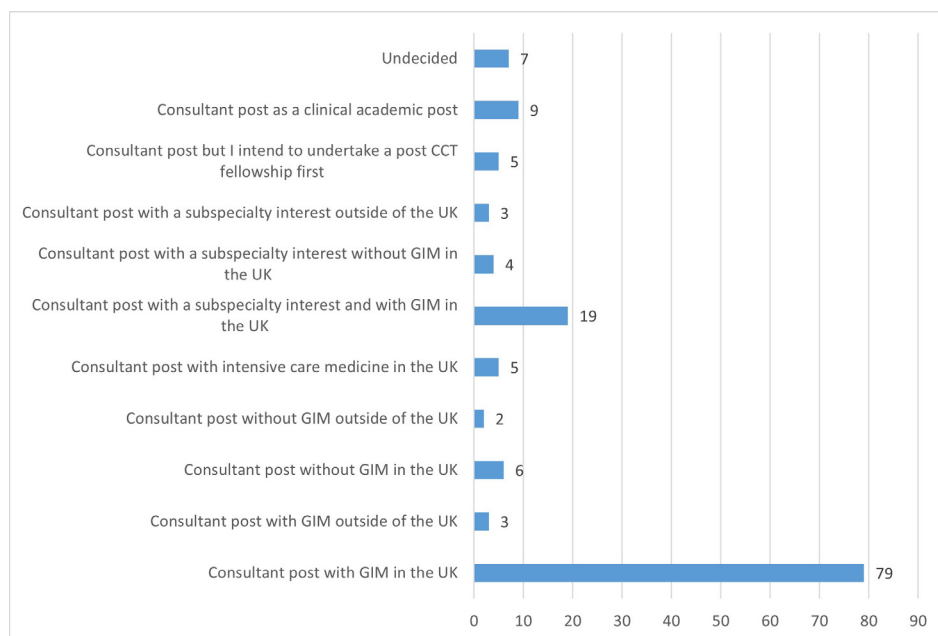


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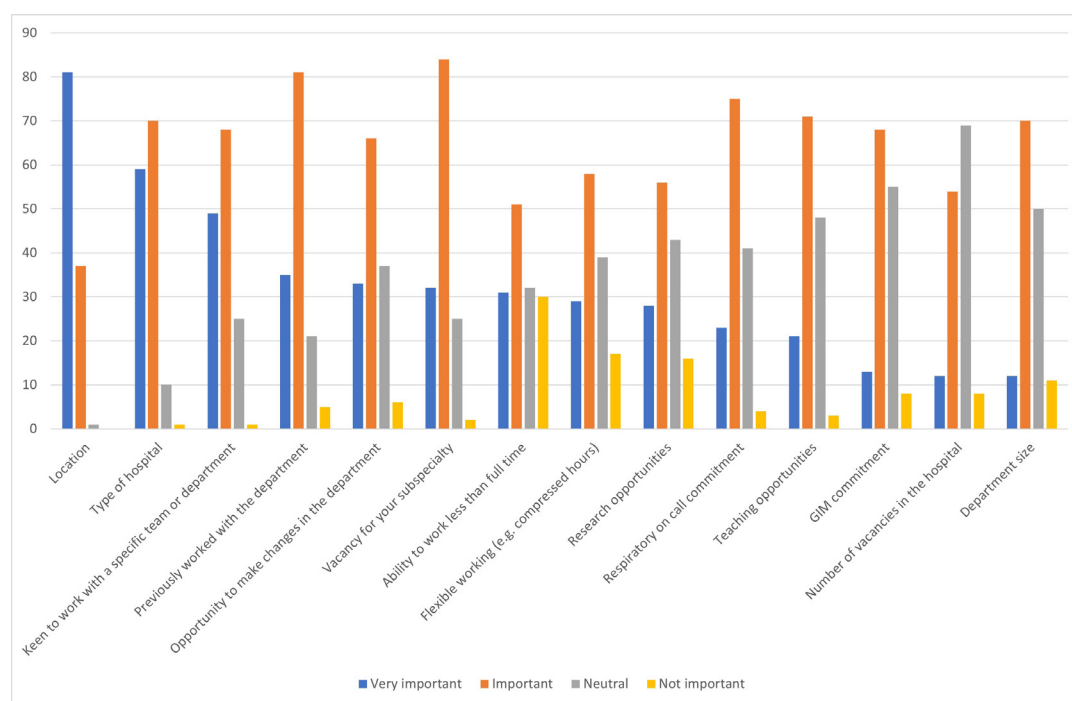


**Figure 1** Post-CCT career intentions reported by respiratory medicine specialty trainees (n=142). CCT, certificate of completion of training. GIM, general internal medicine.

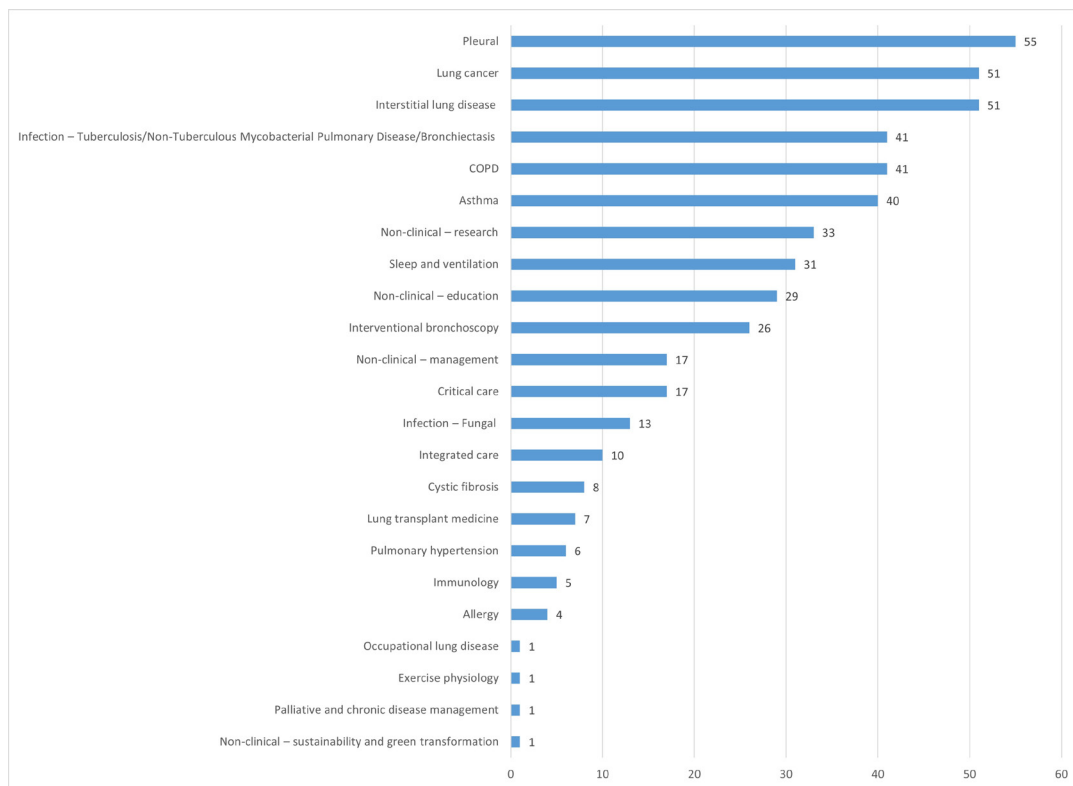
were the location of the hospital (118/119, 99.2%); type of hospital (129/141, 91.5%); enthusiasm to work with a specific team or department (117/143, 81.8%); previous experience of working within the department (116/142, 81.7%); and vacancies for subspecialties of interest (116/143, 81.1%) (figure 2). Hearing positive feedback from colleagues was the factor that most encouraged trainees to apply to specific hospitals (116/143, 81.1%).

Having no GIM commitments divided trainees: 74/142 (52.1%) reported this to be an encouraging or very encouraging factor when applying for posts.

Most trainees (106/144, 73.6%) reported hearing about consultant vacancies by word of mouth. Forty-five of 143 (31.5%) trainees expressed a desire to work less than full time (LTFT); of these, 43/45 (95.6%) at 60% or more full time equivalent. While 58/143 (40.6%)



**Figure 2** Factors influencing respiratory medicine specialty trainees when applying for a consultant post. GIM, general internal medicine.



**Figure 3** Subspecialty areas of interest reported by respiratory medicine specialty trainees (n=144). COPD, chronic obstructive pulmonary disease.

trainees would consider LTFT working in future, free text comments suggested that barriers include both a lack of advertised LTFT posts and insufficient support for those wishing to pursue LTFT working. Twenty-one of 143 (14.7%) had no intention of working LTFT.

There was a wide range of subspecialty interests (figure 3). The most common interests were in pleural disease (55/144, 38.2%), lung cancer (51/144, 35.4%) and interstitial lung disease (51/144, 35.4%). The most influential factors attracting trainees to particular subspecialties were clinical experience in the field (131/142, 92.3%); mentoring and support from a respiratory colleague (107/141, 75.9%); and interest in practical procedures (90/142, 63.4%).

One hundred and twenty-four out of 142 trainees (87.3%) felt that they received either insufficient or no support when applying for consultant posts. Free text comments highlighted that trainees found the application process difficult to navigate and perceived that the system favours those who work where vacancies are advertised or those who have access to informal support from colleagues (figure 4). Those who had early local sessions focused on consultant applications appeared to gain a clear benefit from these. There was significant demand for greater guidance to be provided through consultant application courses, mentoring schemes and specialist societies.

## DISCUSSION

It takes an average of 12 years for a doctor to join the respiratory specialist register following completion of their primary medical qualification.<sup>5</sup> There remains an urgent need to address UK respiratory consultant workforce shortages.<sup>1</sup> Despite their critical role in providing respiratory services across the NHS,<sup>3</sup> only 12% of respiratory trainees surveyed felt that they received sufficient support when applying for consultant posts.

Our survey highlights that trainees value working in teams that they have worked with before and are strongly swayed by job location. Physician trainees are more likely to pursue a consultant post in the deanery within which they undertook their specialty training and the General Medical Council has found that 24% of licensed doctors in England live within 10 miles of the medical school from which they graduated.<sup>6,7</sup> In 2018, the creation of five new medical schools, in traditionally understaffed areas, was announced to address recruitment shortages. Further changes could be made to alter the geographical distribution of higher specialty training posts.<sup>8,9</sup>

Encouragingly, most trainees reported that they intend to remain working within respiratory medicine in the UK. Importantly, no trainees indicated that they were planning to leave medicine, in contrast to 0.5% of Foundation Year 2 trainees who left the profession in 2019.<sup>10</sup> Traditionally, GIM responsibilities have been



**Figure 4** Selection of free text comments on the consultant application process. LTFT, less than full time. PAs, programmed activities. RCP, Royal College of Physicians.

cited as a barrier to consultant applications, but our survey found that most trainees planned to apply for posts with a GIM component. Despite the recognition of the importance of flexible working patterns, as highlighted by NHS Health Education England's Future Doctor Programme,<sup>11</sup> trainees reported that there is insufficient support offered to pursue this. Trainees expressed enthusiasm for a wide range of subspecialties, including those in which there were vacancies in 2021 and in non-clinical aspects of respiratory medicine such as research, education and management.

The 2020 Consultant Census conducted by the Royal College of Physicians reports that there are 1565 respiratory medicine consultants in the UK: 524 female and 1041 male.<sup>12</sup> Nationally, across all medical specialties, 38% of consultants and 53% of higher STs are female,<sup>13</sup> with the latter being similar to the proportion of female respondents to our survey. The ethnicity of respiratory medicine consultants in the UK is 57% white (English, Welsh, Scottish, Northern Irish, British); 28% Asian/Asian British; 6% white (other); 3% white (Irish); 2% Black/Black British; 2% mixed ethnicity; and 3% other.<sup>12</sup> Our survey aimed to minimise the number of questions that were included, and therefore questions on ethnicity, nationality and age were not asked. However, among all physician higher STs, the ethnicity

breakdown has been reported as follows: 66% white ethnic origin, 9% Indian origin, 5% Pakistani origin and 4% Chinese origin; with 85% having UK citizenship.<sup>14</sup> Future work conducted by the BTS will explore various aspects not captured in this survey, including the ethnicity of respiratory trainees and the reasons underlying the considerable interest in smaller respiratory subspecialties compared with broader generalist areas.

Regular surveys of trainees are conducted by the BTS for workforce planning purposes. The current survey was planned before the start of the COVID-19 pandemic. After the pandemic onset, it remained vital for trainees' career plans and needs to be identified. We acknowledge that the number of responses received may have been impacted by the pandemic, as trainees may have had less time to respond to such survey requests. Additionally, some of the issues highlighted in the trainees' responses may have been exacerbated by the pandemic itself. It was, however, important to identify the concerns of the current trainee cohort so that they can be addressed and so the dissemination of the survey at this time was felt to be justified.

There was clear demand for additional career support among trainees. The BTS initially plans to provide this through a series of online webinars to

discuss career options and pathways. Trainees told us of the benefit of thinking about potential consultant posts from an early stage in training and approaching consultants where they may wish to work in the future. As part of a wider programme designed to support the respiratory workforce, additional means of guiding trainees through career choices and progression are being explored by the BTS, in partnership with health education providers. While it is important for support to be provided at a local level, a broad and comprehensive approach at a national level is needed to address current workforce shortages and to tackle the issues highlighted by this survey.

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## REFERENCES

- 1 British Thoracic Society. Respiratory Medicine Workforce Survey Report 2021, 2021. Available: <https://www.brit-thoracic.org.uk/media/455625/bts-workforce-survey-report-2021.pdf> [Accessed Nov 2021].
- 2 Taskforce for Lung Health. A National Five Year Plan for Lung Health, 2018. Available: [https://cdn.shopify.com/s/files/1/0221/4446/files/PC1802\\_Taskforce\\_Report\\_MASTER\\_v8.pdf?30&\\_ga=2.112127234.786876780.1633032098-1032515275.1633032098](https://cdn.shopify.com/s/files/1/0221/4446/files/PC1802_Taskforce_Report_MASTER_v8.pdf?30&_ga=2.112127234.786876780.1633032098-1032515275.1633032098) [Accessed Oct 2021].
- 3 British Thoracic Society. Respiratory Medicine Workforce Review 2020, 2020. Available: <https://www.brit-thoracic.org.uk/document-library/workforce/workforce-review-statement/workforce-review-statement-2020/> [Accessed Oct 2021].
- 4 Royal College of Physicians. 2018-19 HST Census Data Tool, 2019. Available: <https://www.rcplondon.ac.uk/file/16796/download> [Accessed Mar 2022].
- 5 General Medical Council. Progression Reports – Speciality Destination. Time to Speciality, 2021. Available: [https://reports.gmc-uk.org/analytics/saw.dll?Dashboard&PortalPath=%2Fshared%2FNTS\\_LTD%2F\\_portal%2FNTS&Page=Specialty%20Destination&P1=dashboard&Action=Navigate&ViewState=2fjhojud3bg6vc7m1bmfddsfm&P16=NavRuleDefault&NavFromViewID=d%3Adashboard~p%3A3fuq1qn19b4fbk8h](https://reports.gmc-uk.org/analytics/saw.dll?Dashboard&PortalPath=%2Fshared%2FNTS_LTD%2F_portal%2FNTS&Page=Specialty%20Destination&P1=dashboard&Action=Navigate&ViewState=2fjhojud3bg6vc7m1bmfddsfm&P16=NavRuleDefault&NavFromViewID=d%3Adashboard~p%3A3fuq1qn19b4fbk8h) [Accessed Oct 2021].
- 6 Royal College of Physicians. Medical CCT Class of 2018, 2019 Survey Results, 2020. Available: <https://www.rcplondon.ac.uk/file/25321/download> [Accessed Oct 2021].
- 7 General Medical Council. The State of Medical Education and Practice in the UK, 2020. Available: [https://www.gmc-uk.org/-/media/documents/somep-2020\\_pdf-84684244.pdf](https://www.gmc-uk.org/-/media/documents/somep-2020_pdf-84684244.pdf) [Accessed Oct 2021].
- 8 NHS Health Education England. New medical schools to open to train doctors of the future, 2018. Available: <https://www.hee.nhs.uk/news-blogs-events/news/new-medical-schools-open-train-doctors-future> [Accessed Oct 2021].
- 9 National Audit Office. Managing the supply of NHS clinical staff in England, 2016. Available: <https://www.nao.org.uk/wp-content/uploads/2016/02/Managing-the-supply-of-NHS-clinical-staff-in-England.pdf> [Accessed Oct 2021].
- 10 UK Foundation Programme Office (UKFPO). UK Foundation programme 2019 F2 career destinations survey. Available: <https://healtheducationengland.sharepoint.com/sites/UKFPOT/WebDocs/Forms/AllItems.aspx?id=%2Fsites%2FUKFPOT%2FWebDocs%2F6%2E%20Resources%2FReports%2FF2%20CDS%5F2019%2Epdf&parent=%2Fsites%2FUKFPOT%2FWebDocs%2F6%2E%20Resources%2FReports&p=true&originalPath=aHR0cHM6Ly9oZWZsdGhZHVjYXRpb25lbmdsYW5kLnNoYXJlcG9pbmQuY29tLzpiOi9zL1VLRIkVPC9FUmI5aHZCM2xINUVzaUJXYThic1h1NEJlX2paU05POER6SFV0UnZlSHIVMEp3P3J0aW1lPVRKtmFFtklyMlVn> [Accessed Oct 2021].
- 11 NHS Health Education England. The Future Doctor Programme. Available: <https://www.hee.nhs.uk/sites/default/files/documents/Future%20Doctor%20Co-Created%20Vision%20-%20FINAL%20%28typo%20corrected%29.pdf> [Accessed Oct 2021].
- 12 Royal College of Physicians. 2020 Consultant Census Data Toolkit, 2021. Available: <https://www.rcplondon.ac.uk/file/34786/download> [Accessed Mar 2022].
- 13 Royal College of Physicians. Life in the time of COVID-19: the 2020 UK consultant census, 2021. Available: <https://www.rcplondon.ac.uk/file/34011/download> [Accessed Mar 2022].
- 14 Royal College of Physicians. Focus on physicians. Census of consultant physicians and higher specialty trainees 2017-18, 2018. Available: <https://www.rcplondon.ac.uk/file/10069/download> [Accessed Mar 2022].