

Evidence Brief: Respiratory Workforce

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Produced by the HEE Knowledge Management team Evidence Briefs offer a quick overview of the published reports, research, and evidence on a workforce-related topic.

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Key publications – the big picture

[A respiratory workforce for the future](#), 2022, British Thoracic Society (scroll down webpage to see download link)

The NHS has an inadequate number of skilled respiratory staff across all professions to deal with the growing care demands of the UK population. This has a negative impact on patient outcomes, and on the teams providing their care.

[NHS Long Term Plan: Respiratory disease](#)

Lung conditions, including lung cancer, are estimated to cost wider society around £9.9 billion each year. Respiratory disease affects one in five people in England, and is the third biggest cause of death. Hospital admissions for lung disease have risen over the past seven years at three times the rate of all admissions generally and remain a major factor in the winter pressures faced by the NHS.

[Written evidence submitted by the British Thoracic Society](#), UK Parliament 2021

In 2021 BTS found that 82% of hospitals reported vacant respiratory consultant posts. This has been increasing over the years, from 40% of hospitals in 2016 and is reflected across the UK.

[Respiratory syncytial virus and its impact on the NHS](#), 2022, House of Commons Library

It is estimated that among adults, approximately 487,000 GP episodes, 18,000 hospitalisations and nearly 8,500 deaths were attributable to RSV per average season. Of these, around 175,000 GP episodes (36%), around 14,000 hospitalisations (79%) and just under 8,000 deaths (93%) were in people aged 65 or older.

[A National Five Year Plan for Lung Health](#), 2018

A five year plan to create a society where everyone can live with healthy lungs for as long as possible and have the best chance of living well, or recovering, when lung disease develops.

Case Studies

[A case study of a collaborative allied health and nursing crisis response](#), 2020

Using an evaluative case study, a unique insight into the collaborative allied health and nursing professions' response to COVID-19 at a specialist cardiothoracic hospital in the United Kingdom is presented.

HEE Star

More resources and tools are available by searching on the [HEE Star](#).

Respiratory disease: Resources to improve learning on respiratory disease care across the patient pathway may be useful. This toolkit aims to provide an overview of respiratory care across the entire pathway and promote better patient care, by providing all health and social care professionals and multidisciplinary teams with the appropriate level of knowledge, skills and experience they need to deliver effective respiratory disease prevention and care.

Statistics

[Respiratory Medicine Workforce Report 2021](#), British Thoracic Society

The survey collected data on the total number of full and part time consultant respiratory posts and on the number of vacant posts at 1 April 2021, as well as gathering qualitative data on current recruitment issues around the UK.

[Respiratory Workforce Facts and Figures](#), 2020, British Thoracic Society

This document provides important facts and figures about the respiratory workforce, providing information to support our aim of BETTER LUNG HEALTH FOR ALL.

[Reports of respiratory infections made to UKHSA from UKHSA and NHS laboratories in England and Wales](#): weeks 49 to 2 (2021 to 2022)

HEE National Data Programme

HEE staff can look at the [National Data Warehouse \(NDL\)](#) SharePoint site to find out more about datasets and Tableau products.

Published Peer Reviewed Research

Leadership skills, coaching and education

[Educating frontline health workers to support evidence-based management and treatment for chronic obstructive pulmonary disease patients: A literature review](#) 2022 *Abstract only**

Thematic analysis revealed two prominent themes as contributing factors to the challenges and strategic solutions: (i) the perceived challenges of frontline health worker respiratory education and (ii) the current deficits within organizational

strategies, collaboration, resources, and educational interventions.

[A proposed framework for point of care lung ultrasound by respiratory physiotherapists: scope of practice, education and governance](#), 2022

In this paper, the authors outline a framework approach they have developed which is designed to support the consolidation and expansion of PoCUS. Alongside prompts for how other PoCUS groups could apply the framework approach, its application is illustrated using the example of physiotherapists in the UK who specialise in respiratory care.

[Informing future nursing: An exploration of respiratory teaching in the pre-registration nurse curriculum](#), 2021

Variation exists in provision of respiratory education in pre-registration nursing programmes across the UK. Whilst some respiratory topics appear to be covered adequately, others have limited time on knowledge and skills teaching.

[Impact of low-dose computed tomography for lung cancer screening on lung cancer surgical volume: The urgent need in health workforce education and training](#), 2021

These findings suggest the importance of a successful national policy regarding LDCT screening programs, regulation of shortage of thoracic surgeons, thoracic radiologist workforce training positions, and education programs.

[Effect of Health Coaching Delivered by a Respiratory Therapist or Nurse on Self-Management Abilities in Severe COPD: Analysis of a Large Randomized Study](#), 2019

Health coaching delivered by a respiratory therapist or a nurse improved self-management abilities when applied to subjects with COPD after hospital discharge for an exacerbation.

[A guide for respiratory physiotherapy postgraduate education: presentation of the harmonised curriculum, 2019 Abstract only*](#)

While all educational programmes are probably fit for purpose within a given healthcare system, the variability in knowledge, skills and attitudes makes mobility and cross-certification difficult, if not impossible. In addition, the growing body of evidence for respiratory physiotherapy [3] makes it all the more important to foresee a framework for postgraduate training that prepares the workforce for the future

[Evaluation of the Clinical Learning Environment in Respiratory Therapy Education: Student Perceptions, 2019 Abstract only*](#)

Education level influenced students' perceptions of the CLE of clinical facilities. Overall, respiratory therapy students rated their CLE experiences as positive and they were satisfied with the clinical instructor and team model.

[Thoracic ultrasound experiences among respiratory specialty trainees in the UK, 2017](#)

As current trainees become respiratory consultants, the curriculum and method of training needs to be revised to ensure that these future consultants have the experience and skills required to supervise and train the next generation of respiratory registrars.

Community, primary, secondary and tertiary care

[Early dietitian referral in lung cancer: use of machine learning, 2022 Abstract only*](#)

With further work, this methodology allows integrated early referral to a dietitian independently of a healthcare professional.

[An audit of the British Thoracic Society asthma discharge care bundle in a teaching hospital, 2021 Abstract only*](#)

The findings highlighted the need for asthma education sessions for all health professionals with emphasis on record-keeping skills.

[Development of a respiratory quality improvement faculty in an acute hospital using QI methodology, 2022](#)

The In-hospital Quality Improvement for Respiratory team was created in August 2020 within a busy respiratory department to inspire a culture of continuous improvement and provide a sustainable infrastructure to support and progress QI projects (QIPs).

[Training and Deployment of Medical Students as Respiratory Therapist Extenders during COVID-19, 2020](#)

Our experience has demonstrated that healthcare professionals, including medical students, can be quickly trained and deployed in the novel RTE role as a surge strategy during the COVID-19 pandemic.

[Advanced roles in respiratory healthcare science: it's not just spirometry, 2019](#)

Advanced clinical practitioner (ACP) roles in nursing began as early as the 1970s. Health Education England, along with National Health Service (NHS) Improvement and NHS England, have recently published a definition of and standards for multiprofessional advanced clinical practice.

[Introduction of the harmonised respiratory physiotherapy curriculum, 2019 Abstract only*](#)

The curriculum outlines the knowledge, skills and attitudes which must be mastered by a respiratory physiotherapist working with adult or paediatric patients, together with guidance for minimal clinical exposures, and forms of learning and assessment.

[Agreement between expert thoracic radiologists and the chest radiograph reports provided by consultant radiologists and reporting radiographers in clinical practice: Review of a single clinical site](#), 2018

Even when weighted with chest radiographs reviewed at discrepancy meetings, content of CXR reports from trained radiographers were indistinguishable from content of reports issued by radiologists and expert thoracic radiologists.

[Evaluation of the current landscape of respiratory nurse specialists in the UK: planning for the future needs of patients](#), 2017

This survey report provides a current snapshot of the respiratory nurse specialist workforce in the UK. This workforce is an ageing population; the results from this survey can be used to inform succession planning and to ensure a viable respiratory nurse specialist workforce in future.

Role progression and professional development

[British Thoracic Society survey of the career intentions of respiratory medicine specialty trainees in the UK](#), 2022

There were respiratory consultant post vacancies in 82% of surveyed UK hospitals in 2021. 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.

[Deploying the Physician Workforce During a Respiratory Pandemic: The Experience of an Academic Teaching Hospital During the COVID-19 Pandemic](#), 2022

Our deployment was based upon a strategy of identifying physicians with relevant skill sets and experiences, with the aim

to distribute pandemic clinical work across the broadest possible clinician workforce.

[Respiratory Nurses Have Positive Attitudes But Lack Confidence in Advance Care Planning for Chronic Obstructive Pulmonary Disease: Online Survey](#), 2021 *Abstract only**

Despite advances in end-of-life care provision for chronic disease, well-established barriers remained (inadequate training, fear of distressing patients, and time), and discussion triggers were still linked to acute deterioration, diagnosis of severe disease, and patient initiation. Better articulating the role of the respiratory nurse in ACP and building capacity and confidence within this workforce may improve ACP access for people living with COPD.

[Pulmonary passport: a service evaluation study of a standardised web-based procedure logbook to aid specialist respiratory training and appraisal](#), 2020

In this regional project, the implementation of a web-based procedural logbook has been feasible with excellent uptake and has enhanced procedural recording, supervision and appraisal. Furthermore, it provides unprecedented quality assurance at an individual trainee, trust and deanery level and has a number of potential wider applications in the future.

[Respiratory specialists working in different ways: Development of a GP hotline and respiratory support service during the COVID-19 pandemic](#), 2020

Here, we describe how respiratory specialists at a large NHS trust, working with primary care clinicians in the area, set up a GP hotline and respiratory support service in response to the COVID-19 pandemic, with the aim of enhancing delivery of care to patients in this unprecedented time. Working across traditional organisational boundaries in this way confers

benefits to patients and clinicians, illustrating the value of new, integrated models of care.

[How do we improve training in pulmonary physiology and the interpretation of lung function tests?](#) 2018

I would argue that an understanding of respiratory physiology/pathophysiology and of lung function testing and its interpretation is still essential.

Workforce perspectives, mental health and burnout

[Impact of Covid-19 on lung cancer and mesothelioma specialist nurses: A survey of experiences and perceptions](#), 2022

Respondents reported changes in ways of working due to redeployment, staff shortages, and home working. Widespread adoption of virtual working practices led to concerns of negative impacts. Perceived excessive workload impacted on care with two-thirds of the sample (57, 67%) reporting they had been unable to provide the same quality of care to patients.

[Factors influencing fatigue in UK nurses working in respiratory clinical areas during the second wave of the Covid-19 pandemic: An online survey](#), 2022

Despite reporting anxiety and depression, few nurses reported having time off work with stress, most were maintaining training and felt prepared for COVID challenges in their current role. Nurses reported concerns over safety and patient feedback was both positive and negative. A quarter of respondents reported wanting to leave nursing.

[Supporting nursing, midwifery and allied health professional teams through restorative clinical supervision](#), 2022 *Abstract only**

This article discusses the implementation of a restorative clinical supervision programme used to support staff wellbeing in nursing, midwifery and allied health professional teams in a large London-based NHS trust.

[The impact of COVID-19 on work, training and well-being experiences of nursing associates in England: A cross-sectional survey](#), 2022

Over half (53.2%) experienced an increased workload with 24.2% reporting extensions in their role. One third (32.3%) were redeployed, and a quarter (24.2%) did not feel safety concerns were adequately addressed when raised. Those working in the community reported significantly more concerns about staffing ($p = .03$), working overtime ($p = .03$), missed care ($p = .02$) and safety ($p = .04$). Despite this, many (75.8%) participants felt able to provide the same standards of care. Several spoke about enhanced teamwork, and the majority (96.8%) were not looking to leave their post.

[Addressing Compassion Fatigue in Trauma Emergency and Intensive Care Settings: A Pilot Study](#), 2022 *Abstract only**

Structured debriefings to address compassion fatigue among trauma health care professionals are feasible, but further research on effectiveness is needed. Administration-provided emotional support strategies may assist health care professionals in processing work-related stress.

[Coping with COVID-19. Work life experiences of nursing, midwifery and paramedic academics: An international interview study](#), 2022

The ability of nursing, midwifery and, paramedic academic staff to adapt to a sudden increase in workload, change in teaching practices and technology, while being removed from their work environment, and collegial, academic and technological supports is highlighted. It was recognised that these changes

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will continue post-COVID and that the way academics deliver education is forever altered.

[Wellbeing and coping of UK nurses, midwives and allied health professionals during COVID-19-a cross-sectional study](#), 2022

This workforce would benefit from additional support/services to prevent further deterioration in mental health and wellbeing and optimise workforce retention.

[Levels of resilience, anxiety and depression in nurses working in respiratory clinical areas during the COVID pandemic](#), 2021

This cohort experienced significant levels of anxiety and depression, with moderate to high levels of resilience. Support mechanisms and interventions need to be put in place to support all nurses during pandemic outbreaks, particularly younger or less experienced staff.

[Drivers of Burnout Among Critical Care Providers: A Multicenter Mixed-Methods Study](#), 2021

Drivers of burnout were highly interconnected, but factors related to team dynamics and hospital culture were most prominent and shared across provider types. The shared drivers of burnout across multiple provider types highlights the need for interventions focused on team- and system-level drivers.

[It's hard to talk about breathlessness: a unique insight from respiratory trainees](#), 2019

This paper describes how difficult it can be to discuss the experience of breathlessness with patients, as identified by respiratory trainees in a psychology-led workshop. The reasons why it is considered an essential role for clinicians to facilitate conversations about patients' breathlessness are outlined within the context of the challenges of respiratory care.

[Irish Respiratory Clinical Nurse Specialists' Experiences of Their Role: A Qualitative Exploration](#), 2018 *Abstract only**

Overall the study highlights that respiratory CNSs are active in the role as clinical experts, advocates, educators, collaborators, consultants, and health promoters. These findings recognize the importance of evaluating and building on the current CNS workforce in respiratory care and evaluating future development of the CNS role in specialized aspects of respiratory care in line with population and service needs.

[Caring for a patient with delirium in an acute hospital: The lived experience of cardiology, elderly care, renal, and respiratory nurses](#), 2018 *Abstract only**

The need for education across specialities, with a combination of classroom and simulation teaching is highlighted. Alongside, the development of structures to support the development of nursing teamwork and reporting of near miss incidents that occur with patients during an episode of delirium.

Diversity and inclusion

[Representation of Women in Internal Medicine Specialties in North America, the United Kingdom, and Australasia: Cardiology's Outlier Status and the Importance of Diversity](#), 2022 *Abstract only**

It found that cardiology, gastroenterology, and respiratory/critical care specialties have the most substantial underrepresentation of women. These data are a global call to action to establish more successful strategies to provide a diverse and representative cardiology workforce.

[Ethnic differences in success at application for consultant posts among United Kingdom physicians from 2011 to 2019: a retrospective cross-sectional observational study](#), 2022

Specialties associated with lower success rates included Cardiology, Endocrinology, Genitourinary medicine, Palliative care, Renal and Respiratory, compared to Acute medicine.

[Equal or not? Women hold less prestigious roles at respiratory medicine conferences than men](#), 2022 *Abstract only**

The gender imbalance in medicine has been a topic of increasing interest and discussion. There are increasing proportions of graduating female medical students globally, with 41.1% of Australian doctors, 47% of UK doctors and 46% of medical residents in the USA being female [1, 2]. However, in positions of influence, the proportions change, such that in the USA only 21% of medical professors and 16% of medical deans are female.

[Addressing racism in respiratory therapy educational programs: An integrative literature review](#), 2022 *Abstract only**

At an institutional level, policies to address racism, foster an inclusive culture, and develop programs that enable and support diversity and career progression have been described.

[Racial microaggressions within respiratory and critical care medicine](#), 2021

It is important that bystanders can recognise microaggressions as they occur, and take steps to address them, minimise harm to the victim, and offer appropriate support, in addition to educating the perpetrator about the impact of their behaviours.

[Advancing leaders and leadership: New Zealand women in respiratory medicine](#), 2021

The need for collective leadership and a diverse and inclusive workforce with both genders is more important than ever, to serve our increasingly complex patient base. Conversations on leadership equity are incomplete without acknowledging minority and ethnic groups.

Competency Frameworks

[British Thoracic Society Training Standards for Thoracic Ultrasound \(TUS\) 2020](#)

This document provides a comprehensive Training Standard for TUS facilitating timely and improved management of patients with respiratory presentations, particularly (but not exclusively) pleural pathologies

[BTS A professional development framework for respiratory nursing](#), 2020

Currently there is not a recognised career pathway to direct the development of current and aspiring adult respiratory nurses. Therefore, the British Thoracic Society (BTS) Nurse Workforce Group developed an adult respiratory nurse professional development framework, which we hope will support the necessary training and development needs of the respiratory nurse workforce of the future.

[Respiratory Disease Competence Framework - for professionals](#)

The suite of resources includes an underpinning framework of National Occupational Standards (NOS) and Units of Learning for the respiratory care workforce. There is also information on Assessment and two Case Studies of the Framework in practice.

> [Read more about the Respiratory Disease Competence Framework on the Skills for Health website](#)

*Help accessing articles or papers

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