

Evidence Brief: Paramedicine

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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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- [Complete Evidence Brief list – link for External staff](#)

Key publications – the big picture

[Ambulance response times in England: an emergency?](#), 2022, UK Parliament

The NHS in England has set a national target for ambulances to respond to the most life-threatening incidents within 7 minutes on average. Response times for these incidents have been rising in recent months, averaging over 9 minutes in December 2021. NHS targets for responding to less urgent calls have also been missed. This article summarises ambulance response times data and Government statements on the issue.

[Why have ambulance waiting times been getting worse?](#), 2022, The Health Foundation

Because the system is stretched, small increases in handover times can lead to far greater increases in average response times. The increase in handover delays is a major contributor to the decline in ambulance performance.

[The Allied Health Professions \(AHPs\) Strategy for England](#), NHS England, 2022

This strategy is a catalyst for change. Wherever you work, every member of our AHP community has a part in realising our collective ambitions through its delivery. I therefore encourage you to take a moment to consider how the AHP community can enable the change required to deliver future care today.

[College of Paramedics impact report 2021](#)

The College is pleased to present our first Impact Report. Access the e-book and read about our achievements and how they align with our 2019-2024 Strategic aims.

[College of Paramedics vision, strategy and structure, 2020](#)

These aims are integral to our five year Strategy, which will further the College of Paramedics charitable objects, laid out in

its governing document, the Articles of Association, over the next five years. Strategy implementation is overseen by our Board of Trustees.

[Paramedic prescribing](#), 2018, NHS England

Paramedics are highly skilled practitioners and are playing an increased role in the wider NHS team. Increasing access to prescribing for paramedics has huge potential; potential to improve patient safety by reducing delays in care and creating clearer lines of responsibilities for the prescribing of medicines.

Case Studies

[Advanced Practitioner Scott Murray–Advanced Paramedic Practitioner](#), 2022

Scott Murray is an Advanced Paramedic Practitioner who works in a primary care setting at Bay Medical Group (BMG). He believes Advanced Practitioners (AP) are integral to contemporary healthcare provision. They enhance teams that are looking to improve patient access, benefit from senior clinical expertise, and offer holistic patient care.

[Infusing the palliative into paramedicine: Inter-professional collaboration to improve the end of life care response of UK ambulance services](#), 2021 *Abstract only**

This paper considers the future for end of life care leadership in UK ambulance services and the development of specialist paramedic roles. While the future of an alliance of paramedicine and palliative care is yet to be fully realized, our work exhibits the significant progress made by UK ambulance services.

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

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 in the AHP Quick Reference Guides Upskilling section of the [HEE Star](#). Alternatively, search for 'Allied Health' in the search bar.

Statistics

[Ambulance Quality Indicators](#), 2022 NHS England
This contains background material for the Ambulance System Indicators (AmbSYS) and Clinical Outcomes (AmbCO) for all eleven Ambulance Services in England.

[How many full-time ambulance paramedics are there in England?](#) 2021 Nuffield Trust

[HCPC Diversity Data Report 2021: Paramedics](#)

[Paramedic CPD audit 2017-2019](#)

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, coaching and education

[Identifying effective paramedic leadership skills](#), 2022

Leadership training is not typically given to EMS field clinicians looking to assume leadership positions. Paramedic leaders have developed the necessary skills to succeed on their own by learning on the job, developing mentor/mentee relationships, and undergoing training and education in the form of advanced degrees.

[Professional diversity in leadership – Inclusion of the smaller professions.](#), 2022

There are 14 Allied Health Professions (AHPs) in England with approximately 170,000 AHPs working within the NHS. Physiotherapists represent the largest group of AHPs with approximately 61,000 registered with the Health and Care Professions Council, whilst Prosthetics and Orthotics represent the smallest profession with approximately 1000 registrants.

[A qualitative study exploring experiences and challenges of combining clinical academic training with family life](#), 2021

Although people manage to find ways to successfully combine clinical academic roles with family life, findings highlight a need to identify ways of supporting and encouraging trainees with caring responsibilities.

[Characterising the outcomes, impacts and implementation challenges of advanced clinical practice roles in the UK: a scoping review](#), 2021

This review suggests a need for educational and role standardisation and a supported career pathway for advanced clinical practitioners (ACPs) in the UK. Future research should:

(i) adopt more robust study designs, (ii) investigate the full scope of the ACP role and (iii) include a wider range of professions and sectors. academic pathway.

[Mentor or tormentor? A commentary on the fractured role of mentoring in paramedicine](#), 2021

If paramedicine is to continue its evolution as a legitimate healthcare profession, the quality of clinical mentoring must be acknowledged as a significant factor by higher education institutions, and the public and private services who employ paramedics, and nurtured accordingly.

[Who Coaches the Coaches? The Development of a Coaching Model for Experiential Learning](#), 2021

We recommend practices for coaching that can support gains for students and faculty in experiential, project-based, interdisciplinary courses.

[The current leadership development opportunities provided for student paramedics by Higher Education Institutions: a literature review](#), 2020 *Abstract only**

Current evidence, although limited, demonstrates the benefit of educational programmes in developing educational and non-educational leadership opportunities for paramedic students.

[Capitalising on the transformational opportunities of early clinical academic career training for nurses, midwives and allied health professionals](#), 2020 *Abstract only**

Stakeholders need to recognise that a cultural shift about the purposes of research training from a transactional to transformative approaches is required to facilitate the development of NMAHPS clinical academics, to enable them to contribute to innovative health and patient care.

[Do non-rotational ambulance-based placements affect the development of paramedic competencies from a student perspective? A qualitative study](#), 2020

Based on the findings of this research it is not possible to draw firm conclusions as to whether the non-rotation of ambulance-based placements aids or hinders undergraduate student paramedics' development of competencies.

[Evaluating a specialist education programme for nurses and allied health professionals working in older people care: A qualitative analysis of motivations and impact](#), 2020 *Abstract only**

Understanding the motivations to undertake a specialist gerontological programme and the impacts on practitioners and older people care and services will help inform the continuing professional development agenda for nurses and allied health professionals working in this field of practice.

[What value does peer-assisted learning have in the training of student paramedics?](#) 2019 *Abstract only**

This article describes how the implementation of peer-assisted learning into the classroom setting can help to support student paramedics in the development of their own clinical skills and knowledge.

[Maintaining competency: a qualitative study of clinical supervision and mentorship as a framework for specialist paramedics](#), 2018

The study identified three key themes: appropriate clinical exposure; support and development; and opportunity for reflection. A tailored clinical leadership and mentorship model is required to maintain competency and effectiveness of specialist paramedics.

[Qualitative Evaluation of the Coach Training within a Community Paramedicine Care Transitions Intervention](#), 2018 *Abstract only**

Four themes emerged from the interviews: (1) paramedics with positive attitudes and willingness to acquire the needed knowledge and skills will succeed as CTI coaches; (2) active rather than passive learning is preferred by paramedics; (3) the existing training could benefit from adjustments such as added content on mental health, dementia, and substance abuse issues, as well as content on coaching subjects with a range of illness severity; and (4) continuing education should address the paramedic coaches' evolving needs as they develop proficiency with the CTI.

[The nature of paramedic leadership at the front line of care](#), 2018 *Abstract only**

It is shown here that, although informally enacted, paramedics view leadership as a necessary competency for clinical practice. We argue that leadership development of paramedics must begin during their formal education and training as part of the core curriculum.

[Operationalising the multidimensional role of the paramedic preceptor](#), 2018 *Abstract only**

Analysis revealed the paramedic preceptor to be a complex, multidimensional role that is operationalised within four key domains: coach, role model, socialiser and protector. Expectedly, a core function of being a paramedic preceptor is that of coach, supporting and scaffolding novices as they learn to apply theoretical knowledge in practice.

[Understanding an alternative approach to paramedic leadership](#), 2018 *Abstract only**

The current article uses Critical Interpretive Synthesis to consider how approaches to leadership have developed over time. It concludes with a synthesising argument that leadership is a social construct; as such, no single definition will ever be appropriate. However, the four elements that comprise the leadership equation should be considered if the paramedic leader is to be effective.

[Can coaching paramedics help them reflect on their wellbeing and confidence and be empowered within their profession?](#) 2016

It would appear that a short programme of coaching (four one-hour sessions) proved worthwhile to the participants, and appeared to have made a difference in some of the areas and issues that were important to them.

Community, primary, secondary and tertiary care

[Barriers and facilitators to implementation of non-medical independent prescribing in primary care in the UK: a qualitative systematic review](#), 2022

A more coordinated and targeted approach is key to overcoming barriers identified in the four stages of implementation and would help ensure that IP is recognised as an effective approach to help alleviate workforce shortfalls in the UK, and around the world.

[Palliative paramedicine: Comparing clinical practice through guideline quality appraisal and qualitative content analysis](#), 2022

It is important that ambulance services' palliative and end-of-life care guidelines are evidence-based and fit for purpose. Future research should explore the experiences and perspectives of key palliative paramedicine stakeholders.

[Designing and implementing an educational framework for advanced paramedic practitioners rotating into primary care in North Wales](#), 2021 *Abstract only**

Despite the upcoming workforce changes, there is currently no standard education framework to support the development of Advanced Paramedic Practitioners in primary care. This evaluation offers insight into the educational needs of Advanced Paramedic Practitioners working in this setting and suggests an education structure that can best support their learning, whilst meeting regulatory requirements for paramedic professional development.

[Understanding the role of the paramedic in primary care: a realist review](#), 2021 *Abstract only**

This review is the first to offer insight into understanding the impact paramedics may have on the international primary care workforce and shaping how they might be optimally deployed.

[Future-proofing the primary care workforce: A qualitative study of home visits by emergency care practitioners in the UK](#), 2021 *Abstract only**

Broadening the skill-mix to incorporate extended-scope practitioners such as ECPs, to deliver primary care home visiting, presents an opportunity to increase resilience in the general practice workforce.

[Widening the conversation: Paramedic involvement in interprofessional care](#), 2021

In this special issue of Progress in Palliative Care we explore the nexus between palliative care and paramedicine by presenting important initiatives being undertaken in Australia, New Zealand, the United Kingdom, and Canada to improve access to care.

[The core components of Community Paramedicine – integrated care in primary care setting: a scoping review](#), 2019

The Community Paramedicine programmes are perceived to be promising. However, Community Paramedicine research data are lacking. Further research is required to understand whether this novel model of healthcare is reducing costs, improving health and enhancing people's experiences.

Role progression and development

[What innovations help with the recruitment and retention of ambulance staff: a rapid evidence summary](#), 2022

Evidence from a UK survey suggests that factors negatively influencing paramedic recruitment include competitive job market, lack of locally trained professionals, and newly qualified professionals starting with higher debt.

[Assessment of advanced clinical practitioners](#), 2022 *Abstract only**

The insights from this study enabled lessons to be drawn for those responsible for workforce development who are key to the future development of the ACP role and to ensure high standards of interprofessional care.

[Paramedic independent prescribing: a qualitative study of early adopters in the UK](#), 2021

Paramedic prescribing is most successful in settings with a high volume of same-day presentations and urgent and emergency care. It facilitated advanced roles within multidisciplinary teams. Concerns indicate that greater consideration for support infrastructure and workforce planning is required within primary care to ensure paramedics meet the entry criteria for a prescribing role.

[Characterising the outcomes, impacts and implementation challenges of advanced clinical practice roles in the UK: a scoping review](#), 2021

This review suggests a need for educational and role standardisation and a supported career pathway for advanced clinical practitioners (ACPs) in the UK. Future research should: (i) adopt more robust study designs, (ii) investigate the full scope of the ACP role and (iii) include a wider range of professions and sectors.

[The paramedic profession: disruptive innovation and barriers to further progress](#), 2020

The steep developmental trajectory of paramedics has not been mirrored by a comparable pace of reform and modernisation in NHS ambulance services which, in comparison, have lagged behind and also failed to adapt to significant changes in the pattern, quantity and epidemiological characteristics of patient demand.

[Relationship between labour force satisfaction, wages and retention within the UK National Health Service: a systematic review of the literature](#), 2020

Pay was found to influence satisfaction, which in turn affected retention. An increase in wages alone is unlikely to be sufficient to ameliorate the concerns of NHS workers.

[Developing a consolidated research framework for clinical allied health professionals practising in the UK](#), 2020

The consolidated framework was entitled 'Shaping Better Practice Through Research: A Practitioner Framework' by stakeholders, thus emphasising its ambition to embed research activity into practice.

[Preparedness of graduate paramedics for practice: a comparison of Australian and United Kingdom education pathways](#), 2019

Interviewees in Australia and the UK identified that newly graduated paramedics require an internship period before independent practice. Interviewees in both jurisdictions recognised the robust theoretical knowledge and practical skills of graduates. Organisational operations, clinical judgement and decision-making, and care-pathway selection were areas where interviewees identified that an internship period consolidated the graduate's learning.

[Building clinical academic leadership capacity: sustainability through partnership](#), 2018 *Abstract only**

A national clinical academic training programme has been developed in England for nurses, midwives and allied health professionals but is insufficient to build a critical mass to have a significant impact on improved patient care.

Workforce perspectives and mental health

['The WOW factors': comparing workforce organization and well-being for doctors, nurses, midwives and paramedics in England](#), 2022

Multi-level systems approaches to well-being are required that consider intersectionality and structural differences between professions; together with inter-professional national databases to facilitate monitoring.

[College of Paramedics survey finds that nearly three-quarters of paramedics have feared for their own safety or felt threatened at work](#), 2022

The College of Paramedics has warned that the abuse paramedics are experiencing is having a direct impact on their health and wellbeing. Most paramedics surveyed (89 per cent) said their jobs were taking a toll on their mental health and 69 per cent said this had intensified since the start of the covid pandemic.

[Joining the workforce during the COVID-19 pandemic: views of Allied Health Profession students](#), 2022 *Abstract only**

Although the transition from student to practitioner continues to be a stressful period, only a minority of participants reported COVID-19 as an explicit stressor.

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

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

[How does the use of humour in the UK ambulance service affect a clinician's well-being?](#), 2021 *Abstract only**

This review of the literature found that many in the ambulance community view their use and expression of humour as a positive coping strategy that helps them to relieve the stresses of the job. Further research is needed to investigate any negative effects that humour has on a clinician's well-being and larger studies are needed to give a better representation of the ambulance community.

[Staff stakeholder views on the role of UK paramedics in advance care planning for patients in their last year of life](#), 2021

UK paramedics are well-placed to screen and refer patients for advance care planning. Further research is needed to explore how this type of intervention might be developed to fit into a

community-centred approach aimed at improving advance care planning.

[The health and well-being of paramedics - a professional priority](#), 2020

Although the focus of paramedic education in undergraduate and postgraduate programmes is appropriately clinically focused, informing and educating paramedics on self-care is essential for emergency service professionals where there is known risk of poor health outcomes linked to their vocation.

[The evolving role of paramedics - a NICE problem to have?](#) 2018 *Abstract only**

This short essay supports the growing role of paramedics in the clinical and academic workforce. We present a commentary of recent draft consultations by the National Institute for Health and Care Excellence in England that set out how the role of paramedics may be evolving to assist with the changing demands on the clinical workforce.

Diversity and inclusion

["Raising the curtain on the equality theatre": a study of recruitment to first healthcare job post-qualification in the UK National Health Service](#), 2022

The Healthcare Workforce Equity + Diversity Lens we have developed can help to 'raise the curtain on the equality theatre' and inform more inclusive approaches to recruitment such as contextualised recruitment or effective allyship between employers and universities.

[The challenge of diversity in the allied health professionals](#), 2020 *Abstract only**

Although the Allied Health Professions (AHPs) are a diverse range of professions in terms of their skill set. The workforce which makes up the professions lacks diversity.

[Honouring inclusivity and support in paramedicine](#), 2019

With a determination to transform the network, which had previously existed more on paper than in reality, into something our entire workforce could support, the committee began raising the Proud@WMAS profile both internally and externally. Creating an ethos of inclusivity, rather than exclusivity, the committee quickly decided that 'membership' would be a thing of the past and all staff, irrespective of their sexuality, gender, race or religion, could come together to create a supportive LGBT staff network.

[Ethnic diversity in paramedic education](#), 2016

We are working across the east midlands to promote ethnic diversity in paramedic education and the profession. Research suggests having a workforce that represents the communities we serve reduces health inequalities.

Competency Frameworks

[Development of a digital competency framework for UK Allied Health Professionals](#), 2020

This framework has been developed to support the enhancement of digital competence (knowledge and skills associated with digital technology in practice) for all allied health professions from band 3 to band 9. It is intended to be a developmental and supportive tool that can enable all staff to meet their digital potential.

[Paramedic Specialist in Primary and Urgent Care Core Capabilities Framework](#), 2019, HEE

Health Education England commissioned the development of this Paramedic (Specialist in Primary and Urgent Care) core capabilities framework to support those paramedics working in primary and urgent care and the transformation of services that employ these clinicians in new environments.

[College of Paramedics Curriculum Guidance](#), 2019

This Paramedic Curriculum Guidance has been developed through an effective collaboration that has involved education providers, practice-based education providers, a patient advisory forum, student paramedics, subject specialists and College of Paramedics members whose role incorporates the clinical, educational, research, leadership and management pillars of the Post-Registration Paramedic Career Framework.

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