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In the balance

Lessons for changing the mix of professions in NHS services

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Contents

Context

The Nuffield Trust was commissioned by NHS Employers to carry out this work. We were asked to conduct research into the history of how different roles have been brought into the NHS, and how it's been happening in other countries, to put trends into perspective and understand what might be positively or negatively affecting the integration of new staff roles into the NHS.

The recent Long Term Workforce Plan commits the NHS to some expansion of these new and emerging roles. Our work seeks to uncover what issues need to be addressed if this policy is to be implemented effectively.

Our work is published at a time of highly polarised debate about the increase and integration of emerging roles such as physician associates and anaesthesia associates, and a government-commissioned independent review of these roles is underway. We look across a range of new and emerging roles at different stages of implementation, including those at the heart of current controversies but by no means limited to them.

We don't offer a view on what the 'right' level of new and emerging staff roles in the NHS might be, or what a good balance between doctors, nurses and emerging roles would look like. We also do not comment on the effectiveness or suitability, clinically or otherwise, of *any* particular NHS staff role.

Although our scope was limited, much needs to be done to act on the findings of this report. We uncover some clear areas for focus to ensure that the planned expansion in NHS staffing does not come at the detriment of staff satisfaction, patient experience, financial sustainability or care quality.

Acknowledgements

We would like to thank everyone who took part in this research. We are very grateful to NHS Employers for commissioning the work and would like to thank colleagues there for supporting the research. We would also like to thank colleagues, particularly Thea Stein, Dr Rebecca Rosen, Dr Becks Fisher, Dr Louella Vaughan and Rowan Dennison for their input during the research and drafting. Finally, we thank Professor Damian Hodgson, Professor Alison Leary, Dr Crystal Oldman and Professor David Oliver for providing comments on an earlier draft of the report.

Summary

1 The history of the National Health Service (NHS) is filled with examples of changes in professions within the service and the balance between them. In fact, the mix of professions within the NHS has been in flux since its inception in 1948, when around four in nine staff were 'domestic and maintenance' and only around one in 30 were doctors. More recently, the expansion of nursing associates, advanced practitioners, physician associates, clinical pharmacists and the Additional Roles Reimbursement Scheme (ARRS) in general practice have affected the balance of professions.

2 Multiple reasons are cited for seeking to reshape the workforce, including to address staff shortages, financial constraints and changing health needs. But doing so does not guarantee a higher standard of care, better patient experience or improved cost-effectiveness. In fact, if poorly designed and implemented, changes in the mix of staff could increase demand, cost more, threaten the standard of treatment and fragment care.

3 This report, commissioned by NHS Employers, first outlines the current context. We then look at past initiatives to reshape the NHS workforce, drawing out some consistent lessons that might be useful today, while recognising that each initiative has its own challenges and opportunities. We conclude our report with recommendations.

4 It was not within the scope of the research to question the merits of individual professions or determine the 'right' level or balance of new or emerging roles. However, in late 2024, the government announced an independent review of the physician associate and anaesthesia associate professions' terms of reference, considering the safety of the roles and their contribution to multidisciplinary health care teams.

The shifting balance of professions within the NHS

5 The scale of change in the NHS has at times been dramatic. For example, in hospital services, while both professions have grown significantly, the number of nurses per doctor in hospital has fallen from 4.3 in 2000 to 2.8 in 2024. In general practice, the expansion of non-medical roles has caused the ratio of fully qualified permanent general practitioners (GPs) to other clinicians to fall from 1:1.1 in September 2015 to around 1:2.6 now.

6 The NHS in England appears to have taken skill-mix changes further than most countries and, within the hospital sector specifically, the NHS has one of the broader professional mixes. Other countries have also seen changes in skill mix, with many new roles being developed elsewhere and subsequently introduced to the NHS. While comparisons with other countries need to be treated with caution, there are some interesting differences. For example, England employs more clinical support staff – relative to the number of doctors and nurses – than Wales and Scotland. Additionally, England and Scotland seem to have been recruiting more advanced roles in nursing compared with Wales and Northern Ireland. Doctors and nurses account for two in five (39%) hospital staff in England, while in Italy they account for nearly two-thirds (63%) and in Austria they account for almost three-quarters (72%).

7 The 2023 NHS Long Term Workforce Plan[1] highlighted the workforce challenges facing the NHS, in terms of both numbers and the mix of skills needed. Projected relative increases vary significantly between staff groups. Nursing associates are, by some margin, expected to see the largest relative increase by 2036/37, reaching around 14 times the current level (or over 3% of the clinical workforce, up from 0.4% in 2022). Physician and anaesthesia associates and advanced practitioners are projected to grow to around six times the current level (the former from 0.2% to 0.6%, and advanced practitioners from 0.6% to 2.0%). However, in absolute terms, the largest growth across professionally qualified clinical staff is expected for adult nurses, with an increase of around 105,000. But considering the overall size of the NHS workforce and the established professions, the shifts outlined in the Long Term Workforce Plan to 2036/37 will have a relatively small impact on the overall balance of staff groups.

Key lessons on reshaping the workforce

8 The recent workforce initiatives we looked at for this research each appear to have some distinct opportunities and challenges, given the extent to which they involve new or established professions and the nature of the services that they are being introduced to. Also, the number and balance of staff have evolved in various ways, including through:

- creating new roles ('innovation')
- increasing the depth of existing jobs ('enhancement')
- moving tasks from one profession to another ('delegation')
- expanding the breadth of a job, sometimes resulting in the replacement of an individual with someone from another profession ('substitution').

Given this, there is a risk in conflating the different policies and practice on changing skill mix. However, some themes and considerations – discussed below – were consistent in the published evaluations of the initiatives we looked at.

Design, planning and recruitment

9 Careful design of new and emerging roles is essential. Previous initiatives to introduce roles have often been hindered by employers not having the time or capacity to carefully design the roles within the team, integrate them into wider workforce plans and redesign patient pathways and triage protocols. At times this has led to new and emerging roles being asked to see patients inappropriate for their skillset. A detailed understanding of the skills, knowledge and scope of practice of both existing staff and those being integrated into the workforce is necessary, but ascertaining levels of clinical experience, which vary considerably within emerging roles, has often proved challenging.

10 Past initiatives have also shed light on additional challenges related to 'onboarding', ensuring that the necessary physical infrastructure is in place to accommodate new employees and embedding the cultural change needed to effectively integrate new and emerging roles. More broadly,

local clinical, human resource (HR) and business management capacity is crucial for overcoming these design, planning and recruitment challenges.

11 There are risks that the supply of more staff jeopardises workforce plans. Ambitions around increasing annual education and training intakes – including a doubling of medical school places and nursing associate training places – are bold. However, concerns have been raised that capacity for educational and practical learning opportunities, employers' demand for and sponsorship of trainees in these roles, and the supply of trainees could be bottlenecks when scaling up certain roles. Evidence suggests that the educational content and experience for those in training for specific roles may not always adequately prepare them for the tasks they will be expected to perform.

Ongoing supervision, management, training and integration

12 Ongoing supervision, management and training is crucial for the implementation and development of new and emerging roles. However, there have been high-profile shortcomings such as some general practices reportedly employing physician associates without the necessary supervision. Additionally, one study found that a quarter of advanced clinical practitioners did not have access to clinical supervision. National bodies and employers also often overlook the extent of future training and development needs and the potential costs associated with that.

13 High workloads, difficulty in protecting supervision time, a lack of continuity in line management and insufficient motivation or experience to provide effective supervision have been cited as some of the underlying causes of supervision issues. Certainly, the expansion of the workforce is placing additional demands on senior doctors to educate and supervise. In the survey we carried out for this research, the capacity to supervise physician associates and advanced clinical practitioners was regularly among the top constraints that different groups of respondents mentioned. However, there are promising lessons regarding the use of peer support and mentoring to contribute to the broader ongoing support and development of those in new and emerging roles.

14 The integration of new and emerging roles with other professions and effective teamwork are also key. However, some staff can react to the introduction of such roles with challenge and resistance. The role of clinical champions is well established and, in relation to the nursing associate role, a cultural change agent (for example, a practice development nurse) was considered pivotal in embedding and clarifying the role within organisations, educating staff about including the scope of practice, and raising its profile. Tensions with established professions can stem from concerns about the quality and safety of care provided by the new and emerging roles, but can also arise from a lack of understanding and awareness of the roles, fears of role substitution or replacement and competition between professions for the same limited educational and supervision opportunities. The lack of attention to fairness in pay across professions, with some new roles having relatively high starting salaries compared with established professions, even if their subsequent pay progression opportunities are lower, risks worsening tensions.

Regulation, funding and public acceptance

15 A lack, or belated introduction, of statutory regulation of some emerging roles, such as physician and anaesthesia associates, has been a barrier to their implementation. This places additional responsibility on staff and employers, who then have less assurance on the suitability of an individual's qualifications and previous experience. Our survey found that more than three in five doctors, three in five staff in emerging roles and four in five staff in leadership or managerial roles saw regulation and certification requirements (or lack of) as a constraint to the implementation of physician associates. Since our survey, from December 2024, the General Medical Council (GMC) have taken responsibility for regulation of physician (and anaesthesia) associates.

16 Central financial salary support, with its clear financial appeal to providers, has been cited as a driver for the expansion of new and emerging roles. But this may be distorting local decisions, as the salary costs that providers meet differ significantly from the total costs, including any central support, from a taxpayer perspective. Such central funding has taken different forms, including national funding to support the training of nursing associates, and various forms of salary reimbursement. In general practice,

three-quarters (78%) of the growth in staff in general practice over the past five years has been through the Additional Roles Reimbursement Scheme (ARRS), which covers the cost of salaries for additional roles for practices. This means that the effective average annual salary costs for practices to employ an existing salaried GP and a general practice nurse have been approximately £106,000 and £49,000, respectively, compared with £0 for a clinical pharmacist or physician associate (for example) and – due to a separate education and training tariff – £0 for a GP registrar.

17 Public awareness and understanding of most emerging roles appear to be limited. If a person is to receive care, they need to give their consent to the treatment, which must be an informed decision. However, poor public understanding can undermine this. Previous introductions of emerging roles suggest that having confidence in adequate supervision of the staff member in an emerging role by more experienced health care professionals can increase the likelihood of patients providing informed consent to treatment. Existing literature also suggests that patients are supportive of emerging roles when they can identify a positive impact on the timeliness, quality and personalisation of their care as a direct result of the involvement of an emerging role.

Conclusion and recommendations

18 The NHS already employs a broad array of staff. The ambition around new and emerging roles is to expand further, although the impact of this on the overall balance of professions is not projected to be vast. Undoubtedly, reshaping the workforce poses challenges, and introducing new roles typically adds complexity and additional effort to integrate and coordinate them accordingly.

19 A recent paper examining advanced practice nurses across European countries found that successful implementation depended on a tripartite approach between service managers, practitioners and educators. The paper also suggested that the implementation process for this could take 15 to 20 years.[2] The lessons for organisations looking to redesign their workforce, as highlighted in our previous research commissioned by NHS Employers on this topic,[3] still seem relevant today (see Box 1). That

said, the emphasis in the current context might be different. For example, more priority might be needed now around the careful definition (and dissemination) of scope of practice and competencies as part of the lesson about how to build roles.

Box 1: Important lessons for organisations redesigning their workforce[3]

- Be realistic about the time and capacity needed to support change.
- Support transformation with a strong communication and change management strategy.
- Invest in the team, not just the role.
- Develop and invest in training capability.
- Create a receptive culture for change.
- Build roles on a detailed understanding of the work, staff skills and patient needs.
- Ensure robust triage mechanisms.
- Build sustainability for new and extended roles.
- Adopt a systematic approach to workforce development and change.
- Evaluate change.

20 Some of the explanation for why these lessons have not all been applied is related to the fact that responsibility falls on regional and national bodies, as well as organisations themselves. In Chapter 3, we provide further recommendations on how they can support frontline organisational development capacity, increase public awareness and generate realism around educational capacity, regulation and ensuring financial support does not inadvertently distort decisions. Certainly, central bodies can contribute to improvements in various areas highlighted in this report, including the dissemination of good practice, which stakeholders reportedly benefited from around the implementation of clinical pharmacists in general practice. Across different new and emerging roles, stakeholders perceive the Department of Health and Social Care and NHS England as pivotal in promoting uptake and setting the agenda around changes in skill mix.

21 A variety of emerging roles have been introduced into the NHS before significant issues have been addressed. A proactive approach to addressing challenges around reshaping the workforce is necessary to prevent negative consequences for patient care, staff wellbeing and productivity. And before any efforts to introduce new roles or reshape the workforce, national and local bodies must also seek to resolve any issues with established roles.

About this report

The NHS has undergone many, significant changes in the shape of its workforce and recent actual and planned changes have received a huge amount of scrutiny. This rapid piece of work, undertaken by the Nuffield Trust (an independent think tank) and commissioned by NHS Employers, seeks to outline key lessons for local and national bodies around reshaping the mix of professions in the NHS. In doing so, we look to contribute to the longstanding ambition for the NHS to become the world's largest learning organisation and avoid repeating past failures.

The research is primarily based on a review of published evaluations of previous initiatives to introduce new and emerging roles into health and care services. Additionally, the research team carried out two focus groups of NHS staff involved in the rollout of emerging roles. The main purpose of the focus groups was to understand perceptions of constraints and facilitators to the introduction of emerging roles, and to draw out lessons based on the experiences of the participants.

We also conducted a short survey based on the scope outlined above, focusing particularly on issues directly relevant to the advanced clinical practitioner and physician associate roles, as these are two high-profile (but distinct) emerging roles. The survey was based on an existing questionnaire to provide reassurance from using an established approach and was also piloted with several different professions. Using a pre-established approach potentially enabled us to observe and draw out any changes that might be taking place over time. Further details on the survey and our wider approach are given in Appendices 1 and 2.

We intend to highlight some of the lessons that can be learnt from initiatives to reshape the workforce in the NHS; we did not seek to provide a comprehensive review. We recognise that every profession and every service has its own context, meaning any lesson needs to be adapted and translated to be useful.

It is important to note that **the work was neither intended nor designed to question the merits of individual professions**. We also do not comment on what the right level or balance of new or emerging roles is.

Structure of the report

The remainder of this report:

- sets out some key trends and variation around the shaping of the NHS workforce in England, the context of wider UK and international staffing levels and the key ambitions from the NHS Long Term Workforce Plan (Chapter 1)

- outlines some of the key lessons for, and challenges to, the introduction of new and emerging roles (Chapter 2)

- concludes with a discussion and policy recommendations (Chapter 3).

Notes on terminology

Additional Roles Reimbursement Scheme	The Additional Roles Reimbursement Scheme (ARRS) was introduced in 2019 to support the recruitment of new staff to general practice, covering a defined set of roles, including clinical pharmacists, paramedics and physician associates. The range of roles covered has subsequently expanded.
Advanced clinical practice	Advanced clinical practice is a defined, advanced level of practice within clinical professions such as nursing, pharmacy, paramedics and occupational therapy. Advanced clinical practitioners should be educated to Master's level or equivalent. Different titles for advanced clinical practitioners are used by individuals across countries. In England, there is a multi-professional framework for **advanced clinical practice**. However, challenges and opportunities may vary between professions, including for **nursing** where advanced practice is more longstanding.
Medical associate professionals	Medical associate professionals are health care professionals, consisting of: • **physician associates** • **anaesthesia associates** • surgical care practitioners • advanced critical care practitioners (until 2022 when ACCPs were realigned with advanced practitioners). They are intended to work as part of a multidisciplinary team, with supervision from a named senior doctor.[4]
New and emerging roles	In this report, we use the term 'new and emerging roles' to describe roles that are less established within a particular service or setting.
Nurse	In this report, we use the term nurse to refer to **registered nurse**, unless stated otherwise (so this does not include e.g. nursing associates). Similarly, we refer to registered nursing associates as nursing associates.

1 The shifting balance of professions within the NHS

In this chapter, we highlight some key trends from the reshaping of the NHS workforce in England, put the workforce mix in the NHS in England in the context of wider UK and international staffing levels, and discuss some of the key ambitions from the NHS Long Term Workforce Plan around changing the shape of the workforce.

Multidisciplinary delivery of health care services

The NHS workforce in England is made up of a huge array of professions. In hospital and community settings, in the region of 340 different role titles are used in staffing records, although this likely significantly underestimates the extent of the range.[5] The number and balance of staff have developed in many ways, with skill-mix changes in health care taking various forms, including through:

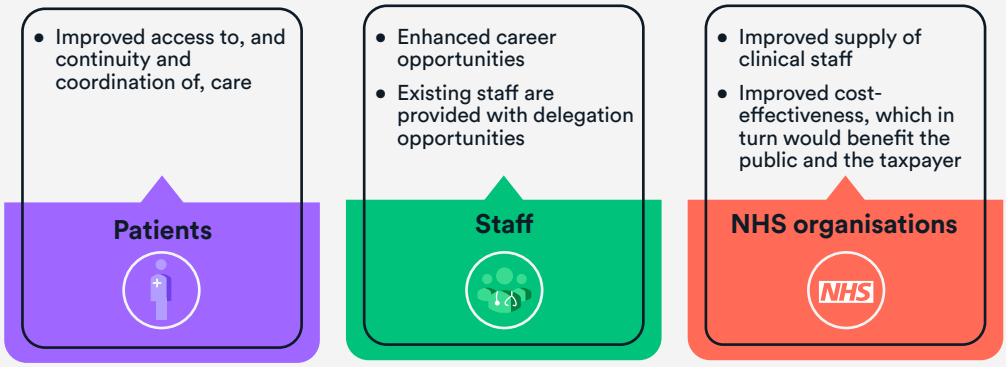
- creating new roles ('innovation') – such as education mental health practitioners, who work across education and health care
- increasing the depth of roles ('enhancement') – such as expanding prescribing responsibilities to appropriately trained non-medical professionals
- moving tasks to another role ('delegation')
- expanding the breadth of a job, 'in particular by working across professional divides or exchanging one type of worker for another' ('substitution').[6]

Various reasons underlie the ambitions to reshape the workforce. These workforce policies may be introduced in response to:

- an opportunity to design a rewarding, clinically focused role that meets the needs of the NHS
- changing health needs of the public and patients
- financial constraints and efforts to deliver
- legislative changes
- rising demand
- staff shortages
- technological or clinical developments.[7]

The envisaged benefits – whether to patients, staff or NHS organisations – are often linked to the perceived advantages of team and multidisciplinary delivery of health care services (see Figure 1).

Figure 1: Examples of potential benefits for reshaping the workforce

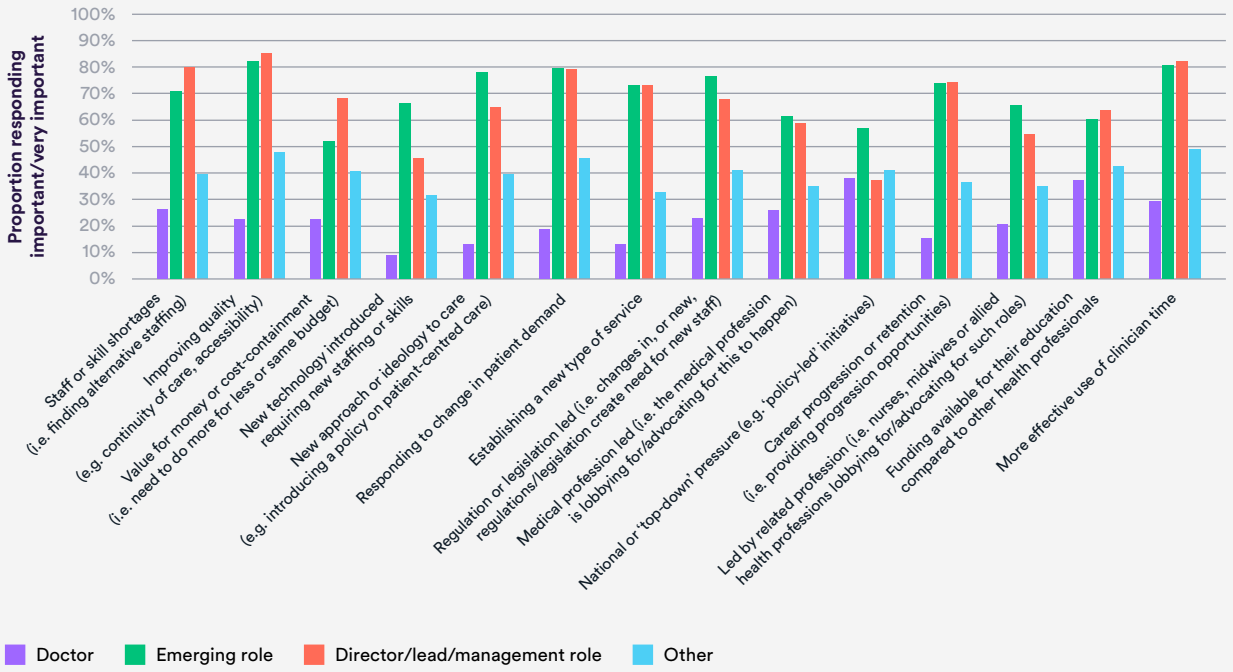


Sources: Nuffield Trust analysis of various documents including Baird and others (2022),[27] Thurgate and Griggs (2023),[30] Kessler and others (2023)[28]

Responses to our survey, which focused on physician associates and advanced clinical practice roles, suggest that NHS staff perceive many different drivers to be behind the introduction and increased use of these roles. While there were some similarities in how respondents answered the questions in relation to these two emerging types of role, there were also significantly divergent views between staff groups on the extent to which various factors were drivers – with doctors notably differing from other groups.

On physician associates, around four-fifths of respondents in emerging roles (82%) and in leadership or managerial roles (85%) cited improving the quality of care (for example, continuity or accessibility) as the most important driver for the implementation of these roles (see Figure 2). Doctors, meanwhile, tended to select a smaller range of factors as drivers. They most often cited national, or 'top-down', pressure, such as 'policy-led' initiatives, as an important driver (38%).* Among the survey respondents, other commonly cited drivers included more effective use of clinician time, responding to changes in patient demand and a new approach or ideology in relation to care (see Figure 2).

Figure 2: Importance of drivers in introducing or extending the use of physician associates safely



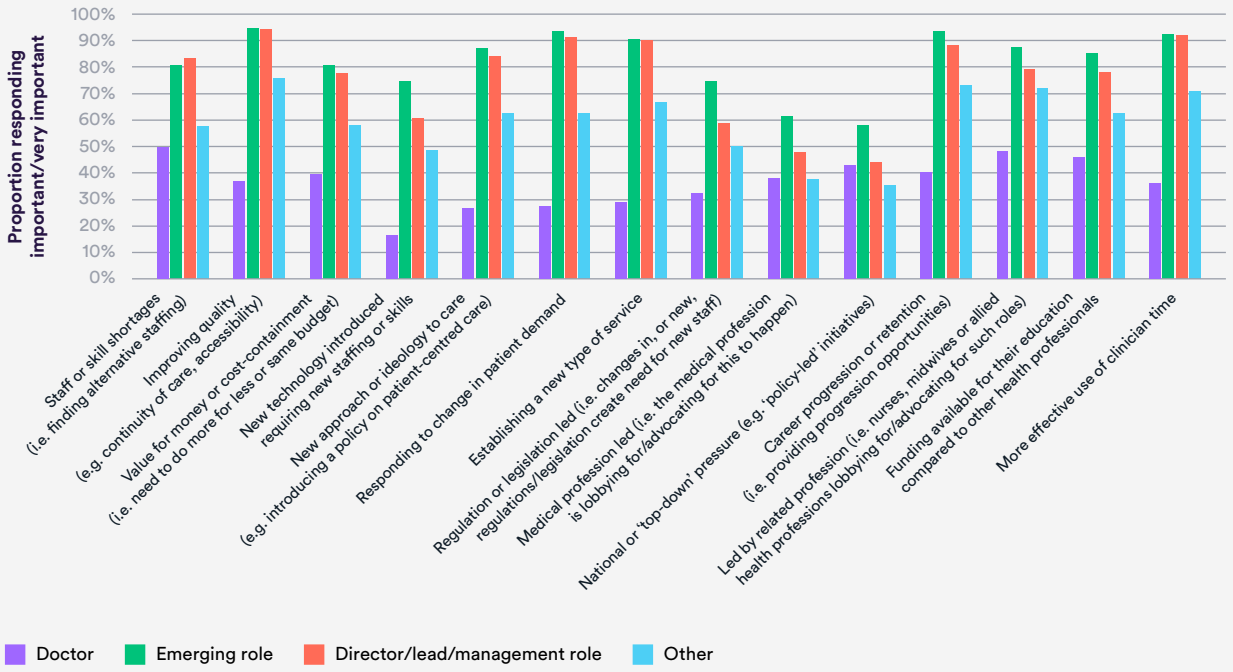
Source: Nuffield Trust survey

On *advanced clinical practice*, a large majority of those in emerging roles (95%) and those in leadership or management roles (94%) again cited improving quality of care as a driver (see Figure 3). Doctors, however, most commonly rated responding to staff or skill shortages as an important driver

* The most commonly cited response across earlier responses from doctors was staff or skill shortage. See Appendix 2 for further discussion about the survey, including regarding doctors' responses.

(50%). Among the survey respondents, other commonly cited drivers for rollout were responding to changes in patient demand, career progression or retention and more effective use of clinician time.

Figure 3: Importance of drivers in introducing or extending the use of advanced clinical practitioners safely



Source: Nuffield Trust survey

Many of the key drivers that our survey identified appear to be longstanding. In a survey conducted almost two decades ago (which our survey design and analysis drew upon), a range of respondents – including government representatives, educators and employers in England – most commonly highlighted staff and skill shortages, as well as national 'policy-led' initiatives.[8,*]

* Buchan and Calman's 2005 survey formed part of a study on the introduction of advanced nursing roles in the UK and the United States – see Buchan J and Calman L (2005) 'Skill-mix and policy change in the health workforce'. www.oecd-ilibrary.org/social-issues-migration-health/skill-mix-and-policy-change-in-the-health-workforce_743610272486. Accessed 1 October 2024. Our survey followed a similar structure, and used similar questions, where applicable. When drawing comparisons between the surveys, it is important to take into account the differences in time and roles studied.

But the introduction of new roles does not guarantee a better standard or experience of care for patients, or improved cost-effectiveness. For example, a recent study in general practice found that higher numbers of associate professionals were correlated with lower overall patient satisfaction.[9] If poorly designed and implemented, changes in the mix of staff could increase demand, cost more, threaten the standard of treatment and fragment care.[3] And high-profile cases of patients dying after being managed by staff in new professional roles[10] have raised concerns among NHS staff and risk damaging public confidence.

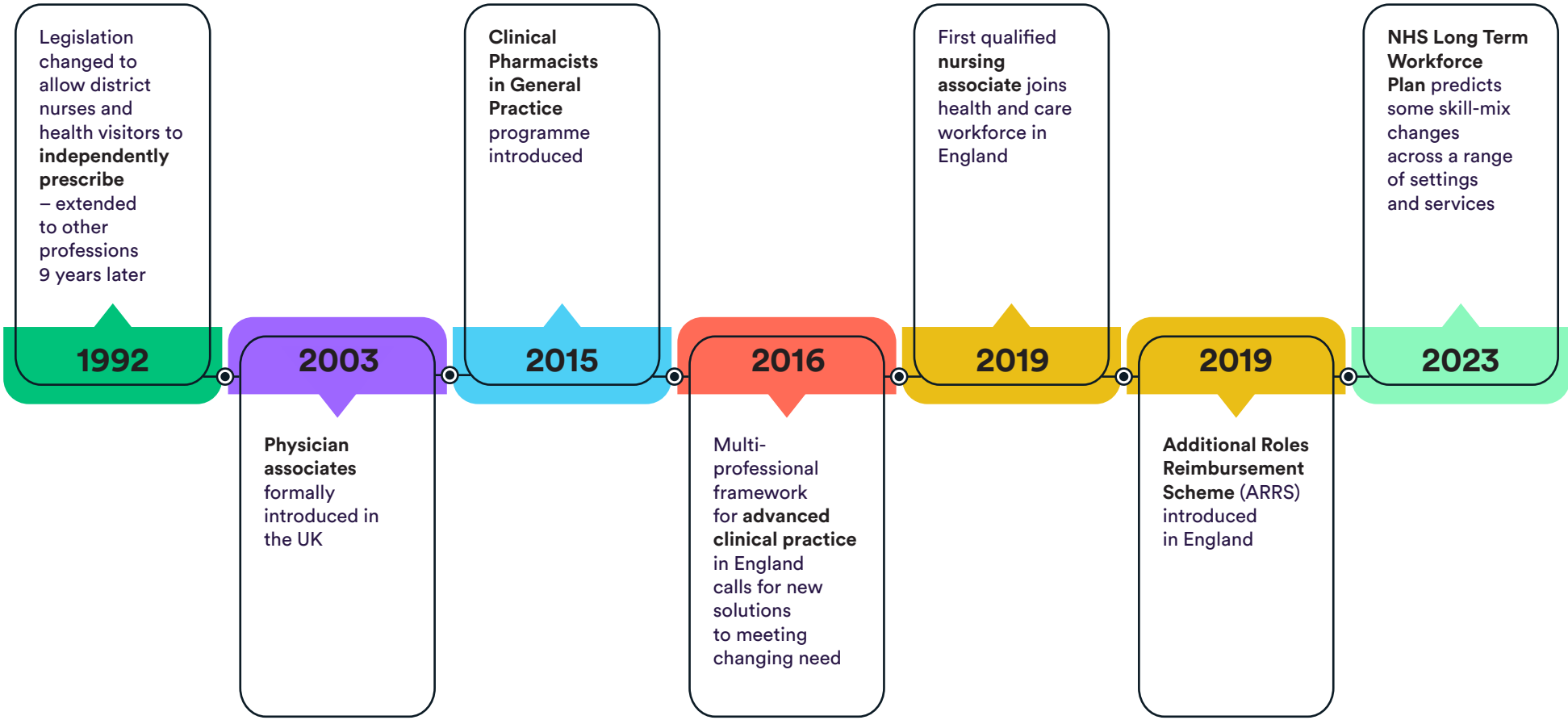
Examples of previous and proposed skill-mix changes

The mix of professions within the NHS has been in flux since its inception in 1948, when around four in nine staff were 'domestic and maintenance' and only around one in 30 were doctors.[11] Over the subsequent 76 years, the different professions have grown at different rates. By 2024, the number of nurses (around 424,000 across England and Wales) was six times the level in 1949, with 13 times more doctors (149,000), including 17 times more consultants (60,000).* Even in the NHS's more recent history, growth in professions has been at different rates. For example, the relative increase in the number of hospital doctors in England between 2000 and 2024 has been more than double that for nurses (127% versus 50%).[12]

These numbers show the vast expansion in NHS workforce, and highlight the changing mix of professions. For example, the number of nurses per doctor in hospitals has fallen from 3.8 in 2000 to 2.5 in 2024. Of course, the ratio of nurses to doctors is just one of very many skill-mix measures and the history of the NHS is littered with examples of changes in the professions and balance between them, some of which are outlined in Figure 4 and discussed in more detail later.

* To reflect the limited data available from 1949, nurse numbers are headcount whereas medical staffing numbers are full-time equivalent.

Figure 4: Timeline of some key policies and events in the reshaping of the NHS workforce



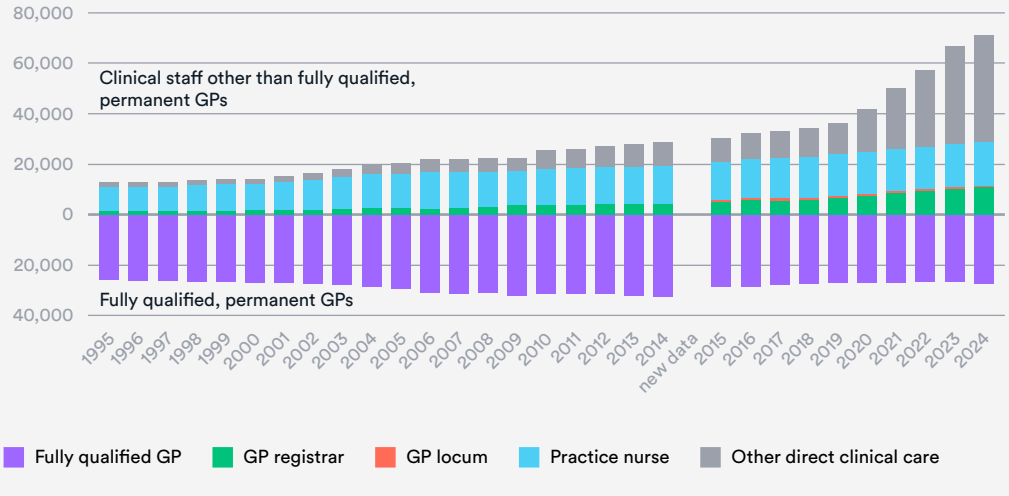
Source: Nuffield Trust

Recent rapid changes in the NHS workforce

The introduction of nursing associates in 2019 – with the stated intention to bridge the gap between unregulated health care assistants and registered nurses – has been one of the most significant recent changes in the NHS workforce.[13] The published workforce data in England suggest that around 7,200 full-time equivalent nursing associates were recorded as working in NHS hospital, community and general practice services by August 2024.* That is not to say that this, and other transitions, were easy. Despite a planned and piloted introduction of the new nursing associate role, with regulation put in place in advance, there have been challenges, which we discuss in the 'Lessons on reshaping the NHS workforce' section.

The reshaping of staffing in general practice has been particularly stark. The ratio of fully qualified permanent GPs to other clinicians within general practice halved from 1:1 in September 2015 (28,600 versus 30,400) to less than 1:2 by 2022 (26,900 versus 57,200). The proportion of general practice clinical staff who are fully qualified permanent GPs has fallen further still since then (see Figure 5), with the ratio currently standing at 1:2.6.

Figure 5: Changing staffing levels within general practice, 1995 to 2024



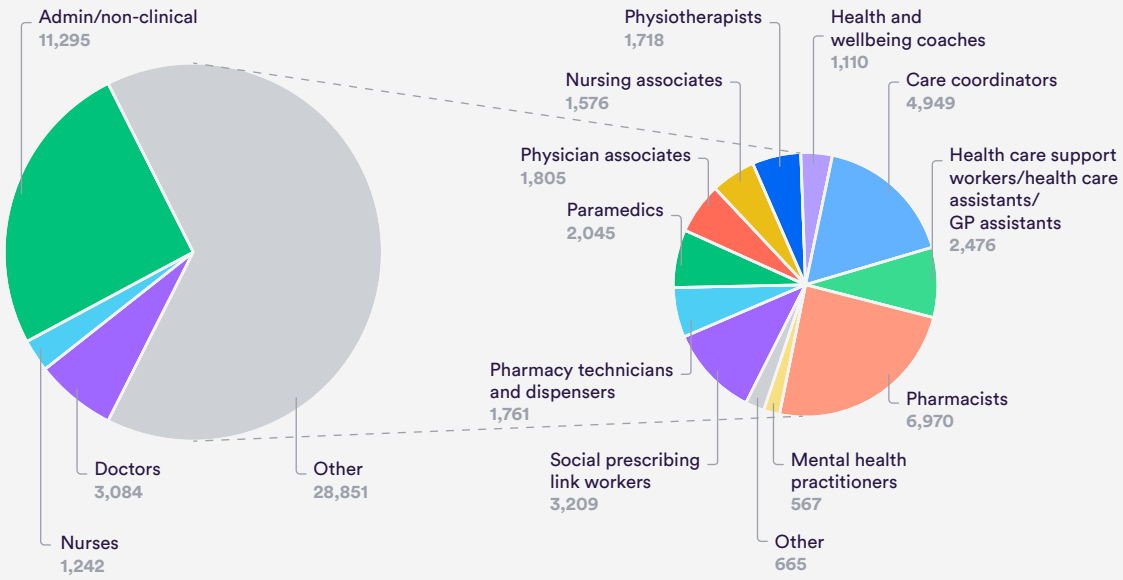
Note: Includes staff employed by the primary care networks and practices directly.
Source: Nuffield Trust analysis of NHS England data

* Looking more broadly (and including, for example, those that might not currently be employed in the NHS), the number of *registered* nursing associates with an address in England rose from none to around 11,500 in the six years to September 2024.

The recent growth in the wider general practice workforce in England has been accelerated by a policy introduced in 2019 – the Additional Roles Reimbursement Scheme (ARRS) – which aimed to support the recruitment of 26,000 additional staff into this sector by March 2024. The policy has increased the number of staff and radically changed the mix of professions, introducing more pharmacists, care coordinators, social prescribing link workers, paramedics and physiotherapists into general practice (see Figure 6). The roles covered by ARRS have expanded over time. Significantly, in 2024, newly qualified GPs were added to the scheme, with general practice nurses set to be added in 2025.

In fact, the number of health professionals (other than GPs) in general practice increased by around 33,200 full-time equivalents in the five years to March 2024.[14] The scheme built on earlier policies, including NHS England's Clinical Pharmacists in General Practice programme launched in 2015. We draw on the experience of ARRS and nursing associates – among others – in the following chapter on constraints and facilitators and the lessons that can be learnt.

Figure 6: Additional staff in general practice in England, March 2019 to March 2024

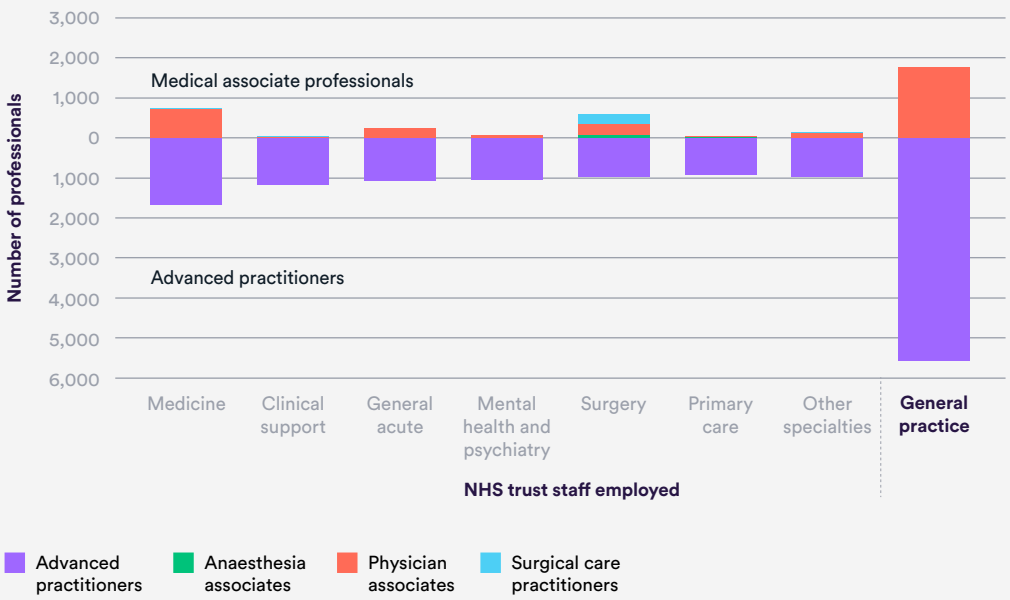


Notes: Data are for full-time equivalents. Apprenticeships/trainees are included in intended destination profession. Mental health practitioners include applied clinical psychologists, mental health wellbeing practitioners and NHS Talking Therapies therapists. The chart is derived from different datasets with definitions potentially differing between them.
Source: Nuffield Trust analysis of NHS England data

The use of new and emerging roles in different services and settings

Advanced practice in nursing* emerged internationally in the 1960s. While initially pioneered to meet the unmet needs of rural populations, it has evolved to encompass almost all areas of nursing practice.[15] In the UK, both ('top-down') national policy ambitions and ('bottom-up') demand from employers, the professions, clinicians and clinical teams have driven the development of advanced practice. Certain specialties have relatively higher numbers of staff with a recorded job role of 'advanced practitioner', although these staff are employed across a broad range of different clinical areas, and there is a substantial presence in general practice (see Figure 7).

Figure 7: Advanced practice and medical associate professions employed in the NHS, by service, mid-2023



Notes: Hospital and community data are for June 2023 and general practice data are for August 2023. 'Other specialties' includes radiology and imaging, obstetrics and gynaecology, pathology and clinical oncology. Surgical care practitioners differ from the other medical associate professions as, before training, they are required to be a qualified and registered health professional with at least 18 months' post-registration experience. Service is based on 'primary area of work' in staffing records.
Source: Nuffield Trust analysis of data published by NHS Digital.

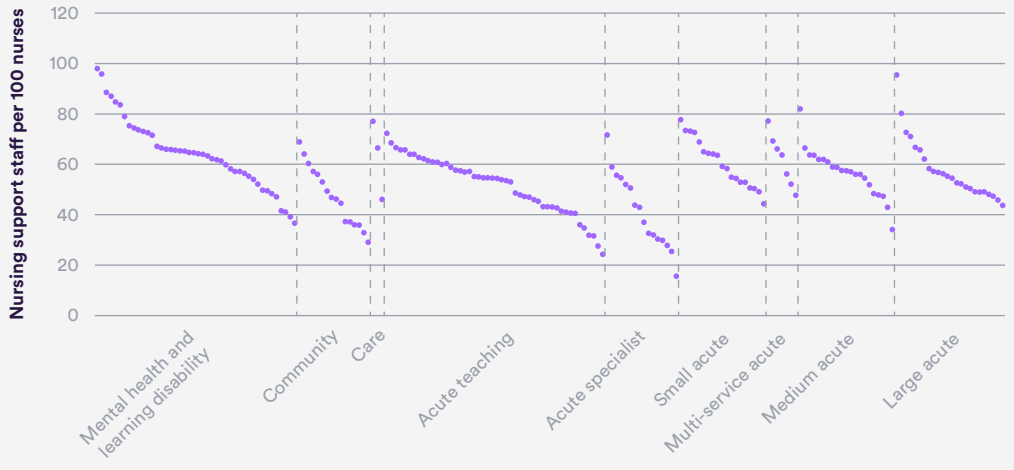
* A defined level of practice, whereby nurses should be educated to Master's level or equivalent. In England, there are advanced clinical practitioners across other professions too, such as pharmacy, paramedics and occupational therapy.

Physician associates and anaesthesia associates have been in the NHS for around two decades[16] and are health care professionals who currently typically have a bioscience-related degree and have undertaken a two-year course that 'involves many aspects of an undergraduate or postgraduate medical degree'.[17] Looking across the different clinical areas, the distribution of physician associates, and unsurprisingly the other two medical associate professions, which are designed towards surgery and anaesthetics specifically, is less broad, although, again, they appear across various hospital services and have relatively large numbers in general practice (see Figure 7).

Differences in the balance of staff groups between services

Given the balance of professions is likely to be in response to factors that differ locally – such as the supply of staff from the different professions, local labour markets, the structure of services and emerging patient needs – it would be surprising to find a common ratio of staff across services. Nationally, there are around 55 nurse support staff per 100 nurses in NHS trusts, although the ratio is, on average, lower in teaching (50), community (49) and specialist (36) trusts. However, a substantial degree of variation is unexplained –with, for example, a five-fold variation between the NHS trust with the lowest number of nursing support staff per nurse and the NHS trust with the highest. There is significant variation even within the same type of trust (see Figure 8).

Figure 8: Ratio of nursing support staff to nurses, by NHS trust



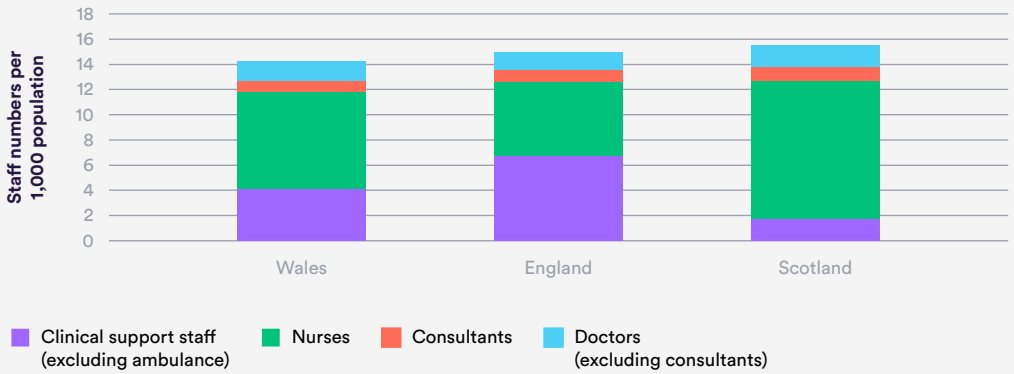
Source: Nuffield Trust analysis of NHS England data for August 2023

In some cases, the variation might follow historic patterns, particularly where numbers in an emerging profession have grown slowly. Regional capacity for training and educating also appears to be a factor. Data from September 2017 suggest that NHS hospital and community services in the South East of England introduced physician associates later than other regions of England (three compared with 85 in the Midlands) and four years later they still had significantly lower levels (half the level – compared with doctor numbers – than the South West).[18]

How the NHS compares internationally

Comparisons with other countries always need to be treated with a degree of caution because of differences in contexts and how data are collected. That said, they can also be instructive. Starting with a comparison with Scotland and Wales (Northern Ireland does not have sufficiently comparable data), we see that hospital services in England appear to be far more reliant on clinical support staff (see Figure 9). The ratio of nurses to doctors also varies. It is lowest in England (2.5 nurses per doctor in 2023), higher in Wales (3.0) and substantially higher in Scotland (4.0).

Figure 9: Medical, nursing and clinical support staff numbers in NHS hospital and community services relative to the size of the population

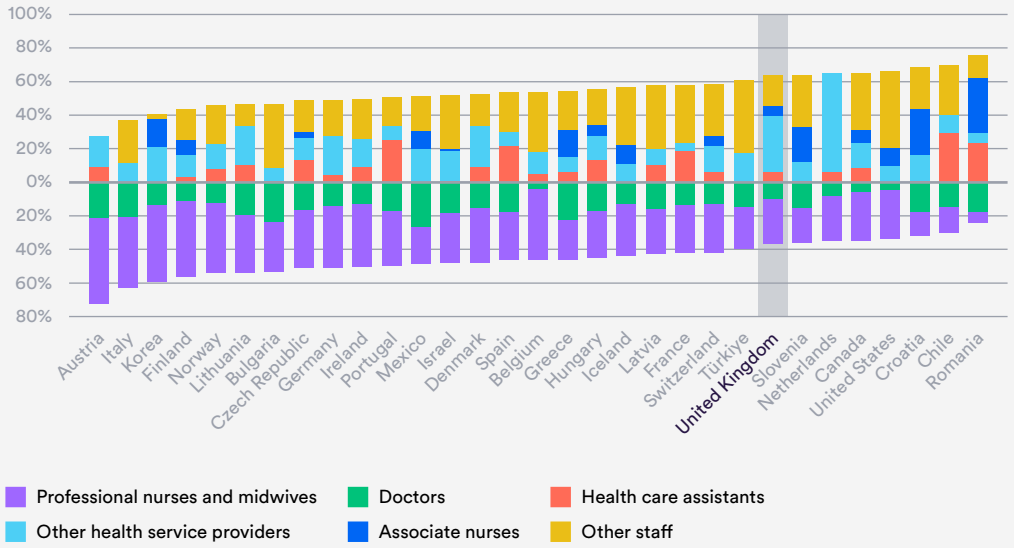


Notes: Data are taken from different sources so the comparison should be treated with caution. Workforce data are for 2023.
Source: Nuffield Trust analysis of Welsh Government, NHS England and NHS Education for Scotland data

It appears that England and Scotland are moving more quickly with the rollout of advanced practice in nursing. Our 2023 report on the regulation of advanced practice in nursing and midwifery revealed that less than 2% of advertised nursing roles in Wales and Northern Ireland were advanced roles, compared with 5% in both England and Scotland.[15] The differences between the UK nations are even more pronounced when it comes to nursing associates, a profession that has only been trained in England so far. As of September 2024, there were around 11,500 registered nursing associates with an address in England.[19] However, Scotland is reportedly exploring the idea of introducing the nursing associate role and the Welsh government has recently expressed its intention to do the same.[20]

Looking further afield, the NHS in England appears to have taken skill-mix changes further than most countries and, within the hospital sector specifically, it has one of the broader professional mixes. International data are fairly limited, but do suggest differences in the use of certain professions, including doctors and nurses. These two professions account for only two in five hospital staff in England (39%), compared with nearly two-thirds in Italy (63%) and almost three-quarters (72%) in Austria (see Figure 10). Again, it is worth reiterating the limitations in comparing between countries, not least because the underlying data for England may be counting some community-based clinicians employed by NHS hospital trusts; however, this does suggest that the NHS in England has more experience than most countries to draw on when it comes to reshaping the workforce.

Figure 10: Breakdown of staff employed in hospitals, by professional grouping



Note: UK figures are based on English data, adjusted for population. Individual country data are for 2022 or most recent available.
Source: Nuffield Trust analysis of OECD data

The nature and scope of practice of new and emerging roles differ between countries, as does the number employed in health services. The UK had more physician associates as of mid-2020 than nearly all countries with broadly comparable data available, but that was still 12 times fewer than in the United States relative to its population size. On advanced practice, there are substantially more 'nurse practitioners'* in the United States than there are advanced practitioners (including those from professions other than nursing) in the NHS. The NHS Long Term Workforce Plan projections would increase the level of these staff groups in the NHS but not beyond current levels in the United States (Table 1).

* This is the equivalent role title in the United States for advanced nurse practitioners.

Table 1: Comparison of level of advanced practice and physician associates in England, United States and within NHS workforce plan projections*

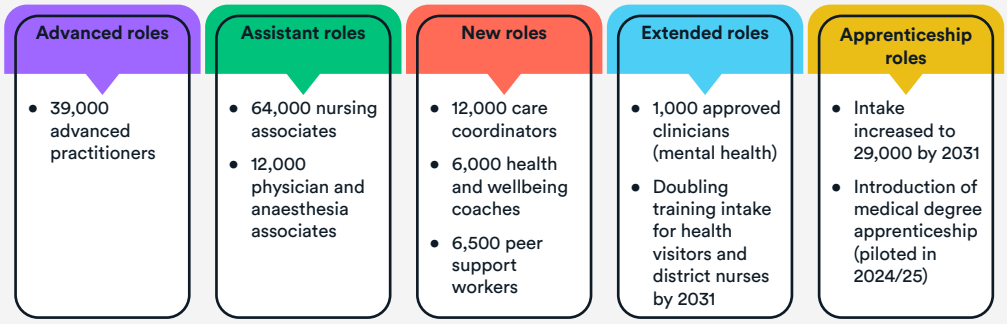
	England	NHS Workforce Plan projections by 2036/37	United States
Physician associates†	2,000 (UK) *3 per 100,000 population*	10,000 *16 per 100,000*	120,000 *36 per 100,000*
Advanced practitioners‡, §	7,200 *13 per 100,000*	39,000 *62 per 100,000*	280,000 nurse practitioners *84 per 100,000*

Notes: * Data are taken from various sources with different definitions and timeframes so these estimates should be treated with caution. † Data are for mid-2020. ‡ US data on advanced practitioners is for 'nurse practitioners' as at May 2023. § England data on advanced practitioners is for 2022.
Source: Based on Hooker and Berkowitz (2020);[21] US Bureau of Labor Statistics (2023);[22] NHS England (2023)[1]

The future balance of professions in the NHS

The 2023 NHS Long Term Workforce Plan highlighted the workforce challenges for the NHS, in terms of both numbers and mix of skills, with particular reference to increased use of community and primary care services.[1] The plan sets out ambitions for very substantial increases in staff, projecting that the NHS will employ more than 900,000 additional staff over 15 years in response to a growing population and changing patient needs. The plan includes an array of proposals around different types of skill-mix changes, which can be broadly categorised into advanced, assistant, new, extended and apprenticeship roles (see Figure 11).

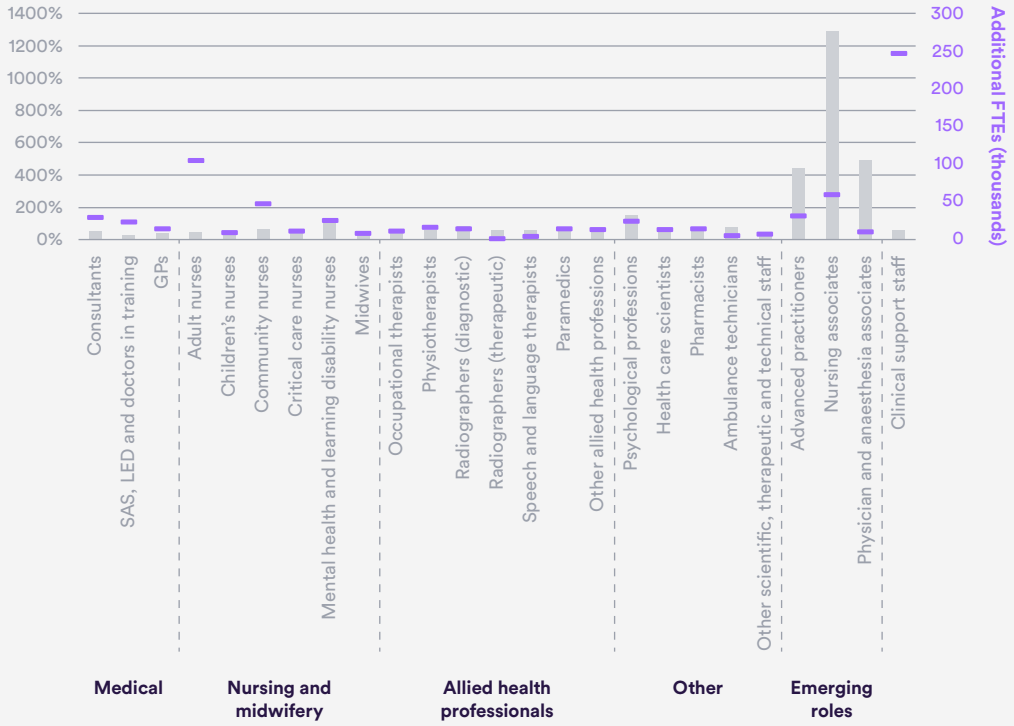
Figure 11: Key skill-mix-change ambitions within the NHS Long Term Workforce Plan



Notes: Professions are categorised for presentational purposes. Some roles in fact cover more than one category. The measures and timeframes differ between some professions because of a lack of consistent published information. Increases are for 2036/37 unless stated otherwise.
Source: NHS England (2023)[1]

The projected relative increases between staff groups are not consistent. By some margin, the largest relative increases from staff in post at 2022 through to 2036/37 would be for nursing associates (to around 14 times the current level), physician and anaesthesia associates and advanced practitioners (all to around six times the current level). In absolute terms, the largest growth across professionally qualified clinical staff would be for adult nurses (105,000), although the minimum expected growth in nursing associates (59,000) and advanced practitioners (32,000) would be considerable (see Figure 12).[1]
Of course, the specific projections should be treated as broad estimates, given uncertainty around future factors that may affect workforce numbers, apparent weaknesses in this first version of the modelling rapidly produced by NHS England, and plans to review and update the projections.[2,3]

Figure 12: Minimum projected growth of NHS staff groups to 2036

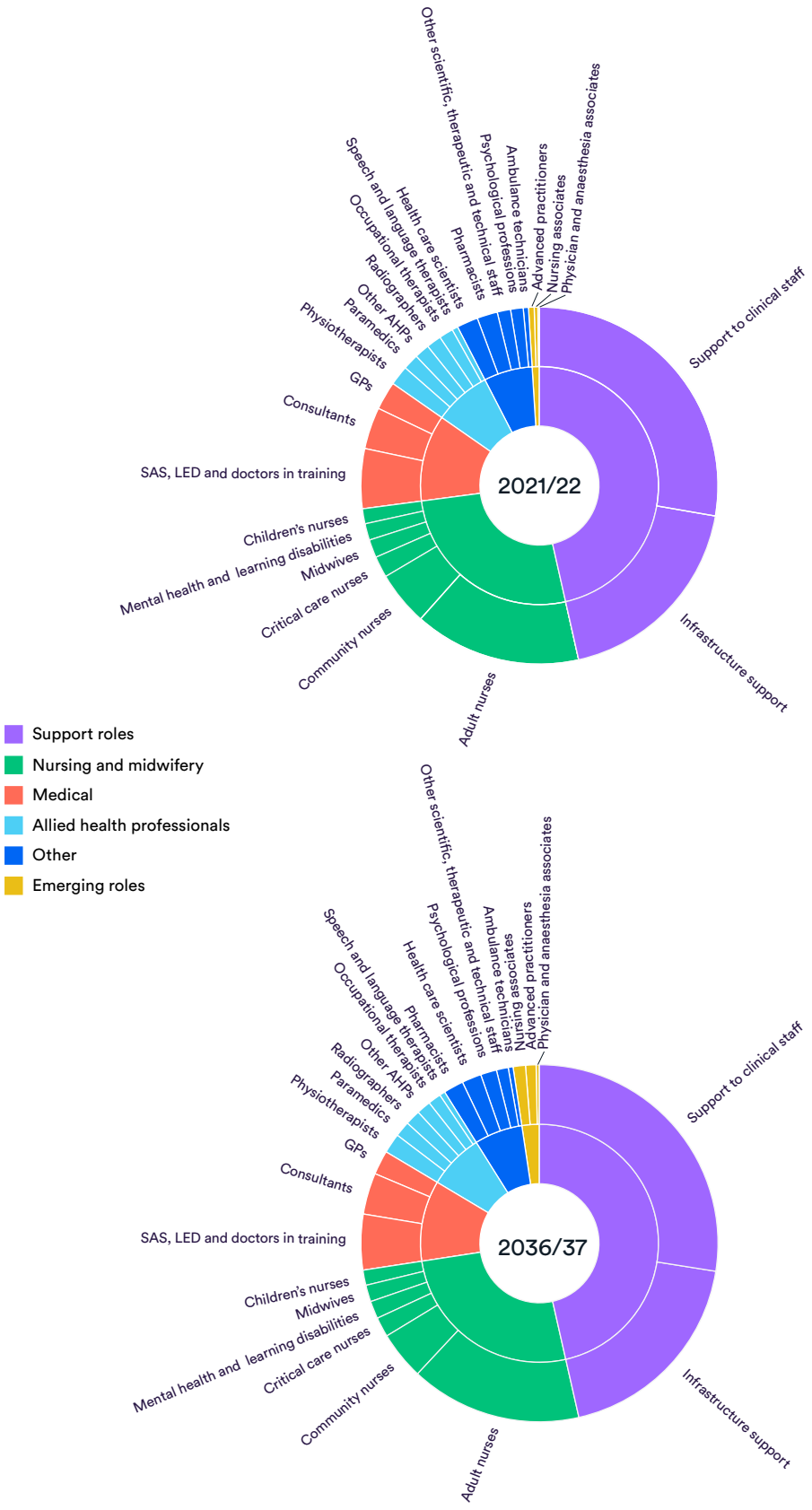


Note: FTE = full-time equivalent, LED = locally employed doctor and SAS = specialty and specialist doctor.
Source: Nuffield Trust analysis of the NHS Long Term Workforce Plan

Projected changes must also be seen in the context of the trends that precede them. For example, across the 14 years from 2010 to 2024, the medical workforce in hospital and community settings rose by half (49%), which is a marginally higher rate than for clinical support staff (43%), but much larger than for nurses and health visitors (28%).[24]

Given the overall size of the NHS workforce and established professions, the shifts outlined in the Long Term Workforce Plan to 2036/37 would only have a relatively small effect on the overall balance of staff groups (see Figure 13), although the three groups of emerging roles will expand from 1% to 6% of the clinical workforce. Many of these advanced practitioners will be nurses by background, with the nurse staff group (excluding advanced nurse practitioners) remaining at a similar level (30% in 2021/22 compared with 29% in 2036/37). Meanwhile, the projections suggest that the number of doctors, as a proportion of all clinical staff, will fall from 14% in 2021/22 to 12%.

Figure 13: The shape of the NHS in 2021/22 and – as projected – in the future



Source: Nuffield Trust analysis of the NHS Long Term Workforce Plan

2 Lessons on reshaping the NHS workforce

There are many reasons to seek to reshape the NHS workforce, but doing so does not guarantee better care or efficiency. With that in mind, this chapter outlines lessons around reshaping the workforce. We analysed literature on previous attempts to change skill mix within the NHS and other health systems to draw out lessons relevant to current and future actions (with a particular focus on review papers). We also use insights from our focus groups, interviews with relevant stakeholders, survey and analysis of data, where relevant.

Frontline organisational development

Previous research has consistently identified the significant organisational development capacity requirements required to plan, recruit, induct and integrate new and emerging roles. This has been evidenced with the introduction of several roles, such as physician associates.[25] Similarly, research published in 2022 found strong local clinical and business management to be vital to the successful implementation of pharmacist roles in primary care.[26] Human resources (HR) and managerial support have also been noted as crucial – but often insufficient – for the effective integration of ARRS roles in general practice.[27] Focus group participants also reported the importance of organisational leadership.

> **But organisational leadership's probably the biggest one. But it's backfill... who's going to oversee supervision, who's going to do the reporting, who's in the assessment, who's going to do the governance, who's going to do the assurance? There's loads of bits to it, but without organisational leadership to drive it, you're stuffed.**
> Focus group participant

The Covid-19 pandemic and current capacity pressures confronting services have made it even more difficult to ringfence time for organisational development requirements.[28] However, there are also pre-existing structural challenges, with one (albeit old – from 2005) international report noting that, in the UK context, 'the decentralised management of the NHS was also reported to have an impact on the development of roles, which were developed locally rather than as a strategic and integrated workforce plan'.[8]

Designing the role

A key foundation to successfully introducing new professions within a service, or reshaping the mix of professions, is careful design of the role. Previous initiatives to introduce roles to new services or settings have often been hindered by employers not having the time or capacity to carefully design the role within the team and integrate them into wider workforce plans.[29] For example, organisations that introduced nursing associates without adequate time to prepare a strategy for the role saw both trainees and staff more poorly prepared for the change.[30] A report on ARRS roles highlighted the scale of the deficit in this area, given 'the scope and design of roles appears to be largely unexamined'.[31] Another recent review, on the advanced nurse practitioner role, reported an appropriate and coherent definition of the role to be key to implementation and reducing ambiguity relating to the role, including clarity about scope of practice, expectations and working with other professions.[32]

The importance of role design was reiterated in our primary research. More than half of our survey respondents who were doctors or staff in leadership or management roles believed that capacity to develop both physician associate and advanced clinical practitioner roles, and redesign services to incorporate them, was a constraint to their implementation. In focus groups we also heard about variation in the way that advanced practitioner roles are being implemented within organisations.

> **We've had people developing advanced practice in different ways in different parts of the organisation and... up until quite recently the level, the understanding of what do we mean by advanced practice in some areas has been really quite minimal.**
> Focus group participant

Role design involves the way tasks are delegated within a multidisciplinary team,[8] but it needs to capture more than just direct clinical care. In particular, the experience of the introduction of new roles within general practice services suggests that, to work, this required a clear purpose, with attention to the cultural change needed for multi-professional working and with support for practices to redesign their services to accommodate the new roles.[33] As we discuss later in this chapter (in the section 'Acceptance by other professions', p 54), whether other staff perceive that their contribution is being complemented or, to some degree, replicated by emerging roles is a key determinant of their attitudes towards these roles.[25] A key way that central bodies can help providers implement new skill mixes is by clearly disseminating expectations around role design.

The process of role design also relies on a detailed understanding of the skills, knowledge and scope of practice of both existing staff and anyone being integrated into the workforce. Particular challenges have included ascertaining levels of clinical experience, which vary considerably between emerging roles.[34] Studies have drawn attention to the importance of realistic expectations being placed on new joiners with minimal experience of working face to face with patients (see the section 'Education and training', later in this chapter, p 35).[26] Other countries, including Australia (see Box 2), have recognised the challenge of designing roles to make the best use of emerging roles.

Box 2: Scope of practice in Australia

A national 10-year Nurse Practitioner Workforce Plan in Australia, published in 2023, highlighted the challenges in Australia in developing models of care that allow nurse practitioners to work to their full scope of practice. In response, their government announced an independent Scope of Practice Review to examine how government can support health practitioners to make full use of their skills and training.[35] The resulting review suggested that virtually all health professions in the primary care sector, including general practitioners, face some restrictions and barriers to working at full scope of practice that are unrelated to their education and competence. The review highlighted, among many things, limited awareness of scope of practice across multidisciplinary teams and opportunities to standardise regulatory approaches, the importance of culture and leadership and opportunities around those working in rural and remote settings.[36]

Stakeholders in our research often expressed a keenness for greater national consistency and clarity on central elements of role design, such as for advanced practice roles,[37] although this may at times conflict with the ambition for staff in these roles to fill specific skill or capacity gaps within teams. A further challenge in relation to role design is avoiding potential unintended consequences around 'taskification' (see Box 3).

Box 3: Risks of 'taskification'

One evaluation around ARRS roles highlighted that to employ more people with less experience, work was increasingly delivered as specific, individual tasks.[31] Risks around this so-called 'taskification' have been identified in, for example, nursing associates in hospitals too.[38] Such role design can have unintended consequences by having a negative impact on continuity of care and the aspiration to deliver person-centred care. Similarly, it can have a negative impact on job satisfaction and professional identity and can overlook the importance of *how well* – as opposed to *if* – a task is delivered. Some of these risks could potentially be mitigated through, for example, better communication and coordination between health care professionals.

Patient pathways and premises

The process of triaging patients to ensure they see staff with the necessary competencies is a key feature of effective role design. This part of role design may involve, for example, redesigning triage protocols and patient pathways.[8] Failures to do this have led at times to ARRS roles receiving inappropriate referrals, which was sometimes also driven by supervising staff lacking understanding of their colleagues' capabilities.[27] Patients seeking a diagnosis for the first time create a challenging dynamic in this respect because of greater reliance on the judgement of clinical staff, but the recent evidence base around this issue is sparse.[39]

Previous experience suggests that there are other frontline management factors around planning, designing and recruiting that are essential to the embedding of new and emerging roles. For example, research published in 2021 found time and capacity to be critical for effective onboarding for the integration of pharmacists into general practice.[40]

Pressures on premises have also been identified as a constraint to the organisational development of integrating new and emerging roles. While remote and flexible working can help to ease this (while generating other forms of risk), a lack of adequate estate has been reported as an issue for the implementation of ARRS roles in primary care.[27,41]

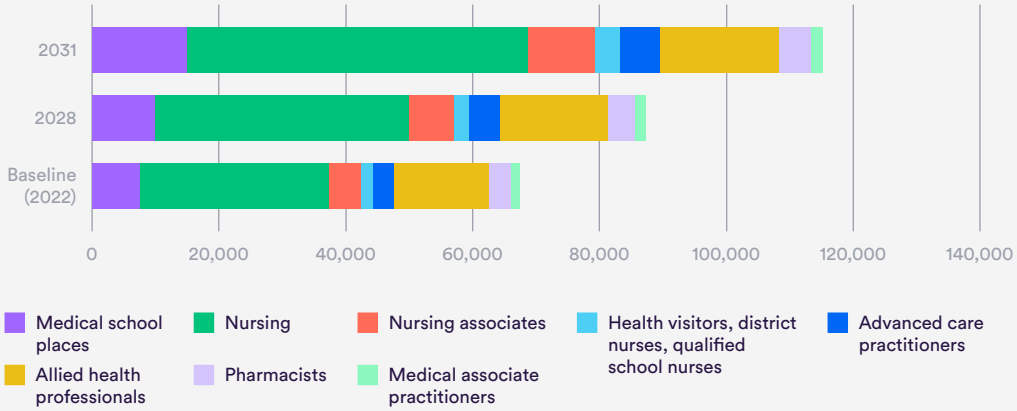
Moreover, organisational development, leadership and service redesign expertise are needed to deliver the cultural change required to embed such roles. These supporting capacities have not been present with the integration of ARRS roles.[27]

Education and training

The ability to support sufficient education opportunities will be key to delivering the intended reshaping of the workforce. Individuals will need to be educated appropriately to fill new and emerging roles, which requires standards and clinical competencies to be agreed and assessed.[8] The NHS Long Term Workforce Plan outlines ambitions to increase the annual

education and training intake from around 80,300 in 2022 to 131,700 in 2031.[1,*] This equates to an increase of around two-thirds (64%), although certain professions are predicted to see a larger increase still, including a doubling of medical school places and nursing associate training places (see Figure 14). Such increases may be necessary to deliver a sustainable supply of staff; however, as we describe below, previous experience suggests that it would need to be implemented carefully.

Figure 14: Education and training intake for selected professions, 2022, 2028 and 2031



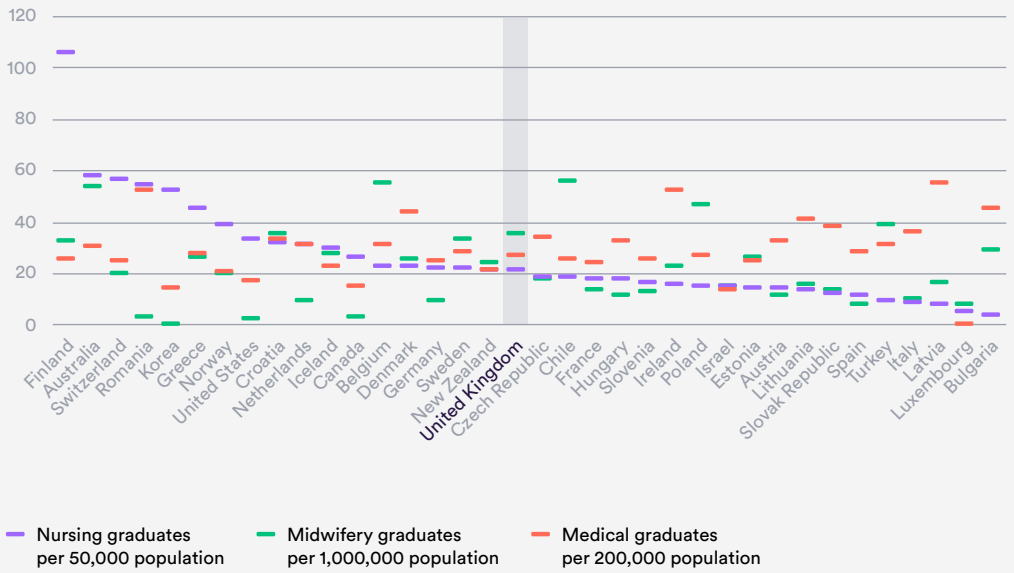
Notes: Data are presented for selected professions only and exclude, for example, GPs in training, midwives, clinical psychologists, health care scientists, dentists and peer support workers.
Source: Nuffield Trust analysis of NHS Long Term Workforce Plan

In terms of the feasibility of training and educating the ever-growing and diverse intake, it is worth reflecting on the size of our current pipeline. We appear to be in the middle of the pack of countries with broadly comparable data on the number of nursing and medical graduates relative to population size. The planned increases in nurse training would mean we still have fewer graduates in this profession (relative to the population) than current levels in countries such as Australia and Finland, so this would not be unprecedented (see Figure 15). Of course, the three professions in this chart (nursing,

* This includes medical school places, GP trainee places, nurses, nursing associates, midwives, health visitors/district nurses, advanced clinical practitioners, allied health professionals and medical associate practitioners.

medicine and midwifery) are established but, nevertheless, the recognition that there are ever-increasing expectations about educational capacity is important, particularly as they may at times be competing for educational opportunities with students in emerging professions.

Figure 15: International comparison of the number of nursing, medical and midwifery graduates in relation to population size



Notes: Countries presented are those with available figures within the source dataset. Individual country data are for 2022 or latest available.
Source: Nuffield Trust analysis of OECD data

Preparation for practice

Educational content and experience for those in training needs to be designed to equip joiners well for the tasks they are expected to perform. In the case of clinical pharmacists, one key issue, identified in the Clinical Pharmacists in General Practice pilot scheme, was that new starters appeared to lack sufficient experience in contact with patients. Assumptions that new clinical pharmacists are consistently adequately prepared for such activities were found to have led to a deficit in the availability of relevant support and training.[42] Roles such as physician associates, which require minimal or no prior experience in providing health care before training, can be similarly confronted with issues related to a lack of practical experience.

In our survey, there were significant disparities between respondent groups in relation to whether they felt that the content of training was a constraint to the implementation of new and emerging roles. Specifically, doctors were three times more likely to cite the content of training as a constraint than those in emerging roles (73% versus 25%). It is, however, important to note the potential relationship between how and where the survey was shared and the views expressed (please see Appendix 2 for further details of the survey sampling).

Even for advanced practice roles – where individuals already have many years of experience as a health care practitioner – challenges have been highlighted about the extent to which individuals are prepared to undertake different aspects of their new role. In part this is because of the diverse range of professional backgrounds of those enrolling in the training and the generic nature of some of the training. In our focus groups we heard the challenges that advanced clinical practitioners and physician associates faced when embedded in generalist specialties.

Generalist specialties, general medicine and geriatrics [are] a very difficult place to put an ACP [advanced clinical practitioner] or a physician associate [given] very unselected, very vague, you know, no clear protocols or parameters. And then on top of it all, you load inadequate supervision on top of it all. It does make it a very hard place for them to be.

So… the most anxious one person/people I've come across have been ACPs coming from, say, a therapy or nursing background who are suddenly thrown into a very generalised unselected group of patients with no diagnosis and then inadequate supervision after that.
Focus group participants

For advanced practice roles, specific Master's qualifications are typically required, but substantial variation in the quality and content of courses, as well as requirements for entry into the courses, is apparent.[15] An increasingly diverse set of providers are offering advanced practice courses, some of which do not have prior experience surrounding the professions.[15] While

programmes can be accredited by the NHS England Centre for Advancing Practice there is currently no mandatory regulation of courses and the situation has led to further variation in the extent to which new starters in these roles are able to demonstrate necessary competencies.

Greater standardisation of training pathways can be facilitated through accreditation schemes and closer partnership between universities and providers.[28] A third party, such as a system-level apprentice lead or nurse practice educator, has been found in some cases to be a useful mediator of these relationships.[28] For ARRS roles, training hubs have been considered important in providing clarity of training pathways or guidance to staff,[37] and a tripartite approach between managers, practitioners and educators has been seen as key to the implementation of advanced practice roles in nursing.[2]

Some emerging roles have specific considerations in relation to education and training. For example, cases where employees are expected to undertake advanced practice training alongside their existing roles have been raised as an additional barrier to completing competencies, particularly in light of them working in services with excessive workloads.[43] There have been calls to fund the backfill of existing practice roles to allow trainees to take full advantage of learning opportunities.[37]

The nature of certain roles – including the setting they are commonly delivered in – can also create unique challenges. For example, certain community, social care and primary care services are currently finding it difficult to provide sufficient, appropriate educational opportunities. This is the case with nursing associates in social care, with a recent report highlighting that university course content often does not sufficiently reflect the social care context and that placements are more difficult to find in social care than in the NHS.[28]

Meeting planned training expansion

It is likely, however, that a major factor determining the flow of individuals into advanced clinical practitioner roles relates to provider demand for employing them and – in the case of further education for existing clinicians – their sponsorship and practice learning opportunities for training people in these roles (rather than capacity in the higher education institution sector). In our survey, clinical placement capacity during training was a significant

concern among staff in managerial or leadership roles, with 61% viewing this as a constraint to the implementation of physician associate roles, and 54% viewing it as a constraint to the implementation of advanced clinical practitioner roles. Similarly, in our focus groups we heard that capacity and funding for placements and training for physician associate roles in particular were a challenge.

I find that they [physician associate students] really are at the bottom... if I asked to place students in a particular department, they will say: 'Well, how many medical students have we got? How many training ACPs [advanced clinical practitioners] have we got? How many Band 5 staff across the floor have we got?' And if they feel that it's safe, they'll take one or two physician associate students. But there are some departments that have categorically said: 'No, we're not going to have PA [physician associate] students because we just can't supervise them'... And therefore, I start feeling a little bit anxious about their training and that – are they actually covering all the topics that they should be doing?

Focus group participant

The supply of appropriate candidates to fill the training courses is an important factor for the scaling of certain roles.[44] With physician associates, for example, broader entry requirements theoretically lead to a far larger pool of prospective applicants to draw on, but the recent polarised debate around the role might put some potential candidates off. In fact, in our focus groups we heard that there may have been a substantial recent drop in the number of applications for advanced practice training. We discuss some other aspects that might affect how the profession is perceived and the motivation to join it later in this chapter (see the section 'Acceptance by other professions', p 54 and 'Progression, wellbeing and retention', p 57).

There's been a massive drop in the number of applications for training the ACP [advanced clinical practitioners] starting in this next academic year... So I've been trying to understand why that is, despite the fact that the Long Term Workforce Plan says we need more of all these other professions. There's enough work, there's enough patients, co-morbidities are increasing. Why have we got this? And the only reasons we can come to understand at the moment is funding. And I know that is different across the nation.
Focus group participant

Another constraining factor, and source of tension, is around access to educational supervisors and opportunities. There is a risk that this will worsen if plans to scale up training mean that there are even more people who need the opportunity to learn from undertaking procedures and processes in the NHS. In the context of advanced nursing practitioners, previous work has highlighted that growing that workforce is dependent on there being enough appropriately skilled or qualified advanced nursing staff.[8] In our focus groups, we heard views that there were often insufficient opportunities for observing or completing particular tasks, creating tension between trainees from different professions where their educational needs overlapped. Studies on both nursing associates and advanced clinical practitioners have noted that some trainees rely heavily on self-advocacy, as well as substantial sacrifices of individual funds and time, to meet their learning needs, with inconsistency in how well organisations support trainees.[38,45] The need for the adequate provision of educational roles, including assessors, has been noted for nursing associates in community and primary care settings, with smaller settings often only having access to one trained assessor.[46]

Regulation

The current regulatory framework for emerging roles is varied and evolving. The Nursing & Midwifery Council (NMC) has regulated nursing associates, by law, since 2018. Both the NMC and the Health and Care Professions Council (HCPC) have explored introducing statutory regulation for advanced practice in nursing, midwifery and allied health professions but have yet to introduce

it, while the General Medical Council (GMC) began regulating physician and anaesthesia associates at the end of 2024.

Box 4: Regulation

The purpose of the regulation of health professionals is to protect the public from the risk of harm and includes promoting professional standards and maintaining public confidence in the professions.

Regulation can be considered in tiers, with 'statutory regulation' being the most formal level, whereby professionals are registered with their respective regulatory body by law. Other tiers include regulation through the individual (self-regulation), team and employer. In the absence of more formal regulation, greater responsibility falls on the individual clinician (for example, around awareness of their own limitations and scope of practice) and on their employer (for example, around taking assurance on the clinician's qualifications and in relation to ongoing support needs).

There are currently nine regulators in the UK that regulate 34 health professions by law. At the time of writing, the government had consulted on changes to regulation, including giving regulators greater autonomy and consistent powers.

A lack, or belated introduction, of statutory regulation of some emerging roles, such as physician and anaesthesia associates, has been a barrier to their implementation. It places additional responsibility on the individual in such a role and on their employer, who is responsible for assuring, for example, the suitability of the individual's qualifications and their previous experience of undertaking advanced practice roles. There are some other processes for providing assurances around these roles, including through the commissioning and (non-mandatory) accreditation of educational programmes and via credentialling (formal recognition of professionals' competencies) by some professional bodies.[15] However, this complex assurance framework can have negative consequences if roles and responsibilities are not clear or if organisations act or advise inconsistently.

Our survey found that three in five doctors (62%) and staff in emerging roles (62%) and four in five staff in leadership or managerial roles (80%) saw the regulatory position of physician associates as a constraint to the implementation of the role. Staff in leadership or management roles saw this as the single greatest constraint among those included in the survey. Similarly, in the context of a lack of regulatory clarity at the time, this barrier was the second most cited constraint to the use of nurses in advanced roles in England in a 2005 study.[8] Perhaps understandably – given the individuals will already have existing professional regulation, albeit not specifically for an advanced practice level – respondents to our survey were considerably less likely to perceive regulation requirements as a constraint to the implementation of advanced clinical practitioners.

A full appraisal of the costs and benefits of the regulation of emerging roles is beyond the scope of this report, but our review of the literature did highlight the impact of the current regulatory framework on the acceptance and implementation of emerging roles. A review of existing evidence suggested that the unregulated status of physician associates (at that time) had led to caution in using them to their fullest potential.[47] There remains a lack of awareness and confusion around their scope of practice, professional boundaries and legal status.[44] While there is a risk that regulatory restrictions on autonomy and scope of practice could affect the extent to which roles can be used to best respond to demand, serious consideration is being given to it for advanced practice in light of the following current concerns:[32]

- Most other nations with similar advanced practice levels have specific regulation.[15]

- Patients' limited understanding of advanced practice could undermine trust in, and even consent to, treatment – with two in five trainee and advanced practitioners in England (42%) reporting they thought that patients did not understand their role.[48]

- There are examples of practitioners using the 'advanced practice' title despite, for example, failing to complete the full Master's or attending only a half-day course.[15]

Where incidences of harm have occurred, they highlight the need to ensure that appropriate clinical negligence mechanisms are in place across professions. The potential for increases in the instances of harm must be considered in the rapid scaling of emerging roles.

The regulation of health professions does not guarantee the complete avoidance of harm or the maintenance of public confidence in the professions. However, statutory regulation of advanced practice and medical associate professions appears to be fairly broadly supported, notwithstanding differing views on whether the GMC are the correct professional regulator to cover physician associates. Especially, there has been support for the regulation of physician and anaesthesia associates in the context of these roles growing in numbers and increasingly making autonomous decisions without direct supervision.[49] However, the implementation needs to be done carefully. In particular, there needs to be thorough consideration of the level of costs and who bears them, and, given potential expansion of supervision and assessment requirements, the burden on services.[15,49]

In some cases, newer roles – such as surgical and advanced critical care practitioners, and advanced practitioners – are filled by those who are already regulated. In our survey, current regulation was of markedly less concern for advanced clinical practitioners; under half of all groups surveyed saw this as a constraining factor. While this means that there are already certain assurances, there still needs to be ongoing consideration of balancing the benefit of having a consistent form and scope of practice for these roles (by changing the nature of their statutory regulator to one specific to the role) with the cost of additional burden. Any introduction of direct entry into these roles (so bypassing the requirement to already be a registered health professional with experience of delivering health care) would in particular change that balance, and the response to the consultation on regulation of medical associate professions suggested this might trigger a re-evaluation of the regulation of these specific roles.[49]

Supervision

Ongoing support, such as supervision, mentorship and peer support, is a crucial enabler of the implementation and development of new and emerging roles.[27,28,29] However, there have been high-profile reported shortcomings. For example, a private company that had acquired NHS GP practices used physician associates without the required supervision.[50] In addition, a recent study found that a quarter of advanced clinical practitioners did not have access to clinical supervision.[48]

The provision of adequate, good-quality mentoring, support and supervision can be challenging to deliver, and considerable variation in these matters has been evidenced. In some instances, organisations have also underestimated supervision and support needs.[45] Recent studies have identified consistency and adequacy of support and supervision to be crucial factors for the effective integration of roles such as advanced practitioners[51] and pharmacists in general practice.[40] Inadequate supervision can disadvantage some more than others, such as those who do not have relevant previous professional experience.[38] This issue extends to line management too, with, for example, a survey of UK physician associates in 2022 finding that while a large majority (70%) reported feeling valued by their clinical line manager almost always or most of the time, one in 10 respondents (10%) said they almost never felt this way.[52] This is similar to NHS-wide results from the 2022 NHS Staff Survey.[53]

Factors such as a lack of capacity, high workload, inadequate funding and the inexperience of clinicians or employers have affected access to adequate support. Access to senior doctors is critical. However, we previously highlighted that some consultants are unwilling to act as supervisors due to the time commitment required and this is a barrier to increasing the number of advanced practitioners.[3] And a 2022 study highlighted that clinicians overwhelmed by their day-to-day work were unable to invest in developing and supervising ARRS staff, and inadequate funding/incentives often constrained the provision of support.[27] Similarly, supervision – particularly for trainee/nursing associates – has been identified as an issue in the introduction of ARRS roles,[31] and a shortage of clinical supervisors, and problems related to the quality of mentoring and supervision, have been identified as a key challenge for the integration of advanced nurse practitioner roles.[32] A 2023

review of nursing associates found that a lack of support was often related to capacity constraints.[30]

Our survey data highlights the lack of capacity to supervise emerging roles as a crucial constraint to their potential increase and safe use. Of the survey respondents, 70% cited the lack of capacity to supervise physician associates as a constraint. And it was often one of the top three most cited constraints to the implementation of both the physician associate and advanced clinical practice roles, across the different groups of respondents (see Table 2). In fact, between three-quarters and four-fifths of doctors and of those in leadership/managerial roles indicated supervision capacity was a constraint for both of these roles. In our focus groups, we heard concerns relating to capacity challenges for supervision and a general lack of planning for supervising/supporting roles.

There was an assumption that the PA [physician associate] would reduce their supervisor's workload and thereby balance out the amount of supervision and the appraisal that was needed. But it doesn't actually work that way because the supervisor's workload is usually never-ending and just gets filled up with something else.

Managers have read, 'oh, we need to have these roles in our services. Let's see how we can make it happen', but without actually thinking about the longer term. So now what we're finding is we've got managers that aren't really up to date or knowing how to support APs [advanced practitioners] once they've qualified. And that's been the same with our nursing associates. We don't have the supervision structures in place.

Focus group participants

Table 2: Top three constraints to the potential increased and safe use of physician associates (PAs) and advanced clinical practitioners (ACPs) in the NHS, by staff group of respondent

	Respondent role			
	Doctor	Emerging role	Manager	Other staff group
Capacity to **develop role and redesign services**				1 ACPs
Current **regulation** or certification requirements		2 PAs	1 PAs	3 PAs
Capacity to **supervise** these staff in their roles	1	3 ACPs	2 PAs 1 ACPs	1 PAs
Pay structures and pay differentials between these roles and other health professionals				2 ACPs
Current levels allocated to **staffing budget**		2 ACPs	3 ACPs	3 ACPs
Capacity of **education** providers to develop appropriate curriculum and train for competencies of these roles	3 ACPs			
Clinical placement capacity during their education or training	2			2 PAs
The content or **curriculum** of their education and training	3 PAs			
Attitudes or understanding of doctors towards use of these roles		1	3 PAs 2 ACPs	
Attitudes or understanding of other health professionals or workers towards use of these roles		3 PAs		

Note: Constraint response options that were not in the top three for any respondent group are not shown.

Source: Nuffield Trust survey

This challenge has become even more acute in the face of capacity strains since the onset of the Covid-19 pandemic.[54] However, there are also positive opportunities with regards to emerging roles. For example, roles such as surgical care practitioners have been seen as capable of increasing training and development opportunities for the wider workforce, as they can act as facilitators of some of these.[55]

For new and emerging roles to be embedded, a supportive infrastructure at an organisational level is needed beyond access to regular supervision. For supervisors to provide adequate support for advanced clinical practitioners, they must understand what the role entails in terms of demonstrating, observing and assessing practice, and the long-term commitment involved.[37]

Mentoring and peer support have also been shown to facilitate the development and effective integration of roles – for example, non-medical prescribers,[56] advanced clinical practitioners[34] and pharmacists in general practice.[26] With ARRS roles, peer support appears to foster a sense of belonging, promote teamwork and prevent isolation and attrition.[27] Correspondingly, social media networks for trainee nursing associates have facilitated a sense of belonging and connectedness.[30]

Public awareness and consent

Public awareness and understanding of emerging roles are important to their success and integration into the broader health service. However, for many roles, these are limited. For example, our report on advanced practice highlighted previous surveys, which found that two in five trainee and advanced practitioners in England (42%) thought that patients did not understand their role.[15] Studies looking directly at patient perspectives have uncovered similar themes. In one study, some patients who encountered physician associates were not aware of the role, or that this was who they had encountered.[47] Patients also had an expectation that physician and anaesthesia associates, who are likely to provide care alongside a range of members of regulated medical professions, would also be regulated.[47] Additionally, a British Medical Association survey found that a quarter of patient respondents incorrectly assumed physician associates to be doctors.[57]

In our survey, more than half of respondents in leadership or management roles (55%), and nearly two-thirds of doctors (65%), believed that patients' attitudes towards or understanding of physician associates were a constraint to implementing the role. This was less pronounced for advanced clinical practitioner roles, with 30% of managers and 51% of doctors selecting it as a constraint. Those in emerging roles who responded to our survey were the least likely group to believe patients' attitudes or understanding were a barrier to implementation (cited as a barrier by 42% of physician associates and only 24% of advanced clinical practitioners).

Some high-profile cases of patients coming to harm when under the care of a member of staff in an emerging role may have had a negative impact on public perceptions and trust. The death of Emily Chesterton in July 2023, following misdiagnosis by a physician associate who she assumed to be a GP, is a high-profile example. Such incidents raise legitimate concerns around emerging roles. However, some studies have identified positive experiences among those who have been cared for by emerging roles, particularly if they were well informed about the professional undertaking the procedure or consultation.[47] Statutory regulation has been suggested as being a mechanism to improve public confidence. In the context of advanced nurse practitioners, protection of titles (so only those appropriately registered can use the designated title) has been identified as another source of clarity and confidence, but the principle is likely to extend to all roles that are currently not legislated.[8] We discuss regulation in further detail earlier in this chapter (p 41).

Consent to treatment

If a person is to receive care, they need to give their consent to the treatment, and this must be an informed decision. However, poor public understanding of emerging roles could undermine consent. In our previous research on advanced practice, some stakeholders raised concerns about whether a lack of public understanding of the advanced practice role means that they might not be sufficiently informed about the clinician to provide such consent.[15]

In the case of surgical care practitioners, there is evidence that having confidence that supervision from more experienced health care professionals is carried out has a significant effect on whether patients provide consent.[58]

In another study, patients were supportive of emerging roles when they could identify a positive impact on the timeliness, quality and personalisation of their care as a direct result of the involvement of an emerging role.[42]

Governmental, political and financial support

Assurance over long-term central support for emerging professions and changes in skill mix appears to be important. In our research, support from the government and NHS England was generally viewed as integral to success for a range of emerging roles. However, survey respondents gave mixed views on whether national, or 'top-down', pressure was an important driver underpinning their rollout. Among factors posed in our survey, government or political support for new roles was the least likely to be selected as a current constraint to the introduction of physician associate or advanced clinical practitioner roles, suggesting many thought there was sufficient support.

There are numerous ways that national bodies can contribute towards embedding new and emerging roles, including by disseminating best practice. In the publications we reviewed for this research, this was seen as especially important for sites with little existing experience of deploying a role.[26] Regarding the clinical pharmacist role, stakeholders benefited from the sharing of good practice between sites and saw NHS England as having a role in facilitating understanding of the role. Clear lines of communication across the breadth of a range of stakeholders was seen as important, as was centralised support staff for sites piloting roles.[26] Complaints were raised regarding a lack of two-way communication with NHS England, with no feedback offered when sites provided data.[42] Also, guidance provided on ARRS roles was seen to lack clarity due to too much documentation being disseminated, as opposed to one clear set of guidelines.[27]

For a variety of emerging roles, stakeholders perceived the Department of Health and Social Care and NHS England as pivotal in promoting uptake and setting the agenda around changes in skill mix. In the case of advanced nurse practitioners, political support for the role was seen as important, including the framing of the role as a necessary element of the 'modernisation'

agenda in the NHS.[8] One review noted that there was less focus on rolling out advanced practice roles in mental health than in many areas of physical health, leading to fewer advanced practice roles in an area of the service facing particular struggles with workforce numbers.[59] Central bodies were seen as responsible for (but currently not always effective at) generating a sense of shared purpose and vision around roles such as those in the ARRS, which would create the basis for greater buy-in across the NHS.[27] However, in our survey, government or political support was among the reasons cited least often as a constraint to the implementation of both physician associate and advanced clinical practitioner roles while, as mentioned previously, national or 'top-down' pressure was the driver that doctors most commonly cited as important to the rollout of the physician associate role.

Financial support

The degree and consistency of financial support for emerging roles are also influential for success. Our survey respondents in leadership or management roles were the most likely staff group to cite current levels of health sector funding allocated to staffing budgets as a constraint to the implementation of physician associates and advanced clinical practitioner roles, at 57% and 59%, respectively. A similar survey conducted two decades ago found that insufficient sector funding was, among respondents, the most commonly identified constraint to the use of nurses in advanced roles.[8]

One tangible aspect of this is the financial support specific to a role. Various published studies, including on clinical pharmacists in general practice and physician associates, have pointed to the role that central funding for salaries played in promoting their growth. Additionally, increased training subsidies and reimbursement were associated with advanced practitioner and physician associate workforce growth in the Netherlands.[60,61]

However, there were some concerns that the funding may be short term, which hindered ability for long-term workforce planning. In the case of ARRS roles, the absence of long-term funding commitments at a time of overall budgetary constraints has caused concern.[27] One study also raised that siloed workforce funding restricted spending on advanced practice roles.[45] In the focus groups, respondents noted the challenges with the short-termism of funding commitments and the implications for workforce planning.

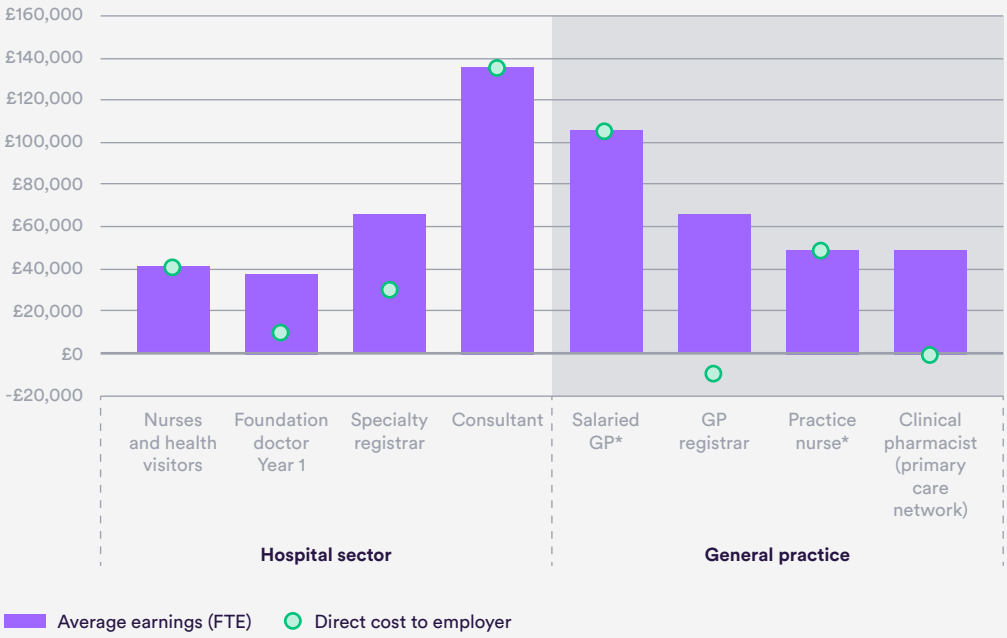
At the moment seems much better. It seems much more organised in terms of we know when... we get funding for somebody for a full three years to take them through their ACP [advanced clinical practitioner] training, which is... really helpful, but... funding will come out at short notice and will be short term. And it doesn't really help with your long-term planning of workforce and development of workforce.
Focus group participant

Current funding arrangements may be distorting local decisions on skill mix, given that the salary costs to providers differ significantly from the actual costs from a taxpayer perspective. In particular, NHS trusts are incentivised to plan to use junior doctors rather than other staff, because NHS England covers half of the basic salary costs of doctors-in-training – and all GPs in training – with further national funding for their training placements. This means, for instance, that the costs to an NHS trust of employing a nurse is around four times that of a newly qualified doctor and broadly similar to that for a specialty registrar (see Figure 16).[62,*]

In general practice, three-quarters of growth in staff over the past five years (78%) has been through the ARRS, which means practices do not have to cover their salaries, but this arrangement only covers certain staff groups. Since 2024, recently qualified GPs can also be employed through ARRS (with additional funding to do so ringfenced) and have salary costs covered centrally. General practice nurses are also set to be added to the scheme in 2025.

* Data are for the lowest pay point for first-year foundation doctors, consultants and Band 5 nurses. They include only basic salary costs and Health Education England placement fees. They exclude additional costs such as National Insurance and pension contributions, payments for working unsocial hours or on call, and overheads.

Figure 16: Average earnings and costs to employers of selected professions employed by NHS trusts or in general practice



Notes: * Recently qualified GPs can also be employed through ARRS since 2024 (with general practice nurses set to be added in 2025) and have salary costs covered centrally. We were not able to identify definitive data on general practice staff salaries and reimbursement, so these figures should be treated with caution. A negative cost reflects where central salary reimbursement and placement funding are greater than the salary. FTE = full-time equivalent.
Source: Nuffield Trust analysis of NHS England data

More generally, the broader financial position of providers has an effect. This may be particularly important for roles that involve existing staff moving into more advanced or specialised positions, with sponsorship of training and eventual employment potentially contingent on budget pressure. Certainly, in our survey, those in emerging roles, managers and other (non-medical) staff groups all reported the staffing budget as one of their top three constraints to the implementation of advanced clinical practice roles.

Acceptance by other professions

The integration of new roles with other professions and effective teamworking have been highlighted as key to their implementation.[32,55] However, previous experience of the integration of new roles into the NHS – such as for nursing associates and advanced nurse practitioners – has shown that their introduction can be met with challenge and resistance by some staff. In a survey of UK physician associates in 2022, respondents generally felt valued by colleagues – including doctors – although they generally felt less valued by 'organisational management'.[52] However, since then the debate has become increasingly polarised.[63]

Tensions can stem from concerns about the quality and safety of care provided by the practitioner, but previous reviews have suggested a lack of acceptance can also be associated with a lack of understanding and awareness of roles, as well as fears of role substitution or replacement. In the case of nursing associates,[30] widespread lack of awareness of the nursing associate role and poorly defined scope were identified as related to the willingness of wider professions to accept the role. One study described concerns relating to a 'blurring' between the roles of registered nurses and nursing associates.[38] And similarly with advanced nurse practitioners, a 2020 review reported a lack of role awareness and acceptance from other professions.[32] This tallies with recent experience around, for instance, anaesthesia associates, with a recent survey highlighting that consultants who regularly worked with them were less likely to express a negative view of the role, while anaesthetists in training who had never worked with them held the most negative views.[64] This is also the case with surgical care practitioners and trainees, due to a lack of understanding of roles.[55] Unreasonable and/or unrealistic expectations that other professions hold might also contribute towards a lack of acceptance of new or emerging roles – with such views seen with the integration of pharmacists into general practice.[40,42]

Our survey, which was live in July 2024, reiterates the extent to which acceptance of emerging roles by other medical professionals is a key issue. In particular, three-quarters of respondents in emerging roles (76%) said that doctors' attitudes towards or understanding of the physician associate role were a constraint to implementation. This made it the most cited constraint

among this group. This was similar (76%) for respondents in leadership or managerial roles. Meanwhile, 61% of those in emerging roles and 67% of leadership or managerial staff believed that the attitudes or understanding of other health professionals were a constraint.

For advanced practice roles this appeared to be a less pronounced issue, although still important: 59% of staff in leadership or managerial roles cited doctors' attitudes as a constraint to the implementation of advanced clinical practitioner roles.

Concerns relating to role erosion,[4] substitution or replacement for certain roles and staff members have been observed across several new roles. For example, in the case of nursing associates in one study, nurses and student nurses were concerned that nursing associates were seen as a cheaper and more desirable option.[30] Similar concerns about role substitution have been evidenced with the introduction of, for example, physician associates, related to a lack of clarity over roles and rotas.[47] Concerns about role erosion have also been identified among wider primary care staff following the introduction of advanced nurse practitioners.[44] Previous analyses of the reshaping of the workforce indicate that a lack of clear role definition, and perceived overlap in scope of practice and requirements for training, exacerbate these concerns.[42,55] People have also expressed anxieties in relation to the extent to which medical professionals supervising roles such as physician associates are liable for the errors of the individual in the emerging role.[65]

Concerns among other professions regarding emerging roles also relate to the impact of their implementation on training and development opportunities. For example, this has been seen with the introduction of the surgical care practitioner role, with fears among surgical trainees that the role would have an impact on training experiences, and portfolio and logbook development.[55] A recent survey of the impact of physician associates on surgical training found that 70% of respondents reported a negative impact, with reasons cited including reduced training opportunities in theatre and reduced theatre case numbers for surgical doctors.[66] Similar concerns have been raised with other emerging roles underlining the importance of education and training opportunities, as discussed earlier (p 35).

Official statements by organisations representing different parts of the workforce reflect many of these concerns. Particularly, they tend to focus on safety, role substitution and protecting the training opportunities of those they represent. Relatedly, calls for better regulation (where relevant) and definition of scope of practice are common. For example, a statement from the Royal College of Surgeons of England states: 'Physician associates must not replace surgeons or surgical trainees… There is an urgent need to define a national scope of practice.' The statement also calls for urgent regulation and protected (and enhanced) training time for surgical trainees.[67] In relation to ARRS roles, the Royal College of General Practitioners have called for 'greater clarity about how these roles should be integrated into primary care teams to improve patient care'.[68] Organisations such as the Royal College of Nursing and the Royal College of Anaesthetists have issued statements on emerging roles (typically those that have some degree of overlap with the scope of practice of their members), addressing similar themes.[69,70]

Some bodies have shifted to a less supportive stance of physician associate roles in recent months. In September 2024, the Royal College of General Practitioners' governing UK council voted to oppose the role of physician associates working in general practice.[71] A few months later, the Royal College of Physicians stated in a briefing to parliamentarians that there "must be a limit to the pace and scale of the proposed PA rollout" outlined in the Long Term Workforce Plan.[72]

The broader rollout of nursing associate roles to other clinical areas found that resistance to such roles tends to dissipate as they become more embedded and their value becomes clear, particularly with increasing awareness of such roles and their scope of practice.[73] A cultural change agent, in the way of a practice development nurse, has been found to be pivotal in embedding and clarifying the role within organisations, through educating teams about the scope of practice and raising the profile.[30] Whether and to what extent such agents would be transferrable to the introduction of other professional roles is unclear; however, the role of clinical/organisational champions in facilitating health system change is well evidenced.[74]

In relation to the introduction of ARRS roles, one study suggested that primary care staff members are generally positive about their potential to support general practice, with cited benefits including the ability to delegate tasks and

reduce pressure on GP time,[41] while another study reported that most ARRS staff who were interviewed felt welcomed and valued, and believed the role to be making a difference.[75] Another recent report found that 89% of clinical pharmacists agreed that they were accepted by other professionals in general practice.[26] A 2020 review found that positive attitudes among doctors about advanced nurse practitioners and their scope of practice were facilitators to their integration.[32] However, it is important to note that findings relating to the acceptance of roles are likely to be highly role and context specific and that the landscape is evolving fast.

Progression, wellbeing and retention

We found limited research focused on the general satisfaction and wellbeing of staff in emerging roles. That said, authors of a recent study on the ARRS roles reported hearing that staff were leaving because they did not feel part of a team or that their role was not being used appropriately.[41] A large survey of physician associates in the UK in 2022 found that – at that time – around four in five respondents agreed or strongly agreed that they would recommend the career to a friend. Nevertheless, nearly half of respondents agreed to some extent that their job got them down.[52] In the case of clinical pharmacists, a recent national survey indicated that those in the role enjoyed high levels of satisfaction (89% agreed or strongly agreed that they enjoyed working in their role).[26]

Career path, development and progression

Providing clarity on progression is an important consideration to ensure effective and sustainable change when introducing new and emerging roles. With the introduction of ARRS roles in primary care, career progression was found to be a challenge and progression roadmaps were not appropriate,[76] while for physician associates, previous work has highlighted a lack of a formal career pathway and career development.[3] In fact, in a 2022 survey of UK physician associates, progression with their role was the area of least satisfaction within the theme of job satisfaction.[52] There are some inherent challenges in delivering career progression without expanding the scope of practice. However, the lack of a career pathway can have broad negative implications, with potential to impede ongoing development, the associated

level of guidance, supervision and support provided, motivation and job satisfaction.[51] Poor role planning can also lead to loss of professional identity in emerging roles, negatively affecting staff morale and satisfaction.[59] Concerns about lack of clear progression pathway and job opportunities were also raised by our focus group participants.

... certainly we have some very lucrative and willing funding from NHS England. And from our apprenticeship schemes. But is it right to put people on that track from a career point of view if they're not currently in a position or there's not an assurance that they're going to have a position at the end? And I know the positions point of view that many of them have trained, I've worked with them, they've been excellent. But there is no role for them, as you know, as they qualify. And so, you know, are we doing wrong by these people?
Focus group participant

The situation is typically more positive for nursing associates, as there are more established routes to develop careers without reducing income, moving to a different organisation or taking on debt. These nursing associate roles can act as a stepping stone to become a registered nurse but, more specifically, the role itself provides some career structure in settings, such as social care, where career progression can often be a challenge.[30] For nursing associates, in particular, in-role development has been highlighted as vital to support the postholder as their scope of practice evolves as well as ensuring successful re-validation with their professional regulator (the Nursing & Midwifery Council). However, ongoing training – specifically raised in relation to trainee and registered nursing associates – can open the employer up to new costs and investments, and one report noted the risk that employers lose sight of downstream training and development needs.[54] Certainly, there can be a tension between 'the speed with which qualified NAs [nursing associates] were moving into registered nurse training... [and], in general, organisations [that] appeared keener on supporting qualified NAs to bed-down in their new role and on helping them consolidate their skills'.[73]

The dynamic between the development of the NA [nursing associate] as a role valued in its own right and the use of the role as a stepping stone into registered nurse training was still playing itself out at the organisational level.
Kessler and others (2020)[70]

One study of ARRS roles found that there were 'numerous factors that inhibited access to training. They [staff in ARRS roles] described how training was not necessarily seen as part of the ARRS role or adding value to the PCN [primary care network]'.[27] A recent study highlighted that a lack of career progression was a barrier to the retention of some ARRS staff.[75] Similarly, a review of physician and anaesthesia associates found that the costs and effectiveness of continuing professional development (CPD) activities did not appear to have been considered.[47]

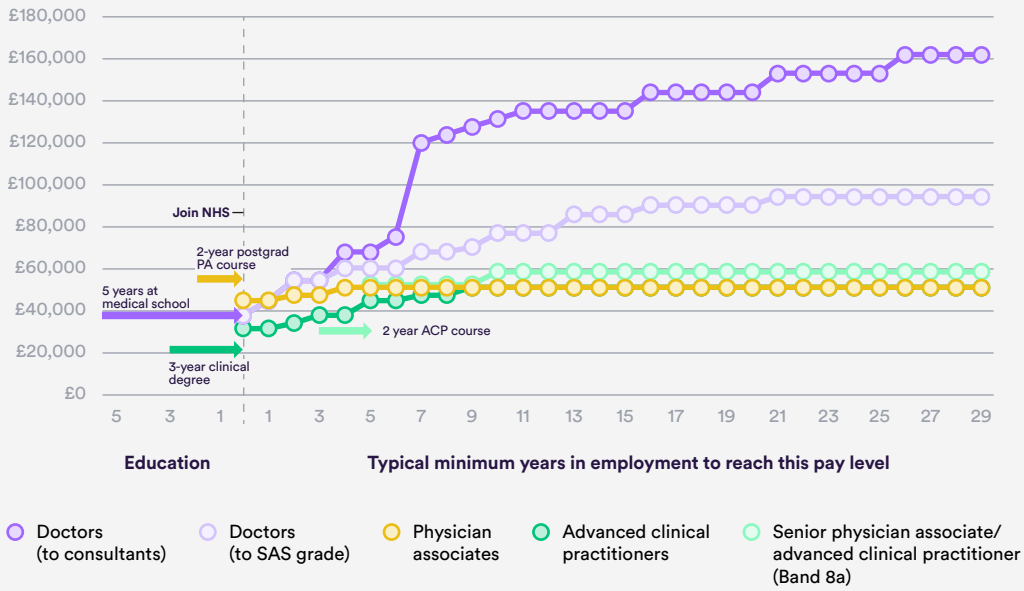
Previous research has suggested that as the advanced practice workforce grows, there will be an ever-increasing need to provide structured ongoing continuing professional development opportunities as part of structured career pathways.[29] Across the evidence we reviewed, there was a common call for improved access to and funding for this. This can prove challenging as some research has highlighted that professional development may need to be personalised to be effective, particularly given the lack of uniformity in learning and experience before entering a role. A study of advanced nurse practitioners also highlighted that poor succession planning for staff who have matured in the role impedes development opportunities.[59]

Pay

More than two-thirds of doctors surveyed as part of this study (69%) cited pay structures and pay differentials between physician associates and other health professionals as a constraint to role implementation. In fact, a previous international study suggested that the hierarchical nature and rigid structures of the NHS, including of pay frameworks, were considered to be a major barrier around the use of new and emerging roles.[8]

Within that context, the lack of attention paid to fairness of pay across professions, with some new roles having relatively high starting salaries compared with established professions (even if their subsequent pay progressions opportunities are lower), risks worsening tensions between professions. We analysed pay data to report average earnings over indicative career pathways. This shows that, for instance, the average pay of new physician associates exceeds that for doctors in their first foundation year. However, doctors' earnings soon exceed physician associate and advanced practice average earnings (see Figure 17).

Figure 17: Estimated annual earnings and pay progression



Notes: Estimates are for April 2022 to March 2023 earnings, and include an estimate for non-basic pay. Specialty registrar, specialty doctor and consultant salaries are based on published pay scales plus an uplift based on average non-basic pay but scaled in proportion to basic pay (that is, those with higher basic pay have relatively higher non-basic pay too). The indicative pathway for advanced practice is for three years' minimum post-registration (Band 5) and then starting a course (at Band 6) lasting two years, before then taking up an advanced clinical practitioner post at Band 7. The pay progression represents the likely minimum years of service to reach that pay point, which are presented for indicative purposes only. Many doctors, advanced clinical practitioners and physician associates will have a longer career path to reach these stages. ACP = advanced clinical practitioner, PA = physician associate and SAS = speciality and specialist doctor.

Sources: NHS England (2023),[77] NHS England (2023)[78] and published pay scales

Pay differentials are also an issue *within* professions. The issue has been raised particularly with respect to emerging roles subcontracted from NHS organisations, with, for example, general practice not being subject to the main NHS employment terms and conditions (Agenda for Change). This has been identified as a cause of tension within individual professional groups where people are employed under different models. A review of ARRS roles identified that those in these roles were reported to be on higher salaries and had more access to professional development than their colleagues in more established roles and that this was a cause of tension.[31,75]

3 Discussion and recommendations

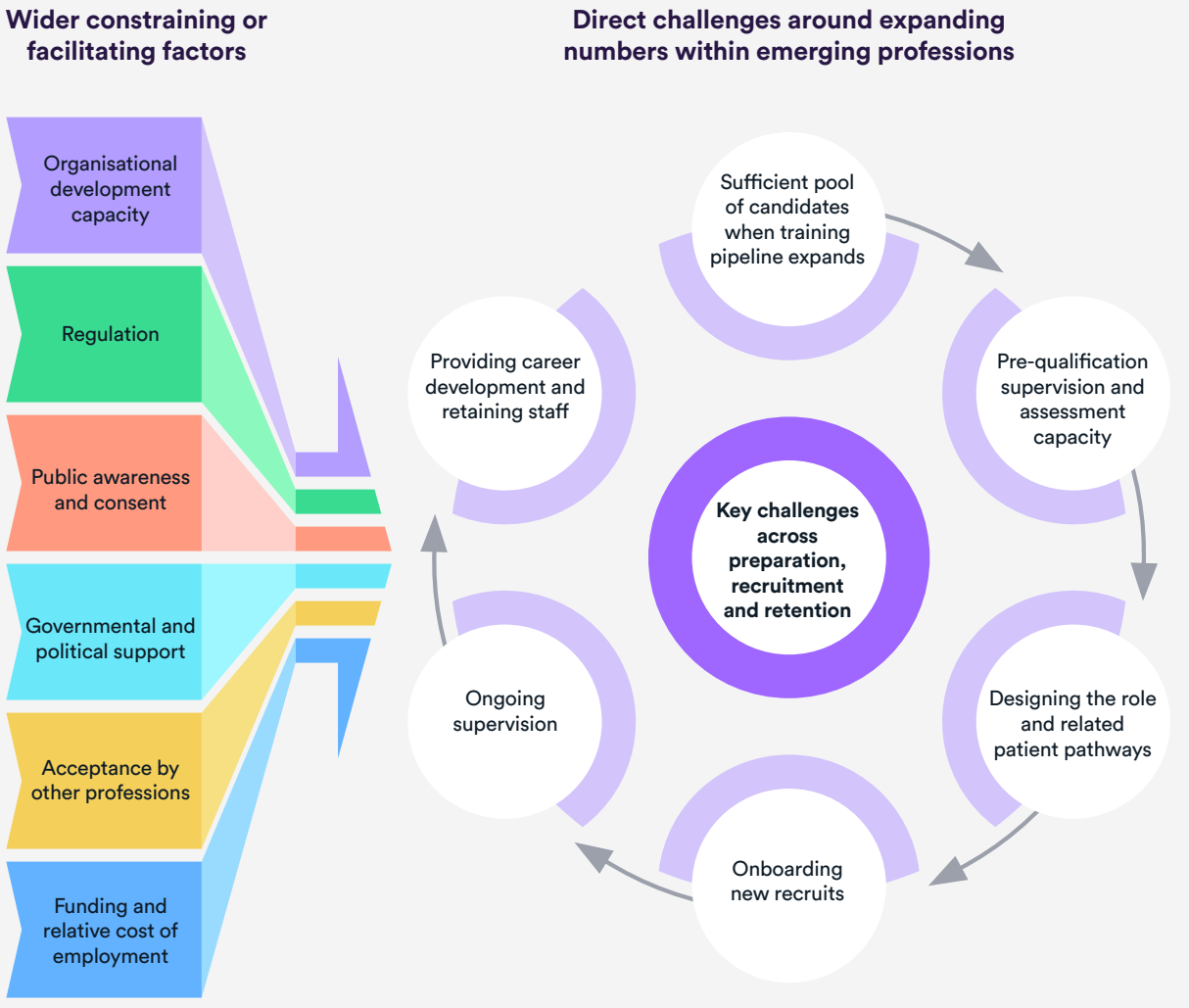
The NHS workforce is made up of a kaleidoscope of professions and has been changing in size and shape since its inception. However, policies to adjust the balance of skills that staff have and the tasks they perform have been under increasing scrutiny. The NHS in England appears to have undergone some greater shifts in the balance of professions than the other UK nations and international health services. However, the NHS also has a track record of not learning lessons from history. This is why we – supported and commissioned by NHS Employers – have produced this report to draw out established considerations for reshaping the workforce.

While some initiatives to reshape the workforce have been implemented well,[9] there are clearly risks too. Without careful implementation, changing the balance of professions could have unintended consequences, including increasing demand, adding to costs, threatening the quality of care and fragmenting care. In this report we neither sought to evaluate the merits of individual professions nor to comment on what the 'right' level or balance of new and emerging roles is. In fact, it is well established that there is no single one-size-fits-all ideal mix of health personnel.[79]

Getting it right is difficult. Nationally led mechanisms – such as professional regulation – are challenging to implement while, at the local level, the deep understanding needed of patients' needs, opportunities and challenges around various professional roles is inherently difficult even before factoring in that the current service pressures have squeezed leadership and management capacity. During the course of our work, the Secretary of State for Health and Social Care established an independent review of the physician associate and anaesthesia associate professions (the Leng Review) and, while the scope of that review differs from ours (it, for example, will consider safety) we believe the insights in this report are relevant.

We have identified a range of lessons from previous and ongoing initiatives to introduce new and emerging roles and reshape the NHS workforce. Important factors that need to be considered when embarking on such work now and in the future – encompassing challenges, constraints and facilitators – are presented in Figure 18. Although each initiative has, and will continue to have, unique challenges and opportunities, most of these factors run through all initiatives.

Figure 18: Challenges, constraints and facilitators to the use of new and emerging roles



Source: Nuffield Trust

There are several limitations to our work that should be considered when interpreting this report's findings. The short and rapid timescale for the project had an impact on the design of our research in a number of ways – limiting the scope of our work. In particular, the literature review did not comprise a systematic search, was restricted to recently published work and we did not conduct a formal assessment of the quality of the included literature. The timeline also restricted the scope of the survey and its design. We relied on a previously published and administered survey comprising only closed questions to allow for rapid analysis and were not able to include open (text-based) questions and response options due to the time required to analyse such responses. The rapidity also limited our capacity to engage more broadly with stakeholders and professions, although we facilitated a number of scoping conversations and focus groups with relevant stakeholder groups to validate emerging themes from published literature.

A strength of our work is that we have been able to build on the wealth of existing published literature across relevant roles, initiatives and settings. We have triangulated themes across available data sources, engagement with relevant stakeholders, published literature and through primary data collection (in the form of a survey and focus groups). While some of the lessons we raise are well established in the literature, it is important that we do not neglect contextual factors and the transferability of findings across specific professions and roles. To this end, further work is required in some areas (outlined in the recommendations below) to gain greater understanding.

Given that the underlying ethos of this work is to learn lessons, we have also looked back at our own work on reshaping the workforce. Our 2016 report – written by different authors in a different context and landscape – included 10 important lessons for organisations seeking to redesign their workforce, which we consider still apply today (see Box 1 on p 9).[3] But it is important to reflect on why these lessons have not always been heeded in the subsequent eight years. There are a number of possible reasons, including the scale and speed of some recent changes and that these lessons are as much for national bodies as for employer organisations, given it might be challenging for the latter alone to ensure sufficient organisational development capacity to deliver on them. In fact, there is also a need for international collaboration, given the movement of staff between settings and substantial variation in the definition, recognition, regulation and education of certain new and emerging roles.[80] In

addition to the 10 lessons set out in Box 1 (p 9), from this current research we identify the following recommendations.

Implementation capacity and support

- Significant organisational development capacity is required to plan, recruit, induct and integrate new and emerging roles. **NHS England, in collaboration with NHS Employers and others, should support NHS trusts and integrated care boards to develop strategies to enhance frontline organisational development capacity.** This might include increasing the availability of central or regional support and expertise for local providers considering reshaping their workforce.

- **NHS England, in collaboration with NHS Employers and others, should develop a strategy around further communicating good practice and lessons** on introducing new and emerging roles. This should reflect the views we heard around the importance of sharing lessons between similar services and specialties.

- Financial support can be important to support the implementation of new or emerging roles, particularly in certain settings; however, the current funding arrangements may be distorting local decisions on skill mix. **NHS England should – as a matter of urgency – revisit the principles, practicalities and impact of salary reimbursement initiatives.**

Education and supervision capacity

- Ongoing support, such as clinical supervision, mentorship and peer support, is hugely important for the implementation and development of new and emerging roles, but staff capacity to provide this is limited. Based on a rigorous understanding of the capacity required, **NHS Employers along with national bodies and staff-side organisations should explore what incentives and support are needed to ensure sufficient and fair access to supervision**.

- **NHS England should commission work to explore the capacity implications of the projected expansion of education and training** specifically for emerging roles, but including the planned expansion of more established roles.

Wellbeing

- There has been a lack of formal research and monitoring around the wellbeing of staff in emerging roles. Particularly in light of the polarised debate around some emerging staff groups, **NHS England and NHS Employers should develop a research and monitoring strategy around their wellbeing** (and of their wider team) and ensure clear roles and responsibilities for addressing any shortcomings.

Scope of practice and regulation

- All integrated care boards, as well as NHS England and relevant regulators, should have a clear strategy that protects and strengthens the relationship between higher education institutions and health and care providers. This should include appropriate mechanisms (and staffing capacity) to ensure that the curriculum and nature of education are equipping graduates with the necessary confidence, skills and experience required from day one.

- Having a clear outline of new and emerging roles and what they can and cannot do, which everybody has access to and understands, has been identified as important, and this will likely require some national intervention.[3] **NHS England and, where appropriate, professional regulators and counterparts in the other UK nations, must outline (openly) the governance arrangements for the roles and/or publish up-to-date guidance on the scope and ongoing development of these roles.** This must include how the range of stakeholders are to be engaged.

- There is clearly a local responsibility too. While some tasks appear to be among the responsibilities of most people employed in a certain role,[26] variation between the application of the same role in different specialties is, to a degree, unavoidable.[47,55] **Employers must ensure that any job**

adverts and role descriptions are appropriately aligned to any updated guidelines, particularly given the lack of shared understanding of the nature and purpose of some new and emerging roles. It is important to have appropriately consistent and precise job adverts.

- While the scope of our research did not cover the merits of individual professions, it is clear that national bodies should commission more **independent research – underpinned by appropriate access to relevant data – on the impact of different staffing mixes on patient outcomes**.

- As the regulatory framework plays catch-up with the emergence of new roles, we reiterate our **principles that regulators and governments must ensure that the regulatory framework for key new and emerging roles** is:

  - future proofed (given the likely expansion in numbers)
  - UK-wide (given the movement of professionals between nations)
  - part of a wider strategy (given statutory regulation is just one form of assurance)
  - sufficiently consistent between professions
  - conscious of any unintended consequences.[15]

Public and patient awareness

- Working with partners and using the appropriate departmental and NHS England research and communications teams, **the government should regularly monitor public and patient understanding of different roles involved in delivering frontline care and, where necessary, use communications campaign programmes** to improve public recognition and understanding.[81]

Appendix 1: Our approach

This rapid research project was primarily designed around:

- **descriptive analysis** on 'skill mix' based on published data from, for example, NHS England and the Organisation for Economic Co-operation and Development (OECD), covering, for instance:
  - recent national trends
  - projected future trends (based on the NHS Long Term Workforce Plan)
  - variation by provider and region
  - variation for certain newer roles
  - some international trends
- a **literature review**, focusing on but not limited to key policy papers, review papers and publications in the past two years to take stock of the policy landscape and, importantly, the recent evaluations around recent skill-mix changes in England, including around nursing associates, medical associate professions (anaesthesia associates, physician associates and surgical care practitioners) and extending the direct care workforce in general practice. These papers were primarily identified through handsearching key repositories and other sources.
- two **focus groups** with NHS employers to explore the practical challenges and opportunities
- a series of scoping **interviews** with key stakeholders
- a **short survey**, focusing particularly on issues directly relevant to the advanced clinical practitioner and physician associate roles, as these are two high-profile emerging roles – the survey was based on an existing questionnaire[8] to provide reassurance from using an established approach and was also piloted with several different professions.

It is important to note that we did not set out to conduct a comprehensive or exhaustive review and in Chapter 3 we outline where we consider further research and engagement is particularly necessary.

Appendix 2: Survey methods

Design and development

As part of this research we designed an online survey to collect data on the perceptions of individuals working in the NHS about the drivers, constraints and facilitators of emerging roles in the health service. The survey was based on Buchan and Calman's 2005 survey looking at skill-mix change in the health workforce.[8] We collected responses using the Microsoft Forms tool.

Content

Our survey collected:

- respondents' consent to participate in the survey and information about their role (that is, the country they work in, their job role and the type of employer organisation they work for) and whether they would like to answer questions about physician associates, advanced clinical practitioners or both roles
- answers to Likert-scale questions about the drivers of the introduction or extension of the use of physician associates safely in the NHS (from 'not at all important' to 'very important'), and answers to Likert-scale questions about the facilitators and constraints to the potential increased and safe use of physician associates in the NHS (from 'a major constraint' to 'a major facilitator')
- answers to the same set of questions, but with regard to advanced clinical practitioner roles.

Pilot testing

We piloted the survey with several different professions, requesting feedback on issues such as the language used in the survey, the domains/factors that the questions covered and the functionality of the survey platform.

Recruitment and data collection

NHS Employers disseminated the survey by email to their education and training network, medical associate professions reference group, chief people officers and their primary care network. The survey was accessible to anybody with the survey link, and we are aware that the survey was also shared informally via social media and messaging applications. Participation was voluntary and anonymous. Consent was obtained from participants at the start of the survey. Data were collected between 1 July 2024 and 12 July 2024. In total, 821 individuals responded to the survey.

Analysis

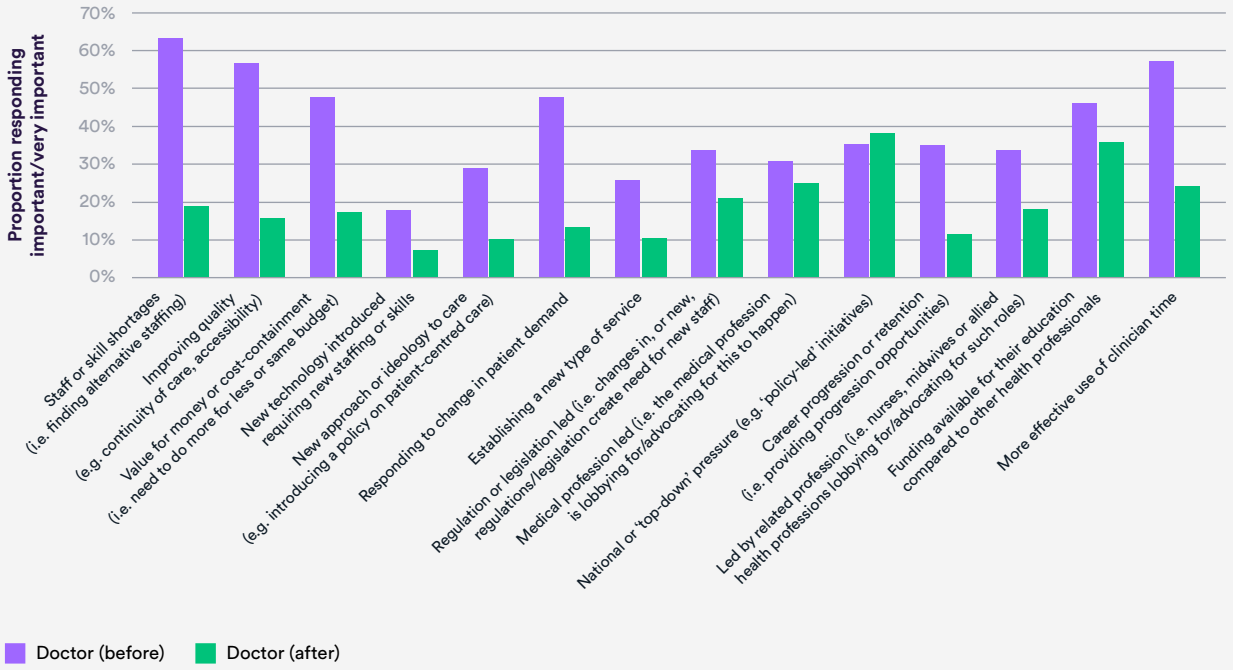
We exported data from Microsoft Forms into Microsoft Excel for initial cleaning and coding. We also analysed the survey data using Microsoft Excel. Respondents were placed into four categories for the purposes of analysis: doctors (453), those in emerging roles (191), those in director/lead/management roles (122) and those in other roles (55). Findings were grouped according to the following:

- for drivers of the implementation of each emerging role, the proportion of staff who selected that a specific factor was an 'important' or 'very important' driver
- for facilitators and constraints of the implementation of each emerging role, the proportion of staff who selected that a specific factor was a 'minor' or 'major' constraint.

While our survey was open for responses to all health and care service staff, we were made aware that it was shared extensively among groups of doctors via social media. We received 15 emails providing feedback on the survey questionnaire with, in particular, complaints that the questionnaire and

response options did not capture their views on the topic. Furthermore, there was a marked difference, particularly in relation to the section on the drivers of the introduction of physician associates, in how survey doctors responded to questions before and after the survey was shared on social media (which we have identified as 10 July 2024 due to a large spike in responses from doctors at this point) (see Figure A1). This demonstrates that there can be different opinions even within a single respondent group (in this case doctors) and exemplifies the challenges of interpreting average proportions, given they are susceptible to being skewed by the balance of respondents from different sub-groups.

Figure A1: Proportion of doctors responding to the survey, before and after 10 July 2024, reporting that physician associate drivers are 'important' or 'very important' (%)



Source: Nuffield Trust survey

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