Time to change
Sustaining the UK’s clinical workforce
May 2023
Welcome to the Deloitte Centre for Health Solutions report, *Time to Change: Sustaining the UK’s clinical workforce*. This report, which is a follow-up to research we carried out in 2017-18, examines how healthcare employers and their workforce are responding to the unrelenting demands placed on them. It also identifies actionable and evidence-based solutions to the challenges.

The challenges affecting the healthcare system in the UK and in particular its workforce have been evident for all to see. While many of these problems are affecting other countries, the scale of the issues in the UK appears bigger and more intractable.

This report considers the extent of the problems, but its focus is on identifying potential solutions. Our research for this report consisted of an extensive literature review, analysis of NHS datasets, and a survey conducted during October 2022 of 1,286 NHS clinicians (doctors, nurses, allied health professionals and other clinical professional staff), working in primary, community and secondary care, across all four UK countries. The survey repeated many of the questions from our previous 2017 survey of hospital doctors and nurses. We also carried out 34 semi-structured interviews between November 2022 and the end of March 2023, held two workshops with the Deloitte UK Clinical Network and obtained input from other colleagues working with healthcare clients in the UK and globally (see Appendix 1).

Many solutions to today's workforce problems were included in the 2019 NHS Long Term Plan (LTP), however, they were subsequently made worse by COVID-19. Concerns have increased about the lack of time for hands-on care and the impact of staff shortages and the backlog of elective care on staff and patient wellbeing. Three years of being at the heart of the fight against COVID-19 has taken a serious toll on the physical and mental health of the workforce, with rising levels of staff burnout and deterioration in goodwill.

Many staff are retiring early or leaving the NHS to do something else. The problems have been compounded in the past year by the high level of inflation which has eroded the real value of staff pay, already at a low base due to austerity measures over the past decade.

The delayed publication of a national workforce plan for the NHS, promised in the LTP, has become an obstacle to ensuring a sustainable healthcare workforce. But while pay and workforce planning remain a national responsibility, organisational culture, staff health and wellbeing, job satisfaction and personal development are within the gift of individual employers to resolve.

Despite all these problems, the NHS is treating increasing numbers of patients, especially in primary and community care, and activity in hospitals has returned largely to pre-pandemic levels. Moreover, many staff still enjoy a sense of purpose and job satisfaction: 57 per cent of the respondents in our survey were either ‘very satisfied’ or ‘generally satisfied’ with their current jobs. There is also much to be positive about in the development of and opportunities presented by scientific and technological innovation.

However, while technology-enabled care models, systems and processes can improve outcomes, simplify tasks and reduce the administrative burden for clinicians, adoption remains fragmented, and the maturity of the digital infrastructure varies too widely to optimise the benefits that technologies can deliver.

There is an urgent and unquestionable need to tackle staff shortages, starting with redesigning ways of working, and adopting new technology-enabled models of preventative and value-based healthcare. However, resolving the severe problems that exist will require investment in people and the healthcare infrastructure, and a rebuilding of trust in leadership. We hope that this report stimulates debate and encourages actions to foster an integrated healthcare sector that not only survives but thrives.
The most vital asset in healthcare is its workforce, which in high income countries accounts for around two-thirds of running costs. The availability, accessibility and quality of care available to patients depend on having the right professionals, with the right skills in the right place at the right time.

**Time to resolve NHS workforce challenges**

**The challenges**

Our 2018 report *Time to Care: Securing a future for the hospital workforce in the UK* found that despite an increase in numbers of hospital doctors and nurses between 2012 and 2016, this was insufficient to keep pace with the growing demand for services. This had a negative impact on bed occupancy rates, waiting times and other NHS performance targets. The problem was compounded by a fall in levels of real pay and a growing shortage of nurses and some medical specialties. We also identified insufficient time for hands-on care and rising levels of staff dissatisfaction and burn-out.

In 2020 the COVID-19 pandemic severely disrupted the provision of healthcare and social care. Hospitals had to reorganise their services quickly and many staff found themselves working in new ways and in unfamiliar teams. The absence of suitable treatments and the risks and fear of infection put a huge strain on the physical and mental health of the workforce across all parts of the healthcare system.

The imposition of lockdowns and social distancing also transformed the traditional face-to-face model of outpatient and primary care and led to greater use of telehealth and virtual consultations to maintain some level of services. However, the workforce shortages that already existed before the pandemic were exacerbated by high levels of staff sickness absence, and a severe reduction in international recruitment.

As we enter the fourth year of the pandemic the need to address the critical workforce shortages has become an imperative for every healthcare provider. Despite an increase in numbers of nurses, doctors and allied health professionals (clinicians), the vacancy levels have continued to increase and by September 2022 there were more than 133,000 vacancies in trusts in England (47,500 of these were nurses, an average of almost one in eight posts). The levels of experienced staff have dropped. Widespread dissatisfaction over increased workloads, concerns over patient safety and the continued erosion of the real-terms value of pay has led to several key groups of staff, from nurses to junior doctors and ambulance staff, to take industrial action.

The workforce challenges are particularly severe in general practice. ONS data shows that since 2019, the workload of general practitioners (GPs) has increased but the number of GPs has fallen. Each GP now cares on average for an additional 120 patients. More GPs are leaving the profession than are joining it, many are reducing the number of days they work and escalating pressures are driving the remaining workforce to the brink of exhaustion. Even so, increases in multi-disciplinary team working mean that a record 36.1 million appointments were made in October 2022 alone, and almost 40 per cent were held on the same day as the booking.

However, the heavy demand on GPs, combined with the chronic shortage in numbers, is unsustainable. The Health and Social Care Select Committee (H&SCSC) enquiry into *Workforce: recruitment, training and retention in health and social care*, held in the first half of 2022, and subsequent enquiries by the Committee of Public Accounts concluded that, despite increasing numbers, the UK NHS does not have enough nurses, doctors and allied health professionals. Crucially, the government’s commitment to publish the long-awaited, NHS workforce plan, underpinned by a realistic funding settlement, was critical.

**Addressing the problems**

While there is a widespread expectation that the NHS workforce plan will provide the much needed blue print for tackling the workforce problems, as at the 21 April 2023 the plan was still not published. Moreover, it will take time to put the necessary changes in place. In the meantime, this report highlights what changes local organisations can make now to improve the job satisfaction, recruitment and retention of their local workforce. It also considers how the future of work will change and what is needed to ensure a sustainable future for the healthcare workforce.
Time to respond to the pressures affecting NHS clinicians

Creating a sustainable healthcare workforce needs to begin with a review of current working practices and agreement on the changes that are needed. Our survey of clinicians in October 2022, just as nurses were first balloted about strike action, found that although there was growing job dissatisfaction, the majority of our respondents were either ‘very’ or ‘generally’ satisfied with their current jobs. However, if we compare the findings in 2022 with our 2017 survey, the percentage of hospital doctors and nurses saying they were satisfied was much lower and job dissatisfaction was higher.

Drivers of job satisfaction and job dissatisfaction

Among our survey respondents, the top two reasons for job satisfaction, across all staff groups, were a ‘sense of fulfilment/making a difference’ and ‘work-life balance’. These were followed by the ability to ‘use my skills in my daily work’. These aspects of satisfaction at work are all within the gift of individual NHS organisations to do something about.

Our survey found that in 2022 pay became the main reason for job dissatisfaction across all staff groups, with a ‘sense of fulfilment/making a difference’ and ‘work-life balance’. These were followed by the ability to ‘use my skills in my daily work’. These aspects of satisfaction at work are all within the gift of individual NHS organisations to do something about.

Increasing workload, moral distress and its impact on career intentions

An overwhelming majority of our survey respondents had experienced an increase in their workload, with serious implications for their physical and mental health and wellbeing: 46 per cent of clinical staff were experiencing a negative impact on their physical health and 57 per cent a negative impact on their mental health. The problem has worsened over the past few years. Our findings mirror those in recent annual NHS staff surveys, which have found that the percentage of staff feeling unwell because of work-related stress and the percentage of staff experiencing musculoskeletal problems due to work-related activities have risen for four consecutive years.

Another issue is moral distress (‘the psychological unease where professionals identify an ethically correct action to take but are constrained from taking that action’). Our interviewees told us that the issue of moral distress was pervasive across all clinical roles, as the need to tackle backlogs continued to stretch services severely.

We asked our survey respondents how the growing levels of job dissatisfaction were affecting their ideas about career intentions. The most common view was considering moving to part-time work. Crucially, 31 per cent of AHPs, 35 per cent of doctors and 50 per cent of nurses and midwives had considered leaving their profession and changing their career. Doctors were the most likely to consider moving overseas. Nurses and midwives as a group were more likely to be considering changing their career. AHPs were most likely to consider leaving their current job for full-time employment elsewhere in the healthcare sector in the UK.
Time to change in a modernised employee-enabling infrastructure

The scale and extent of the current challenges in the workforce require actions on many fronts to make the NHS a more attractive employer and enable individuals to build rewarding long-term careers. Four critical requirements are:

- digital transformation of healthcare delivery models to improve productivity and release time to care
- modernising people services and improving the skills of ‘people professionals’ in the NHS (human resource and operational development staff)
- investing in effective leadership development
- embedding the principles of equity, diversity and inclusion (EDI) across all parts of the NHS.

Digital transformation of healthcare

Getting the UK healthcare’s basic digital architecture right to improve the quality of data and information flows is a pre-requisite for optimising workforce productivity and the quality of clinical care. Guiding principles include developing open standards and having secure identity and interoperability standards; ensuring the right data gets to the right place at the right time; and that services are designed around user needs.

The 2019 NHS Long Term Plan (LTP) in 2019 expected that services are designed around user needs. Guiding principles include developing open standards and having secure identity and interoperability standards; ensuring the right data gets to the right place at the right time; and that services are designed around user needs. The pandemic accelerated many aspects of healthcare’s digital transformation that might otherwise have taken several years, including the roll out of at-home monitoring, virtual consultations, virtual wards, and the widespread uptake of the NHS login and NHS App. Nevertheless, the Department of Health and Social Care’s new digital strategy in June 2022, which consolidated previous national digital goals into one single action plan, noted that while digitisation has been a top priority, only 20 per cent of NHS organisations were digitally mature, and 16 per cent did not have any form of electronic health record. The government promised £2 billion to put electronic patient records in all NHS trusts and committed to have a relentless focus on digital skills, leadership, and culture at all levels of the NHS.

Indeed, there are a wide and growing range of technologies with the potential to support clinicians to deliver care more efficiently and effectively and improve their productivity and free up time to care. A critical priority for the NHS is to identify ways of ensuring that the most effective technologies are rolled-out and adopted at scale.

Modernising ‘people services’ and realising the value of people professionals in the NHS

‘People professionals’ in the NHS (human resources (HR) and organisational development (OD) practitioners) have an invaluable contribution to make in areas such as recruitment, training and development, staff wellbeing and retention. This includes steering their organisation towards achieving the vision of ‘more people, working differently, in a compassionate and inclusive culture’.

A crucial requirement that remains today is addressing interoperability, which is central to achieving a digitally mature healthcare system.

The abilities and effectiveness of ‘people professionals’ will be crucial to ensuring that the NHS has the right numbers and types of staff with the necessary skills and talent to deliver safe and effective healthcare services.

The need to modernise ‘people services’ within the NHS is driven by:

- the introduction of integrated care systems (ICSs), with their emphasis on collaboration rather than competition and extending people-service support to areas that have had little access to services in the past, such as primary care
- changes in the way healthcare is accessed, using digital technology to improve communication, intervention and care
- changes in the type of work that’s done and staff expectations of their terms and conditions of employment.

There is a renewed focus on strengthening HR and OD roles through the adoption of technology solutions, such as e-rostering. Efficiency ‘wins’ can also be achieved by prioritising HR digital transformation in three main areas: customer services; collaborative staff banks; and e-recruitment. NHS providers can also use digital workforce management platforms to organise information on their employees more efficiently and cost-effectively, all in one place and develop a secure, trusted ‘digital staff passport’ available on an individual’s mobile phone. This supports staff movement by reducing duplicate form filling, and employment checks, and avoiding the need for repetitive and costly mandatory training when individuals move between employers.
Time to change which leadership at all levels is judged. For making an inclusive and fair culture a key metric by characteristics, particularly race and disability, with calls in leadership opportunities for those with protected over discrimination, including considerable inequity experience. Several enquiries have highlighted concerns characteristics continues to show negative gaps in staff experience broken down by all protected discrimination from managers or colleagues. Nevertheless, the latest NHS staff survey found that despite an improvement in staff confidence on equality issues, there has been an increase in staff experiencing discrimination from the public and no change in the levels of discrimination from managers or colleagues. Data on staff experience broken down by all protected characteristics continues to show negative gaps in staff experience. Several enquiries have highlighted concerns over discrimination, including considerable inequality in leadership opportunities for those with protected characteristics, particularly race and disability, with calls for making an inclusive and fair culture a key metric by which leadership at all levels is judged.

High quality leadership The NHS Long term plan (LTP) identified the links between high-quality leadership, the culture of an organisation and the delivery of high-quality care. It found that some parts of the NHS had the leadership and cultures necessary for delivering high performance and implementing extensive service changes, but this was still not commonplace. The Messenger Review of health care leadership (2021) concluded that first-rate leadership contributes directly to better service, but that the development of quality leadership and management is not sufficiently embedded in health and care communities.

The WRES 2022 report identified an NHS workforce that is ‘more diverse than at any other point in its history’, with staff from ethnic minority backgrounds comprising nearly a quarter of all workers.

Time to build the capacity and capability of the NHS workforce Our research suggests that various measures could help to improve the capacity and capability of the NHS workforce.

Improving opportunities and routes to a clinical career in the NHS There is a consensus of the need for radical reforms in sourcing staff through new approaches to training, return to practice programmes and overseas recruitment. For example, there are now several routes for entering nursing, bridging the gap between healthcare support staff and fully registered nurses. This career ‘mobility’ and progression is also available for AHPs and physician associates. However, the cost-of-living crisis and the negative portrayal of healthcare as a career in the media, means that attracting people to work in the NHS remains a complex challenge.

While professional training can improve the supply of NHS staff over the longer term, it is not a ‘quick fix’ for staff shortages in the short term. The NHS has always been dependent on qualified staff from overseas, but NHS organisations are now expected to be cognisant of global nursing shortages in other parts of the world and to ensure compliance with ethical international recruitment standards. Recruiting staff from abroad may not be sustainable; but whatever role overseas staff may play in the long-term, they are likely to remain essential in short- and medium-term plans.

Increasing the capacity of medical schools and specialty training programmes, reducing attrition and modernising undergraduate training Over the past decade there have been various initiatives to improve the recruitment and retention of medical students. This included targeting areas that have historically struggled to attract and retain medical professionals. In 2018, NHSE agreed to open five new medical schools to help deliver a target of 1,500 new training places aimed at widening participation and producing doctors who were more likely to practise in their local area. Given that it takes more than ten years to train a doctor, the impact of additional training places will not be known for some time.

The availability and quality of clinical placements has long been a cause of bottlenecks and attrition in the training pipeline. In response to growing concerns Health Education England’s RePAIR (Reducing pre-registration Attrition and Improving Retention) project was introduced in 2015 to improve retention of medical students. The project identified the importance of the clinical component of the course for the student experience and the benefits of simulation training to improve the student experience and confidence. Most education providers now include simulation using virtual reality (VR) and augmented reality (AR) in their clinical programmes.

In February 2023, the University Alliance called for more university involvement in healthcare recruitment. It argued that universities struggle to plan long-term investment in training because they are not routinely involved in NHS workforce planning. Its recommendations also include further use of simulation training and adopting a competency-based model of training, as in the US and Canada.
Increasing the efficiency and effectiveness of recruitment, onboarding, and staff development

People professionals, supported by leaders across local organisations, need to respond to the changing nature of work and increasing expectation of flexible working and a growing interest in portfolio careers as well as a more agile approach to training and career progression. For many NHS organisations, workforce problems begin at the very first hurdle – recruitment. Having an efficient set of timely e-recruitment processes is crucial. While some innovative trusts have adopted e-recruitment platforms and processes used in other industries, others still rely heavily on slow manual processes. Increasingly, the establishment of ICSs provides an opportunity to use placed-based recruitment partnerships to develop more diverse recruitment pools and opportunities.

Likewise, the onboarding process provides an important first impression of an organisation for recruits, but often involves lengthy administrative processes, such as verifying documents, logistical scheduling for interviews, and pre-employment checks, which delay the filling of vacancies and may increase candidate attrition.

Professional development and supporting the career ambitions of the workforce

A key part of any workforce strategy should include career ambitions of the workforce. Understanding and meeting the career ambitions of clinicians is crucial to staff retention.

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NHS organisations need to develop an inclusive and sustainable approach to talent management across all groups of staff including supporting staff to extend their scope of practice and enjoy more flexible career pathways. Indeed, understanding and meeting the career ambitions of clinicians is crucial to staff retention.

There is a need for a more multi-professional approach to training that reflects the diversity of the workforce, and which benefits from shared learning. The NHSE LTP confirmed it would expand multi-professional credentialing and increase the number of advanced clinical practice training places to enable clinicians to develop new capabilities and advance or expand their scope of practice more easily, including enabling AHPs to become first contact practitioners.

A forensic focus on retention

Comprehensive workforce data needs to be at the centre of all support and retention strategies. Employers should also use the NHS Staff survey results, particularly the staff morale and engagement scores, which have a strong correlation and statistical significance with retention. Supporting and developing an effective workforce in the NHS is not just about staff numbers. It requires a culture of compassionate leadership, where leaders listen and seek to understand the concerns of their staff, and who commit openly to helping staff to thrive. The staff survey shows that an increasing number of staff do not enjoy their work, feel their contribution isn’t valued, feel their voice isn’t heard or that they cannot change things to make their job more rewarding.

Improving retention through the development of a listening culture from ‘ward to board’ and a refreshed focus on wellbeing and non-financial benefits

Supporting and developing an effective workforce in the NHS is not just about staff numbers but requires a culture of compassionate leadership in a psychologically safe environment that recognises that better engagement by staff is associated with improved patient outcomes. Failure by leaders to listen has, and will continue to have, a serious detrimental impact on staff resilience and wellbeing, and consequently, retention. For example, Schwartz rounds, where all staff come together regularly to discuss the emotional and social aspects of working in healthcare can help reduce stress and improve wellbeing.

Our report in 2022 on The role of employers in reducing the UK’s public health gap, included a focus on the NHS and noted that the NHS had a refreshed ‘Health and Wellbeing framework’, predominantly aimed at reducing sickness absence, dedicated mental health and wellbeing hubs, free staff access to a range of wellbeing apps and ‘Wellbeing Guardians’ on every NHS board. Nevertheless, most NHS organisations identified poor workforce wellbeing as one of their highest risks. NHSE’s recent publication Using the NHS Health and Wellbeing Framework successfully, provides insights and learnings from 24 trailblazer NHS organisations and ICSs.

Moreover, managing staff absence efficiently and improving wellbeing in the face of evidence of declining physical and mental health is vital. Absence management tools can help identify risks and target wellbeing initiatives more effectively to reduce levels of staff absence. Likewise, numerous ways of recognising and rewarding staff are available at a local level, which can improve staff morale and job satisfaction. Providing staff with non-financial benefits like access to free parking, laundry services, protected time for breaks and development and affordable childcare can have a strong positive effect on staff morale and wellbeing.
Improving work-life balance through flexible staffing and better deployment of temporary staff

Currently, a wide range of flexible working options are available to help staff achieve a balance that works for them as individuals, accepting that it won’t always be easy to accommodate individual work preferences. However, becoming a more flexible modern employer can help retain staff as well as attract new talent. Flexible working arrangements range from choosing where to work (such as home, employers work location or hybrid), compressed/reduced hours, flexi time/ flexible retirement, shift-swapping, term-time working or time off in lieu. Research shows that by improving flexibility and working patterns for clinicians, both the quality of care and staff wellbeing are improved.

The most efficient way of improving flexibility is the use of staff rostering and job planning software. Better management of the substantive and temporary workforce can result in improved productivity and significant savings. It also enables trusts to make it easier for employees to have a better work-life balance as they can self-roster. Many NHS organisations have adopted staff allocation apps which enable staff to view published rosters, manage annual leave and study requests and improve work-life balance.

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Flexible working can only operate successfully if there is an effective approach to managing temporary staffing vacancies caused by fluctuations in activity levels and short-term staff absences. Effectively managed temporary staff play an important role in helping healthcare providers achieve flexibility. Often as a first step, NHS Trusts can obtain temporary staff from their own staff bank, from NHS Professionals (NHSP) or from collaborative staff banks. NHS Trusts are expected to prioritise the use of staff banks ahead of agency staff when employing temporary staff.

Scale the adoption of technology innovations to help augment the clinical workforce

While there are many examples of successful technology adoption that can augment clinicians’ practice, problems remain in integrating these technologies into clinical workflows, keeping pace with innovation and deciding which technologies to invest in. Moreover, clinicians need to be trained and equipped to use new technologies, or risk increasing stress.

Adopting innovations to improve clinician experience and performance

Our 2019 report Shaping the future of UK healthcare highlighted the Topol Review, which explored how to create a digitally-savvy healthcare workforce through education and training. The Review set out the strategic direction for the future of healthcare in England, to enable staff to make the most of innovative technologies such as genomics, digital medicine, artificial intelligence (AI) and robotics. The right technologies, introduced effectively into the clinical pathway, can help streamline work processes and can also help shift some aspects of work to non-traditional care settings. Training clinicians in remote patient monitoring and conducting virtual consultations can be a major step toward improving technology-enabled experiences.

Our report on the Future of Diagnostics in October 2022 highlighted how innovations in technology are supporting more effective and efficient ways of diagnosing and treating patients but also the wide variation in adoption and the challenges in scaling up good practice. As digital technology and remote care interventions evolve, with more tasks being automated through use of robotics and artificial intelligence (AI), ways of working are changing, requiring proactive measures to maintain clinician engagement.

For example, a response to the increasing backlog of care created by the pandemic is an expansion in the use of virtual wards to help patients avoid emergency admissions and support early discharge. Although technology is required to support remote monitoring and virtual ward rounds, the initiative also requires new ways of working, delivered by integrated multidisciplinary teams. Nevertheless, having the right interoperable technology is crucial to maintaining the effectiveness of virtual wards.

Similarly, an emerging benefit of digital technology programmes is enabling more experienced doctors and nurses to coach and supervise ‘bedside’ clinicians remotely, on activities such as patient education, discharge and monitoring. This can improve the skills and confidence of less experienced staff while enabling experienced clinicians approaching retirement to have more flexibility and less physically demanding roles, improving staff performance and retention.

As more care moves out of hospitals into outpatient and other sites of care, health systems need advanced planning tools and technology to provide e-rostering, e-training, computer-assisted diagnostics and automated case notes. Demand forecasting, data analytics and cognitive technologies can help align staffing decisions to patient needs more effectively.

From a population health perspective, investing in primary care, and catching diseases at an early stage can lessen the need for intensive downstream treatment and reduce staffing demands in acute care settings.
Time to reimagine the future of work for healthcare

While there are no ‘silver bullets’ to remedy the complex challenges facing the UK healthcare sector, there are features of today’s ways of working that should be retained, actions that can re-engage the workforce and importantly, actions that need to be reimagined for a sustainable future. Part of the solution lies in the use of technological innovations to support the clinical workforce and free up more time for care.

However, this will only be effective if there is more clarity about the ‘future of work’ in healthcare: what work is needed, where it should be delivered, and who should deliver it. The focus should be on new ways of working and new models of care using intelligent technologies such as automation and robotics, to enable task shifting and role enrichment, in order to create a more satisfied and engaged future workforce.

Although successive governments have acknowledged the need to move care out of hospitals and into community settings and for a more predictive, preventative health system, the ‘traditional’ focus for most of the past decade has been on controlling the ever-growing burden on the public purse. However, the COVID-19 pandemic exposed the negative consequences of the lack of investment in the workforce and supporting infrastructure. It also exposed the extraordinary level of staff sacrifices and commitment to patient care, as well as how much health matters to people, how health and the economy are inextricably linked, and the importance of achieving health equity.

While the quadruple aim of healthcare (improved patient experience, better outcomes, lower costs and improved staff and carer wellbeing) remains crucially important, there is also growing recognition of the importance of health equity, as a key requirement for achieving high quality, cost-effective care outcomes (known as the quintuple aim). The evidence is clear that prioritising the health and wellbeing of the workforce is inextricably linked to improving patient outcomes and that prioritising health equity is fundamental to achieving the other four aims.

As healthcare moves increasingly from a role-based to a skills-based approach, inter-disciplinary skills must be cultivated to build a resilient future workforce. In this future, clinicians will be equipped to use new and AI-based technologies and apply genomic and digital health skills to support care. They will also have developed skills to deliver remote care, understand patient-generated diagnostic data. The skills required by the future clinical workforce will be multifaceted, involving core clinical skills, cross-functional skills, cognitive and sensory abilities, as well as up-to-date knowledge supported by advanced, intelligent clinical decision support technologies.

Moreover, digital transformation and the increasing capacity and capabilities of today’s AI technologies, coupled with the pace of adoption and development, suggest real promise. Today, generative AI systems that can create new content such as text, images, audio, code and videos in response to prompts leading to ChatGPT and other recent innovations, feel like a step change in capability, however the use cases in healthcare are only just emerging.

Three forces driving the future of the workforce in healthcare are:

- agility and adaptability – learning to cope with change
- collaborating and building partnerships to deliver high quality care outcomes
- aligning education and care delivery to emerging technologies.

The development of a diverse, multi-professional workforce that is trained and deployed across permeable boundaries will alleviate pressures on the current workforce, while enriching careers for clinicians and increasing the attractiveness of caring professions. This will also help organisations deal with the impact of a 100-year life, and careers that will likely extend from 40 to 60 years.

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Over the next five to ten years healthcare professionals with a well-balanced skill-mix will increasingly use fit-for-purpose technologies to share tasks with different types of staff. The integration of technology solutions into new operating models will also be greatly accelerated. Although automation and AI in healthcare can assist workers in their roles by automating administrative and repetitive tasks, it is unlikely to replace them with few, if any, clinical roles that will be entirely automated.
Key facts

**Northern Ireland**
- Population: **1,905,000** (2021)
- Number of medical and dental staff (WTE) per 1,000 population: **2.56** (2022)
- Number of registered nurses and midwives (WTE) per 1,000 population: **8.98** (2022)
- Number of professional and technical staff (WTE) per 1,000 population: **5.07** (2022)
- Acute bed occupancy rate: **79.5%** (2021/22)
- Expenditure on healthcare per head: **£3,454** (2020/21)

**Wales**
- Population: **3,105,000** (2021)
- Number of medical and dental staff (WTE) per 1,000 population: **2.52** (2022)
- Number of nurses and midwives (WTE) per 1,000 population: **11.6** (2022)
- Number of scientific, therapeutic and technical staff (WTE) per 1,000 population: **5.14** (2022)
- Bed occupancy rate: **81.2%** (2021/22)
- Expenditure on healthcare per head: **£3,281** (2020/21)

**Scotland**
- Population: **5,480,000** (2020 data due to census delay)
- Number of medical and dental consultants (WTE) per 1,000 population: **1.08** (2022)
- Number of nurses and midwives (WTE) per 1,000 population: **11.81** (2022)
- Number of allied health professionals (WTE) per 1,000 population: **2.42** (2022)
- Acute bed occupancy rate: **84.2%** (2021/22)
- Expenditure on healthcare per head: **£3,295** (2020/21)

**England**
- Population: **56,536,000** (2021)
- Number of medical staff (WTE) per 1,000 population: **2.35** (2022)
- Number of nurses and midwives (WTE) per 1,000 population: **6.20** (2022)
- Number of scientific, therapeutic and technical staff (WTE) per 1,000 population: **2.85** (2022)
- General and acute bed occupancy rate: **87.7%** (2021/22)
- Expenditure on healthcare per head: **£3,277** (2020/21)

Sources:
- Population data sourced from December 2022 release ONS population estimates data (Population estimates for the UK, England, Wales, Scotland and Northern Ireland - Office for National Statistics (ons.gov.uk))
- Workforce statistics calculated from each country’s respective official NHS/government healthcare workforce statistics publication for consistency, note some differences in staff category definitions.
- Bed occupancy rates from each country’s respective official government/public health statistics.
The most vital asset in any healthcare system is its workforce which in high income countries accounts for around two-thirds of running costs. The availability, accessibility and quality of care available to patients depend on having the right professionals, with the right skills in the right place at the right time. However, developing and maintaining a productive and resilient clinical workforce is a complex problem, requiring long-term planning, political commitment, and adequate investment in the recruitment, retention and training of sufficient staff, in the face of rising demand for services. Moreover, investing in a sustainable healthcare workforce is both an investment in the health and wellbeing of the population and a driver of economic growth.

In 2021, the World Health Organisation (WHO) predicted a shortfall of ten million healthcare workers globally by 2030. These are mostly in low- and lower-middle income countries, but all countries are facing difficulties with the employment, training, deployment, retention and performance of their healthcare workforce. Consequently, achieving a resilient, sustainable and affordable workforce is an enormous challenge. In England, the NHS employs over 1.3 million people, of which around 800,000 are clinical staff (doctors, nurses and allied health professionals). Indeed, the NHS is the biggest employer in Europe and the world’s largest employer of highly skilled healthcare professionals.

Deloitte previously analysed the challenges facing the hospital workforce in Europe and the UK in 2017. In 2017, we published an analysis of the challenges faced by hospital nurses and doctors across 14 European healthcare systems, based on a survey of 1,800 hospital doctors and nurses, a series of interviews and a detailed literature review. We identified a universal concern that staff shortages were increasing and that a lack of time for hands-on care was leading to a decline in staff motivation and wellbeing, with evidence of falling workforce productivity. The scale of the challenges varied between countries, but the concerns about the healthcare workforce were the same, namely funding, capacity and status.

Our research recognised that establishing a sustainable model for the workforce was not simply about numbers, nor could it be achieved by short term, silo-based solutions. Instead, it required bold and innovative approaches to workforce planning, recruitment, skills development, adoption of health technologies, and flexible ways of working.

Our evaluation of the hospital workforce challenges in the UK: Time to Care: Securing a future for the hospital workforce in the UK, was published in February 2018. It found that despite a rise in the numbers of hospital doctors and nurses between 2012 and 2016, this was insufficient to keep pace with the growing demand. The UK’s healthcare workforce numbers also lagged behind those in most other comparable countries, with a detrimental effect on bed occupancy rates, waiting times and other NHS performance targets. The problem was compounded by a fall in levels of real pay and a shortage of nurses (vacancy levels were at ten per cent) and in some medical specialties. We also identified insufficient time for hands-on care and rising levels of staff dissatisfaction and burn-out. Even so, over two-thirds of hospital doctors and nurses were satisfied with their jobs and were generally willing to try innovative approaches to address problems. However, we concluded that there was a crucial need for better workforce planning, recruitment and retention.

Since 2018, multiple policy initiatives have attempted to address NHS workforce problems. Since 2018, there have been a large number of policy initiatives aimed at tackling the problems of staff vacancies, early retirement and turnover rates in the UK’s clinical workforce (see Figure 1). While nursing had long been the main area of shortages, a key factor in the falling numbers was a reduction in overseas recruitment due in part to Brexit and stringent language test requirements. The past two years however have seen an increase in nursing staff from non-European countries and in staff returning to practice in the NHS.
Figure 1. Timeline of key events and publications from 2018 to present

- **2018**: PM announces new NHS funding settlement of 3.4% above inflation for 5 years.
- **2019**: COVID-19 declared a pandemic; initial response is national lockdown, halt of elective services, and move to virtual consultations.
- **2020**: The NHS Long Term Plan is announced; DELoitte’s Time to care: The UK Cut.
- **2021**: The NHS People Plan and People Promise.
- **2022**: Health and social care: national workforce strategy; White Paper integration and innovation: working together to improve health and social care for all aimed at enhancing collaborative working.
- **2023**: Inflation rises to above 10% leading to a cost-of-living crisis in the UK; Historic strike action by nurses, ambulance workers, and junior doctors in response to 2022-23 pay awards.

**Source:** Deloitte analysis

Abbreviation: EU=European Union; LTP=Long Term Plan; NHSE=NHS England; NHSEI=NHS England and NHS Improvement; PM=prime minister.
Building workforce capacity and resilience

- increase international recruitment but in the longer-term, train more people that are needed, domestically
- increase focus and investment in Continuing Professional Development
- expand multi-professional credentialing.
- promote flexibility, include more flexible rostering becoming mandatory across all trusts
- support wellbeing and career development, and redouble efforts to address discrimination, violence, bullying and harassment
- nurture next gen leaders by systematically identifying, developing and supporting those with the capability and ambition for senior roles
- support diversity and a culture of respect and fair treatment and embed cultures of compassion, inclusion and collaboration across the NHS
- double the number of volunteers across the NHS.

The LTP stated an intention to ‘make the NHS a better place to work and enable staff to make better use of their skills’. It set out actions to fund an increase in the number of training places for nurses and undergraduates, provide funding to expand undergraduate placements, establish new routes into nursing and other disciplines, and expand significantly international recruitment. Newly established primary care networks (PCNs) are expected to provide flexible options for GPs and the wider primary care teams. The LTP also recognised that there were insufficient numbers of staff in community and primary care to meet the rising demands from an ageing population. The LTP also recognised that there were insufficient numbers of staff in community and primary care to meet the rising demands from an ageing population.

The LTP also recognised that there were insufficient numbers of staff in community and primary care to meet the rising demands from an ageing population.

**Medical workforce:**
- increase medical school places (from 6,000 to 7,500 per year)
- examine options such as part-time study, increasing the number of accelerated degree programmes
- accelerate the shift from a dominance of highly specialised roles to a better balance with more generalist ones
- 5,000 net increase in the number of GPs
- two-year fellowships for newly qualified doctors
- introduce a state-backed GP indemnity scheme.

**Nurses and midwives:**
- increase the number of undergraduate nursing degrees, reduce atrition from training and improve retention
- reduce nursing vacancy rate to 5% by 2028
- increase nursing undergraduate places by 25%
- provide funding for clinical placements for as many places as universities fill, up to a 50% increase
- a five-year NHS job guarantee for every nurse or midwife graduating
- two-year fellowships for newly qualified nurses
- establish new online nursing degrees with lower fees
- invest in nursing apprenticeships.

**AHPs and other staff:**
- increase the provision of roles such as pharmacists, counsellors, physiotherapists, and nurse practitioners to relieve pressure and have the correct skill mix
- implement and build on the recommendations of the NHS Improvement Allied Health Professions Support Patient workflow guide
- invest in apprenticeships
- increase the number of pharmacists and make efficient use their skills and engagement with patients.
- use the funding for primary care networks to substantially expand the number of clinical pharmacists.

Source: Adapted from England’s NHS Long Term Plan
The LTP recognised the need for digitalisation to support smarter working and replace many time-consuming administrative tasks.

The impact of COVID-19 on the clinical workforce

As we know, the onset of the COVID-19 pandemic in 2020 severely disrupted the provision of health and social care. Hospitals had to reorganise their services quickly and many staff found themselves working in new ways and in unfamiliar teams. The absence of suitable treatments and risk and fear of infection placed a huge strain on the physical and mental health of staff across all parts of the NHS. The imposition of lockdowns and social distancing affected every aspect of ‘normal living’, including people’s appreciation of healthcare staff. It transformed the traditional face-to-face model of outpatients and primary care and expanded the use of telehealth and virtual consultations to maintain some level of services. However, the workforce shortages that already existed before the pandemic were exacerbated by high levels of staff sickness absence and a severe reduction in the workforce that existed before the pandemic was exacerbated by high levels of staff sickness absence and a severe reduction in international recruitment.

Over 32,000 individuals stepped up in support of the NHS, including former nurses and doctors, student nurses, and volunteers from local government and voluntary and charitable organisations. Siloed ways of working within and between sectors were removed, creating opportunities for new care models based on more effective collaboration. Community and public health staff had a crucial role in the discharge of medically fit patients to free up hospital beds, and in providing rehabilitation and out of hospital care. Innovation flourished, with extraordinary people doing amazing things to improve outcomes.

However, as we enter the fourth year of the pandemic we need to address the critical workforce shortages that have been amplified by an increased backlog of elective activity which numbered 4.2 million in 2019, but increased to more than 7.2 million at the end of 2022.

Trends on NHS funding, pay, productivity and staffing

What has happened to healthcare funding?

Between 2010 and 2019 funding for the UK healthcare system was virtually flat and failed to keep up with year-on-year increases in demand. Innovations in technology and treatments were funded mainly from bespoke funding programmes or from internal efficiency improvements which, after more than a decade, were increasingly difficult to find. Like most countries, the UK recognised it had to boost resources to respond to the pandemic with healthcare spending increasing substantially, from £148.9 billion in 2019-20 to £191 billion in 2020-21 and £190.3 billion in 2021-22 (increasing from ten to 12 per cent of GDP). Most of the additional spending was on COVID-19 related activities such as the vaccination programmes, testing, surveillance and public information campaigns (see our The Future of Public Health: Bridging the gap report).

According to the Institute of Fiscal Studies (IFS), NHS funding was set to grow by 3.4 per cent a year from 2019-20 to 2024-25, but after allowing for inflation, the growth over this five-year period in real terms will be 2.9 per cent per annum (below what was originally planned).

A more meaningful indicator of healthcare spending is the amount a country spends per person, adjusted for purchasing power. A study in November 2022 found that over the past decade the NHS had spent about 20 per cent less per person on health than similar European countries (£3,005 per person, or 18 per cent below the EU14 average of £3,655). The UK had also invested less on buildings and equipment, and there was a growing maintenance backlog of almost £10 billion. There were also wide regional variations in health spending per person across the UK.

In the Autumn Statement in November 2022, the Chancellor of the Exchequer announced that NHSE would receive an additional £3.3 billion of funding in both 2023–24 and 2024–25, in recognition of the pressures facing the health service. Nevertheless, relentless demands, high inflation and supply chain pressures have meant that the delivery of the many of the ambitions and actions in the LTP and NHS People Plan have been undermined and problems in recruitment and retention, pay erosion, rising levels of staff sickness absences and staff vacancies have escalated.
What has happened to pay in the NHS?

NHS pay is set nationally following negotiations between the government and two independent pay review bodies (one for doctors and dentists, and one for nurses, AHPs and other non-medical professional staff on Agenda for Change (AfC) pay bands).21,22 During 2022, widespread dissatisfaction over increased workloads, concerns over patient safety and, importantly, the pay settlement for the 2022-23 financial year led to a serious deterioration in relations between the NHS and the government, with a series of damaging strikes in December and the first months of 2023.

Indeed, NHS pay was lower in real-terms in 2021-22 than in 2010-11, with the sharpest fall being among the highest paid and those on AfC. There had been some recovery in 2020-21 due to a relatively high pay settlement, but the benefits stalled or went into reverse in 2021-22. For example, the mean gross weekly pay settlement, but the benefits stalled or went into some recovery in 2020-21 due to a relatively high financial year led to a serious deterioration in relations between the NHS and the government, with a series of damaging strikes in December and the first months of 2023.

The government has acknowledged that the AfC system needs urgent reform,26 following growing pressure from staff representative bodies (the unions and NHS Employers) and the Health and Social Care Select Committee (H&SCSC) among others. The call is for a national review of career pathways and pay bands to enable more flexible and innovative approaches to staffing. There are similar demands for reform of the national contracts for consultants, junior doctors, GPs and ambulance staff.

We are seeing lots of agenda for change related challenges – inflation of pay grades, jobs that haven’t been re-evaluated in a long time. The vertical career banding doesn’t suit all roles. We need more diversity in terms of career pathways.

NHS Director

What has happened to NHS productivity and staffing levels?

The IFS examined what was happening to NHS productivity in late 2022. It noted that after allowing for inflation, the real-time growth over the five-year period (2019-20 to 2024-25) is likely to be 2.9 per cent per annum (which is below what was originally planned).27 Between 2019 and 2022, rates of sickness absence increased from 4.2 per cent to 6.1 per cent across the NHS, well above the rates observed pre-pandemic. At the same time, there have been large increases in the net full-time equivalent numbers of consultants (up by 9.2 per cent), junior doctors (15.3 per cent), nurses and health visitors (8.2 per cent), a small increase in primary care nurses (two per cent), but a fall in GP numbers (-1.9 per cent). However, although the NHS in England has more staff, productivity has fallen.28

Meanwhile the crisis is particularly severe in general practice. Evidence to the H&SCSC in 2022 confirmed that the plans to train and recruit an additional 6,000 more GPs in England by 2024-25 was not on track and the NHS target to fund 26,000 additional roles to ease the pressures on general practice is unlikely to be achieved by 2023-24.29 Data from the Office of National Statistics (ONS) shows that since 2019, the workload of GPs has increased by 18 per cent but the number of GPs, measured as full-time equivalents (FTEs), has fallen. Each GP now cares on average for an additional 120 patients. Even so a record 36.1 million appointments were made in October alone, and almost 40 per cent were held on the same day as the booking.30 However the expert consensus is that the heavier workload for GPs, combined with the chronic shortage in numbers, is unsustainable. More GPs are leaving the profession than are joining it, and escalating pressures are driving the remaining workforce to the brink of exhaustion.31

The expert consensus is that despite higher staff numbers, the UK does not have enough doctors, nurses and AHPs. The H&SCSC enquiry into Workforce: recruitment, training and retention in health and social care, in the first half of 2022, concluded that almost every healthcare profession was facing shortages and that the UK should increase the number of training places and expand other routes into the NHS. It also stated that, to be effective, the commitment to publish the long-term healthcare workforce plan would require a realistic longer-term funding settlement.32 Meanwhile, vacancy levels are continuing to increase. In September 2022 there were more than 133,000 vacancies in trusts in England (47,500 of these were for nurses, an average of almost one in eight posts).33 The overall vacancy rate for NHSE was 9.7 per cent (an increase from 7.9 per cent in September 2021), and it was higher for nurses (11.9 per cent) than for doctors (6.2 per cent).34

It will be very difficult to make the necessary changes expected in the long-term workforce plan within the existing budget.

Policy advisor, membership organisation

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<table>
<thead>
<tr>
<th>Sustaining the UK’s clinical workforce</th>
<th>16</th>
<th>Time to change</th>
</tr>
</thead>
</table>
The delay in developing a comprehensive national workforce plan

Calls for the NHS to develop a national, comprehensive, funded workforce plan have gained momentum over the past few years. In March 2020, the National Audit Office (NAO) published a critical report on problems in the NHS nursing workforce and noted the delays in producing the national workforce plan promised in the LTP.35 The H&SCSC and the Committee of Public Accounts (PAC) have published several reports criticising the lack of a plan. In September 2020, the Department of Health and Social Care (DHSC) told the PAC that it expected to publish the workforce plan following the December 2020 Spending Review; however, this was delayed as long-term budgets for workforce education and training could not be agreed.36

In February 2023, a PAC report on the Introduction of Integrated Care Systems (ICSs) criticised the repeated delays in publishing a comprehensive workforce plan, noting that the spring 2022 date was also missed. However, in November 2022, the government committed the DHSC to publishing a comprehensive NHS workforce plan, including independently verified workforce forecasts’ in spring 2023.37 38

Moreover, some commentators suggest that the Health and Social Care Act in July 2022, was a missed opportunity to introduce a statutory requirement to ensure proper long-term workforce planning; instead, it placed a duty on the Secretary of State for Health to publish a report at least once every five years describing the systems in place for assessing and meeting the workforce needs of the NHS in England.39

While there is a widespread expectation that the NHS workforce plan will provide the much needed blue print for tackling the workforce problems, as at the 21 April 2023 the plan was still not published. Moreover, it will take time to put the necessary changes in place. In the meantime, this report highlights what changes local organisations can make now to improve the job satisfaction, recruitment and retention of their local workforce. It also considers how the future of work will change and what is needed to ensure a sustainable future for the healthcare workforce.

In the meantime, this report highlights what changes local organisations can make now to improve the job satisfaction, recruitment and retention of their local workforce.
Creating a sustainable healthcare workforce should begin with a review of current working practices and agreement on the changes that are needed. Any such transformation should involve clinicians in the decision-making process and requires leaders to listen and be open about how they plan to respond. Leaders should not only listen to the views of the diversity of different staff groups and networks about their experiences but should also close the loop by providing evidence-based feedback about solutions.

Understanding the level and drivers of job satisfaction
NHS workforce problems have unquestionably placed unprecedented pressures on the healthcare system. Our October 2022 survey results and the views of our interviewees with senior healthcare leaders endorse the need to tackle job satisfaction and job dissatisfaction and the physical and mental wellbeing of clinical staff as a matter of urgency. Below we highlight the main findings from our survey with the full survey results detailed in a companion power-point slide deck.

Many clinicians remain satisfied with their jobs, but less so than in 2017
Our survey of clinicians was conducted during October 2022, just as nurses were first balloted about strike action. We found that although there was growing dissatisfaction, 57 per cent of our respondents were either ‘very’ or ‘generally’ satisfied with their current jobs (see Figure 3): nurses were the most dissatisfied and AHPs the least. However, if we compare the findings for hospital staff in 2022 with our 2017 survey of hospital doctors and nurses, the percentage of doctors saying they were satisfied was 11 percentage points lower and among nurses there was a fall of seven percentage points. Dissatisfaction among doctors was eight percentage points higher, and among nurses ten percentage points.

Figure 3. The majority of UK clinicians remain satisfied with their job

<table>
<thead>
<tr>
<th>All</th>
<th>Very satisfied</th>
<th>Generally satisfied</th>
<th>Neutral</th>
<th>Generally dissatisfied</th>
<th>Very dissatisfied</th>
</tr>
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<tbody>
<tr>
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<td>45%</td>
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<table>
<thead>
<tr>
<th>Nurses and midwives</th>
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<th>Generally satisfied</th>
<th>Neutral</th>
<th>Generally dissatisfied</th>
<th>Very dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>11%</td>
<td>45%</td>
<td>18%</td>
<td>20%</td>
<td>7%</td>
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</table>

<table>
<thead>
<tr>
<th>Doctors</th>
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<th>Generally satisfied</th>
<th>Neutral</th>
<th>Generally dissatisfied</th>
<th>Very dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>9%</td>
<td>47%</td>
<td>19%</td>
<td>17%</td>
<td>8%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Allied Health Professionals</th>
<th>Very satisfied</th>
<th>Generally satisfied</th>
<th>Neutral</th>
<th>Generally dissatisfied</th>
<th>Very dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>14%</td>
<td>43%</td>
<td>22%</td>
<td>14%</td>
<td>7%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Deloitte analysis of Sermo survey of UK healthcare professionals, n = 1286.

Question: How satisfied are you with your job currently?
Figure 4. Job satisfaction in 2022 has decreased compared to 2017 for both hospital doctors and nurses

Source: Deloitte analysis of Sermo survey of UK healthcare professionals, n = 1286. 2017 data from Deloitte’s 2018 report ‘Time to Care: The UK Cut’

Question: ‘How satisfied are you with your job currently?’
The main reasons for job satisfaction have changed

We asked our survey respondents what they thought were the top three reasons for satisfaction in their job (see Figure 5). The top two reasons across all staff groups were a ‘sense of fulfillment/making a difference’ and ‘work-life balance’, followed by the ability to ‘use my skills in my daily work’. These aspects of satisfaction at work are all within the gift of individual NHS organisations to do something about. The amount of time to spend or engage with patients was the fourth driver of satisfaction for nurses, whereas doctors put job security and pay as their fourth-equal drivers. Job security was the fourth driver of satisfaction for AHPs.

Comparing our 2017 and 2022 survey results for drivers of job satisfaction for hospital doctors and nurses shows that in 2017, recognition and pay were the top two drivers for hospital doctors in 2017, but in 2022 these had fallen to equal sixth and equal fourth respectively, replaced in the top two by the more qualitative ‘sense of fulfillment’ and ‘work-life balance’. For hospital nurses, there was less change although ‘support from my immediate team’, which was first in 2017 was now ranked fifth, and ‘work-life balance’, equal fifth in 2017, was ranked second in 2022.

When responses to the survey are analysed on the basis of length of service, we find that ‘work-life balance’ is still the top driver for respondents with less than 20 years’ experience in the NHS, but for longer-serving staff, a ‘sense of fulfillment’ and ‘ability to use my skills’ pushes work-life balance to third place. For those at the start of their careers the top drivers of job satisfaction were ‘a chance to progress’ and ‘pay’ which also influences their view about remaining in the NHS workforce. Our interviewees commented that retention of staff in the first few years was an increasingly critical challenge.

### Figure 5. The main drivers of job satisfaction

<table>
<thead>
<tr>
<th>Reason</th>
<th>Overall (N = 734)</th>
<th>Allied health professional (N = 92)</th>
<th>Doctor (N = 284)</th>
<th>Nurses and midwives (N = 242)</th>
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<tbody>
<tr>
<td>Sense of fulfillment/making a difference</td>
<td>42%</td>
<td>21%</td>
<td>16%</td>
<td>6%</td>
</tr>
<tr>
<td>Work-life balance</td>
<td>41%</td>
<td>21%</td>
<td>15%</td>
<td>12%</td>
</tr>
<tr>
<td>Ability to use my skills in my daily work</td>
<td>35%</td>
<td>21%</td>
<td>15%</td>
<td>6%</td>
</tr>
<tr>
<td>Amount of time to engage with patients/time spent with patients</td>
<td>25%</td>
<td>13%</td>
<td>13%</td>
<td>6%</td>
</tr>
<tr>
<td>Job security</td>
<td>25%</td>
<td>13%</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>The support I get from my immediate colleagues/team/manager</td>
<td>16%</td>
<td>13%</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Pay</td>
<td>15%</td>
<td>13%</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Recognition/appreciation</td>
<td>15%</td>
<td>13%</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Level of responsibility</td>
<td>14%</td>
<td>10%</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Variety of tasks</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Flexibility of shifts</td>
<td>12%</td>
<td>11%</td>
<td>14%</td>
<td>5%</td>
</tr>
<tr>
<td>The opportunities for internal and external training and professional development</td>
<td>10%</td>
<td>16%</td>
<td>12%</td>
<td>5%</td>
</tr>
<tr>
<td>Chances to progress in my career</td>
<td>6%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>The support I get from my organisation</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: Deloitte analysis of Sermo survey of UK 1286 healthcare professionals. Question answered by those currently satisfied with their job, n = 734.

Question: “Please select the top three factors which contributes MOST to your satisfaction with your job?”

Note: Percentages represent the proportion of respondents selecting an answer as one of their top three.
The reasons for job dissatisfaction

The reasons for job satisfaction and those for dissatisfaction vary. Our survey found that, as might be expected, pay is the main reason for job dissatisfaction across all staff groups and the main area where staff consider that better conditions would improve their health and wellbeing (see Figure 6). However, pay is not something local employers can resolve.

In our 2017 survey of hospital staff, doctors put poor work-life balance first and pay a close second as reasons for dissatisfaction, but in 2022 pay was first and work-life balance second. For nurses pay remained top as a driver of job dissatisfaction, but work-life balance slipped from second to fifth, with ‘lack of recognition and support’ and ‘time to engage with patients’ ranking higher. This suggests that for nurses, recognition, support, and time to care are more important in affecting job dissatisfaction than work-life balance.

The drivers of job dissatisfaction are different for clinicians at the start of their careers. For respondents who were qualified for less than five years, insufficient opportunities to progress in their careers was the top driver of dissatisfaction with pay second. All other staff groups put pay first and work-life balance second with absence of recognition and appreciation and lack of time to engage with patients equal third.

Figure 6. Pay and poor work-life balance were the top two factors contributing most to job dissatisfaction

<table>
<thead>
<tr>
<th>Reason</th>
<th>Overall (N=307)</th>
<th>Allied health professionals (N=34)</th>
<th>Doctors (N=127)</th>
<th>Nurses and midwives (N=113)</th>
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</thead>
<tbody>
<tr>
<td>Pay</td>
<td>60%</td>
<td>59%</td>
<td>49%</td>
<td>69%</td>
</tr>
<tr>
<td>Poor work-life balance</td>
<td>42%</td>
<td>44%</td>
<td>59%</td>
<td>30%</td>
</tr>
<tr>
<td>Insufficient recognition/appreciation</td>
<td>35%</td>
<td>32%</td>
<td>39%</td>
<td>33%</td>
</tr>
<tr>
<td>Amount of time to engage with patients</td>
<td>35%</td>
<td>24%</td>
<td>33%</td>
<td>23%</td>
</tr>
<tr>
<td>Insufficient support from my organisation</td>
<td>28%</td>
<td>18%</td>
<td>29%</td>
<td>12%</td>
</tr>
<tr>
<td>Lack of sense of fulfilment/making a difference</td>
<td>21%</td>
<td>15%</td>
<td>20%</td>
<td>6%</td>
</tr>
<tr>
<td>Insufficient support from my immediate colleagues (team/manager)</td>
<td>18%</td>
<td>12%</td>
<td>18%</td>
<td>14%</td>
</tr>
<tr>
<td>Level of responsibility</td>
<td>15%</td>
<td>12%</td>
<td>16%</td>
<td>8%</td>
</tr>
<tr>
<td>Insufficient opportunities for internal and external training and professional development</td>
<td>13%</td>
<td>21%</td>
<td>10%</td>
<td>42%</td>
</tr>
<tr>
<td>Lack of chances to progress in my career</td>
<td>10%</td>
<td>26%</td>
<td>8%</td>
<td>27%</td>
</tr>
<tr>
<td>Flexibility of shifts</td>
<td>8%</td>
<td>15%</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Lack of ability to use my skills in my daily work</td>
<td>7%</td>
<td>9%</td>
<td>6%</td>
<td>25%</td>
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<tr>
<td>Variety of tasks</td>
<td>5%</td>
<td>6%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>Job insecurity</td>
<td>4%</td>
<td>9%</td>
<td>4%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Deloitte analysis of Sermo survey of UK 1286 healthcare professionals. Question answered by those currently dissatisfied with their job, n=307.

Question: “Please select the top three factors which contributes MOST to your LACK OF satisfaction with your job?”

Note: Percentages represent the proportion of respondents selecting an answer as one of their top three.

Our survey found that, as might be expected, pay is the main reason for job dissatisfaction across all staff groups and the main area where staff consider that better conditions would improve their health and wellbeing.
Many clinical staff have experienced increases in their workload and a deterioration in their physical and mental health

All groups of clinical staff have experienced an increase in their workload (see Figure 7). For the doctors and AHPs in our survey, the increase in demand for services was the main reason for the change; and for nurses and midwives, insufficient numbers of staff were identified as the main reason. ‘COVID-19 related changes’ was the second reason given by all staff groups.

Increasing numbers of clinicians have experienced a deterioration in their physical and mental health and this is affecting their career intentions.

The increase in job workloads has serious implications for the physical and mental health and wellbeing of staff. Our survey found that 46 per cent of clinical staff were experiencing a negative impact on their physical health and 57 per cent a negative impact on their mental health (see Figure 8).

Figure 7. Most staff have experienced an increase in their workload since March 2020

<table>
<thead>
<tr>
<th>Overall</th>
<th>Nurses and midwives</th>
<th>Allied Health Professionals</th>
<th>Doctors</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>48%</td>
<td>49%</td>
<td>42%</td>
</tr>
<tr>
<td>20%</td>
<td>31%</td>
<td>40%</td>
<td>42%</td>
</tr>
<tr>
<td>40%</td>
<td>7%</td>
<td>6%</td>
<td>13%</td>
</tr>
<tr>
<td>60%</td>
<td>2%</td>
<td>4%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>80%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Deloitte analysis of 2022 Sermo survey of 1286 clinicians.

Question: ‘How has your workload changed since March 2020?’

Figure 8. In the past year the pressure of work has had a negative impact on the mental and physical health of the NHS workforce

<table>
<thead>
<tr>
<th>Physical health</th>
<th>Mental health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses and midwives</td>
<td>4%</td>
</tr>
<tr>
<td>Allied Health Professional</td>
<td>4%</td>
</tr>
<tr>
<td>Doctor</td>
<td>4%</td>
</tr>
<tr>
<td>Overall</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: Deloitte analysis of 2022 Sermo survey of 1286 clinicians.

Question: ‘Over the past 12 months, how has work affected your physical/mental health?’
Comparing responses from hospital doctors and nurses in 2022 with those in our 2017 survey, shows that the problems have clearly worsened. For example, in 2022 50 per cent of doctors and 43 per cent of nurses said their workload had negatively affected their physical health compared to 30 per cent of doctors and 32 per cent of nurses in 2017; and in 2022, 57 per cent of doctors and 56 per cent of nurses said that it had affected their mental health, compared to 23 per cent of doctors and 33 per cent of nurses in 2017. Furthermore, staff who qualified 11-20 years ago were more likely to say in 2022 that their work had negatively affected their physical health (51 per cent) and mental health (63 per cent). These findings mirror those in recent annual NHS staff surveys, which have found that the percentage of staff feeling unwell because of work-related stress and the percentage of staff experiencing musculoskeletal problems due to work-related activities have both risen for four consecutive years.

Reviews of the impact of the pandemic, staff shortages and increasing workloads have identified serious concerns over moral distress (‘the psychological unease where professionals identify an ethically correct action to take but are constrained from taking that action’). Sustained moral distress can lead to moral injury, when longer term psychological harm occurs. For clinicians, moral distress and injury can be caused when resource constraints lead to clinicians feeling unease about the quality of care they can provide. A British Medical Association (BMA) survey in 2021 found that 96.4 per cent of doctors believed the pandemic had exacerbated the risk of moral distress, with 78.4 per cent saying that they had experienced it personally. Likewise, our interviewees told us that the issue of moral distress was pervasive across all clinical roles, as the need to tackle backlogs continued to stretch services severely. This in turn is leading to a recognition of the importance of psychological safety.

“Psychological safety describes “a shared belief held by members of a team that the team is safe for interpersonal risk taking”. The concept is the basis of trust in the workplace; it drives an organisation’s ability to create belonging and inspires employees to perform at their best. Psychological safety is considered a catalyst for learning and growth. Often cited benefits include greater loyalty to the organisation, more healthy interpersonal relationships at work, more active collaboration in teams, and higher levels of work engagement driving individual, team and organisational performance.”

We have got increased and continued moral injury of staff, it happened everywhere during the pandemic not just intensive care.

NHS Clinical Lead

Generally, we have a workforce that is very tired, very overstretched. People are not able to provide the care they want to.

Head of Policy, Professional organisation
Clinicians’ views on career intentions
We asked our survey respondents how their feelings on job satisfaction/dissatisfaction affected their views on career intentions (see Figure 9). The most common thought (53 per cent of all respondents and 59 per cent of doctors) was to move to part-time work. Crucially, 31 per cent of AHPs, 35 per cent of doctors and 50 per cent of nurses and midwives had considered leaving their profession and changing their career. Doctors were the most likely to consider moving overseas (44 per cent). Nurses and midwives as a group were the least likely to leave their jobs to emigrate, but they were more likely to change their career. AHPs were most likely to consider leaving their current job for full-time employment elsewhere in the healthcare sector in the UK.

When we analysed the survey data by the number of years since qualification we found that clinicians who had been qualified for less than five years were the most likely to be considering a reduction in their working hours. This finding resonated with what many of our interviewees were seeing: they were increasingly concerned about attrition of staff in the first few years after joining the NHS, particularly in the first 12 months. These findings also suggest that staff retention requires employers to adopt different strategies for the different staff groups and length of service.

We analysed our survey responses to understand more clearly the main reasons for considering a career change. Pay followed by work-life balance were the main factors for staff qualified for 20 years or less; and for those qualified for more than 20 years, work-life balance was more important. An unsustainable workload was also identified by a higher percentage of people qualified for more than 11 years. Analysing the views of different staff groups, we found that nurses and midwives put pay as their top reason, whereas doctors and AHPs put work-life balance ahead of pay and doctors also put unsustainable workload ahead of pay.

AHPs and doctors were the most likely to consider switching to working as agency staff or becoming self-employed (40 per cent) or leaving healthcare altogether. As staff vacancies rise, healthcare providers are forced to ask existing staff to work overtime or do more bank work, while also increasing their reliance on agency staff. However, using agency staff to fill gaps means that permanent staff must spend valuable time educating them which adds to burnout among permanent staff and strengthens their thoughts on leaving the NHS. As a result, there is a compelling need to break this vicious cycle as a matter of urgency.

The WHO’s definition of workplace ‘burnout’ is “a syndrome resulting from chronic workplace stress that has not been successfully managed”. It is characterised by feelings of energy depletion or exhaustion (emotional exhaustion); increased mental distance or negative feelings or cynicism about the job (a sense of depersonalisation: cynicism or detachment); and reduced professional efficiency and effectiveness (lack of personal accomplishment). Burnout is also described as ‘moral distress’, where the individual believes that ‘I am not providing the quality of care that I should be providing’.

Figure 9. The extent and types of career changes that clinicians have considered over the past 12 months

Figure 9. The extent and types of career changes that clinicians have considered over the past 12 months

Overall Allied Health Professionals Doctors Nurses and midwives

Reducing my hours to part-time working in healthcare
Moving from the sector where I currently practice and practicing elsewhere
Leaving my profession and changing my career
Leaving my current job for full-time employment elsewhere in healthcare in another country (such as Australia, Canada, U.S, Europe)
Changing to agency or self-employed healthcare work
Leaving my current job for full-time employment elsewhere in healthcare in my country (e.g. primary care or a different hospital)

Source: Deloitte analysis of 2022 Sermo survey of 1,286 clinicians.
Question: ‘Within the last 12 months, have you thought of doing any of the following?’ Proportions shown represent percentage of respondents selecting ‘yes’ for each option.
Time to listen to your workforce and address the problems they identify

The serious problems staff are experiencing, translate to challenges with recruitment and retention and undermine the ambitions set out in the NHS LTP, particularly attempts to provide safe, good quality care. Although there have been many reports and much survey data on the increasing workforce problems in the NHS, including their effect on healthcare delivery, there is limited evidence that these have led to actions that have improved workforce capacity and wellbeing. For example, the NHS Providers’ annual State of the Provider Sector survey 2022 found that:

- 77 per cent of trust leaders were ‘very worried’ or ‘worried’ about their trust currently having the right numbers, quality and mix of staff to deliver high quality healthcare
- 86 per cent were very worried or worried about their trusts having the capacity to meet demand for services over the next 12 months
- 93 per cent were ‘extremely’ or ‘moderately’ concerned about the level of burnout across the workforce
- 80 per cent were ‘extremely’ or ‘moderately’ concerned about workforce morale.44

The NHS 2022 staff survey, published in March 2023, found that only 57.4 per cent of staff would recommend their organisation as a place to work, down from 59.4 per cent in 2021 and 63.4 per cent in 2019. The 2022 staff survey also found that only 26.42 per cent of staff in NHSE felt there were enough staff in their organisation to allow them to do their job properly (0.7 percentage points lower than in 2021 and 11.9 percentage points lower than in 2020).45 Moreover, the staff survey found a similar deterioration in staff satisfaction and wellbeing as in our survey, with more people considering leaving their profession.

Importantly, only 61.5 per cent of staff said that they feel safe to speak up about anything that concerns them in their organisation, down from 62.1 percent in 2021. This means that two-fifths of staff feel they cannot speak up, and only 48.7 per cent of the survey respondents were confident that their organisation would address the concerns they expressed. This has serious implications for patient safety, and lost opportunities to learn from incidents and take measures to prevent future incidents.

A lot of organisations I’m working with are really struggling to maintain safe staffing levels, which is having a significant impact on staff morale and retention. It feels like they’re pouring water into a leaky bucket.

University leader

Understanding staff sentiments about working in the NHS

Our survey also sought to understand overall staff sentiments. We asked what three words clinicians would use to describe their experience of working in the UK healthcare system today. Unsurprisingly the sentiments expressed were predominantly negative. The most frequently mentioned words were ‘stressful’, ‘underpaid’ and ‘challenging’ (see Figure 10). ‘Rewarding’ was the most common positive sentiment, followed by a smaller number who mentioned ‘fulfilling’ and ‘satisfying’.

Figure 10. Our survey respondents had a predominantly negative sentiment about working in the UK healthcare system today

![Pie chart showing sentiment distribution](source)

<table>
<thead>
<tr>
<th>Positive</th>
<th>Neutral</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>rewarding</td>
<td>fulfilling</td>
<td>satisfying</td>
</tr>
<tr>
<td>underpaid</td>
<td>undervalued</td>
<td>underfunded</td>
</tr>
<tr>
<td>busy</td>
<td>overworked</td>
<td>demanding</td>
</tr>
<tr>
<td>stressed</td>
<td>challenging</td>
<td>difficult</td>
</tr>
<tr>
<td>exhausting</td>
<td>overworked</td>
<td>overstretched</td>
</tr>
<tr>
<td>undermanned</td>
<td>underresourced</td>
<td>unsustainable</td>
</tr>
</tbody>
</table>

Source: Deloitte analysis of Sermo survey of UK healthcare professionals, n = 1286. Top 50 words shown with size based on number of occurrences, words below 15 occurrences set to same font size.

Question: What three words would you use to describe your experience of working in the UK healthcare system today?
Encouragingly, when we asked survey respondents what three words they would hope to use when describing working in the UK healthcare system in five years' time the sentiments expressed were predominantly positive (see Figure 11). While there was an acknowledgement that providing healthcare would remain a challenge and would be inherently stressful, the overwhelming sentiment about the future was largely optimistic with 'rewarding', 'supported', 'satisfying', 'well-paid' and 'improved' the most frequently-mentioned words.

**Figure 11. Our survey respondents were extremely optimistic about the future of the UK healthcare system**

Source: Deloitte analysis of Sermo survey of UK healthcare professionals, n = 1286. Top 50 words shown with size based on number of occurrences, words below 15 occurrences set to same font size.

**Question:** What three words would you hope to use to describe working in the UK healthcare system in five years?
Deloitte view

Despite the many workforce problems in healthcare, we found much to be optimistic about. Nevertheless, many clinicians are close to breaking point, and across the UK healthcare organisations are struggling to recruit and retain staff. Clearly, pay disputes, strikes, staff turnover and serious shortages of some staff have all been destabilising. However, these are national issues, for the government, and professional and national organisations to resolve. Tackling some of the challenges requires collaboration between national and local healthcare organisations, professional bodies and education providers. However, many problems are firmly within the sphere of influence of local organisations to address (see Figure 12 opposite and the section entitled ‘Time to build the capacity and capability of the workforce’).

The remainder of this report explores solutions for improving the sustainability of the clinical workforce, including the role of technology in helping to improve the effectiveness of systems and processes in recruitment and retention and in supporting clinicians to work smarter and enable them to increase their productivity and job satisfaction:

- **Time to invest** – explores actions to modernise and improve the employee experience through more efficient people services and functions and a focus on equality, diversity and inclusion (EDI); leadership development; and digitalisation of the healthcare infrastructure to make the NHS a better place to work.
- **Time to build** – considers the actions that individual employer organisations can take to improve recruitment and retention, job satisfaction and wellbeing.
- **Time to reimagine** – considers how the future of work and the future of health can help realise a sustainable future for the healthcare workforce.

Figure 12. Spheres of influence over initiatives that affect the sustainability of the clinical workforce

Deloitte analysis

Abbreviations: AHP=Allied Health Professionals; CPD=continuing professional development; ICS=Integrated Care System.
The biggest asset of a health system is its workforce. However, the scale and extent of the current workforce problems require actions on many fronts to make the NHS a more attractive employer and enable staff to build rewarding long-term careers. Four crucial enablers are to: digitalise the healthcare infrastructure and provide clinicians with digital technologies to help them work smarter; modernise the systems and processes supporting the human resources and operational development functions; invest in effective leadership development; and embed the principles of EDI throughout the NHS.

The pandemic accelerated many aspects of healthcare's digital transformation that might otherwise have taken several years, including the rollout of at-home monitoring, virtual consultations, virtual wards, and the NHS login and NHS App (used by some 41 million and 28 million people respectively). In June 2022, the DHSC published its new digital strategy ‘A plan for digital health and social care’, which consolidated previous national digital goals into one single action plan. It noted that while digitalisation is a top priority, only 20 per cent of NHS organisations were digitally mature, and 14 per cent did not have any form of electronic health record. The government promised £2 billion to put electronic patient records in all NHS trusts and help over 500,000 people to use digital tools to manage their long-term health conditions in their own homes. The plan committed to a relentless focus on digital skills, leadership, and culture at all levels. The new date for delivery of key priorities was March 2025 including:

- developing a joined-up health and social care record which all clinical teams in an ICS would be able to access and contribute to
- developing new diagnostics capacity to enable image-sharing and clinical decision support based on AI, to support testing at or close to home, streamline pathways, triage waiting lists and enable faster diagnoses and levelling up under-served areas
- providing guidance to NHS and social care tech buyers on the appropriateness of products to meet both their and service users’ needs as well as standards for interoperability, usability, clinical safety, cyber security and sustainability; and establish and enforce standards for tech sellers need to enable them to gain NHS and social care accreditation
- cocreating a national digital, data and technology workforce plan and improving the recruitment, retention and growth of the workforce.

In August 2021, NHSX published a new digital blueprint, ‘What Good Looks Like (WGLL) programme’, which drew on established good practice to provide clear guidance on ‘digitising, connecting and transforming services safely and securely’. The WGLL framework comprised seven success measures for evaluating successful digital transformation and set out expectations at both organisational and system levels. It emphasised the role of ICSs as the locus of decision making on digital strategies, related investment decisions and identified benchmarks for good practice digital services.

However, it acknowledged that the variable levels of digital maturity remained a fundamental barrier to the adoption of employee-enabling technologies.

Digital transformation of the healthcare delivery models can improve productivity and release time to care
Over the past decade there have been a succession of policies recognising the importance of getting the UK healthcare’s basic digital architecture right. These aimed to optimise workforce productivity and the quality of clinical care by improving the quality of data and information flows. Guiding principles include developing open standards and having secure identity and interoperability standards; ensuring the right data gets to the right place at the right time; and that services are designed around user needs. These principles formed part of the NHS LTP which expected digitally enabled care to go mainstream across the NHS and advance to a core level of digitalisation by 2024.

Deloitte’s 2019 report ‘Closing the digital gap: Shaping the future of UK Healthcare’, found that although digital and technology systems and services had been delivered in some parts of the NHS, there remained a wide gap in the digital maturity of hospitals and other providers and there was a growing divide between policy ambition and the reality on the ground. Our research suggested that, without additional investment in digital transformation, it was difficult to see how most NHS organisations would achieve the expected level of digital maturity by the LTP target date of 2024. Indeed, most digital health leaders we interviewed at the time felt that achieving a fully digital health system would take more than ten years, with funding, leadership and interoperability the three major challenges to overcome.
Digitalisation can support staff to work smarter but adoption remains slow

There are a wide and growing range of technologies with the potential to support clinicians to deliver care through technology-enabled support, by improving their productivity and freeing up time to care. The pandemic highlighted how technologies such as telemedicine and electronic health records (EHRs) and a shift to cloud-based technologies were the most efficient solutions to healthcare’s critical challenges. Moreover, that digital technologies can help reduce costs, deal more effectively with the changing patterns of demand, address growing workforce shortages, and help countries prepare for future global health crises.49

In our surveys for the 2017 Time to Care report, and our 2019 Closing the digital gap report, we asked clinicians about the potential of different healthcare technologies to improve the efficiency and quality of care and whether they were using these technologies. We used many of the same questions in the 2022 survey for this report (see Figure 13). Crucially, in all three surveys, respondents identified a lag between the potential of technologies and their use of them. Comparing the three surveys, electronic health records (EHRs) remained both the most used technology and the technology most likely to improve care quality or efficiency.50 51

There were differences in the number and type of respondents. For example the 2017 survey was focused on a relatively small number of hospital doctors and nurses, whereas the 2019 and 2022 surveys covered doctors, nurses and AHPs across all healthcare settings. However, comparing the findings over this time series shows:

- The most used technology was the EHR whose usage increased from 67 per cent in 2017 to 91 per cent in 2019 but surprisingly was only 64 per cent in 2022
- The second most used technology was e-prescribing, and while its use increased from 36.6 per cent in 2017 to 61 per cent in 2019, its use reduced to 46 per cent in 2022
- The use of remote consultations/telehealth rose significantly from 8.9 per cent in 2017, to 17 per cent in 2019 and 39 per cent in 2022
- Clinicians use of robotics, while low, showed a small improvement from seven per cent in 2019 to ten per cent in 2022 and the use of AI increased from three per cent in 2019 to five per cent in 2022.

Despite the increasing levels of positivity in use of technology in our research, the HSCSC’s Evaluation of Government commitments made on the digitisation of the NHS, published in February 2023 (reporting the outcomes of an expert panel’s review of progress against commitments), concluded that overall progress was inadequate.52 It considered that although progress on national standards and frameworks is happening, the progress is too slow.

Moreover, providers have not received the resources and support they needed to accelerate digital transformation. The evaluation also identified considerable challenges in recruiting and retaining the specialist digital data and technology (DDaT) staff needed by the NHS to drive digitalisation.53

Figure 13. The gap between clinicians’ views on which technologies are helping to improve the quality of patient care, and which ones they themselves use

<table>
<thead>
<tr>
<th>Technology</th>
<th>Percentage who believe the technology is helping to improve the quality of patient care (% yes)</th>
<th>Percentage currently using the technology in support of patient care</th>
</tr>
</thead>
<tbody>
<tr>
<td>EHR</td>
<td>67%</td>
<td>64%</td>
</tr>
<tr>
<td>E-prescribing</td>
<td>76%</td>
<td>46%</td>
</tr>
<tr>
<td>Wearables/biosensors</td>
<td>73%</td>
<td>35%</td>
</tr>
<tr>
<td>At home diagnostics/monitoring devices</td>
<td>70%</td>
<td>22%</td>
</tr>
<tr>
<td>Point of care diagnostics</td>
<td>69%</td>
<td>30%</td>
</tr>
<tr>
<td>Remote consultations (telehealth)</td>
<td>70%</td>
<td>39%</td>
</tr>
<tr>
<td>Remote vital sign monitoring</td>
<td>58%</td>
<td>14%</td>
</tr>
<tr>
<td>Staff apps</td>
<td>57%</td>
<td>34%</td>
</tr>
<tr>
<td>E-rostering</td>
<td>49%</td>
<td>40%</td>
</tr>
<tr>
<td>Automated drug dispensing</td>
<td>48%</td>
<td>11%</td>
</tr>
<tr>
<td>Voice recognition for clinical documentation</td>
<td>44%</td>
<td>11%</td>
</tr>
<tr>
<td>Wearables/biosensors</td>
<td>40%</td>
<td>8%</td>
</tr>
<tr>
<td>Robotics</td>
<td>39%</td>
<td>10%</td>
</tr>
<tr>
<td>Cloud computing</td>
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<td>14%</td>
</tr>
<tr>
<td>Whole genome sequencing</td>
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<td>4%</td>
</tr>
<tr>
<td>Biosensors</td>
<td>34%</td>
<td>5%</td>
</tr>
<tr>
<td>Artificial Intelligence (AI)</td>
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<td>5%</td>
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<tr>
<td>Virtual reality</td>
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<td>5%</td>
</tr>
<tr>
<td>Virtual reality/augmented reality</td>
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<td>4%</td>
</tr>
<tr>
<td>Nanotechnology</td>
<td>20%</td>
<td>2%</td>
</tr>
<tr>
<td>Radio frequency identification tags (RFID)</td>
<td>18%</td>
<td>4%</td>
</tr>
<tr>
<td>Quantum computing</td>
<td>12%</td>
<td>1%</td>
</tr>
<tr>
<td>Blockchain-like technology</td>
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<td>1%</td>
</tr>
<tr>
<td>Digital twins</td>
<td>8%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Deloitte analysis of 2022 Sermo survey of 1286 clinicians.

Questions: “Which of the following technologies do you think are helping to improve the quality of patient care?” and “Do you currently use any of the following technologies in support of patient care?” Plot shows the proportion selecting ‘yes’ for each technology.
Interoperability and liberating the power of data

Interoperability is central to achieving a digitally mature healthcare system. Interoperability refers to the extent to which systems and devices can exchange and interpret shared data over wired and wireless networks. It is a complex and highly significant challenge for all stakeholders across the healthcare ecosystem. Interoperability relies on being able to establish connectivity and communication channels between devices and IT systems and between data and workflows to enable secure and transparent data exchange through consensus standards and protocols.

Today, interoperability in healthcare lags well behind its development in retail, financial services and other service industries. Indeed, the H&SSC report in February 2023, on the independent evaluation of NHS digital transformation priorities, was the latest in a long list of reports that highlight the limited progress on interoperability and how this is undermining the benefits that can be realised through digital transformation. For example, impediments to the flow and exchange of information within and between hospitals, general practices, community and social care providers are undermining the government’s commitment to develop linked datasets.54 Figure 14 illustrates the benefits that interoperability can bring and key actions to overcome the challenges.

Source: Adapted from Deloitte report MedTech and the Internet of Medical Things: how connected medical devices are transforming healthcare.

Figure 14. The benefits of addressing healthcare’s interoperability challenge and the actions stakeholder’s should consider
Data interoperability can also help bring together important workforce data on recruitment, employment, onboarding, and importantly retention metrics. Always-on data can help coordinate staff rosters and details of patient acuity to develop safer staffing models and align predicted A&E attendance with appropriate staffing profiles. Interoperability can improve collaboration on human resources (HR) and organisational development (OD) issues from ‘ward to board’ and between secondary, community and primary care.

Implemented effectively across the ICSs, interoperability can also help identify workforce interdependencies across health and social care. However, projects and actions to resolve the challenges encountered require funding, and while interoperability roadblocks can often be human, they are increasingly budget issues.

**Deloitte view**

A fundamental barrier to the digitisation of the healthcare services and the adoption of employee-enabling technologies is the variation in digital maturity across the NHS and the fundamental need for a more concerted and proactive approach to improving digitalisation. While we welcome the government’s attempts to try and change the dial with their new digital strategy ‘A plan for digital health and social care’ and the WGLL programme and framework, the H&SCSC’s ‘Evaluation of Government commitments made on the digitisation of the NHS’ shows there is still a mountain to climb. The NHS needs to identify cost-effective ways to overcome the barriers to technology adoption, including having a relentless focus on giving staff the time and resources to develop digital skills, and an emphasis on the leadership and mind-set changes needed to drive digital transformation. This should be enabled by the development of a fully costed and funded digital workforce strategy. Otherwise, the UK risks falling behind most other developed countries.

A modernised NHS ‘people service’ is crucial for the sustainability of the healthcare workforce

If the NHS is to successfully tackle the challenges facing its workforce, its ‘people professionals’ (HR and OD practitioners) have an invaluable contribution to make in areas such as recruitment, training and development, staff rostering, wellbeing and retention. The NHS People Plan recognised the need to modernise the people functions across the NHS to enable them to become more proactive, accessible, efficient, and cost-effective; and drive organisational and staff development and the adoption of innovation and new ways of working.

In recognition of the need to improve HR and OD capabilities, NHS England and Improvement published ‘The future of NHS human resources and organisational development report’ in November 2021. This outlined a ten-year vision of how the ‘people profession’ should develop over the coming decade. Its recommendations were designed to reinforce the seven elements of the People Promise and the four pillars of the NHS People Plan 2020-21 (see Figure 15).
Figure 15. The eight themes of the 2030 vision for the future of human resources and organisational development which support the seven elements of the NHS People Promise and the four pillars of the People Plan.

There has therefore been a renewed focus on strengthening HR and OD roles through the adoption of technology solutions. Our interviewees suggest that in addition to e-rostering and e-job planning, flexibility ‘wins’ can be achieved by prioritising HR digital transformation in three main areas: customer services; collaborative staff banks; and e-recruitment (see Figure 16). This should enable staff in the people function to give more time for implementing the Growing Occupational Health and Wellbeing (GOWB) Together strategy.

We need people whose job it is to focus on the workforce, therefore we need time to train not just time to care.

NHS Clinical Lead
Adopting technology-enabled HR platforms can improve staff empowerment

NHS managers are increasingly using digital workforce management platforms to organise information on their employees more efficiently and cost-effectively, all in one place. The potential of such digital solutions is further enhanced if all the data is held in a standard format. Integrating new digital systems can enable them to optimise how they interact with employees (such as ‘digital in your hand’, push notifications, removal of duplicated data entries, and mobility across systems).

The Professional Record Standards Body (PRSB) has been working with the NHS to develop a workforce standard that ensures all employment information for an individual could be contained in a ‘Digital Staff Passport’, universally accepted as trustworthy, and held securely and kept updated on the individual’s mobile phone. A digital passport could be used when individuals move jobs: it would support the Enabling Staff Movement programme by reducing duplicate form filling, employment checks, and avoiding the need for repetitive and costly mandatory training when individuals move between employers.

Furthermore, NHSE’s Transformation Directorate has showcased how AI can be used to improve back-office efficiency in the NHS, leading to a 25 per cent increase in satisfaction among new recruits. Future research is needed to fully assess the return on investment from such initiatives across NHS organisations and in different settings, including primary and community care.

Investing in high-quality leadership is crucial to the delivery of high-quality care

The NHS LTP, like many previous strategies and reviews, identified the links between high-quality leadership, the culture of an organisation and the delivery of high-quality care. The LTP found that although some parts of the NHS had the leadership and cultures necessary for delivering high performance and implementing extensive service changes, this was still not commonplace. It also identified the lack of a sufficient pipeline of highly skilled and deployable senior leaders as a crucial constraint on the delivery of the plan.60

The NHS People Plan identified the need to support senior leaders more effectively, particularly those undertaking the most challenging roles, by ensuring they have both the time and space to make a difference, and are provided with appropriate ‘air cover’ when taking difficult decisions. It highlighted plans for a new ‘NHS leadership code’ to underpin everything from recruitment practices to training and development programmes. It also committed to doing more to nurture the next generation of leaders by taking a systematic approach to identifying, developing and supporting those with the ability and ambition to reach the most senior levels in the service.61 A new approach to compassionate leadership is also required at every level to address the core needs of staff including autonomy, belonging, and contribution.62 While compassionate or empathy-driven leadership, where leaders actively listen to and seek to understand the challenges facing their staff and who commit openly to supporting staff to thrive, already exist in parts of the NHS, it now needs to become the norm.63

We need to prioritise ‘being a better boss’. This includes being sure you always hire ‘someone better than you’!

Health Policy Commentator
The Messenger review of health and care leadership

In response to the 2021 NHS staff survey, the government announced a review into health and care leadership, led by General Sir Gordon Messenger and Dame Linda Pollard (known as the Messenger review). The review confirmed that while first-rate leadership contributes directly to better services, the development of quality leadership and management is not sufficiently embedded in health and care communities. The review recommended that there should be:

- an increased emphasis on creating a more diverse leadership
- greater focus on leadership development in community, mental health and ambulance trusts
- more opportunities for leadership development across clinical groups, including AHPs
- more NHS managers with greater professional status
- more consistent and accredited training and development for senior managers that in addition to core management skills, reflect the digital and transformational skills that will be needed in the future.

The review also noted that the establishment of statutory ICSs should provide an opportunity to transform the support available to NHS leaders in their areas, including mental health support, development of proper career structures, and a review of WRES targets. It identified the NHS People Plan as an important lever for creating an NHS that offers equal opportunities to all its staff.

Deloitte view

The evidence of the link between high-quality leadership, the culture of an organisation and the delivery of high-quality care is irrefutable, and the proposal of a new compact to support senior leaders more effectively is a crucial step to achieving this. Implementing the recommendations in the Messenger review is also critically important for ensuring the NHS has the leaders it needs to deliver a sustainable future for its workforce. However, we share the concerns identified in the report that structural barriers, especially the low ratio of managers to staff and the lack of protected time for leadership development, risk impeding the development of a supportive compassionate leadership. We agree that measures of workforce well-being and engagement should be added to a leader’s performance metrics and that the NHS would benefit hugely from more diversity in leadership. Moreover, we consider that extending senior leadership development to other clinical professions, such as AHPs, is also a crucial next step. “If you can’t see it, you can’t be it.”

Generally, for AHPs having a voice at the board leadership level of an organisation is important for the wider pipeline and inspiring the next generation.

Board member, Professional body
Embedding EDI throughout the NHS

The Equality Act 2010 places a duty on all public sector organisations to eliminate unlawful discrimination, harassment and victimisation, and to promote equality of opportunity for people with a protected characteristic. There are nine protected characteristics: age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race, religion or belief; sex; and sexual orientation.

The NHS has developed two national tools to help ICSs and other healthcare organisations track progress on EDI: these are the Workforce Race Equality Standard (WRES) which was mandated in 2016, and the Workforce Disability Equality Standard (WDES). The WRES requires leaders to reduce disparities in recruitment processes, disciplinary procedures, training and workplace experience, and to keep track of progress. It also enables NHS organisations to compare the workplace and career experiences of disabled and non-disabled staff. Together the WRES and WDES enable NHS organisations to monitor their progress towards EDI, encouraging improvement through learning and sharing good practice. They also provide an overview of progress nationally.

In 2021, the NHS staff survey was redesigned to align with the NHS People Promise whilst continuing to gather longitudinal data for indices such as engagement, morale, WRES and WDES. Ensuring staff are ‘safe and healthy’ is a key element of the NHS People Promise and the NHS staff survey makes an overall assessment of staff wellbeing across all parts of the workforce and identifies which staff groups have poorer outcomes.

The WRES 2022 report identified an NHS workforce that is ‘more diverse than at any other point in its history’, with staff from ethnic minority backgrounds comprising nearly a quarter (24.2 per cent) of all workers. It noted that organisations are at different stages of progress and provided nuanced data to enable systems and employers to develop bespoke solutions to tackling health inequities.67 68

The NHS 2022 staff survey found that despite there being an improvement in staff confidence on equality issues, there has been an increase in staff experiencing discrimination from the public and no change in the levels of discrimination from managers or colleagues. Data on staff experience broken down by all protected characteristics continues to show negative gaps in staff experience.69

The Messenger review identified considerable inequity in leadership experience and opportunity for those with protected characteristics, particularly race and disability, and that the only way to tackle this effectively was to mainstream EDI as a responsibility for everyone. It also recommended that EDI should become a universal indicator of how the system respects and values its workforce, and that the provision of an inclusive and fair culture should become a key metric by which leadership at all levels is judged.70 As part of wider ICS development work, a System Workforce Improvement Model is being developed to ensure that the future workforce within an ICS reflects EDI priorities.

Deloitte view

EDI has become a top priority for healthcare leaders who recognise that their organisations need to close gaps in health disparities and focus on EDI in their own workforce. A diverse and inclusive healthcare workforce in both clinical and non-clinical settings can help improve trust and strengthen the connection with patients and communities. The WRES and WDES provide crucial indicators of progress, but organisations need to use the data to derive insights and, in collaboration with staff, change their recruitment and retention strategies to improve their performance.
There are many actions that healthcare organisations can take to address job dissatisfaction and improve the sustainability of their workforce. These include collaborating with education providers and recruitment agencies to develop effective routes into a clinical career; increasing the efficiency and effectiveness of recruitment systems and processes; and developing effective retention and support strategies. While a robust long-term national workforce plan supported by appropriate funding is needed, so too is bottom-up workforce planning that reflects new models of care and the impact of innovations and digital transformation. Employers also need to create an environment that is conducive to developing the skills of the workforce. Automation and digital technologies can help with this, but providers should prioritise the human factors that influence staff health, wellbeing and job satisfaction.

Our research suggests that there are various actions that ICSs and healthcare organisations can take to improve the capacity and capability of the NHS workforce, including improving the routes into a clinical career, increasing the efficiency and effectiveness of recruitment and developing effective retention strategies (see Figure 17).

**Figure 17. Building the capacity and capability of the workforce**

1. **Improve opportunities and routes into a clinical career in the NHS**
   1. Redefine the sources of recruitment into nursing and Allied Health Professionals training (domestic training, international recruitment and return to practice)
   2. Increase capacity of medical schools and specialty training programmes
   3. Reduce attrition and modernise the undergraduate training experience
   4. Collaborate to improve the education experience and develop competency-based skills

2. **Increase the efficiency & effectiveness of recruitment, onboarding and staff development**
   1. Prepare and support staff through seamless end-to-end recruitment, onboarding and induction
   2. Provide regular appraisals and increase opportunities for professional development
   3. Supporting the career ambitions of clinicians including extending scope of practice

3. **Develop effective retention and support initiatives**
   1. Improve retention through the development of a listening culture that engenders trust
   2. Support the health and wellbeing of staff
   3. Provide both financial and non-financial benefits and rewards
   4. Improve work-life balance including flexible rostering, self-rostering and better deployment of temporary staff

4. **Scale the adoption of technology to augment the clinical workforce**
   1. Adopt innovations and new ways of working that release time to care
   2. Support clinicians to adopt digital technologies to alleviate workload pressures

*Source: Deloitte analysis*
For the past decade Health Education England (HEE) has been responsible for the supply, training and upskilling of the healthcare workforce in England. In 2021, the Secretary of State for Health set out his intention of creating a new organisation, integrating HEE with NHSE (along with NHS Digital and NHSX). This integration was completed in January 2023 with the creation of a new Workforce, Training and Education Directorate, aimed at creating a stronger organisation that aligns workforce, financial and service planning with education and training, COVID-19 recovery, the People Plan, and a robust workforce reform programme.

Improving opportunities and routes to a clinical career in the NHS

Redefining the sources of recruitment into nursing and AHP careers

The 2022 H&SCSC report on its enquiry on Workforce: recruitment, training and retention in health and social care found that the government was on course to recruit its target of 50,000 extra nurses by 2024; however, this recruitment was not having a meaningful impact on nursing shortages since demand was increasing more quickly than supply. It recommended an increase in nursing and midwifery higher education places and that there should be no financial barriers for people wanting to undertake these degrees.

In addition, healthcare faces shortages across most types of AHPs, including speech and language therapy, dietetics, occupational health, and physiotherapy. There was an initial uptick in nursing student numbers in 2020, following the reintroduction of a nursing bursary of £6,000 (or £8,000 for some mature students) and the response to the pandemic; but this was followed by a drop in applications and growing levels of nurse attrition. This resulted in calls for radical reforms in sourcing staff through new approaches to training to meet the ‘needs of the 21st century’.

While professional training has always been a key route into the clinical workforce, it requires significant financial investment and is not a ‘quick fix’ for staff shortages in the short term. Nevertheless, our interviewees identified a growing appetite to adopt more flexible approaches to employment, such as the introduction of the Nursing Associate role in 2017. There are now several routes for entering nursing (see Figure 18). This includes traditional undergraduate and postgraduate nursing degrees, blended learning degrees, nurse degree apprenticeships, return to practice training programmes and international recruitment. For example:

- while the NHS has always been dependent on qualified staff from overseas, increasingly NHS organisations are expected to be cognisant of global nursing shortages in other parts of the world and to ensure compliance with ethical international recruitment standards. Evidence to the HS&CSC forces with employers and opportunities in the NHS.

- Opportunities through apprenticeships can help bridge the gap between healthcare support staff and fully registered nurses.

This career ‘mobility’ and progression is also available for AHPs and physician associates. However, the cost-of-living crisis and the negative portrayal of healthcare as a career in the media means that attracting people to work in the NHS remains a complex challenge.
Figure 18. There are a number of nurse training entry routes into the NHS

**Blended learning degree**
3 years (up to 5 years part time)
- Starting Jan 2021 – combines digital and traditional elements of learning to attract those previously facing barriers (access to student finance)

**Undergraduate degree**
3 years
- Places limited by employer (placement) and university capacity; students need two/three A-levels or equivalent plus supporting GCSEs (English, maths and science)
- Access to finance/bursary – no salary cost to employer

**Postgraduate degree**
2 years
- Limited number of places for both diploma and masters options
- No salary cost to employer

**Nurse degree apprenticeships**
Up to 4 years
- An alternative route to become a graduate registered nurse that doesn’t require full-time study at university
- NHS apprenticeship levy pays up to £27,000 training costs
- Employer funds salary and backfill investment

**International recruitment**
Up to 20 months
- 3-12 months before arrival followed up by 8 months in pre-registration route
- Costs around £8,000 to £10,000 depending on agency fees and relocation package
- Initiatives include local international recruitment hubs, new language training programmes and coordinated marketing

**Return to practice**
Up to 6 months
- More than 40 programmes across UK
- Funding support of up to £1,000
- Renewed focus building on interest shown during the pandemic with many indicating an interest in remaining. HEE is working with regulators to ease the move to a permanent register

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**Source:** Deloitte analysis of NHS employers information – [https://www.nhsemployers.org/articles/your-future-nurses](https://www.nhsemployers.org/articles/your-future-nurses)

**Note:** Timescales shown represent the approximate length of the entry route.

**Abbreviations:** GCSE=General Certificate of Secondary Education; HEE=Health Education England.

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One Trust that has made a measurable impact on their recruitment and retention is Hull University Teaching Hospital which has made six pledges to staff, including ‘you’ll be in a great place to live and work’, ‘we’ll help you get the balance right’, ‘we’ll offer great job benefits’ and ‘we’ll help you go far’. They’ve staff-centred approach has enabled them to reduce registered nurse vacancies by 95 per cent. The NHS Trust’s ‘Grow Our Own’ campaign has supported school leavers via apprenticeships and has helped healthcare assistants and internationally educated nurses to gain UK nurse registration, attracting significant numbers of new staff into the Trust.

One national initiative gaining momentum is NHS partnerships with the Prince’s Trust to attract, recruit and retain disadvantaged young people who may be unaware of the opportunities available to them in the sector and help them build sustainable pathways into jobs and careers. In March 2023, the Prince’s Trust, with input from NHSE, Skills for Care, NHS organisations and young people who have found work with health and care providers have developed a toolkit to help NHS and care providers widen their talent pool, improve recruitment and provide opportunities, including apprenticeships, to upskill young people and ‘grow your own’ clinical workforce.
Increasing the capacity of medical schools and specialty training programmes

In 2018, NHSE announced that five new medical schools would be opened, in Sunderland, Lancashire, Canterbury, Lincoln and Lancashire, to help deliver a target of 1,500 new training places. While most of the new places were provided by the new medical schools, some were in existing medical schools. In 2021, in recognition of the staffing problems during the pandemic, the number of medical school places was increased from 7,500 to 9,000.81

Over the past decade there have been various initiatives to improve the recruitment and retention of medical students. This included targeting areas that have historically struggled to attract and retain medical professionals.82 For example, the Targeted Enhancement of Primary Care (TEP) programme, launched in 2016, offers a one-off payment of £20,000 to attract GP specialty trainees to areas of high deprivation or that have a history of difficulties in filling places. Trainees sign an agreement to complete a three-year programme. This focuses on recruiting students with an interest in practising in rural or remote areas. The programme has been successful in attracting students who may not have otherwise pursued a career in medicine due to the difficulty of finding a local placement.81 The University of Edinburgh has now adopted this model for AHPs.83

The cap on medical school places has now returned to 7,500 in England (9,500 in the UK). However, the H&SCSC enquiry challenged this decision, arguing that the UK still did not have enough doctors and citing evidence that the new medical schools had widened participation and produced doctors who were more likely to practise in their local area. It recommended the number of medical school places across the UK should be increased to 14,500 a year, but since it takes more than ten years to train a doctor, the impact of any such changes will be in the longer term.

In Scotland, the University of St Andrews and the University of Dundee have teamed up to establish the Scottish Graduate Entry Medicine (ScotGEM) programme. This focuses on recruiting students with an interest in practising in rural or remote areas. The programme has been successful in attracting students who may not have otherwise pursued a career in medicine due to the difficulty of finding a local placement.81 The University of Edinburgh has now adopted this model for AHPs.83

The advantages of VR/AR ‘immersive’ simulation training include:

- standardisation and replicability of the work environment, providing adherence to competency standards
- exposure to a wide range of environments and situations, including wards, GP surgeries, patients and colleagues
- replicating rare clinical scenarios and responses to medical emergencies in an immersive way
- widening access to training for clinicians in different geographies or smaller clinical settings
- testing communication, teamwork and competency in technology/diagnostics under pressure
- the ability to upskill rapidly and flexibly, and to participate in training from any location – improving access and removing the time, cost and environmental impacts of travel.81

Fundamentally there are not enough doctors in the UK and we are not producing enough to be more self-sufficient. A third of all medics are overseas-trained and this is a long-standing issue.

Director, NHS body

Reducing attrition and modernising the undergraduate training experience

The availability and quality of clinical placements has also caused a bottleneck in the training pipeline. In response to growing concerns about attrition, HEE’s RePAIR (Reducing Pre-registration Attrition and Improving Retention) project was introduced in 2015 to improve retention of medical students – from pre-enrolment to two-years post-qualification. The project identified the importance of the clinical component of the course for the student experience, and that their desire to remain on their course or in the NHS is heavily influenced by their clinical supervisor (or mentor) and the culture in the clinical setting. The RePAIR project therefore developed a toolkit to share good practice.84

Several reviews highlight the increasing scale of student attrition. An investigation in 2019 found that 24 per cent of nurses were leaving their courses, citing financial pressures (linked in part to the removal of the bursary), ill-health and feeling out of their depth on placements.85 A further review in 2021 found that 33 per cent of those who started their courses in 2018 did not graduate in 2021. The H&SCSC’s enquiry in 2022 expressed concern that nursing attrition remains stubbornly high. Moreover, an estimated one in four potential consultants quit training before reaching a senior doctor role.

An increasing body of scientific literature demonstrates the benefits of simulation training for the student experience and confidence. Most education providers now include virtual reality (VR) and augmented reality (AR) in their clinical programmes.86,87

For example, Middlesex University has adopted a simulation training platform that enables student nurses to work in a virtual hospital where they ask patients questions to diagnose their condition, decide on the best treatment and follow the appropriate procedures. This approach has helped the university to equip large numbers of students with the necessary skills to treat patients safely and effectively and it has enhanced their training experience.81

The H&SCSC’s enquiry highlighted a number of factors that influence the likelihood of medical students leaving their course or the NHS. In 2019, the H&SCSC’s enquiry revealed the extent of the problem, and in 2022, expressed concern that nursing attrition remains stubbornly high. More recently, an estimated one in four potential consultants quit training before reaching a senior doctor role.

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- the ability to upskill rapidly and flexibly, and to participate in training from any location – improving access and removing the time, cost and environmental impacts of travel.81
Improving collaboration between universities and healthcare to enhance the education and training experience

In February 2023, The University Alliance (a collaboration that collectively trains 30 per cent of nurses in England) called for more university involvement in healthcare recruitment. Its policy paper ‘Delivering the Healthcare Workforce of the Future’ noted that Alliance universities turn away thousands of potential applicants because the NHS lacks the capacity to provide the placements they need as part of their qualification. It also argued that universities struggle to plan long-term investment in training because they are not routinely involved in NHS workforce planning. It called for universities, the NHS and the government to collaborate on finding solutions that deliver a workforce fit for the future. Its recommendations included: reforming placement tariffs, supporting the increased use of simulation training and adopting a competency-based model of training, as in the US and Canada.13

The Alliance report echoes the findings of several reviews and enquiries that have identified that action is needed to ensure that insufficient funding and a shortage of clinical placements do not create a bottleneck in the training pipelines for nurses, doctors and AHPs. It also recommended that any expansion in clinical placements should expose students to a wider mix of settings and at more appropriate times during their training. They believe that such measures would improve the student experience, broaden their future career choices, and help move care out of hospital settings.13

Deloitte view

The renewed focus on improving routes into pre-registration training, reducing student attrition, expanding ethical international recruitment, and running effective return to practice programmes should improve the numbers of people considering a career in the NHS. However, if these initiatives are to be cost-effective, closer partnership working between the NHS, colleges and universities will be essential. Currently, all healthcare courses are delivered in separate institutions, but the future of education and training should involve collaboration between training institutions, to deliver opportunities for diversification and the learning of multi-professional skills. There should also be an evaluation of what works and why, scale the adoption of good practice, and focus on developing competencies rather than simply completing ‘hours of training’.

Increase the efficiency and effectiveness of recruitment, onboarding, and staff development

People professionals, supported by leaders across local organisations, are responsible for ensuring employees are provided with equal opportunities for career development, succession planning, and supporting their health and wellbeing. They also need to respond to the changing nature of work and the changing expectations among employees of where they work, what work they are expected to do, and the values they hold.

There is an increasing expectation of flexible working and a growing interest in portfolio careers as well as a more agile approach to training and career progression. Some major societal trends are also influencing employees’ views on work, including the increasing length of working lives, growing competition in the domestic and international labour markets, and the positive and/or potentially detrimental impact of technology.

It’s like trying to change the wheels on an aeroplane while it is in flight.

Chief People Officer

Supporting new staff through seamless end-to-end recruitment, onboarding, and induction

Many organisations across the NHS face challenges with staff recruitment, which is a key role and responsibility of the HR function, and can be managed in-house, contracted out, or a mix, depending on the jobs that are to be filled. Having an efficient set of timely, cost-effective end-to-end, e-recruitment processes is crucial (see our ‘Time to invest’ section). Indeed, the NHS needs to modernise all recruitment processes in-line with technology-enabled best practice in other industries, for example, realising efficiencies by using cognitive analytics, robotic process automation (RPA) and cloud-based capabilities that filter applications and match profiles to available jobs.

The onboarding process provides an important first impression of an organisation yet often involves lengthy and resource intensive administrative processes (verifying documents, interview scheduling and detailed pre-employment checks (including qualifications, right to work, occupational health data, criminal records check and signing of terms of conditions). This can lead to long delays filling vacancies and may result in candidates dropping out or accepting alternative roles elsewhere. While some innovative trusts began digitising staff employment checks several years ago, others still rely heavily on slow manual processes giving a poor impression to applicants.14 Improving on-boarding is therefore a crucial first step in ensuring vacancies are filled as efficiently as possible.
As noted in ‘The future of NHS human resources and organisational development’ report, organisations and ICSs should create strong recruitment and onboarding processes that reflect the People Plan and People Promise, including:

- developing strategies to make health and care the first choice for local employment using their position as anchor institutions
- using fair, simple and inconclusive processes to provide a high-quality candidate experience
- ensuring that welcoming and onboarding new joiners is seen as a crucial driver of retention and that it is a personal priority for leaders
- remove unnecessary bureaucracy and duplication, such as repeated statutory and mandatory training.

The establishment of statutory ICSs includes a requirement for providers to work together in provider collaboratives and place-based partnerships. By working together, providers can establish a more diverse recruitment pool and opportunities to identify and develop staff and improve career opportunities, easing some of the recruitment and retention challenges that smaller providers face. Provider collaboratives can also provide access to better training and staff development through investments in shared programmes. For example, the South West London Recruitment Hub combines four acute trusts’ recruitment teams into a single service, reducing time to recruit and vacancy rates, enabling sharing of good practice, improved hiring managers and candidates experience and cost savings.

Providing regular appraisals, flexible career opportunities and continuing professional development

All NHS staff should receive regular (at least annual) open and honest face-to-face appraisals, as well as more frequent informal conversations, to discuss and agree past performance and future development needs. Done well, performance appraisals are critically important for workforce retention; however, the process needs to be easy and not overly complicated and bureaucratic.

An effective appraisal system can create career growth, improve performance, increase employee engagement, and allow for conversations that wouldn’t normally take place, clarify expectations, and identify and provide staff with learning and development opportunities. Development opportunities include apprenticeship training, continuous professional development (CPD), secondments, work-shadowing, mentoring and coaching, as well as internal transfers and job rotation (between departments, sites and organisations across an ICS). NHS Employers has developed a people performance management toolkit to support the appraisal process.

The NHS Leadership Academy’s Talent Management toolkit has been designed to help organisations to develop inclusive and sustainable approaches to talent management across all staff groups. The Academy also offers a range of national and local leadership development programmes across all management levels. Moreover, there is a strong argument for a single set of core developmental standards and skills escalator training, alongside a simplified NHS appraisal system, to create a transferable ‘skills passport’ that can extend the scope of practice for individuals and support more flexible career pathways.

Our biggest challenge is not realising the potential of the workforce we already have, which is a bigger problem than not having enough.

NHS Clinical Lead

Supporting the career ambitions of clinicians

Understanding and meeting the career ambitions of clinicians is crucial to staff retention. A barrier to professional development is that different standards apply to different professions, meaning choices made pre-registration constrain an individual’s development opportunities post-registration. The NHS has therefore supported the development of a more multi-professional approach to training that reflects the diversity of the workforce and benefits from shared learning. This requires more focus and investment in CPD. Research shows that providing funding and time for protected CPD brings numerous advantages but needs to be deployed flexibly to suit those at different stages of their careers.

We need to balance the needs of the NHS with individual aspirations and ambitions.

Assistant Director, Professional body

For the people who want to go into healthcare professions, they have to choose which role they want to do from the outset. This isn’t very attractive, having to do the same thing your whole career. We need to challenge the status quo: don’t say: what are the roles we need. Say: what are the skills people need and how do we educate our students to have those skills.

University leader
Introducing extended scope of practice and advanced clinical practice to improve retention

All clinicians are expected to work within their scope of practice to ensure they are practicing safely, lawfully and effectively. However, this scope is likely to change over time as people develop their knowledge skills and experience and can demonstrate their competence to extend their scope of practice, including advanced practice. In 2017, to support new ways of working and improve development opportunities for clinicians, HEE and NHS developed the ‘Multi-professional framework for advanced clinical practice in England’, which set out an innovative vision for developing the workforce in a consistent way across primary care, community care, acute mental health and learning disabilities. In 2019, the NHS LTP confirmed it would expand multi-professional credentialing to enable clinicians to develop new capabilities and shift or expand their scope of practice more easily.

Any expansion of practice needs to balance the benefit to the patient and service in terms of quality, safety and cost efficiency and have agreement from the senior clinical lead that the enhanced practice contributes to these areas. The benefit for clinicians is in increasing the range of career opportunities. There are several frameworks designed to support clinicians to plan and advance their careers.

Over the past four years HEE has increased the number of places for advanced clinical practice training. HEE’s ‘Roadmaps to practice’ provide a clear post-graduate educational pathway to support the progression from registration to consultant level practice. For example, AHPs offer a crucial set of skills to primary care as first contact practitioners (FCPs) from dietitians to occupational therapists, paramedics, physiotherapists and podiatrists (see Figure 19). FCPs sit in the transition from enhanced practice to advanced practice. Extending the traditional physiotherapy or occupational therapy role provides new opportunities to respond to the increasing prevalence of chronic diseases and the numbers of people over the age of 70 in need of enablement or rehabilitation. Benefits provided by musculoskeletal FCPs include a 97 per cent improvement in patient confidence in managing their condition, a 63 per cent improvement in their condition, and 46 per cent reduction in the impact of patients’ condition on work performance.

The biggest challenge we have in healthcare is how we view professional scope of practice. We need to be looking at the skills and competencies clinicians bring rather than the historical scope of practice a professional group has had.

Director, NHS body

Figure 19. The ‘Roadmaps to practice’, provide a clear educational pathway for clinicians wishing to develop their careers in primary care.

Source: Adapted from HEE’s ‘Roadmap to practice’ FAQs see also: https://www.hee.nhs.uk/our-work/allied-health-professions/enable-workforce/roadmap-faqs
Lessons from Deloitte’s Gen Z and Millennial survey on recruitment and retention of staff

Deloitte’s global survey of Gen Z and Millennials in 2022 shows that the shifts in younger employees’ expectations of working in healthcare are remarkably similar to those of young people across other industries. For example, fair pay and feeling the workplace was detrimental to their mental health, and feeling burnt-out, were the top reasons Gen Zs (people born between 1997 and 2012) and millennials (born between 1981-1996) gave for leaving their employers over the last two years. But when it comes to choosing an organisation to work for, good work-life balance and opportunities to adapt to the changing workplace are their top priorities. Further, 40 per cent of Gen Zs would like to leave their jobs within two years and a third would do so without another job lined up, almost half of all respondents (49 per cent) having a clear expectation for flexible working. The Gen Z survey demonstrates clearly that employers need to adopt bespoke approaches to tackle the retention of more junior staff, while demonstrating a clear understanding of the different motivators of different generations.107

The expectations of CPD reflect changing demands on the workforce and new skills requirements, with 37 per cent of Gen Zs predicting that the most notable workplace shift within the next 10 years will be AI and other technologies automating many jobs or job functions. Employers who provide support to professionals to adapt to the changing workplace are seen as more attractive. Purpose is also critical, with Gen Zs and millennials willing to turn down jobs and assignments which don’t align with their values. This is particularly true among people in leadership positions.108 These sentiments mirror the feedback from the NHS staff survey and add weight to the need for employers to provide equal opportunities for workforce development.

Deloitte view

NHS organisations acknowledge the increase in recruitment challenges given the more negative perceptions of an NHS career, increasing levels of vacancies and the changing expectations of staff for flexible working, portfolio careers and a more agile approach to training and career progression. However, there are things that can help, starting with using technology to create a ‘frictionless’ recruitment pathway that improves the candidate experience and using the establishment of ICSs to recruit at scale across the system. HR and OD professionals are a crucial and valuable resource and need to be given opportunities to improve their own skills and abilities, to enable them to respond effectively to the changing nature of work and the changing career expectations of employees. Our annual Millennial and Gen Z survey provides comprehensive evidence of the changing views and values of most of the working age population and need to be heeded over the next 10 years.37

There are many steps that can be taken to tackle these problems.

A forensic focus on retention and deploying effective retention initiatives is crucial

Comprehensive workforce data needs to be collected and analysed to identify trends, areas of risk to and likelihood of attrition, and intervene early, identifying any systemic changes needed, co-creating the changes with staff and communicating the changes effectively. Trusts should also use the NHS Staff survey results, particularly the staff morale and engagement scores, which have a strong correlation and statistical significance with retention.105

The staff survey shows that an increasing number of staff do not enjoy their work, feel their contribution isn’t valued, or feel their voice isn’t heard or that they cannot change things to make their job more rewarding. Many staff feel close to burnout yet feel they can’t take adequate breaks and routinely have to work extra unpaid hours. Many also feel they don’t get the same opportunities as others. There are many steps that can be taken to tackle these problems.

The June 2021 H&S&CSC report, Workforce burnout and resilience in the NHS and social care, noted that burnout was the highest in the history of the NHS and social care, and as such is an extraordinarily dangerous risk to the future functioning of both services.116, 117 It noted that while there are many causes of burnout, chronic excessive workload is a major factor, and until the service has the right number of people, with the right mix of skills across both the NHS and care system, it is unlikely to be remedied.

Improve retention through the development of a listening culture from ‘ward to board’

Supporting and developing an effective workforce in the NHS is not just about staff numbers. It requires a culture of compassionate leadership in a psychologically safe environment that recognises that better engagement by staff is associated with improved patient outcomes.112 Failure by leaders to listen has, and will continue to have, a serious detrimental impact on staff resilience and wellbeing, and consequently, retention (see Figure 20).
Figure 20. Listen to the workforce and co-create positive, lasting changes

There are some initiatives like ‘Schwartz rounds’ that have proved successful in supporting staff by providing a ‘safe space’ and opportunity for discussion and feedback focused on providing good quality compassionate care. Following a series of pilot projects and evaluations between 2009 and 2013, Schwartz rounds are now supported by the Point of Care Foundation. They provide a structured forum where all staff come together regularly to discuss the emotional and social aspects of working in healthcare. Their purpose is to understand the challenges and rewards that are intrinsic to providing care and not to solve problems or focus on clinical aspects of care.

A National Institute for Health and Care Research (NIHR) study in 2018 found that among staff who regularly attend Schwartz rounds, the proportion with poor psychological wellbeing halved from 25 to 12 per cent. Staff felt less stressed, their general wellbeing improved, and they felt they provided better person-centred care in their work. Listening to colleagues describe the challenges they felt in their work helped to normalise emotions which are part of working in healthcare but are often hidden under the surface. Virtual Schwartz rounds were adopted during the pandemic to provide staff with opportunities to discuss their experiences, and they have since been deployed more widely.

Our interviewees commented on the use of Microsoft Teams to conduct virtual Schwartz rounds, as a crucial way for leadership to communicate regularly with staff, for staff to get to know their leaders better, and to provide an effective forum for feedback.

Initiatives to improve clinicians physical and mental health and wellbeing

There is an urgent and fundamental need to address the physical and mental health needs of staff if employers are to build a resilient workforce. As discussed in our report, the role of employers in reducing the UK’s public health gap, working conditions can contribute both positively and negatively to the physical and mental health of employees. Poor workforce health also incurs significant costs. Our report featured research which identified a strong correlation between health and job satisfaction and business performance; and that employers who prioritise their employee’s wellbeing enjoy a 30 per cent reduction in sickness absences every year, and a greater likelihood of employees returning to work after periods of sickness. It also highlighted other Deloitte research that showed that in addition to easing the personal impact of poor wellbeing, the financial case for investment in the mental health support of their workforce is stronger than ever, with an average return of £5 for every £1 spent.

Our employers report included a focus on the NHS and its acknowledgement that the health of its employees constituted a crucial public health challenge. It noted that the NHS had introduced a range of initiatives such as a refreshed ‘Health and Wellbeing framework’, predominantly aimed at reducing sickness absence, dedicated mental health and wellbeing hubs, free staff access to a range of wellbeing apps and ‘Wellbeing Guardians’ on every NHS board.

Nevertheless, most NHS organisations identified poor workforce wellbeing as one of their highest risks. Our report highlighted ways that NHS employers can tackle health and wellbeing but also the need to reduce the wide variation in funding and access to support services. In January 2023, NHS England published its report, ‘Using the NHS Health and Wellbeing (HWB) Framework successfully’, which provides insights and learning from 24 trailblazer NHS organisations and ICSs (see Figure 21).
Better management of staff absences

GoodShape are specialists in employee wellbeing and performance and support employers by measurably reducing risk, reducing costs and improving employee experience. It has been supporting NHS Trusts around the country for almost two decades. It calculated that during 2021-22, the NHS had an average annual absence rate of 5.35 per cent, equivalent to 73,308 FTE staff lost due to absence, and the total annual cost of absence for all employees some £2.293 billion. Its research identified three reasons why most large employers struggle to reduce the personal and financial impacts of absence:

- limited reliable real-time data to understand root causes and underlying issues, or to measure the impact of employee support initiatives
- unsuitable systems and processes for managing unplanned leave, from the first day of absence through to a safe, timely, compliant return to work
- poor employee engagement, resulting in difficulties in communicating with, and supporting people.

GoodShape’s analysis shows why managing staff absence efficiently and improving employee wellbeing are vital. Absence management tools can help reduce administrative work, improve understanding of the health of the workforce and target wellbeing challenges. They can also help identify risks and reduce levels and length of absences.

Improving access to occupational health and wellbeing

The 2022 NHSE strategy Growing Occupational Health and Wellbeing (OHWB) Together: Our roadmap for the future, provides a blueprint to grow OHWB services over the next five years, building on the NHS People Plan and Promise, recognising the importance of EDI, and for all NHS staff to be able to access good occupational health services.120 In January 2023, the strategy was included as a mandate for action for ICSs and NHS organisations as part of system wide workforce planning, and has been included as part of the 2023-24 NHS priorities and operational planning guidance.121

Today, the increasing availability of integrated data and the statutory requirement to focus on population health management can help people services, including OHWB practitioners, obtain better insights into the changing demographics and associated needs of the workforce. This can support a more strategic, proactive and preventive approach to addressing problems such as managing staff absence, tackling the social determinants of health, and reducing staff health inequalities. Nevertheless, there remains a gap between the ambition in the ‘Growing OHWB Together’ strategy and the reality on the front line, with a continued decline in clinicians’ physical and mental wellbeing which has been compounded significantly over the past year by declining financial wellbeing.

Figure 21. Emerging evidence of benefits to be gained from using the NHS HWB framework

An evaluation of the 24 trailblazer pilots indicated that the short-term benefits reported as a result of using the HWB included the following:

- raising the profile of workforce wellbeing and its breadth, including with senior leaders or assurance groups
- building relationships across varied divisions and departments and appreciating that ‘health and wellbeing’ spans a broad scope of areas
- compiling evidence of the need to extend wellbeing support, to use when seeking funding
- using data to inform decisions, including seeking feedback from the workforce and evaluating the support available
- gaining mutual support and reducing the isolation of HWB leads in the organisation, by sharing experiences with other organisations.

Source: Adapted from the NHS England and NHS Improvement Health and Wellbeing Framework Strategic Overview (2021) and Using the NHS Health and Wellbeing Framework successfully (January 2023)
The importance of financial and non-financial benefits and rewards

NHS trusts are increasingly working in partnerships with the private and voluntary sectors to provide wellbeing support to their staff, such as access to digital wellbeing services, or referrals to local foodbanks, debt advice and other services. An NHS Employers survey in January 2023 found that half of NHS trusts were providing, or planning to provide, staff food banks. Independent research by NHS Charities Together found that over ten per cent of people who used food banks each month were nurses. In response, NHS Employers have developed a ‘cost-of-living and good employment’ web page with resources and examples of good practice and ICSs and individual employers are urged to ‘review and benchmark their offerings to help retain valuable talent and remain an attractive employer’. Nevertheless, there are concerns about how sustainable this will be, given rising cost pressures on NHS budgets.

During the pandemic, numerous ways of recognising and rewarding staff were introduced, such as thank-you boxes, staff commendations, resting rooms and free meals, with many resources supplied by the local community. These improved staff morale and confidence at a time when their physical and mental health were compromised. Our interviewees told us that although these initiatives were recognised as temporary, their removal had a negative effect on the views of staff about the priority that their organisations are giving to their health and wellbeing. Some organisations have converted initiatives instigated during the pandemic into permanent offerings, recognising that small actions at a local level can have a strong positive impact on staff wellbeing (see Figure 22).

Some of the many examples include:

- North Cumbria Integrated Care NHS Foundation Trust replaced its annual appraisal with quarterly discussions that involve health and wellbeing checks.
- North Bristol NHS Trust has declared that staff health is as important as our patients’ health, co-developing a wellbeing programme that promotes self-care and the use of ‘wellbeing champions’ which has reduced the costs of staff sickness by more than £300,000.
- NHS Greater Glasgow and Clyde has provided a variety of initiatives, from on-site money and debt advice to a peer support network and free exercise classes.
- Maidstone and Tunbridge Wells NHS Trust offers a specialist in-house staff psychological team, wellbeing lounges and a programme of wellbeing activities to help combat stress and chronic burnout.

In addition, given that four fifths of healthcare staff are women, healthcare organisations should apply the actions in the government’s new Women’s Health Strategy for their own staff. Specifically, occupational health should ensure sufficient focus is placed on women-specific issues like miscarriage and menopause by creating a working environment that is conducive to managing such health conditions or maintaining good health at work. In addition they should tackle stigmas and taboos around menstruation and other gynaecological conditions – so that women feel able to speak up and access support.

NHS organisations need to focus on the things they can control and adapt to make a pleasant working environment and attract staff. While acknowledging they can’t influence pay, organisations can introduce things that are not expensive like access to lockers and food – practical things that show people they are appreciated. It is important to speak to staff to understand what they want – issues can often be very basic like having to walk across campus to print. Think small!

Management consultant agency

Figure 22. Examples of non-financial benefits identified as having a positive impact upon staff morale

- Free and available parking
- Protected time and space for breaks
- Financial supports such as loans and higher mileage allowance
- 24/7 access to basic refreshments (e.g. coffee, fruit, cheap hot food)
- Access to showers/changing area
- Affordable childcare (e.g. on-site creche)
- Protected time for development and wellbeing activities

Source: Deloitte analysis

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Improving work-life balance through flexible staffing and better deployment of temporary staff

Our survey highlighted that after pay, work-life balance was the second highest priority for clinicians, across all age groups, albeit nurses and midwives put time to engage with patients and recognition/appreciation as higher priorities. Flexible working arrangements can help address work-life balance. In 2021 the NHS terms and conditions of service handbook was revised to include a right to request flexible working in England and Wales from day one. However, our interviewees told us that this has not been implemented across the NHS due to logistical challenges. Currently, a wide range of flexible working options are available to help staff achieve a balance that works for them as individuals, accepting that it won’t always be easy to accommodate individual work preferences. However, modernising systems and processes to manage flexible working, such as options on where to work (such as home, employers work location or hybrid) and how to work (compressed/reduced hours, flexi time/flexible retirement, shift-swapping, term-time working or time off in lieu), can help retain staff as well as attract new talent.

As more care moves out of hospitals into outpatient and other sites of care, health systems need advanced planning tools and technology for workforce optimisation. While some areas of care, like intensive care and midwifery, require explicit safe staffing ratios, other areas should adopt rota that are acuity-based and consider the disease burden of the patients when allocating resources. Demand forecasting, data analytics and cognitive technologies can help align staffing decisions to patient needs more effectively.

Making effective use of e-rostering and e-job planning technologies

Research shows that by improving flexibility and working patterns for clinicians, both quality of care and staff wellbeing are improved. However, the introduction of flexible working requires organisations to have robust systems and processes in place to accommodate flexibility. The most efficient way of improving flexibility around staffing rotas is using electronic rostering and job planning software. These systems enable managers to quickly build and plan their rosters, define the number of employees and skills required to meet demands, improve productivity and generate significant savings through better management of the substantive and temporary workforces. It also enables trusts to make it easier for employees to have a better work-life balance as they can roster themselves to work within defined slots with line managers confirming attendance and ensuring that pay accurately reflects the work done.

For example, in Birmingham Women’s and Children’s NHS Foundation Trust, a team-based rostering system was adopted to improve work-life balance for nurses. This initiative allowed staff to provide much greater input into rotas, creating collective responsibility for the rota, and a culture of flexibility. Positive feedback on the Trust’s ability to meet the work-life preferences of its staff increased from 39 to 51 per cent.

During the pandemic e-rostering proved indispensable in helping to deploy staff and manage work effectively, however, availability and use varied widely. In January 2021 DHSC provided a national fund of £26 million to 68 trusts to implement e-rostering systems for doctors, nurses, AHPs and pharmacists by the end of 2021. Subsequently, the 2022-23 operational planning guidance includes an expectation that NHS organisations should advance the meaningful use of e-rostering and e-job planning software systems as a key priority. NHSE also launched an Advancing Levels of Attainment Collaborative, in January 2023, open to all providers and ICs, to support systems and providers with e-rostering and e-job planning and provide insights on best practice.

Many NHS organisations have adopted staff allocation apps which enable staff to view published rosters, manage annual leave and study requests and improve work-life balance. For example, Allocate’s e-rostering software supports gives organisations total visibility of workforce issues and enables both team and individual self-rostering. It is currently used by more than 300 health and care organisations, in the UK, improving fill rates and leading to cost savings of several £100,000s per organisation.

Making effective use of temporary staffing models

Flexible working can only operate successfully if there is an effective approach to managing temporary vacancies caused by fluctuations in activity levels and short-term staff absences. Effectively managed temporary staff play an important role in helping healthcare providers achieve flexibility. As a first step, NHS Trusts are expected to obtain temporary staff from their own staff bank, from NHS Professionals (NHS P), or from collaborative staff banks. NHS Trusts are expected to prioritise the use of staff banks ahead of agency staff when employing temporary staff.

Many providers of temporary staff have developed innovative approaches to the management and development of their staff. For example, NHSP, a DHSC owned company, has 50 client trusts and over 190,000 registered healthcare professional bank members who work flexibly to NHS- assured standards across a wide range of nursing and AHP roles. It also includes Doctors Direct, launched in 2016, a leading provider of locum services. In 2021-2022 NHSP staff bank members delivered 39 million hours of care across 4.6 million shifts and recruited 3,300 nurses and midwives from overseas, while focusing on pastoral care and aftercare of staff to achieve a 98 per cent retention rate in the first two years of employment.

Given the ongoing pressures faced by frontline substantive NHS staff, coupled with the increased central pressures to reduce agency spend, including a targeted focus on reducing off-framework spend, I predict more people will be taking control by choosing bank work as a primary employment route. Bank in the NHS is only going to grow.

NHS Programme manager
Locum’s Nest is another technology-enabled innovation. It is a collaborative workforce solution that connects healthcare professionals to digital NHS staff banks, promoting flexible working to fill vacant shifts.\(^{19}\) The platform provides access to staff from different areas to hospitals and GP practices. Outcomes include reducing by 50 per cent the time taken to fill a shift, a shift fill rate of up to 98 per cent, and savings of over £30 million to the NHS, via reduced locum shift costs, lower agency fees and less administration.

Collaborative staff banks are now available in most areas, for example:

- The West Yorkshire Collaborative Staff Bank is an innovative non-medical collaborative staff bank across three mental health trusts. The trusts have seen improvements in staff development as they experience different conditions and locations, building a more robust, flexible workforce while allowing each Trust to achieve safer staffing levels.

- St Helens and Knowsley Teaching Hospitals NHS Trust (STHK) identified a need for an end-to-end workforce management system, to improve temporary workforce shift fill rates and source clinicians in an effective and timely manner. This required full integration between suppliers to ensure complete visibility over all workers and robust financial and governance oversight. The Trust partnered with Patchwork to deliver an end-to-end collaborative staffing.\(^{140, 141}\)

It is recognised that there are high levels of diversity amongst temporary staff working as bank only agency staff and that NHS bank only workers unfortunately experience higher level of physical violence, abuse and discrimination in their interactions with patients, carers and members of the public, compared to their substantive counterparts, and this is higher still when ethnic background is factored in. To ensure we are upholding our equality duties, any disparities based on gender and ethnic background must be recognised, measured and tackled.

**NHS Programme manager**

**Deloitte view**

There is an urgent need to reinvigorate the workforce by improving retention. This requires organisations to develop consistent, comprehensive real-time workforce data and insights. There is also a need for a more consistent approach to talent development, career progression and training across the clinical workforce, and a move from a focus on roles to one focused on competencies. There is also a strong argument for making an explicit ‘universal offer’ to staff, covering not just fair treatment but what staff can expect in terms of equal pay and opportunities and mentoring and supervision, especially in the early stages of a career and during key career transitions. This ‘offer’ should include staff’s entitlement to CPD, how organisations plan to meet their expectations on flexible working and work-life balance, their entitlement to regular appraisals, and the availability of non-financial benefits in response to changing circumstances. Organisations should ensure that staff voices are heard, including regular staff surveys and engagement activities which measure and report on changes in staff engagement, staff morale, quality of appraisals, reduction in working unpaid hours, equity of opportunities for promotion and number of staff feeling discriminated against.
Scale the adoption of technology innovations to augment the clinical workforce

While there have been many successful examples of technology adoption, there are problems integrating these technologies into clinical practice. A crucial challenge for organisations is keeping pace with innovation and deciding which technologies to invest in. There is also a need for organisations to recognise how technology will impact roles and responsibilities to create a more responsive and flexible workforce. While notable examples exist in augmenting clinicians’ roles through integrating technology into a clinician’s workflows, wide scale adoption is slow and often siloed. Moreover, unless clinicians are trained and equipped to use new technologies, there is a risk that stress and burnout will be exacerbated.

Adopt innovations and new ways of working that release time to care

Our reports on digital transformation of healthcare in both the UK and Europe (in June 2019 and September 2020 respectively) highlighted 29 evidence based, technology-enabled, case studies demonstrating how technology will impact roles and responsibilities in helping primary care to evolve and thrive. It featured eight good practice case studies on aspects of virtual care, with evidence of improved outcomes for clinicians and patients. The onset of the pandemic accelerated the implementation of virtual care, as services shifted to using virtual consultations, at-home monitoring, and point of care diagnostics.

Digital triaging and consultations subsequently increased options for patients and improved GP productivity significantly. However, while remote consultations are now a standard feature of primary care, many patients want, but struggle to get, face-to-face appointments. A balance therefore needs to be struck to optimise the use of technology for those whose needs can be resolved remotely and free up face-to-face appointments for those who require them. Here we outline where innovation is already having an impact.

For example: the eConsult platform provides a digital triage and remote consultation solution to help patients to access the right care and reduce staff administration. eConsult is currently used in over 2,800 GP practices and ten NHS urgent and emergency departments across the UK. Its solutions are estimated to have the potential to save NHSE £1.0-1.6 billion every year, at its current level of adoption.

The Priory Medical Group (PMG) introduced an AI-powered triage and patient flow management software system, Klinik, to increase nurse clinical sessions, pharmacy appointments and musculoskeletal (MSK) practitioner-led clinics, while reducing the workload pressures on GPs. Following implementation, Yorkshire & Humber Academic Health Science Network (Yorkshire & Humber AHSN) commissioned an evaluation of this model of care, which was conducted by York Health Economics Consortium (YHEC). The evaluation identified efficiency improvements, including a 20 per cent reduction in tasks, an extra 8,000 GP contacts per quarter compared to pre-pandemic levels, phone response times reduced from 30 minutes to within five minutes, and nursing productivity utilisation rates increased from 89 per cent to over 96 per cent.

An emerging benefit of digital technology programmes is enabling more experienced doctors and nurses to coach and supervise ‘bedside’ clinicians remotely, covering activities such as patient education, discharge and monitoring. This human-centred approach can improve the skills and confidence of less experienced staff while enabling experienced clinicians approaching retirement to have more flexibility and less physically demanding roles, improving their retention in the workforce.

Provide the right care, in the right place, at the right time

The concept of virtual care has been around for more than two decades for example, hospital-to-home, telehealth and telecare and remote patient monitoring. Virtual care can fill a crucial gap in healthcare, especially for patients in remote areas.

Our February 2020 report, Realising digital first primary care, examined the role of technologies in helping primary care to evolve and thrive. It featured eight good practice case studies on aspects of virtual care, with evidence of improved outcomes for clinicians and patients. The onset of the pandemic accelerated the implementation of virtual care, as services shifted to using virtual consultations, at-home monitoring, and point of care diagnostics.

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Navigating the step up and step down through ‘virtual wards’

During the pandemic the use of virtual wards/ hospital-to-home programmes expanded across all ICs. Virtual wards are intended to help patients avoid emergency admissions and support early discharge. While technology is required for remote monitoring and virtual ward rounds, the initiative also requires new ways of working. NHSE guidance requires virtual wards to be delivered by integrated multidisciplinary teams. To ensure safe, good quality and personalised care, teams working on virtual wards need to have clearly defined roles and responsibilities.147 Many virtual ward teams are aligned with other services, such as urgent community response, same day emergency care, community-based nursing teams, integrated urgent care or other virtual care services supported by social care and voluntary services.

In 2022, more than 100,000 patients were treated in NHS virtual wards, and 16,000 patients were treated in January 2023 alone. By January 2023 there were more than 340 virtual ward programmes across England (with 7,653 virtual beds, compared to 4,485 virtual beds in May 2022).148 The 2023 delivery plan for recovering urgent and emergency care services advocated further expansion of virtual wards.149, 150 Evaluations of the virtual wards programme have shown that some staff willingly adopt the technology, but others struggle with needing to use several different pieces of technology and have problems integrating into other systems. Moreover, inefficient job planning reduces staff productivity. A Deloitte ethnographic study comprising interviewing and work-shadowing virtual clinical teams on their daily rounds, found that the work was physically, emotionally, and psychologically demanding on the staff involved. They concluded that cultivating system-level resilience is crucial if the virtual ward model is to meet the goals for expansion outlined in the new national guidance.151

Support clinicians to adopt digital technologies to alleviate workload pressures

Deloitte’s 2019 report Shaping the future of UK healthcare highlighted the compelling proposals in the Topol Review, to create a digitally-savvy healthcare workforce through education and training. The Review set out the strategic direction for the future of healthcare in England, with the aim of creating a more responsive and flexible workforce and enabling staff to make the most of innovative technologies such as genomics, digital medicine, AI and robotics. A review of the implementation of the Topol recommendations found that while the NHS has made strides in genomics, digital readiness, AI and robotic technologies, with improved knowledge sharing, e-learning, upskilling boards and creating digital leaders, adoption remains patchy.152

Our October 2022 report on the Future of Diagnostics highlighted how innovations in technology are supporting more effective and efficient ways of working but it also described the wide variation in adoption of such technologies and the challenges in scaling up good practice.

Many technologies available today can improve clinicians’ job satisfaction and alleviate workload pressures and time-consuming administration. Yet surveys repeatedly show that unnecessary and low-value administrative tasks or work that others could be doing, or which could be automated, are consuming clinicians time that should be spent on clinical work. Removing these low-value tasks could provide quick fixes for optimising workflows and reducing chronic burnout. The right technologies, introduced effectively into the clinical pathway, can help streamline work processes and can also help shift some aspects of their work to a non-traditional care settings. These technologies include virtual consultations, remote patient monitoring, voice recognition software, automated recording of clinical interactions, and chatbots or virtual assistants that answer common questions from patients.

For example, Deloitte has developed an AI-enabled technology, Clinify, to improve the management of outpatient referrals. Some 12 million referrals are sent electronically each year to UK outpatient departments requiring more than one million hours of consultant review time (the equivalent of some 500 FTEs). Time pressures, complexity of referrals and variation in local processes and clinical judgment can lead to inconsistencies and delays in triage outcomes. Clinify’s ‘ReferAssist’, developed in collaboration with NHS Lothian, leverages AI and natural language processing to extract appropriate signs and symptoms from cancer referral letters. These are then compared to national guidelines to recommend an appropriate referral route. ReferAssist can be integrated with e-RS (the NHS national booking system for e-referrals) to enable a seamless user experience and accelerate adoption. Crucially this platform is being co-developed with clinicians, with current trials establishing the impact of both time savings and the standardisation of referrals for clinicians.

Training clinicians in remote patient monitoring and conducting virtual consultations can be a major step toward improving technology-enabled experiences. It would also help organisations to implement virtual health methods, instead of returning to traditional in-person visits. With the rise of non-traditional sites such as pharmacies, the home, and virtual care settings, healthcare organisations now have more options than a traditional doctor’s office to achieve their goals. Ensuring that clinicians can optimise their use of these technologies is a crucial next step.

We need to create space for good people to do great things. Independent health policy commentator

Time to change | Sustaining the UK’s clinical workforce
Scaling effective solutions like Scan4Safety can improve clinician confidence and patient outcomes

GS1 standards (such as barcodes) are used to store data and transfer information smoothly and safely, enabling organisations to identify, capture and share information on individual products, places, people and assets via standardised barcodes. Implementation of GS1 standards improves traceability and trust and makes processes faster, cheaper and safer. For example, the benefits for healthcare in applying GS1 standards to medicines include increasing patient safety, driving supply chain efficiencies and improving traceability while reducing administration and freeing up time to care. NHSE mandated the use of GS1 standards as part of its NHS eProcurement Strategy. Following this, the NHS recommended standards should be implemented across the NHS.

In 2020 DHSC published an evaluation, A scan of the benefits: the Scan4Safety evidence report, on the Scan4Safety pilot programme which the DHSC launched in 2016. This evaluation identified numerous patient safety, cost and efficiency benefits demonstrator sites over two years. These include 140,000 hours of clinical time being released to care; inventory savings of almost £5 million across the six trusts; reducing preventable error rates by 76 per cent at Royal Cornwall Hospitals NHS Trust; and reducing product recall times from over eight days to 35 minutes at Leeds Teaching Hospitals NHS Trust.

Deloitte view

There are a growing number of evidence-based technology solutions that support clinicians in their work, helping to alleviate workforce pressures and augment clinical practice. These include clinical decision support technologies, digital point-of-care and AI-enabled diagnostics, genomics and smart sensors, and telehealth. Technology-enabled care can release time to care, and support staff to work at the top of their licence. Technology-enabled programmes like telehealth and virtual wards can increase capacity and support clinicians to adopt ways of working. However, a standardised approach to evaluating the cost-benefits of these technologies and programmes and publishing the outcomes could support the wider adoption of successful programmes.

The benefits for healthcare in applying GS1 standards to medicines include increasing patient safety, driving supply chain efficiencies and improving traceability while reducing administration and freeing up time to care.
Our research shows that while there are no ‘silver bullets’ to remedy the complex challenges facing the UK healthcare sector, there are actions that can be taken to recruit, retain, re-engage and reimagine the healthcare workforce for a sustainable future. Part of the solution lies in adopting technology-enabled new ways of working and new models of care that optimise productivity and deliver more proactive, predictive, preventative and participatory approach to healthcare. However, this will only be effective if there is more clarity about the ‘future of work’ in healthcare, what work is needed, where it should be delivered, and who should deliver it.

The factors influencing the sustainability of the healthcare workforce

The challenges facing the healthcare workforce are not unique to the UK, but the sheer scale of the challenges in the UK makes it difficult for policy makers and healthcare leaders to identify and implement solutions quickly enough. The increasing mismatch between continuing demand for healthcare and shrinking capacity of the workforce to meet that demand, means that many clinicians find themselves on a treadmill, continuing to deliver care in ways that they have always used, but finding it more physically, emotionally and psychologically draining. It also means that the NHS continues to operate as a sickness service rather than a proactive, predictive, personalised and preventative (4P) health and wellness service.

Today, rising levels of job dissatisfaction, industrial action and long waiting times create a compelling case for change that cannot be ignored. Our research has identified the features of today’s ways of working that should be retained, actions that could re-engage the workforce, and ways of working that need to be reimagined (see Figure 23).

Figure 23. Retaining, re-engaging and reimagining the healthcare workforce

Source: Deloitte analysis

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Crucially, there is a need for an open public debate about what can realistically be expected from health services, while acknowledging the funding and infrastructure constraints. The outcome from this debate should be used to develop a vision for the future role of doctors, nurses and AHPs. Addressing the questions surrounding workforce numbers and skills, education and training, and workforce planning and deployment is a challenge that needs to involve all stakeholders, including integrating the views of employers, clinicians and service users (see Figure 24). The focus should be on identifying new ways of working, using intelligent technologies such as automation and robotics to enable task shifting and role enrichment, to create a sustainable and flexible future workforce.

Stakeholders should also collaborate in the redesign of regulation and credentialing of professionals (credentialing is the process of verifying that healthcare professionals are certified, licensed, educated, trained and qualified to provide care). Regulators should adapt their approach to allow a more flexible, professional workforce to evolve. This includes supporting employers to establish workplaces that enable staff to make full use of their skills and experiences and develop their skills and talents further. These adaptations should also enable individuals to readily embrace new opportunities and career paths, including shifting roles, potentially working for several employers, or being self-employed.

There is a consensus that the need to address challenges in social care is pivotal to creating long term workforce plans for healthcare. Social care services are intrinsically linked with healthcare systems; with staffing shortages in social care creating bottlenecks in the healthcare system. The newly established ICSs provide an opportunity for concerted action involving the NHS and social care but only if there is a political consensus between local and national government, regulators and educators to develop and implement national policies for a joint approach to workforce planning.

Figure 24. The shared responsibility for co-creating the health workforce of the future

<table>
<thead>
<tr>
<th>National &amp; local governments</th>
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<tbody>
<tr>
<td>Determine and forecast workforce requirements (numbers, types, and pay profiles of staff)</td>
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<tr>
<td>Develop frameworks and standards for education, recruitment, health &amp; safety</td>
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<td>Allocate budgets, align incentives and funding models</td>
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<th>Professional &amp; regulatory bodies</th>
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<tr>
<td>Provide research evidence for safe staffing, role design and skills requirements</td>
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<tr>
<td>Partner with academic training institutions in co-designing of curricula</td>
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<td>Develop standards for accreditation, regulation and inspection</td>
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<th>Academic training institutions</th>
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<tr>
<td>Design and deliver curricula that equip professionals to meet known and expected needs</td>
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<tr>
<td>Engage with service users and professional bodies to secure flexible, blended training models able to respond to emerging technologies and shifting expectations</td>
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<tr>
<th>Employers &amp; care provider organisations</th>
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<tbody>
<tr>
<td>Shape working culture and determine working conditions</td>
</tr>
<tr>
<td>Deploy staff at the top of their license and optimise professional development on the job</td>
</tr>
<tr>
<td>Incorporate views of staff on what skills they need to respond to shifts in demand and delivery of care into local deployment and input to training models</td>
</tr>
</tbody>
</table>

Key: Feedback loop on influence and input in relationship between stakeholders

Source: Adapted from *Time to Care: Securing a future for the hospital workforce in Europe*, 2017, Deloitte Centre for Health Solutions.

Flow of control/oversight of organisations

Staff voice
- Regular surveys, workshops and consultations to gain a diversity of opinions

Service users (patients & carers)
- Focus groups, surveys, gaining diverse opinions

Stakeholders should also collaborate in the redesign of regulation and credentialing of professionals (credentialing is the process of verifying that healthcare professionals are certified, licensed, educated, trained and qualified to provide care). Regulators should adapt their approach to allow a more flexible, professional workforce to evolve.
The transition from healthcare’s quadruple aim to a quintuple aim provides a foundation on which to build the future of the healthcare workforce. Although successive governments have acknowledged the need to move care out of hospitals and into community settings and for a more preventative system, the ‘traditional’ focus for most of the past decade has been on controlling costs. Consequently, healthcare has been regarded as an ever-growing burden on the public purse. However, as we have shown in our series of reports on the Future of Public Health, the COVID-19 pandemic exposed the negative consequences of the lack of investment in the healthcare infrastructure and the workforce. It exposed the extraordinary level of staff sacrifices and commitment to patient care, as well as how much health matters to people, how health and the economy are inextricably linked, and the importance of health equity.

Our UK Time to Care report in 2018 highlighted the importance of moving to the quadruple aim of healthcare, consisting of an improved patient experience, better outcomes, lower costs and improved staff and carer wellbeing. This quadruple aim remains crucially important, but there is also growing recognition of the importance of health equity as a key requirement for achieving high quality cost-effective care outcomes; leading to the concept of the quintuple aim (see Figure 25). The evidence is clear that prioritising the health and wellbeing of the workforce is inextricably linked to improving patient outcomes and that prioritising health equity is fundamental to achieving the other aims.159

Figure 25. The Evolution of the Quintuple Aim: Health Equity, Health Outcomes, and the Economy

Source: Adapted from Dipti Itchhaporia et al. J Am Coll Cardiol 2021; 78:2262-2264
Over time, inter-disciplinary skills must be cultivated to build a resilient future workforce. Clinicians will be equipped to use new and AI-based technologies and apply genomic and digital health skills to support care. They will also need training in social skills to deliver remote care, understand patient-generated diagnostic data and maintain up-to-date clinical knowledge on issues such as infectious disease risks, antimicrobial resistance and health equity. The skills required by the future clinical workforce will be multifaceted, involving core skills, cross-functional skills, cognitive and sensory abilities, as well as up-to-date knowledge (see Figure 26). To develop these skills clinicians will need to be educated in new, multidisciplinary, agile ways, so that they are able to adapt to changing models of care and provide a holistic and collaborative approach to care delivery.

Future skills are vital—often the focus is more on workforce numbers and not skills or capabilities, and on supply rather than retention, engagement and productivity.

Policy lead, Higher education body

Figure 26. Skills required for the future healthcare workforce

Source: Deloitte analysis
Digital transformation, and generative AI

Digital transformation and the adoption of AI technologies are crucial enablers of the future of work in healthcare (see Figure 27). The increasing capacity and capabilities of today’s AI technologies, coupled with the pace of adoption and development, suggest real promise. Generative AI systems can create new content such as text, images, audio, code and videos in response to prompts. While Chat GPT and other recent innovations that utilise generative AI, such as Google’s Bard, are a step change in technical capability, the use cases in healthcare are only just emerging (see the below summary of Chat GPT and Figure 27). Furthermore, there are increasing concerns around data privacy and cybersecurity issues brought by generative AI that will need to be resolved. This includes the need for organisations to develop appropriate policies and guidance on using these technologies safely and securely, in addition to organisations ensuring they become skilled in both using and protecting against harm from these technologies. What is currently known about Chat GPT:

- OpenAI’s Chat GPT is the fastest-growing consumer app in history, hitting 100 million users in only two months.160
- The latest version, GPT-4, allows both text and image input to provide contextual text output (multimodal).161 GPT-4 performs better than previous versions, giving more reliable outputs and able to decipher more nuanced prompts.
- GPT-4 is more creative and collaborative than ever before. It can generate, edit, and iterate with users on creative and technical writing tasks, such as composing songs, writing screenplays, or learning a user’s writing style162.
- While it is trained on large open source datasets, this learning is currently capped at 2021 or earlier sources.
- On a simulated ‘Medical Knowledge Self-Assessment Program’ exam, the previous GPT-3.5 model scored 53 per cent, whereas GPT-4 scored 75 per cent.167
- Public access to GPT-4 is currently limited.
- OpenAI says that its responses ‘may be inaccurate, untruthful, and otherwise misleading at times’. GPT-4 still has many known limitations, such as social biases, hallucinations, and adversarial prompts. OpenAI encourages and facilitates transparency, user education, and wider AI literacy as society adopts these models.

Figure 27. Digital transformation and the adoption of AI-enabled technologies will drive the future of healthcare and empower the future healthcare workforce

Human-centred collaboration and coordination
- Collaboration and coordination between healthcare professionals, researchers, policy makers, and technology experts to effectively integrate AI and automation in healthcare
- Agree a shared vision, data-sharing agreements, and ethical frameworks to guide the use of AI in workforce development and deployment is a fundamental requirement for the future of health

Data collection and quality
- Obtain high quality real-world workforce data to generate accurate and meaningful insights
- Adhere to standardised data collection methods, interoperable data systems, and transparency in data sharing practices to ensure high-quality data for AI applications
- Secure, transparent data management and governance

Explainable clinical decision-making
- Ensure that AI models are transparent, explainable and reliable to gain the trust of HR, OD and clinicians. Involve clinicians in the development and validation of AI models to ensure their relevance and accuracy
- Establish robust regulations that support innovation

Resource allocation and efficiency
- Develop AI tools that help healthcare providers optimise resource allocation and improve efficiency by automating routine tasks, reducing administrative burden, and identifying high-risk patients who require more intensive care or active treatments
- Reflect the impact of AI and automation in workforce planning and budgets

Create the conditions for implementation
- Support a shift in the culture and mindset of healthcare organisations to embrace innovation and change
- Invest in change and the development of effective implementation strategies
- Train staff to provide the skills needed to embrace AI and identify the solutions that will best improve their workflow
The Future of Work in healthcare

The Future of Work will involve task shifting and task reorganisations, with three forces continuing to drive this future (see Figure 29). As in other industries, many future jobs in healthcare will be hybrid jobs, requiring a high level of interpersonal skills and digital literacy.

**Figure 29. Three forces are continuing to drive the Future of Work in healthcare**

The ‘who’ (the open talent), ‘what’ (automation), and ‘where’ (workplaces, location) of work

1. **What work can be automated?**
   - Increasing automation, cognitive and AI technologies, genomics and point of care diagnostics are integrated into clinical pathways and new operating models.

2. **Who can do the work?**
   - Task shifting and task reorganisation are creating a more diverse, multi-professional, blended workforce that is employed across permeable boundaries. This is alleviating pressure on the workforce while enriching careers and increasing the attractiveness of caring professions by enhancing job satisfaction of employees to create a sustainable workforce.

3. **Where is the work done?**
   - Where work is done (e.g. extramural or intramural); rethinking combinations of talent, technology and workplace, including hybrid working, and increasing use of non-traditional sites and virtual technologies altering the physical design of workplaces and supporting technology.

Source: Deloitte analysis

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**Figure 28. Potential generative AI use cases in healthcare**

- **Patient self-management**
  - Symptom checkers
  - Information about OTC medicines
  - Treatment plans

- **Reducing administrative burden**
  - Summarising patient medical history
  - Transcribing and summarising appointment content and creating follow-up documents (e.g. referral letters, discharge summaries)

- **Diagnosis and monitoring**
  - Virtual assessments
  - Disease surveillance
  - Patient triage
  - Augmented diagnostics (e.g. analysing large existing datasets of images)

- **Regulation**
  - Determining/summarising regulatory requirements
  - Completing documents for regulatory submission

- **What? Work**
- **Workplace**
- **Who? Workforce**

**Source:** Deloitte analysis
The current level of staff shortages in healthcare creates an opportunity to utilise new technologies to enhance existing roles and create new ones that enable clinicians to use the full range of their skills and abilities, and work at the top of their licence. It is also an opportunity to recruit new types of staff with new skillsets (for example, in analytics, bioinformatics, and behavioural science skills).

- Agility and adaptability – learning to cope with change – For healthcare professionals in the future, adaptability to change will be a crucial skill, in relation to both clinical and technical knowledge. Clinicians will need to be equipped with the skills to collect, analyse, prioritise and act on clinical and operational data from disparate sources, and the ability to cope with shifting workload patterns.

- Collaborating and building partnerships to deliver high quality care outcomes – Individuals should be equipped to collaborate across professions and sectors, for example between clinical and digital teams, to integrate technology innovations into clinical workflows. A multi-professional approach to education and training pre- and post-registration will help to remove the silos between professions.

- Aligning education and care delivery to emerging technologies – Immersive experiences in patient care should be an important element in the education of staff. In addition, pre- and post-graduate simulation training using virtual reality and generative AI technologies will teach staff to engage with technological innovation and will also provide remote access to skills, making specialised knowledge available to audiences across wider geographies.

Creating a diverse, multi-professional workforce that is trained and deployed across permeable boundaries will alleviate pressures on the current workforce, while enriching careers for clinicians and increasing the attractiveness of caring professions. This will also help organisations deal with the impact of a 100-year life, and careers that will likely extend from 40 to 60 years.

Over the next five to ten years healthcare professionals with a well-balanced skills mix will increasingly use fit-for-purpose technologies to share tasks within and between teams. While some of these concepts are already being introduced, most organisations are struggling with the challenges of interoperability and data sharing. Some solutions are emerging as is the recognition of the urgent need to change ways of working by accelerating the integration of innovative technologies into new-operating models and improve the digital literacy skills of staff and patients.

There is also a need to ensure that the introduction of AI-enabled automation will support the strategies for improving EDI. Although automation and AI in healthcare can assist workers in their roles, it is unlikely to replace them. For instance, a study by the University of Oxford found that 44 per cent of all administrative work in general practice could be either mostly or completely automated, but no single full-time role could be entirely automated.164

Deloitte view

The modernisation and transformation of the healthcare workforce, as set out in this report, combines Deloitte’s vision of the Future of Health and the Future of Work, to create a view of healthcare in which multi-professional groups of clinicians embrace agile learning methods and technology-enabled tools to enable them to practice at the top of their licence. They will be well-trained, well-supported, fairly and appropriately rewarded and will benefit from a flexible and enjoyable work-life balance. They will also be secure in the knowledge that their patients are receiving the best possible care, in the right place, at the right time. This care will be based on the 4Ps of healthcare and deliver the quintuple aim.
Our methodology comprises both qualitative and quantitative research including an extensive literature review, semi-structured interviews with 34 board-level stakeholders from across the healthcare workforce ecosystem, and a survey of 1286 UK clinicians which we commissioned from Sermo, that undertakes online surveys of their extensive community of clinicians. Additionally, we ran three dedicated workshops with members of the Deloitte Clinical Network, an established group of current and former clinicians working within Deloitte; and we obtained insights from Deloitte colleagues in the UK, Europe, the US and Canada, and who have experience working with healthcare providers, policy makers and payers.

The clinician survey
Between 6th and 31st of October 2022, Sermo conducted a survey of 1286 UK healthcare clinicians working in hospitals, community, mental health and primary care across the four UK countries (see Figure 30). Sermo’s survey was based on questions that we developed, most of which were the same as the questions asked in our 2017 survey, for our report Time to care: Securing a future for the hospital workforce in Europe.165

The career categories, working patterns and employment types of our survey respondents are shown in Figure 31. For much of our analysis presented in this report we have grouped our survey respondents into the following categories: ‘doctors’ (containing 505 respondents), ‘nurses and midwives’ (containing 432 respondents), ‘allied health professionals’ (containing 162 respondents) and ‘all’ (containing all previously mentioned categories, in addition to the associate professionals, public health professionals and other respondents, totalling 1286 respondents).

Figures 32 and 33 respectively, show the spread of respondents’ post-qualification experience and provider organisations.
Figure 31. Survey respondent demographics

- Allied health professionals: 335 (23%)
- Doctors: 505 (33%)
- Midwives: 145 (9%)
- Nurses: 162 (11%)
- Associate professions: 145 (9%)
- Public health professionals: 97 (6%)
- Other (e.g. pharmacy): 97 (6%)

Figure 32. Survey respondent spread by number of years qualified

- Less than 1 year: 278 (22%)
- 1-2 years: 247 (19%)
- 3-5 years: 42 (3%)
- 6-10 years: 188 (14%)
- 11-20 years: 454 (34%)
- >20 years: 595 (44%)

Figure 33. Survey respondents according to their type of provider organisation

<table>
<thead>
<tr>
<th>Type of organisation</th>
<th>Proportion of respondents</th>
<th>No. of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHS acute hospital</td>
<td>52%</td>
<td>674</td>
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<tr>
<td>NHS GP practice</td>
<td>19%</td>
<td>247</td>
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<tr>
<td>NHS community service</td>
<td>10%</td>
<td>129</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>6%</td>
<td>78</td>
</tr>
<tr>
<td>Private provider of community services</td>
<td>5%</td>
<td>70</td>
</tr>
<tr>
<td>NHS mental health</td>
<td>3%</td>
<td>35</td>
</tr>
<tr>
<td>Private hospital</td>
<td>3%</td>
<td>42</td>
</tr>
<tr>
<td>Private provider of mental health services</td>
<td>&lt;1%</td>
<td>5</td>
</tr>
<tr>
<td>Private funded GP practice</td>
<td>&lt;1%</td>
<td>6</td>
</tr>
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</table>
Between November 2022 and March 2023, we held semi-structured interviews with 34 stakeholders from across the healthcare workforce ecosystem to inform this report (see below table).

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Company</th>
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<tbody>
<tr>
<td>Alan Milbourne</td>
<td>Policy Manager for Digital Health &amp; Care Workforce</td>
<td>Scottish Government</td>
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<tr>
<td>Ash James</td>
<td>Director of the Practice and Development</td>
<td>Chartered Society of Physiotherapy</td>
</tr>
<tr>
<td>Professor Alistair Fitt</td>
<td>Vice-Chancellor of Oxford Brookes University and Chair of the Universities UK Health Policy Network</td>
<td>Oxford Brookes University/Universities UK</td>
</tr>
<tr>
<td>Dr Andrew Jones</td>
<td>Head of Clinical Innovation</td>
<td>AWS</td>
</tr>
<tr>
<td>Beverley Harden</td>
<td>Deputy Chief Allied Health Professions Officer</td>
<td>NHS England and University of Winchester</td>
</tr>
<tr>
<td>Professor Carmel Clancy</td>
<td>Academic Dean for the Faculty of Health, Social Care and Education</td>
<td>Middlesex University London</td>
</tr>
<tr>
<td>Claire Gore</td>
<td>Director of the Future of the NHS HR and OD programme</td>
<td>NHS England</td>
</tr>
<tr>
<td>Dan Collard</td>
<td>Mental health nurse, Workforce Race Equality Standard Team</td>
<td>NHS England</td>
</tr>
<tr>
<td>Gill Rooke</td>
<td>Head of Leadership Programmes</td>
<td>NHS Leadership Academy</td>
</tr>
<tr>
<td>Isabel Lawicka</td>
<td>Head of Policy and Analysis</td>
<td>NHS Providers</td>
</tr>
<tr>
<td>Jacqui White</td>
<td>Director of Workforce Strategy</td>
<td>NHS England</td>
</tr>
<tr>
<td>Professor John Campbell</td>
<td>Professor of General Practice and Primary Care and Director</td>
<td>Exeter NIHR School for Primary Care Research</td>
</tr>
<tr>
<td>Joe Roberts</td>
<td>Consultant</td>
<td>Good Governance Institute</td>
</tr>
<tr>
<td>John dePury</td>
<td>Assistant Director of Policy (Health)</td>
<td>Universities UK</td>
</tr>
<tr>
<td>Jon Wilks</td>
<td>Chief executive</td>
<td>Institute of Health &amp; Social Care Management</td>
</tr>
<tr>
<td>Professor Julie Davies</td>
<td>Professor, Director, MBA Health programme</td>
<td>University College London</td>
</tr>
<tr>
<td>Professor Karen Cox</td>
<td>Professor, Vice chancellor and president</td>
<td>University of Kent</td>
</tr>
<tr>
<td>Professor Karen Middleton</td>
<td>Chief Executive</td>
<td>Chartered Society of Physiotherapy</td>
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<tr>
<td>Kathryn Brechin</td>
<td>Professional nurse advisor</td>
<td>Scottish Government</td>
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<tr>
<td>Kim Lowe</td>
<td>Non-executive Director</td>
<td>Kent and Medway NHS and Social Care Partnership Trust</td>
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<td>Mark Lever</td>
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<td>Martin Hart</td>
<td>Assistant Director: Education and Standards</td>
<td>General Medical Council</td>
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<td>Meena Sebastian</td>
<td>Chief Sales Officer</td>
<td>Locum’s Nest</td>
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<td>Dr Murray Ellender</td>
<td>Chief Executive &amp; Co-Founder</td>
<td>eConsult and NHS GP</td>
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<td>Neil Perry</td>
<td>Director</td>
<td>Synergy Digital Health Innovation Ltd</td>
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<tr>
<td>Nicola McQueen</td>
<td>Chief Executive</td>
<td>NHS Professionals</td>
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<tr>
<td>Patrick Mitchell</td>
<td>Director of Innovation, Digital and Transformation</td>
<td>NHS England</td>
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<tr>
<td>Rachel Newton</td>
<td>Head of Policy</td>
<td>Chartered Society of Physiotherapy</td>
</tr>
<tr>
<td>Roy Lilley</td>
<td>Independent health policy analyst, writer, broadcaster and commentator on the National Health Service and social issues / Chairman</td>
<td>NHS managers.net/Institute of Health and Social Care Management</td>
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<tr>
<td>Sarah White</td>
<td>Policy Advisor (workforce)</td>
<td>NHS Providers</td>
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<tr>
<td>Dr Sean Clarkson</td>
<td>Head of Strategic Operations</td>
<td>Yorkshire &amp; Humber Academic Health Science Network</td>
</tr>
<tr>
<td>Stella McKernan</td>
<td>Policy Officer</td>
<td>Council of Deans of Health</td>
</tr>
<tr>
<td>Victoria Robinson Collins</td>
<td>Director of People &amp; Organisational Development</td>
<td>Kent Community Health NHS Foundation Trust</td>
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</tbody>
</table>
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