

# Universities powering the NHS: Working together to deliver future health skills

Universities look forward to celebrating the 100<sup>th</sup> anniversary of the NHS in 2048 and recognise their central role in co-producing the future health and care workforce.

## Introduction

Universities asked for the NHS Long Term Workforce Plan, helped shape it, welcomed it and will be central to its delivery. Universities fully recognise the challenges involved in such a radical expansion and transformation of health education system capacity. This will not be achieved by business as usual.

Success will depend on cross-party commitment to support and fund the LTWP across its 15-year horizon which includes general elections and spending reviews.

Success will also depend on a 'joint endeavour' between education and health: close and effective cross-departmental working and refreshed national and local partnerships including much stronger engagement between universities and Integrated Care Boards (ICBs).

**For universities and the NHS to work together successfully, five system conditions need to be addressed:**

1. A strategic shift within higher education to dramatically expand health education capacity.
2. A culture shift within the NHS to value and support learners and educators and improve the working environment.
3. Implementation must be co-produced to an agreed roadmap.
4. Funding must be sustained across the LTWP's 15-year horizon.
5. Regulation must be aligned, outcomes-based and adaptive.

**There are also five threshold conditions that need urgent attention:**

1. Student recruitment including widening participation.
2. The educator and clinical academic pipeline.
3. Capital investment to boost system capacity.
4. Extending and diversifying placements and practice-learning.
5. Health student and early career attrition.

The UK Government must work with universities and health providers to facilitate innovation across new routes and new roles, new technology and new forms of partnership. This new technology needs investment and infrastructure to identify, test and scale the best tools and platforms.

Finally, given the emphasis on health degree apprenticeships in the LTWP, including the opportunities they may provide to draw in new learners and to address 'cold spots', a focused rapid review of enablers and constraints is needed.

## The NHS workforce challenge

The NHS celebrated its 75<sup>th</sup> anniversary this year. Its founding principles of care for all, free at point of need, funded from general taxation, make us proud to be British.

However, from research conducted by Ipsos Mori for The Health Foundation, despite this sense of pride, the public has growing concerns about the standard of care and is pessimistic about the future. This makes it a defining issue at the next General Election for both the government and Labour opposition. In the public mind, the top priorities are to reduce the workload of NHS staff (40%) and increase the number of staff (39%).

In March 2023, there were at least 112,000 vacancies across the health workforce. This record does not take account of the social care workforce nor the sharp rise in the use of temporary staffing, which is not only expensive, but may also negatively impact on patient outcomes.

International comparisons indicate that the UK now sits below the OECD average for doctors per head of population and has significantly fewer nurses per head of population than OECD equivalent countries such as Norway, Switzerland, Germany or Australia.

This clinical staff shortage exists despite an increasing reliance on international recruitment to fill gaps. International graduates bring global perspectives and diversity into UK care settings but leave the NHS exposed to global market fluctuations and to the accusation that the UK is recruiting from low- and middle-income countries with their own health workforce challenges.

### ‘More’ or ‘more and different’?

The NHS is treating an increasingly unwell population in high-cost acute settings with less resource allocated to preventative health, primary and community care. The introduction of Integrated Care Systems is intended to introduce new approaches to population health management across place with the integration of services for patients and communities. At the same time, new developments in health science, in technology, digital and data bring opportunities to transform and personalise care.

While the [NHS Long Term Plan](#) identified these transformative changes to care, the future health skills and workforce needed to deliver that care have not kept pace.

## The NHS Long Term Workforce Plan

The [NHS Long Term Workforce Plan \(LTWP\)](#), published in June 2023, starts by modelling and acknowledging the scale of the staffing challenge. It goes on to set out an ambitious vision for the English health workforce: many more staff, trained closer to the communities they serve, working in more diverse, multidisciplinary teams, to deliver patient-centred, technology-enabled care.

Initial responses to LTWP have focused on the commitment to ramping up training, doubling medical school places from 7,500 to 15,000 students per year (by 2031) and increasing nursing, midwifery and allied health training places by 80% to 72,400<sup>1</sup> (by 2031).

The sum of the LTWP's ambition across its three pillars. Train, Retain and Reform, will be transformational. Over a 15-year horizon, the number of staff employed by the English NHS will increase from around 1.5 million in 2021–22 to between 2.3 and 2.4 million in 2036–37. [By 2036–37, almost half \(49%\) of public sector workers will work for the NHS](#), comprising one in eleven (9%) of all workers in England, compared with one in seventeen (6%) in 2021–22.

But the ambition is not just 'more' staff but 'more and different', responding to changing population health needs, across different care settings and with evolving technologies. This requires innovative approaches to education and training, to identify and address future skills gaps, to recruit from wider, more diverse communities, to support new routes into the professions and new clinical roles, to use educational technology to boost system capacity and reach and to address the workplace issues which are hampering staff retention.

---

<sup>1</sup> Includes Nursing Associates and Health Visitors.

## Working together to deliver the plan

Universities were amongst many voices across education, health and politics asking for a workforce strategy; they helped shape it, welcomed its launch and will be fundamental to its delivery.

This is not to say that university leaders do not fully recognise the challenges involved in such a radical expansion and transformation of health education system capacity. This will not be achieved by business as usual. Universities are already working in close partnership with government, regulators and NHS leaders to identify and address the conditions that need to be in place for the LTWP to be successful.

This position paper sets out some of those conditions. It builds on a series of national discussions between Universities UK and NHS England, including two roundtables leading up to the publication of the NHS LTWP and one in September 2023 following publication. Chaired by Sir David Behan,<sup>2</sup> these meetings convened key stakeholders from post-16 education and health to refresh the strategic partnership between the two sectors. The third roundtable, focused on delivery of the NHS LTWP, generated a set of actions which will inform an NHS England ‘implementation roadmap’ which will be finalised in November 2023. These national discussions have been reflected at regional level via then Health Education England-convened meetings to bring together university and college leadership with Integrated Care Boards and NHS provider leaders to look at health skills across local and regional footprints.

These national and regional meetings sit alongside ongoing bilateral discussions with the Departments for Education and of Health and Social Care, the education and health professional regulators and other key stakeholders including via the cross-departmental Health Education National Strategic Exchange.

The paper also rests on detailed and expert work by the [Medical Schools Council](#) (MSC) and [Council of Deans of Health](#) (CoDH), including, most recently, a workshop convened by MSC to explore the issues yet to be addressed so that the proposed expansion of medical education and training might be successfully implemented. It also draws on a [member consultation by the CoDH to set out two principles and four priorities](#) ahead of the upcoming General Election.

---

<sup>2</sup> Previously the Chair of Health Education England, Sir David Behan now chairs the Workforce, Training & Education Committee, NHS England board.

Finally, the thinking in this position paper has been informed by several discussions of the NHS LTWP across Universities UK (UUK)'s membership via the UUK Health Policy Network, chaired by Professor Alistair Fitt, as well as by ongoing close engagement with the perspectives of sector mission groups, Million+, University Alliance and the Russell Group.

## **The strategic partnership between health and higher education**

Health is where the three great missions of universities – teaching and learning, research and innovation, and global, national and community impact – align and synergise.

**Health skills:** Universities educate clinical professionals, doctors, dentists and pharmacists, nurses, midwives and varied allied health professionals, from physiotherapists to paramedics to podiatrists. These are practice-based, professionally regulated courses, complex to deliver, where success rests on close partnership with health systems and employers to understand local supply and demand and to secure placements and future employment. They are courses that unlock fulfilling careers in public service or provide wider opportunities – in private or third sectors, in industry, in research, in teaching – for individual learners. The focus of this paper is on clinical skills, but universities are essential to the wider skills pipeline, including many of the skills that will be vital to the NHS' future such as digital and data science and leadership and management, as well as the approaches to interdisciplinarity and interprofessionalism that will drive the integration agenda.

**Health research and innovation:** the UK life sciences sector is rightly proud of its world-leading record in health research, driving improved outcomes for patients and communities, meeting global health challenges and generating significant economic benefit through its £94 billion turnover and 280,000 jobs. Central to its success are the *bridging partnerships* between universities, industry and NHS, realising benefits from clinical and applied research, interdisciplinarity and the involvement of the wider university sector. These partnerships and the research and patient benefits they generate, may however be compromised by the well-documented shortage of clinical academic staff which parallels the growing shortage of clinical educators.

**Health impact:** Universities sit at the fulcrum between health and economic recovery. Health is increasingly understood as an 'economic headwind', a major determinant of lagging national productivity, with the most rapid increase in

economic inactivity amongst 16–25-year-olds, largely due to poor mental health. Graduate productivity – founded not just on higher skills, but also on wellbeing and engagement – is critical to unlock knowledge intensive growth and sustainable jobs. Finally, universities are anchor institutions, providing employment and drawing inward investment, driving local entrepreneurialism, kick starting knowledge intensive growth and sustainable jobs. This anchor role is of course more than financial: universities are also community sports and cultural centres, improving wellbeing and resilience, and may often provide local health centres for eye tests, podiatry, or mental health.

## Joint endeavour

At the most recent NHS England–UUK roundtable, convened to discuss the implementation of the LTWP, the strategic partnership between education and health to respond to the NHS LTWP was recast as a ‘joint endeavour’.<sup>3</sup> This language acknowledges the scale of the challenge to galvanise and expand the health education system. It also suggests a different way of working with less emphasis on transaction or competition: effective joint working at national level between departments, arms-length bodies and regulators, a refreshed partnership at local level between higher and further education and the NHS but also increasing collaboration between universities and with colleges. This framing has already been picked up in the first of the two principles underpinning the Council of Deans of Health’s election asks.

## System conditions

The necessary scale of the ambition for the future health workforce presents a new scale of challenge for both the education and health sectors and will put the proposed ‘joint endeavour’ to the test.

---

<sup>3</sup> Thanks to Marie Gabriel, Chair NHS North East London, for suggesting this shift in language.

There are **five system conditions** that need to be addressed:

## 1. Strategic shift

A recent estimate by The Health Foundation that the ‘proportion of first-year higher education students in England training to be NHS clinical professionals would need to increase by 50 per cent, from 1 in 9 of the total first year student intake in 2022/23 (76,300 students) to 1 in 6 (125,700 students) in 2031/32’, indicates nothing less than a step change in English higher education.

For university executive teams, the decision to expand or open these courses will represent a profound strategic shift with implications for staffing and estates, student experience and support, accommodation, transport, and infrastructure. Equally, these are decisions that require a longer-term commitment to health via partnerships with the NHS, with local government and communities, with other universities and colleges. Partnerships that may reduce the supply of graduates to other sectors.

### Recommendations

Vice-chancellors are encouraged to recognise and act on the opportunities provided by the LTWP. For many, this may involve a significant strategic shift, new investment and new partnerships.

Clarity is urged regarding funding allocations via DfE/OfS for capital investment to extend current capacity and to boost innovative approaches including blended learning, immersive digital environments, simulation, and robotics.



## 2. Culture shift

At the same time, expansion will ask for a similarly profound culture shift within the NHS and care sector, integrating workforce with financial management, service delivery and research and innovation, positioning education and learners as core business and understanding their value in terms of patient outcomes and productivity.

### Recommendations

NHS England is asked to consider working with regions and ICSs to engineer and incentivise this culture shift towards inclusive and supportive settings for educators and learners.

NHS England should consider undertaking a rapid review, convening health providers and universities with education, health, and health professional regulators, to identify how learners and educators are valued as integral to quality, safety and productivity.

## 3. Co-production

NHS England's commitment to co-production of a national 'implementation roadmap' is welcomed. The LTWP itself contains 200 asks across a 15-year horizon. It is essential that these are broken down into immediate and medium-term priorities with clear allocations of funding for the first phase and clear understanding of national versus local responsibilities. The opportunity of the LTWP is to set out an agreed process for expansion, via clear commissioning frameworks and across established partnerships, rather than ad hoc or reactive announcements. Only this will allow the sustained pace of expansion that is needed.

It is also essential that universities as key delivery partners are involved at every level: national and local. The NHS England operating framework has integrated oversight of service delivery, financial management and workforce and set out the 'permissive' relationship with the English NHS' 42 [Integrated Care Systems](#). Integrated Care

Boards will hold responsibility for workforce across their footprints and will be at the centre of moving from a transactional approach which sees universities – and colleges – as suppliers towards real partnership. Given their multiple impacts – on health skills, health research and innovation, as anchor institutions – universities should be represented at senior level on all Integrated Care Boards – currently across the 42 ICBs, only three have Vice Chancellor members – or Partnership Boards.

Such a high-stakes expansion of the clinical workforce must be based on reliable, trusted data, to identify market failures and to model the supply and demand of future health skills. Currently, data is siloed and/or gated at national and at local levels. This needs to change. Universities would be ideal candidates to host regional data observatories.

## Recommendations

University involvement must be acknowledged as central to the implementation of the LTWP at every level: national, regional, local.

Universities fully support the co-development of the training and education ‘implementation roadmap’ and urge government to allocate funding to the priorities and phasing it will set out.

ICBs are asked to welcome education partners into a new strategic relationship on health skills and workforce issues including appropriate inclusion on boards and Partnership Boards.

Universities urge NHS England to consider working with key data stakeholders including UCAS and Jisc<sup>1</sup> to plan and implement a national and regional health skills data infrastructure across health and education. The objective should be regional and national trusted data available to all stakeholders on an open platform.

## 4. Funding

When the NHS LTWP was published, it did so with government support, including a commitment of £2.4 billion over 5 years to fund additional education and training

places. Government has emphasised that it is committed to a significant, long-term investment to transform the future of the NHS but added the caveat that decisions about spending review periods beyond this would need to be taken ‘closer to the time’. The LTWP has received cross-party support which implies commitment regardless of the outcome of the next General Election.

Analysis by the Institute for Fiscal Studies of the overall spend required to deliver the LTWP reveals the scale of this commitment across successive Spending Reviews. Modelling the wider financial impact of the LTWP, the IFS estimates that spending on the NHS in England would be around 2% of GDP higher by 2036–37, equivalent to an extra £50 billion. With departmental budgets already set until 2024–25, the upcoming Spending Review will detail allocation of this education and training commitment of £2.4 billion. This is already too late for 2024 entry bar a few small-scale increments, for example, the recent announcement to increase numbers of medical places. It is of course important that funding is aligned with NHS England’s ‘implementation roadmap’ and allocated across all professional courses.

## Recommendations

Universities ask for cross-party commitment to funding the LTWP, across the scale and length of required investment.

Close working between Treasury and the Departments for Education (DfE) and of Health and Social Care is essential to allocate funding through appropriate departmental channels. In particular, the importance of capital funding via the DfE to increase health education system capacity and drive innovation must be recognised.

Universities encourage government to commit to fund the first phase priorities set out in the NHS England implementation roadmap.

Government and funding/regulatory bodies need to work closely with education providers to take a collaborative, needs-based and transparent approach to allocation that recognises the different needs of the full range of health professions, regional variations, opportunities to widen participation or recognise innovative practice.

## 5. Regulation

Healthcare faculties are subject to overlapping fields of health and education regulation. All health professional education must prepare students to meet the outcomes for graduates set by the relevant professional regulator.

In the case of health apprenticeships, additional regulation by Ofsted imposes a further high burden, disincentivising universities from providing these routes. Greater coherence and a move towards outcomes rather than inputs-based regulation, assessing student competencies, would support innovation to drive expansion and improve student experience without compromising safety.

### Recommendations

Universities support the Council of Deans' call for a review of the overlapping regulatory regimes that govern healthcare courses to obtain greater alignment between health and education regulation and an overall reduction of burden.

Government is encouraged to work with universities, the professions, and the regulators to move towards an outcomes-based regulation that can take greater advantage of innovations including technology that permit reductions in practice hours, shorter courses, new routes, and new roles.

Given the LTWP's ambitions for apprenticeships, universities particularly encourage government to work with universities and regulators to streamline the regulation of these routes.

### Threshold conditions

The MSC stakeholder workshop identified the need for the 'owners' of the system (those in a position to prevent its effective implementation) – HMT, government departments, NHS England, ICBs, Vice Chancellors, Regulators – to be closely involved in the development of the expansion plans.

There are five **threshold conditions** for the LTWP to be implemented. These conditions have been well-described over many years but, for the LTWP to succeed, need urgent action.

## 1. Boosting student recruitment

Applications to Nursing, Midwifery and AHP courses have been declining year on year since their peak during the pandemic. There may also be concerns about the impact of expansion on applicant quality for high-demand courses such as medicine and dentistry and the knock-on effect on, for example, pharmacy. The impact on the Devolved Administrations must also be considered.

### Recommendations

Universities urge government to fund a major national campaign, co-produced with universities, colleges, schools, and the NHS, with assets developed for local campaigns, to refresh the value and purpose of these careers as well as the varied career routes and opportunities that healthcare courses can offer to UK students.

Universities should work in partnership with colleges and health providers to develop health skills escalators. In the near future, these might be based on the flexibility and modularity which will be provided by the Lifelong Learning Entitlement (LLE).

Universities support new approaches such as apprenticeship routes to widen participation in these careers but ask that government conducts a rapid review of health apprenticeships, in line with the recent call by the Nuffield Trust, to understand opportunities and constraints, including regulatory burden, administrative complexity, funding and consideration of support and retention.

## 2. Increasing the numbers of educators

Shortages in clinical academic and teaching staff are well described (see [work from Medical Schools Council](#) and [work from the Council of Deans](#)) and will be a rate limiting factor for expansion. Currently, 50% of healthcare educators are over 50 years old: the career pipeline is complex and misaligned, disincentivising significant groups from moving into these roles.

### Recommendations

Universities support calls by the MSC and the CoDH to urgently address the shortfall in health care educators and clinical academics by a focused review of these career pathways.

Universities are encouraged to work with local health systems to create a different, and positive culture around education. Engagement in education could be explored as a retention tool in later stages of careers and different kinds of staff could be brought into these roles, depending on setting.

## 3. Investing in new facilities and infrastructure including new technologies

Expanding system capacity to create the step change in learner numbers will require significant extension of existing university and college facilities as well as the opening of new schools. This means additional teaching space, flexible space, examination facilities and more. Specific professional courses, such as Dentistry, are especially capital intensive. There are opportunities to extend capacity through learning technology – immersive environments, simulation/robotics, digital content delivery – but current evidence suggests that students learn best and have the best wider

experience when content and learning communities are 'blended' across digital and face to face. All of this requires capital investment.

### **Recommendations**

The Department for Education and the OfS should work with universities and NHS England to allocate capital investment in learning spaces and technology to expand health education system capacity.

Universities are encouraged to consider novel collaborations to develop and optimise the use of technology hubs and testbeds including consortia, university-college partnerships, private partnerships.

## **4. Increasing placement capacity**

The availability, quality, and distribution of placements – including supervisory capacity – must continue to be a focus for government, the NHS, nationally and locally, and for universities and colleges. Without urgent action on placement capacity, this will be a significant bottleneck to any expansion of student numbers.

Diversifying placements across general practice, community, social care, third sector and private settings increases capacity, offers a diversity of experience to students but also requires a rethinking of support. There are also significant opportunities, demonstrated during the pandemic, for technology-enabled placements and simulated practice-learning. This requires capital investment and further regulatory reform. Placement provision has evolved in a piecemeal fashion as HE provision has started or expanded, and often fails to take account of the impact on students (for example in terms of travelling time, accommodation, and caring responsibilities). While this can be partially mitigated through a more responsive package of financial support, a more coherent approach to placement provision would ease the burden on students.

## Recommendations

NHS England should consider facilitating closer working between universities and local health systems to expand and diversify placement capacity, always with the needs of students in mind.

ICBs to consider developing indicators around placement quality to ensure that local health systems take responsibility for practice learning and experience.

Universities welcome current initiatives to develop and test the feasibility of an accurate national placement identification and allocation platform, to highlight capacity issues across all professions.

Government is encouraged to boost capital funding for innovative practice technologies and to continue to work with professional regulators towards a more adaptive regulatory framework.

## 5. Improving learner experience and reducing attrition

Many health courses experience high rates of attrition that continue into early careers. Health students have been particularly vulnerable to cost-of-living pressures, recognised by recently increased support for travel and accommodation expenses and additional financial help for students from low-income families.<sup>4</sup> In addition to these financial pressures, they may also need additional wellbeing and mental health support, more regular check ins and so on.

---

<sup>4</sup> In fact, this increased support was not enough to make up shortfall.



## Recommendations

Universities broadly support the ten recommendations made by the Nuffield Trust in its recent review of the health learner and early career pipeline<sup>1</sup>.

In particular, continuing cross-departmental attention to the issues of health student financial wellbeing is urged – including timely reimbursement of travel and other costs, financial support being inflation-linked - and pastoral support including for student mental health.

There are solutions to all these threshold challenges. Funding will be key but so will a commitment to innovation and new ways of working across education and health.

## Enabling innovation

The LTWP makes a wide range of commitments to the innovation and reform of health education and training. Universities recognise that the expansion of health education capacity will not be achieved by business as usual. Universities are committed to working with partner organisations to identify, test and deploy innovative solutions, including:

## New routes and roles

The LTWP commits to a significant expansion of degree apprenticeships into the clinical workforce – 22% of clinical training places as apprenticeships by 2031 compared to 7% now – and additional support for nursing associate, physician associate and advanced practice roles.

## Recommendations

Universities ask that government conducts a rapid review of health apprenticeships, in line with the recent call by the Nuffield Trust, to understand opportunities and constraints, including regulatory burden, administrative complexity and consideration of support and retention.

Universities encourage local health systems to consider the opportunities for developing new routes such as apprenticeships synergistically (rather than in competition) with traditional undergraduate programmes. Universities should work with local health systems to explore further opportunities to educate and train new roles, noting that these efforts should be based on employer demand signals/skills gaps and future trends in health care.

## New technology

Health and education share the ambition to leverage opportunities to fully embed digital technology in education and training pathways, including blended learning, simulation, and immersive learning. Universities are already investing in edtech and digital environments: rapid learning during the pandemic suggested that, properly tested and deployed, technology-enabled learning can improve learner experience and deliver high quality education. But it requires capital investment to pump prime, local and national infrastructure to test and scale innovations and adaptive professional regulation.

## Recommendations

Government is encouraged to work with universities, the professions and the regulators to move towards an outcomes-based adaptive regulation that can take greater advantage of technological innovations.

Universities encourage government to boost capital funding for innovative practice technologies.

NHS England is asked to consider working with universities to consider the development of regional future health skills testbeds to identify, test and scale innovation.

## New collaborations

The expansion and transformation of the English health education system envisaged by the LTWP will only succeed via new models of partnership and collaboration. These all sit within the ‘joint endeavour’ between health and education. Education and health providers are already exploring some of these new models including:

**Place-based health skills collaborations:** Partnerships to meet local need including supporting a locally integrated educational offer – across schools, colleges, and universities – with outreach throughout the education life cycle to boost health career choices particularly in under-represented localities.

**Future health skills hubs:** Local or dispersed collaborations to identify, test and scale innovations including learning technology and new approaches including inter-professionalism and interdisciplinarity.

**Consortia:** Extended partnerships to drive innovation and efficiencies including:

- Expanding apprenticeships. Streamlining administration and deploying innovations to expand system capacity and address cold spots.
- Common content. Delivery of common curricula identifying differentiation points.
- Shared technology platforms and operating systems. Joint ventures in leading edge edtech including student support and analytics.

## Recommendation

OfS and NHS England to work together and with universities to consider the opportunities for an innovation funding round to develop and test new partnerships and collaboration.