

Academy of Medical Sciences response to NHS 10-Year Health Plan – Deadline 2 December

Q1. What does your organisation want to see included in the 10-Year Health Plan and why?

The Academy believes the following priorities should be key features of the 10 Year Health Plan:

- 1. Integrate research within the core of the NHS
- 2. Develop a world-class research workforce
- 3. Focus on prevention, early intervention and reducing inequalities
- 4. Create an environmentally sustainable NHS

Our response to this call for evidence is based on consultation with members of our elected Fellowship and a group of 21 patients (our patient collective). The demographics of our patient collective were not analysed and therefore may not be representative of the wider population. The key points within this response have been endorsed by our Council.

Our response includes ideas for policy change related to the above four priorities in question 5.

1. Integrating research within the core of the NHS

Research is a vital component of the NHS's duty and the basis of its ability to improve the standard of care provided to patients and the health of the whole population. We welcome the enabling working group on research, life sciences and innovation. This signals the intention to prioritise research and innovation in shaping the future of the NHS, aiming to drive the transition to a high-value health system that achieves improved health outcomes, controls rising healthcare costs, and supports economic growth.

Leading health systems worldwide have shown that integrating research and innovation is key to improving healthcare quality, supporting public health, and ensuring the efficient functioning of health services.^[1] In the UK, studies show that NHS settings actively engaged in research report lower mortality rates and better health outcomes for patients.^{[2][3]} Evidence from interdisciplinary research can also help to address key issues facing the NHS, including the backlog of care, by improving systems, processes and pathways.

Regulatory issues, clinical delivery pressures and a failure to value the contribution that research makes to healthcare are creating a healthcare system that is unable to prioritise research. The Health and Care Act 2022 mandates integrating research into the NHS, requiring Integrated Care Boards (ICBs) to appoint research leads, develop research strategies, and report on progress annually. These legislative and board-level commitments will only lead to genuine cultural change within the NHS if reporting of performance concerning these research duties is carefully considered.



Investing in research drives economic growth by attracting industry involvement in the UK, potentially increasing the number of clinical trials and opportunities for drug and device development. These activities generate revenue for the NHS and improve population health outcomes. Between 2016 and 2019, the NIHR Clinical Research Network supported clinical research activities that contributed £8 billion in gross value added and created 47,467 full-time equivalent jobs. During this period, each commercial trial participant generated an average of £9,189 for the NHS in England and saved an average of £5,813 on pharmaceutical costs. $^{[4]}$ The benefits are also felt more widely, with every £1 invested in NIHR research providing £19 of benefits to society. $^{[5]}$

2. Developing a world-class research workforce

An effective and resilient research-active workforce is central to advancing healthcare in the NHS. Upskilling the workforce is essential to unlock the potential of science, research, and technology in delivering future care. With the right skills and capacity, NHS staff can transform this vision into reality.^[6] The workforce must be supported to develop strong educational foundations, be well-trained in research and demonstrate both practical and intellectual flexibility.^[7]

Engaging NHS clinicians in research enhances job satisfaction and morale and helps reduce burnout, thereby addressing some of the staff retention challenges facing the NHS. By fostering a culture that values research and continuous learning, the NHS can create a more fulfilling and sustainable work environment, benefiting healthcare providers and patients alike.^{[8][9][10]}

The UK's research workforce, known for its world-leading contributions to life sciences, is a significant asset to the NHS and provides considerable benefits to both patients and the economy. However, Cancer Research UK's 2023 survey on the UK Clinical Research workforce showed that 74% of participants noted that it has become harder to deliver timely research. 69% said that it was more difficult to meet recruitment targets. [11] To address this, NHS organisations and funders should work together to develop a pilot in which dedicated time for research is available to a proportion of healthcare professionals wishing to engage in research. 12

There is also a worrying decline in the clinical academic workforce - professionals who work across universities and the NHS to conduct health research - from 8.6% of consultants in 2011 to 5.7% in 2020.^[13] This decline is especially pronounced among clinical academics from primary care and other medical professions, including nurses, midwives, and allied health professionals. The trend is driven by systemic challenges and disincentives, notably the lack of time allocated for research. Investing in the next generation of clinical academics and coordinating system-wide solutions is essential to sustain the research pipeline and drive health improvements. This must be part of the 10-year plan for health.

3. Focus on prevention, early intervention and reducing inequalities

The health of the UK population is deteriorating, with increasing disparities between the most and least deprived, impacting the NHS, the economy and society negatively. [14] Identifying, understanding, and developing strategies to improve public health while addressing inequalities will be vital to ease the burden on health and care services. The



early years represent a crucial window of opportunity to improve children's health in the short and long term, providing cumulative benefits, and avoiding the greater challenge and expense of intervening later in life. We provide further details on the theme of prevention and early intervention in question 4.

4. Create an environmentally sustainable NHS

The 10-year plan offers an opportunity for the NHS to lead efforts towards net-zero carbon emissions, acting as a system-wide exemplar of how complex systems can achieve an equitable, healthy transition. We welcome net zero ambitions as set out in NHS England's road map to delivering a net zero health service by 2045; however, these need to be properly embedded and funded into NHS organisations.

The NHS accounts for around 5–6% of the UK's total emissions^[15], and decarbonising it is an immediate priority. This can be achieved through optimising system efficiency, upgrading the NHS building stock for energy efficiency; renewable energy replacing fossil fuels; zero emission vehicles; and sustainable catering options. Introducing sustainability requirements for procurement, and a drive towards a truly circular economy model, could achieve further reductions in carbon emissions.^[16]

Establishing robust metrics to monitor and evaluate progress against agreed targets, and measure both environmental and health impacts, is essential. Metrics must be integrated into policies, should include the impact on income and other inequalities, and be measured robustly and regularly, to minimise any adverse consequences.^[17]

Climate-driven actions align closely with health promotion and disease prevention measures targeting inequalities. Investing in preventive initiatives like dietary changes, active travel, and social prescribing will yield health, environmental, and social benefits. Designing health facilities to enhance environments, such as increasing daylight and adding green spaces, can improve patient outcomes, especially for socio-economically disadvantaged groups. [18]

Achieving these goals requires cross-sector and cross-Government collaboration - across energy, transport, industry, urban planning, and agriculture - to highlight public health implications and to promote a 'health in all policies' perspective. Short-term costs will be offset through a reduction in the cost of in-action on health and healthcare delivery in the long-term.¹⁹

Q2. What does your organisation see as the biggest challenges and enablers to move more care from hospitals to communities? *Relates to Shift 1: moving more care from hospitals to communities*

Moving care from hospitals to communities can reduce pressure on acute services while delivering positive health outcomes for patients, but it must be underpinned by evidence. Investing in community services can deliver positive health outcomes and reduce pressure on acute hospitals. Members of our patient collective also highlighted the opportunity for increased community accessibility and patient comfort.

Addressing the rise in multiple long-term conditions will be key to enabling this shift, as multimorbidity complicates the delivery of care. The Academy's report 'Multimorbidity: a priority for global health research' highlights that caring for patients with multimorbidity can pose substantial challenges for healthcare professionals who often have limited time and resources and can experience difficulties when trying to apply multiple clinical



guidelines to one patient.^[20] Our recommendations on the prevention of disease are set out in further detail under question four.

These challenges are particularly pronounced among disadvantaged groups, who face significant barriers to accessing community-based care. High transport costs, language barriers, and digital exclusion mean that many in these communities are unable to access timely support, leaving them more likely to require hospital treatment as problems become acute. Targeted strategies - including reduced transport costs for low-income families, offering services in multiple languages, and providing more flexible care - are essential to ensure community care reaches those who need it most.

As the Darzi review set out, we have underinvested in the community, while hospital expenditure has grown. Delivering the shift to the community requires a whole-system approach in which resources, training and infrastructure are invested in community-based care. This approach involves not only improving the capabilities of primary care teams but also fostering collaboration between local authorities, public health agencies, and service providers to address the broader health needs of the population. To achieve this, a reallocation of funding will be necessary to ensure community services are adequately supported to manage a wider range of care.

Our patient collective also stated that effective implementation will require strong collaboration between health and social care, supported by trained staff, adequate technology, and clear communication pathways. Respondents also expressed concern about the potential for care fragmentation and emphasised the importance of integrating hospital, primary, and social care services to ensure that patients, particularly those with complex needs, are not repeatedly "passed around" from one provider to another.

Our patient collective identified trust as an essential enabler to moving care into the community. Building trust in communities, especially among vulnerable or marginalised groups, is vital. They recommend engaging with communities directly, particularly through trusted local figures, to ensure that everyone has access to health education and resources. This approach could also help combat stigma, empowering people to seek help without fear of judgement or rejection.

One of the biggest challenges of moving care into the community, as highlighted by the Darzi review, is the growing pressure on GPs. Increasing workloads, administrative burdens, and rising patient demand have led to widespread burnout across the profession. This has accelerated early retirement, with a recent Royal College of General Practitioners survey revealing that 42% of GPs are unlikely to remain in practice within five years, with over half (51%) citing stress as a key reason. [21] This trend risks creating a shortage of experienced GPs, which could undermine efforts to move care into the community.

Placing additional training requirements and expanding the scope of GPs' duties may risk exacerbating these stressors, further increasing job dissatisfaction and burnout. To address this one Fellow suggested, GPs could be supported by a wider team of health care professionals. Investing in training and recruiting advanced nurse practitioners, physiotherapists, occupational therapists and community pharmacists will make community-based care more achievable.



Q3. What does your organisation see as the biggest challenges and enablers to making better use of technology in health and care? *Relates to shift 2:*Analogue to digital

As the national healthcare provider with cradle-to-grave records for the population, NHS organisations hold unique datasets. If used effectively, health data has tremendous potential to improve patient outcomes and safety and the health of the public, facilitate health service change and new models of care, and contribute economic benefits through fostering life science industries.^[22]

The publication of the Sudlow Review sets out a blueprint for making health data work better for the UK.²³ Strong, trustworthy data systems, designed and delivered with input from patients, researchers and healthcare providers, will lead to better care and support innovations in treatment and prevention. Assembling an effective health data infrastructure, in partnership with researchers, is crucial to building an NHS that is fit for the future.

We support these changes, recognising that success depends on active and equitable partnerships. Agreements between the NHS and its partners must ensure that everyone, especially patients and the NHS, reap the benefits of harnessing data.

To ensure better technology use in healthcare rigorous research—specifically, individual and cluster randomised trials— that demonstrates the effectiveness and cost-efficiency of new technologies is essential. Without these trials in the UK, policymakers and planners lack evidence to make decisions about costly, large-scale digital health interventions. One challenge is the lack of real-world evidence on how technologies perform across typical NHS patient populations, especially those with multiple long-term conditions. As with other types of health research, trials with narrow patient criteria often fail to predict outcomes for complex cases, where results may differ significantly

In addition, the NHS must clearly and continuously communicate its needs to industry, enabling swift, beneficial, and safe responses to health challenges

To address these challenges, national and regional research leadership to enable the analysis of population wide linked multi-modal datasets held in trusted research environments (TREs) whilst protecting privacy is essential. Though TREs were pivotal during COVID-19, the systems to ensure data access, data standards and data linkage have since regressed. There is an urgent need to develop a joint strategy across DHSC, NHS England and research funders (e.g. UKRI) to define the infrastructure, data, governance and services of a reliable, scalable and inter-operable trustworthy data ecosystem. Coding systems typically operate with delays, so new technologies are often unidentifiable within general datasets, making rapid technology evaluation of drugs and devices challenging. To improve this, specific technology use should be recorded in registries and linked to TRE data, enabling faster and more accurate evaluations.

There is a considerable challenge in upskilling the current workforce to adapt to a more data and technology intensive environment. This will be particularly important if the health and care system is to harness the benefits of emerging technologies like quantum. Staff need to understand how novel technologies can assist them and to be



able to communicate their needs to industry and academia. NHS England, the Faculty of Public Health and the General Medical Council should ensure the health workforce is equipped with the skills to use new approaches to surveillance, diagnostics, data analytics and artificial intelligence (AI).²⁴

Q4. What does your organisation see as the biggest challenges and enablers to spotting illnesses earlier and tackling the causes of ill health? *Relates to shift 3:* sickness to prevention.

Efforts to prevent disease and address widening health inequalities must be built on shared responsibility for health and wellbeing across central and local Government and the NHS. As the Darzi review recognises, the main drivers of health lie outside the remit of the health service; social determinants such as income, employment, and housing have a far greater impact on health outcomes. ²⁵ Our report, 'Improving the health of the public by 2040' underlines this further, setting out the need for a transdisciplinary approach to public health research. ²⁶ Addressing the wider determinants through a collaborative, cross-Government approach will be the biggest enabler in shifting toward prevention. ²⁷

Our patient collective strongly supports this. Participants shared stories highlighting how a lack of social support, poverty, and education leads to stress, mental health struggles, and chronic illness. One respondent remarked, "We need to address socio-economic factors like housing and employment to improve health outcomes. The NHS and researchers have not addressed these factors holistically and wait until people are very unwell before intervening."

Research is essential to generate the high-quality evidence needed for sustainable, positive changes that will improve health and reduce health inequalities, and benefit patients, the public and the economy.

Investing in research and practice that promotes the health of the public through cross-government and cross-agency working is necessary to build an effective, evidence-based and integrated public health system of practitioners, researchers and policy makers. ^[28] Strong collaborative research and evidence function with links to academia across the breadth of public health bodies, including the NHS, would enable the development of evidence, the translation of evidence into policy, and the implementation of interventions that will improve health and reduce health inequalities. ²⁹

The Academy's report 'Prioritising early childhood to promote the nation's health, wellbeing and prosperity' highlights that the early years represent a crucial window of opportunity to improve children's health in the short and long term, providing cumulative benefits for health and the economy, and avoiding the greater challenge and expense of intervening later in life.^[30] Health during the early years - from preconception through pregnancy to the first five years of childhood - lays the foundation for lifelong mental and physical well-being and promotes life chances.

Future population health could be transformed by supporting children who experience adversity during these early years. [31] This also has significant economic consequences, as our report estimates that addressing issues that might have been avoided through early action costs society £16.13 billion each year (estimates from 2018/19). Action



taken now to improve early years health presents a powerful opportunity to secure a more prosperous economic future, aligning with the Government's Growth Mission.

There is substantial evidence identifying where interventions need to be made to achieve this transformation. The NHS must now work with Government and local authorities to implement proven interventions and policies to improve child health and wellbeing.

Our report reveals limited funding for health in the early years.^[32] Therefore, we recommend that NHSE works with Government, local authorities and research funders to support further collation of evidenced, cost-effective interventions and policies, and evaluate new interventions and policies. Ongoing research is particularly necessary to understand causal pathways leading from exposures in early development to later health risks and to identify effective interventions and policies, including for emerging threats to child health.

To realise the benefits of intervening in the early years, child and family health services need to be well resourced, delivered at scale and to a high quality, and integrated to provide safe and effective care. The development of Integrated Care Systems (ICSs) presents a critical opportunity to overcome fragmentation of services for the early years by coordinating across the NHS, community care and local authorities.^[33]

However, sustaining these services requires tackling workforce challenges, including a 37% decline in England's health visitor workforce since 2015 and the ongoing shortage of GPs (detailed in question two).^[34] Supporting the paediatric and family health workforce is essential to shift focus from treatment to prevention.

Beyond early childhood intervention, rising risk factors like high blood pressure, cholesterol, and obesity, which are often underdiagnosed and undertreated, need to be addressed. Research from Our Future Health showed that over half of UK adults have cholesterol levels above recommended, and over 25% have high blood pressure, 35 while a recent review by the National Audit Office found that just under half of the annual eligible population attended a Health Check in 2023-24.36 While primary care is key to screening and risk reduction, declining GP numbers limit the capacity for preventive care. This issue is detailed further in our response to question two. Creative and innovative solutions will be required to identify, screen, prevent and treat disease in those most at risk and the NHS will need to work closely with local authorities who have responsibility for public health initiatives like the Health Checks. Our patient collective stressed the need for inclusive health policies that reflect the diverse needs and circumstances of different populations. They suggested more open channels for public input on health policy, allowing the NHS to make decisions that align with people's realworld experiences. They proposed community advisory panels to enhance transparency, accountability, and alignment with real-world experiences.

Q5. Please use this box to share specific policy ideas for change. Please include how you would prioritise these and what timeframe you would expect to see this delivered in, for example:

- Quick to do, that is in the next year or so
- In the middle, that is in the next 2 to 5 years
- Long term change, that will take more than 5 years

Patient and public involvement (PPI)



We welcome the Government's inclusive approach to the 10 Year UK Health Plan consultation, recognising the value of incorporating patient and public views into health service planning. Patient and public involvement (PPI) is vital to excellent health research, enabling patients and the public to help define research priorities, co-design studies, review proposals, and lead research projects. [37] Our patient collective emphasised how patient perspectives can identify practical improvements, like better clinic designs or more relevant care protocols, that significantly impact patient comfort and confidence in the NHS.

Our report, 'Future-proofing UK Health Research: a people-centred, coordinated approach' outlines several solutions to properly value patient and public involvement in health research, including by enhancing support for lived experience and academic researchers, fair remuneration, pre-award PPI funding, and sharing best practices across the UK to create a more inclusive healthcare system.^[38]

Policy recommendations

In question one, we highlighted why integrating research into the NHS, building a worldclass research workforce, and addressing public health and inequalities are essential to reduce the burden on health services, improve patient outcomes, and boost economic growth. The following policies would support these goals.

1. Integrate research within the core of the NHS

In the next year or so:

- Ensure that NHS England's new research metrics incentivise innovative, earlyphase studies rather than simply measuring the number of trials and number of
 participants recruited. To ensure a balance between commercial and noncommercial research, performance metrics should also support ICB partnerships
 with local research ecosystems and engaging the workforce and public in
 research.
- Commit to ongoing increased investment for NIHR in line with other parts of the R&D budget. This should be reflected by increased funding for research taking place in the NHS in all four nations.

2-5 years:

- ICBs and Hospital Trusts should seek to enhance opportunities to share innovation and to learn from one another's experience of developing and implementing their research strategies, including how they involve patients, carers and the public in the process.^[39]
- To maximise the research potential of the healthcare system, we must facilitate
 the use of patient data as a research resource for the good of all. The
 recommendations in The Sudlow Review should be implemented in full while
 ensuring that everyone reaps the benefits of harnessing data.



2. Develop a world-class research workforce

In the next year or so:

- Invest in the next generation of clinical academics and coordinate system-wide solutions to sustain the research pipeline and continue to drive health improvements.
- NHS organisations and funders should develop a pilot in which dedicated time for research is available to a proportion of healthcare professionals wishing to engage in research. Establishing a pilot of this nature or expanding to include a broader range of healthcare professionals could provide invaluable information on how protected time can contribute to addressing a range of the challenges faced by the NHS.^[40]

2-5 years:

- Employers across academia, industry and Higher Education Institutions (HEIs) should adopt hiring, promotion and reward procedures that recognise and assess the value that candidates moving from different sectors can bring to their organisations and agree methodology to calibrate markers of achievement in those different sectors.^[41]
- NHS Employers should work with organisations such as the University and Colleges Employers Association (UCEA) and The Association of the British Pharmaceutical Industry (ABPI) to create clear and transparently governed mechanisms to allow people to work within NHS, academia or industry settings simultaneously.^[42]
- Secondments and joint appointments between academia, industry, NHS,
 Government departments and agencies and other settings should be made easier
 and more attractive by employers providing mechanisms to take the employee
 back at a grade commensurate with their experience. Employers should also
 adopt streamlined and standardised policies for secondments and joint
 appointments wherever possible.^[43]

3. Focus on prevention, early intervention and reducing inequalities

In the next year or so:

- Increase investment in public health research to support more efficient and effective public health practice, and in turn improve the health of the population.^[44]
- Address the decline in the child and family health workforce and fragmentation across sectors to deliver effective services for children.^[45]
- Work with Government, local authorities and research funders to further invest in research into improving health in the early years.⁴⁶
- Consider adopting models that have been effective in other countries in the UK, particularly those taking a multi-disciplinary approach. For example, Scotland has established a multidisciplinary community-based infant mental health services in every health board area.



2-5 years:

- Work with other organisations responsible for training to ensure that the public health workforce is trained to deliver high quality research, both in undergraduate and postgraduate curricula, and in professional and vocational training.
 Secondments and joint appointments could further help to develop and expand the skills of public health professionals by increasing the mobility of the workforce between parts of the system.^[47]
- Implement effective interventions to improve child health and wellbeing and promote research to identify further approaches.^[48]
- Co-develop appropriate governance for the inclusion of babies and pre-school children in research, working with the public/parents, researchers and clinicians.
- Consider engaging health economists and work with policymakers across
 Government in investment: disinvestment research to provide an evidence base
 for decisions about the share of health, social care, and criminal justice funding
 that should focus on the early years.

5 or more years:

- Aim to provide equitable access to mental health services across the entire lifespan, including for children under 5.
- Our patient collective urged NHS collaboration with local governments and community organisations to tackle the social determinants of health, such as offering mental health resources, promoting healthy lifestyles in schools, and ensuring access to nutritious food.

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 $^{^{\}text{[6]}}\,\underline{\text{NHS England. NHS Long Term Workforce Plan. https://www.england.nhs.uk/long-read/nhs-long-term-workforce-plan-2/2}}$

^[7] Academy of Medical Sciences. Response to the Government consultation: "Liberating the NHS: Developing the Healthcare Workforce". https://acmedsci.ac.uk/file-download/35218-1301323497100.pdf

^[8] Lambert TW, et al. (2015). Making clinical academic careers more attractive: views from questionnaire surveys of senior UK doctors. JRSM Open. 6(8): 2054270415602644.

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- 12 Further detail on this pilot can be found in recommendation 3 of Integrating the NHS and academia report:
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 $^{^{46} \, \}underline{\text{Academy of Medical Sciences. Prioritising early childhood to promote the nation's health, wellbeing and prosperity.} \\$ https://acmedsci.ac.uk/file-download/96280233

 $^{^{[47]} \, \}underline{\text{Academy of Medical Sciences.}} \, (2023). \, \underline{\text{Improving the health of the public through research: an update statement.}} \, \underline{\text{Academy of Medical Sciences.}} \, (2023). \, \underline{\text{Improving the health of the public through research: an update statement.}} \, \underline{\text{Academy of Medical Sciences.}} \, (2023). \, \underline{\text{Improving the health of the public through research: an update statement.}} \, \underline{\text{Academy of Medical Sciences.}} \, (2023). \, \underline{\text{Improving the health of the public through research: an update statement.}} \, \underline{\text{Academy of Medical Sciences.}} \, \underline$ https://acmedsci.ac.uk/file-download/47202231

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