

Key points

To kickstart economic growth and deliver the life sciences plan, Government should:

- Set a target to lead the G7 on R&D investment and be among the top science nations globally.
- Commit to investing £22bn by 2026/27 in public R&D.
- Announce plans for long-term funding for R&D.
- Increase investment in the underpinnings of health research including through:
 - Reversing the real terms decline in Quality-Related (QR) funding to ensure the UK university sector can sustainably drive advances in research.
 - Partnering with charities to improve the financial sustainability of research that they fund.
- Incentivise private investment with internationally competitive R&D tax incentives and evaluate the way R&D tax reliefs support innovative start-ups and scale-ups in priority growth sectors of the economy to better inform policymaking.
- Maintain a strong and proportionate regulatory and governance environment for clinical research, including through sufficient resourcing for the Medicines and Healthcare products Regulatory Agency (MHRA) and other relevant bodies.
- Reduce the upfront cost of visas, including the NHS surcharge, for international researchers and their families in line with competitor nations.
- Provide funding for UK researchers and the sector to remove barriers of participation in Horizon Europe, for example through pump priming schemes.
- Ringfence any remaining Horizon Europe underspend for R&D and should ensure UK participation in the next European Union Research and Innovation Framework.

To build an NHS fit for the future, Government should:

- Work with charities, NHS and universities to reverse the decline in clinical academics as a proportion of NHS Staff across all clinical professional groups - and to ensure that investment in clinical academic careers is effectively targeted to create more flexible career pathways, recruit, and retain this unique research workforce. This should be done in line with recommendations from the task and finish groups on this subject commissioned by the Office for Strategic Coordination of Health Research (OSCHR).
- Commit to sustaining the current levels of National Institute for Health and Care Research (NIHR) funding for the NIHR. This should be reflected in research taking place in the NHS in all four nations.
- Fund an NHS research pilot where a proportion of NHS healthcare workers are offered a contract that includes dedicated time for research. Income generated through research activity in NHS and public health organisations should be ringfenced and reinvested in research, including backfilling time dedicated to research. The Government should assemble a health data infrastructure for the whole population by building upon existing expertise within academia, research funders and the NHS. This should include a joint national health data strategy for all health relevant data that is developed in partnership with the research community and in light of the findings of the independent Sudlow Review on health data (published later this year).

To break down barriers for opportunity, Government should:

- Invest in health of the public research and practice through cross-government and cross-agency working to build an effective, evidence based and integrated public health system.
- Develop a coordinated, unifying vision that prioritises early years health and wellbeing. This vision should promote the use of evidence related to child health in all policies and coordinate resources across departments.

In a challenging fiscal environment, health research is a strong and reliable investment for delivering the Government's life sciences plan and its missions to kickstart growth, build an NHS fit for the future and break down barriers for opportunity.

For decades, the UK has been widely recognised as world leading for health research, with leading academic research institutions, unmatched research potential of the NHS and a vibrant life sciences industry. This has

delivered life-changing innovations for patients, from monoclonal antibodies to cure disease, to the COVID-19 vaccine.

However, this advantage cannot be taken for granted. By investing in this enviable asset, Government can retain the creation of jobs, productivity, investments, resilience and long-term health benefits that health research delivers for the public, public services and the economy, now and for years to come:

- UK life sciences industry employs over 304,200 people, generating a turnover of £108.1 billion in 2021/2022.¹
- For every £1 invested in NIHR research, society receives £19 of benefits, from direct health benefits, profits to UK firms and returns to the wider economy.
- From the NIHR's 2022-23 spend of £1.3 billion there is an expected return of around £20 billion (discounted net present value) over the next 20 years.²

Here we suggest action Government can take to make health research deliver for patients and the economy.

1. Kickstart economic growth and deliver the life sciences plan by investing in health research and life sciences

1.1 Invest competitively

To drive growth and deliver for patients, UK public and private R&D investment must be internationally competitive; however, the UK spends less on R&D than many G7 and other competitor nations, including China, Germany, Israel, Japan, and the United States. This means the UK risks losing a historic competitive advantage and decreasing attractiveness for investment and talent.³

This budget is a chance to reassure the market that R&D is a national priority. This is particularly necessary following the previous government's decision to delay the target to invest £22bn in R&D by 2024/2025 by two years. In an evolving global market, secure, long-term public funding commitments for R&D would provide the certainty required to attract private investment.

- **Government should set a target to lead the G7 on R&D investment and be among the top science nations globally.**
- **Government should commit to investing £22bn by 2026/27 in public R&D.**

1.2 Invest in research for the long-term

Research in universities is a significant national asset. The UK is the fourth largest producer of research in the world, with four of our universities ranked among the top 10 leading universities in the world in 2024.⁴ In 2023, 87% of Association of Medical Research Charities members' research grants were awarded to UK universities.⁵

However, the funding model this relies on is unsustainable and driven by short-termism. It fails to cover the full cost of health research and relies on cross-subsidy, mainly from international student fees. Universities continue to show a substantial deficit, increasing to £4,482 million in 2021-22 from £3,828 million in 2020-21.⁶

The long-term funding cycles for key R&D institutions that were committed in Labour's manifesto could help this. Ten-year funding cycles backed by consistent policy would significantly enhance the system's sustainability and researchers' ability to benefit society and the economy by:

- Providing signals to private investors on national research priorities to encourage investment.
- Delivering better value for money, by cutting bureaucracy, enabling researchers to spend more time on research, rather than grant applications and the costs associated with setting up and shutting down facilities and laboratories.
- Creating the stable conditions for research institutions, including universities.
- Attracting and retaining globally mobile talent to build an enviable critical mass leadership/talent that will lead medical science into the future.

¹ Department for Science, Innovation & Technology, Department of Health and Social Care (2024). Bioscience and health technology sector statistics 2021 to 2022. <https://www.gov.uk/government/statistics/bioscience-and-health-technology-sector-statistics-2021-to-2022/bioscience-and-health-technology-sector-statistics-2021-to-2022>

² National Institute for Health Research (2024). NIHR Annual Report 2022/23. <https://www.nihr.ac.uk/reports/nihr-annual-report-202223/34501>

³ Cambridge Industrial Innovation Policy (2022). The UK Innovation Report 2022. <https://www.ciip.group.cam.ac.uk/uk-innovation-report-2022/>

⁴ Universities UK (2024). Opportunity and Growth, A manifesto from Universities UK. <https://www.universitiesuk.ac.uk/sites/default/files/uploads/uuk-opportunity-and-growth-manifesto-2024.pdf>

⁵ Association of Medical Research Charities (2024). 2024: Our sector's footprint. <https://www.amrc.org.uk/our-sectors-footprint-in-2023>

⁶ Office for Students (2023). Annual TRAC 2021-22. <https://www.officeforstudents.org.uk/media/38ff3e23-b29b-4b43-a9e1-8f58fc0fb492/annual-trac-2021-22-sector-summary-and-analysis.pdf>

- Enhancing the UK's ability to pursue the most ambitious research projects and invest in infrastructure that creates skilled jobs and provide long-term benefits.
- Allowing the UK to lead on global challenges including climate change, an ageing population and future pandemics.
- **Government should announce plans for long-term funding for R&D with principles including:**
 - A transparent and rational process is used to decide how longer-term funding cycles are designed. This should draw on the expertise of the research community in identifying where long-term certainty of funding is of most value, such as where significant investment in infrastructure is required.
 - Decisions on individual research proposals should consider the Haldane Principle.
 - Funding commitments provide long-term sustainability to research institutions, projects and infrastructure and budgets keep pace with inflation.
 - Funding provides flexibility for year-on-year budgets.
 - Long-term funding settlements are accessible to R&D institutions across the whole of the UK funded by a range of government departments. For example, to support organisations which operate across the translational pipeline and support researchers with cross-sector careers, including clinical academics who work across research in the NHS.
 - Benefits of increased funding stability should reach individual researchers, offering them more stability in their research careers.
- **Government should increase investment in the underpinnings of health research including through:**
 - Reversing the real terms decline in QR funding to ensure the UK university sector can sustainably drive advances in research.
 - Partnering with charities to improve the financial sustainability of research that they fund.

1.3 Incentivise life sciences investment

As set out in Labour's Life Sciences Plan, the UK life sciences sector is a major driver of employment and growth. However, there are signs that the UK is losing out to international competition. Inward foreign direct investment in UK life sciences has declined in recent years, by 47% between 2021 and 2022 and by 21% between 2022 and 2023.⁷

- **Government should incentivise private investment with internationally competitive R&D tax incentives and evaluate the way R&D tax reliefs support innovative start-ups and scale-ups in priority growth sectors of the economy to better inform policy making.**
- **Government should maintain a strong and proportionate regulatory and governance environment for clinical research, including through sufficient resourcing for MHRA and other relevant bodies.**

1.4 Attract the best research talent

To unlock world-leading innovations and growth, UK R&D needs world-leading domestic and international talent. For example, 62% of the scientific staff at the Francis Crick Institute are from outside the UK.

However, UK visa costs are by far the most expensive of any leading scientific nation. This is blocking international talent from UK careers, with recent increases making this even more prohibitive. From 2021 to 2024, total upfront immigration costs in the UK increased by up to 58% depending on visa type. Since 2019, they have increased by up to 126%. A family of four coming to the UK on a five-year Global Talent visa will be liable to pay £20,974 upfront, which is up 57% from £13,372 between 2021 and 2024. This is 21 times higher than France and 34 times higher than Germany.⁸

Evidence collected from Cancer Research UK (CRUK) Institutes shows this is impacting UK institutes' ability to attract talent and conduct research:

- CRUK Institutes spent over £470,000 on visas in 2022/23, prior to increases, and to recruit the same number of international researchers now costs nearly £690,000, a 44% increase. Visas will now cost the Crick half a million pounds per annum. When costs are covered by the employer recruiting a researcher in this way, the increase in fees is covered by funding that could otherwise be used for research.

⁷ Office for Life Sciences (2024). Life sciences competitiveness indicators 2024: summary. <https://www.gov.uk/government/publications/life-sciences-sector-data-2024/life-sciences-competitiveness-indicators-2024-summary>

⁸ Royal Society (2024). Summary of visa costs analysis 2024. <https://royalsociety.org/-/media/policy/publications/2024/summary-of-visa-costs-analysis-2024.pdf>

- The CRUK Cambridge Institute has reported it is struggling to compete for specialists with computational cancer centres in Germany, where a researcher visa costs only £172, less than 3% of the UK price.⁹
- **Government must reduce the upfront cost of visas, including the NHS surcharge, for international researchers and their families in line with competitor nations.**

1.5 Collaborate internationally

UK participation in European Framework Programmes for Research and Innovation is vital for the UK's ability to take part in global scientific collaboration, which brings benefits for people and the economy alike. It is important that UK researchers are empowered to take full advantage of UK participation to Horizon Europe.

More broadly, there is a need for greater international R&D funding security with the longevity and certainty needed for the UK to build trusted, long-term, reliable partnerships overseas. This should complement previous international funding for research and development.

- **Government should provide funding for UK researchers and the sector to remove barriers of participation in Horizon Europe, for example through pump priming schemes.**
- **Government should ringfence any remaining Horizon Europe underspend for R&D and should ensure UK participation in the next European Union Research and Innovation Framework Programme.**

2. Build an NHS fit for the future by unlocking the NHS' research potential

As set out in Labour's plans to build an NHS fit for the future, research in the NHS is vital to power an NHS transformation, including transitions from analogue to digital; from treatment to prevention; and from hospital to community care. The NHS, including its rich health datasets, is an enviable clinical research hub that helps deal with the issues of today and builds resilience for the future. For example, the NHS-delivered RECOVERY trial identified dexamethasone as a COVID-19 treatment which saved one million lives worldwide in the nine months following its discovery.

Benefits of clinical research include:

- Consistent studies across multiple healthcare settings have shown that research-active hospitals have better patient outcomes and lower mortality rates.^{10 11 12 13}
- Giving time for research to interested NHS staff enhances recruitment, retention and reduces burnout.^{14 15 16 17}
- In 2016/17 to 2018/19, NIHR Clinical Research Network supported clinical research activity that generated £8 billion in Gross Value Added (GVA).¹⁸

Despite this, NHS pressures, a failure to value the contribution of research, slow adoption of innovation and unfulfilled potential of patient data as a research resource are stalling clinical research and healthcare innovation. This is compounded by a concerning decline in clinical academics, particularly at mid-career levels, where there has been a 25% decline between 2010 and 2022.¹⁹ These researchers play a critical role in driving health research by connecting our world-leading universities with the healthcare system. Reversing their decline is vital to securing an NHS fit for the future.

- **Government must work with charities, NHS and universities to reverse the decline in clinical academics as a proportion of NHS Staff, across all clinical professional groups and ensure that investment in clinical academic careers is effectively targeted to create more flexible career pathways, recruit and retain this unique research workforce. This should be**

⁹Cancer Research UK (2024). Impact of UK immigration system changes on cancer research.

https://www.cancerresearchuk.org/sites/default/files/impact_of_immigration_system_changes_on_cruc_institutes.pdf?_gl=1*9d25m8*_gcl_au*MTMxMzEwODc1NS4xNzI0OTQ2NTk2*_ga*NDQ3MTEzMTU1LjE3MjQ5NDY1OTY.*_ga_5873622GNN*MTcyNTM2NjYyOC4zLjEuMTcyNTM2NjYyMy41NS4wLjA.

¹⁰ Ozdemir BA, et al. (2015). Research Activity and the Association with Mortality. PLoS One 10, e0118253

¹¹ Boaz A, et al. (2015). Does the engagement of clinicians and organisations in research improve healthcare performance: a three-stage review. BMJ Open 5, e009415.

¹² McManus RJ, et al. (2008). How representative of primary care are research active practices? Cross-sectional survey. Family Practice 25, 56–62.

¹³ Boaz et al. (2024). If health organisations and staff engage in research, does healthcare improve? Strengthening the evidence base through systematic reviews. Health Res Policy Sys 22, 113.

¹⁴ Lambert TW, et al. (2015). Making clinical academic careers more attractive: views from questionnaire surveys of senior UK doctors. JRSM Open. 6(8): 2054270415602644.

¹⁵ Dale J, et al. (2015). Retaining the general practitioner workforce in England: what matters to GPs? A cross-sectional study. BMC Family Practice. 16:140

¹⁶ Community Research (2018). Adapting, Coping, Compromising research. <https://www.gmc-uk.org/-/media/documents/adapting-coping-compromising-research-report-79702793.pdf>

¹⁷ Shanafelt TD, et al. (2009). Career Fit and Burnout Among Academic Faculty. Archives of Internal Medicine. 169(10), 990–995

¹⁸ National Institute for Health and Care Research (2019). New report highlights how NIHR support for clinical research benefits the UK economy and NHS. <https://www.nihr.ac.uk/news/new-report-highlights-how-nihr-support-for-clinical-research-benefits-the-uk-economy-and-nhs/22489>

¹⁹ Medical Schools Council. Clinical Academic Survey. <https://www.medschools.ac.uk/clinical-academic-survey> (accessed July 10, 2024)

done in line with recommendations from the task and finish groups on this subject commissioned by the Office for Strategic Coordination of Health Research (OSCHR).

- **Government should commit to sustaining the current levels of funding for NIHR. This should be reflected in research taking place in the NHS in all four nations.**
- **Government should fund an NHS research pilot where a proportion of NHS healthcare workers are offered a contract that includes dedicated time for research. Income generated through research activity in NHS and public health organisations should be ringfenced and reinvested in research, including backfilling time dedicated to research.**
- **Government should assemble a health data infrastructure for the whole population by building upon existing expertise within academia, research funders and the NHS. This should include a joint national health data strategy for all health relevant data that is developed in partnership with the research community and in light of the findings of the independent Sudlow Review on health data (published later this year).**

3. Break down barriers to opportunity by investing in public and child health research

On almost every health indicator, including life expectancy, obesity and mortality from major illness, the UK is lagging behind its peers.²⁰ The UK faces growing health challenges including an ageing population, rising multi-morbidity and the health impacts of climate change. Meanwhile, the healthy life expectancy gap between those living in the most and least deprived areas is widening.²¹ This already has a significant impact on the economy:

- Prior to COVID-19, health inequalities cost the NHS an estimated £4.8 billion a year, society around £31 billion in lost productivity, and between £20 and £32 billion a year in lost tax revenue and benefit payments.²²
- Today, 2.5 million people are economically inactive due to long-term sickness, an increase of over 400,000 since COVID-19.²³

Further, the health and wellbeing of children aged 0-5 years, has deteriorated markedly in the UK:

- Infant mortality in the UK, a key indicator of a nation's health, is worse than in around 60% of other OECD nations.²⁴
- Over a fifth of children aged five are overweight or obese. Children living in the most deprived areas are twice as likely to be obese than those in the least deprived areas²⁵
- Children from more disadvantaged backgrounds experience poorer health outcomes over their lifetime.²⁶

Acting on this would benefit health and the economy – evidence from the United States shows that quality birth-to-five programmes can provide a 13% return on investment for every year of a person's life.²⁷

It is encouraging to see that the Government's mission to break down barriers to opportunity highlights the importance of giving children the best start in life. Health research is essential to achieving these goals.

- **Government should invest in health of the public research and practice through cross-government and cross-agency working to build an effective, evidence based and integrated public health system.**
- **Government should develop a coordinated, unifying vision that prioritises early years health and wellbeing. This vision should promote the use of evidence related to child health in all policies and coordinate resources across departments.**

²⁰ Institute for Public Policy Research (2022). Health And Prosperity, Introducing the IPPR Commission On Health And Prosperity. <https://www.ippr.org/articles/health-and-prosperity>

²¹ The King's Fund (2024). Health inequalities in a nutshell. <https://www.kingsfund.org.uk/insight-and-analysis/data-and-charts/health-inequalities-nutshell>

²² Office for Health Improvement and Disparities (2022). Health disparities and health inequalities: applying All Our Health.

<https://www.gov.uk/government/publications/health-disparities-and-health-inequalities-applying-all-our-health/health-disparities-and-health-inequalities-applying-all-our-health>

²³ Office for National Statistics (2023). Rising ill-health and economic inactivity because of long-term sickness, UK: 2019 to 2023.

<https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/economicinactivity/articles/risingillhealthandeconomicinactivitybecauseoflongtermsicknessuk/2019to2023>

²⁴ OECD (2023). Infant mortality rates (indicator). <https://data.oecd.org/healthstat/infant-mortality-rates.htm>

²⁵ NHS Digital (2022). National Child Measurement Programme, England, 2021/22 school year. <https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2021-22-school-year>

²⁶ Academy of Medical Sciences (2024). Prioritising early childhood to promote the nation's health, wellbeing and prosperity. <https://acmedsci.ac.uk/file-download/16927511>

²⁷ García JL, et al. (2016). Research summary: the lifecycle benefits of an influential early childhood program – the Heckman Equation. <https://heckmanequation.org/resource/research-summary-lifecycle-benefits-influential-early-childhood-program>

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