10 Year Health Plan working group: research, life sciences and innovation

Co-chairs' report

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Introduction

This workstream was tasked with setting out how the NHS can work in partnership with researchers, innovators and the life sciences sector to meet future patient and population needs.

Before we discuss the ‘how,’ it is important to understand the context and what future ‘patient and population needs’ means - because with an ageing and increasingly multi-morbid society, our health needs are growing in scope and complexity. Our citizens’ expectations of the NHS are also changing as technology and services transform society.

The challenge

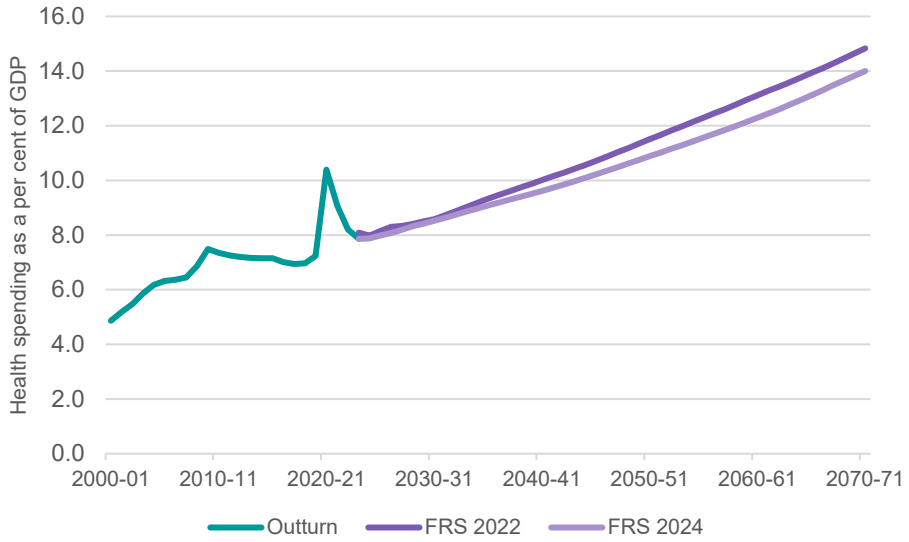
The NHS is broken and this has economic consequences:

Lord Darzi’s investigation was clear about the challenges the NHS faces, with the service in ‘critical condition’. The UK has the second lowest health-adjusted life expectancy among comparable countries (about 68 years), and we are spending longer periods in ill-health: both the absolute and relative proportion of our lives spent in ill-health has gone up (Darzi, 2024).

Long-term sickness is keeping 2.8 million 16 to 64-year-olds economically inactive. People with more than one health condition are twice as likely to take sick days and/or have lower productivity, and health inequalities are a major contributor to lower growth, lower productivity, and weaker labour markets in regions and devolved nations (Institute for Public Policy Research, 2024).

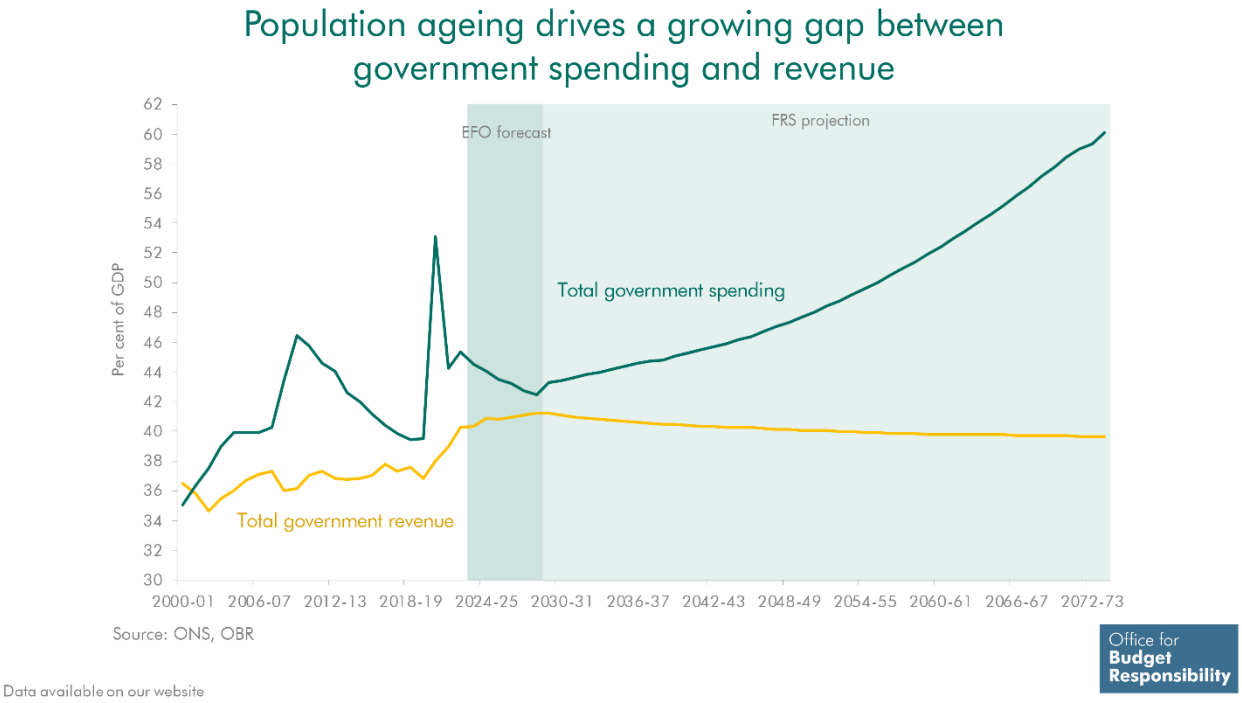
As our population collectively ages and health needs will become increasingly complex, this will lead to continued rises in government spending on healthcare costs. By 2050, 10 to 14% of UK GDP will be spent on health expenditure, up from 8% currently (Licchetta and others, 2016).

Figure 1: baseline projection for public health spending as a share of GDP



Source: Office of Budget Responsibility, September 2024, Fiscal risks and sustainability - charts and tables: Chapter 3

Figure 2: projected government revenue and spending as share of GDP



[This figure depicts a graph taken from the Office for Budget Responsibility's Fiscal risks and sustainability update in September 2024.

The title of the graph is ‘Population aging drives a growing gap between government spending and revenue’. The years 2000 to 2073 are on the x-axis and per cent of GDP are on the y-axis. The graph shows that total government revenue, which went up between 2018 to 2019 and 2024 to 2025, will stay relatively flat between 2030 and even decrease

slightly by 2072 to 2073. Meanwhile, the total government spending will continue to increase at a relatively steady rate over the same time.]

This challenge is the essence of the purpose of the 3 shifts: hospital to primary care and community services, analogue to digital and treatment to prevention.

According to estimates from Boston Consulting Group, improved population health could save the NHS £18 billion per year by the mid-2030s and could boost the UK's GDP by £109 to £177 billion, with £35 to £57 billion in fiscal revenue over the next 5 years (Ruparel, R., 2016). Turning the tide on productivity requires us to dramatically improve our population health outcomes which will have knock-on positive impacts for the economy.

The Institute for Public Policy Research's (IPPR's) Commission on Health and Prosperity sets out a proposal for how we can create the preventative space for the NHS to work, once again, for our public health and finances: to modernise, provide excellent access, focus on quality, and deliver innovative treatments (Institute for Public Policy Research, 2024).

In summary: the NHS is broken, and our deteriorating population health is having catastrophic consequences for our economy and patients, the poorest of whom are disproportionately affected. Future demand and fiscal projections are unsustainable and unless we dramatically improve our health and productivity, the UK's macro- and micro-economic prospects remain bleak.

What can we do about it?

Historically, a combination of 5 different interventions have been proposed to improve health service performance: primary prevention, expanded workforce or increased budget, system reform, financial flows reform and social care reform. While these foundational reforms are critical, alone or even cumulatively they will not be sufficient to fully or sustainably reconcile the difference between the predicted increase in demand for health services and the stagnation in economic growth and productivity.

Science, technology and innovation can address health, wealth and growth:

According to the Darzi Review, 'in the medium term, it is innovation that can make the NHS more sustainable' (Darzi, 2024). Research, life sciences, and innovation (RLSI) is one of the most sustainable ways to improve the health of the nation, boost NHS efficiency, and deliver the 3 shifts. It is scalable, impactful, and has the potential to address our entrenched health inequalities through innovations in the clinic and healthcare systems that respond to local need. The life sciences sector also has huge growth potential, meaning RLSI has the unique ability to simultaneously address both the UK's health and economic challenges.

Health

The UK life sciences sector has a long history of inventions that have contributed to human health at home and worldwide, from Fleming's penicillin to Crick and Watson's structure of DNA, and more recent inventions such as AlphaFold by DeepMind. The life sciences sector was at the forefront of the global response to the COVID-19 pandemic, from the development of the Oxford, AstraZeneca vaccine to the RECOVERY trial identifying safe and effective therapeutics, such as dexamethasone, which has already saved over one million lives globally (NHS England, 2021).

Innovations since the publication of the last NHS Long Term Plan in 2019, include those which have fundamentally transformed outcomes for people with severe asthma, taken us on a clear path to eliminate hepatitis C before the rest of the world, and improved patient access and outcomes by allowing cancer diagnosis to happen at home.

In the next plan and to build an NHS fit for the future, RLSI is poised to implement a matrix of complimentary interventions to deliver the 3 shifts:

- hospital to community: innovation in service models and delivery of therapeutics will allow people to receive care in their communities, rather than hospitals, releasing acute resources. The rise of point-of-care testing and digital health products will shift

care closer to people - even within their own homes - and empower them to manage their own health.

- treatment to prevention: innovative diagnostics will enable earlier diagnosis, genomics will enable the rise of personalised medicines as we move into an ‘era of cures,’ and vaccines have the potential to continue to prevent deadly diseases - all of which will contribute to people living for longer in good health

- analogue to digital: innovation in digital and data technologies enhances healthcare productivity by streamlining processes, removing red tape through automation, improving choice and convenience, shifting to AI enabled faster diagnosis and treatment, as well as data driven predictive analytics and wearables and remote monitoring. These changes will drastically improve the way people interact with the NHS, and free up clinicians’ time to deliver more person-centred care

RLSI can bend the healthcare demand curve down, while driving increased, sustainable growth and revenue at scale.

Wealth

Improving the health of our nation contributes to higher living standards and personal incomes. Earlier diagnosis and innovative treatments will mean people spend more time in good health, giving them higher earning potential and improved outcomes. Spending more time in good health will improve the nation’s productivity and drives increased living standards.

Investment into life sciences also creates employment opportunities through high-skilled jobs and allows us to export our UK-made technologies to other countries.

AI and digital innovations in appointment management and administration will mean people interact with a more efficient, intuitive healthcare system that has the capacity to give them holistic treatment. Patient experiences will be improved, and people will spend less time grappling with a complex healthcare system which currently sees one in 5 patients receive an appointment invitation after the date of the appointment.

RLSI has great potential to address health inequalities, which will have a downstream effect on reducing economic equalities across the UK and potentially lifting people out of poverty. Both system-level innovations (for example, new delivery methods that increase access to underserved communities) and targeted patient-level innovations (for example, oximeters that overcome skin colour bias), which are tailored to local population health needs, will contribute to narrowing the inequality gap between the care people receive, and addressing inequalities in economic outcomes.

Growth

Life sciences is one of the most productive sectors of the UK economy and can deliver on the Growth Mission objective of raising living standards in every part of the UK, including through establishing strong clusters outside of the south-east.

Our world-leading domestic pharmaceutical industry drove £8.7 billion of private research and development investment in 2023 (making up 17% of total private UK research and development), and the whole UK life sciences industry attracted £5.2 billion of foreign direct investment from 2019 to 2023, generating a turnover of £108 billion in 2021 to 2022 (Office for National Statistics, 2023). The sector also provided 304,200 high-skill, high-wage jobs, with 89% outside of London and a GVA of £361,000 per pharmaceutical worker, compared to £134,000 for computer, electronic, optical workers (Office for National Statistics, 2023).

We need to be bold and pave the way for this transformational change not just because it will advance our society, but because there is simply no other way to fully and sustainably fix the broken state of our healthcare system. In the government's consultation on the upcoming industrial strategy, it said that the life sciences sector 'holds enormous potential to drive growth and productivity (Department for Business and Trade, 2024). This is clearly evidenced in the sector's growth by all metrics from 2014 to 2015 to 2021 to 2022: turnover has increased by 40%, jobs by 24%, businesses by 11%, and sites by 14% (Department for Science, Innovation and Technology, 2024).

But while the sector has high growth potential, we cannot take growth for granted. Just as in other sectors, in life sciences there is the threat of productivity losses impacting upon the potential for sectoral growth and investment. We are also facing stiff international competition that won't hesitate to seize any opportunities we miss. If we are to realise the full potential of this crucial sector, we need to continue supporting it in every way we can.

Now is the time to get it right:

Technological advances have emerged at a blistering pace in recent years. For example, in 2008 it cost $10 million (£7.9 million) to sequence a human genome. In 2025 it costs below $200 (£158), and sub-$100 (sub-£79) sequencing is on the horizon (National Human Genome Research Institute, 2023; Fletcher, L., 2025). This science has paved the way for personalised, targeted treatments - such as CAR-T cell therapy for cancer - that allow us a glimpse at the future of healthcare, where treatment is tailored to people. We are also witnessing the advent of innovations which can address chronic and population-wide health conditions: GLP-1s to help people with obesity manage their weight, biologic treatments and advances in joint prosthesis for hip and knee surgery and robotic surgery to support those with musculoskeletal conditions and transformative advanced diabetes devices.

The future holds even more transformative innovations for the benefit of NHS patients, the discovery and testing of which will be made cheaper and faster by the advent of artificial (general) intelligence (A(G)I). This technological acceleration presents a considerable opportunity to reform health and growth in the UK on a scale never before seen. Our 'Life Sciences of the Future' work identified four key trends that could drastically change healthcare for people by 2035:

- artificial (general) intelligence: AI will have a dramatic effect across the health and life sciences value chain - faster drug discovery, more effective clinical trials, improved diagnostics, more efficient and personalised healthcare delivery and accelerated population health research

  eEarlier detection, diagnosis and prevention: over the next decade, precision diagnostics (for example, omics) will continue to become instrumental in an ever-greater range of diseases. Wearables, biosensor, miniaturisation, and data integration all offer opportunities for targeted prevention and earlier intervention, letting people live more years in good health

  personalisation of therapy and treatment: through cell and gene therapy, personalised drugs, bioprinting and digital therapeutics, we will move towards a paradigm in which treatments are personalised, and pathways are precision guided, greatly improving patient outcomes and experiences

- automation: the volume of tasks that can be automated will substantially increase and augment every element of the health and care workforce. This has the potential to drive significant improvements in efficiency and effectiveness: especially at the interface of hardware and software (for example, AI-enabled robotics) and in addressing current issues with NHS administration which is having impacts on the public's trust in the service. Healthcare professionals will get to spend more of their time directly interacting with patients

We have tried to do this before:

Over the past 20 years we have had a huge volume of independent reviews and plans: Best Research for Best Health (Department of Health, 2005), Innovation, Health and Wealth (Nicholson, D., 2011), the Accelerated Access Review (2014), the Life Sciences Industrial Strategy and Sector Deal (Bell, J., 2017), the NHS Long Term Plan (NHS England, 2019) and Life Sciences Vision (Office for Life Sciences and others, 2021).

We know what the issues are: we are underutilising our great science and research potential, our health data is fragmented and poorly connected and we cannot commercialise and scale our innovations in the NHS, meaning patients wait too long before benefitting from game changing innovation.

Previous attempts to address this have failed due to a lack of suitably empowered national and local leadership with accountability and levers to drive delivery and implementation and too often siloed working. They have also tried to impose innovation upon the NHS without the necessary wider system reforms, providing required financial resourcing, ensuring health professional buy-in, especially medical and joining up government and NHS delivery mechanisms.

Further details on how these recommendations address the blockers faced by previous attempts are set out in logic models in annex 2.

Building on outputs from Roland Sinker's Innovation Ecosystem Programme, the progress to date, and our preeminent institutions and capabilities, we know there are still a set of outstanding barriers we need to tackle:

Research: we need to increase the speed and ease of delivery of research across primary and community care settings and encourage more person-centred research by ensuring people across the whole country have the opportunity to be fully brought into research. It is too difficult to start, sustain and flourish in research careers and we need to futureproof the system to capture the benefits of emerging technologies. [Considered by research and development task and finish group].

Data: we have globally unique data assets, but our healthcare data is poorly connected and too fragmented. We need to enable effective sharing of patient data between NHS providers, without disrupting the continuity of care. We need the UK to create a globally competitive, trusted health data research service that provides secure access to comprehensive, high-quality, nationally inclusive datasets for research that will lead to improved standards of patient care and underpin a step change in opportunities for innovation. [Considered by Data and Digital for Research task and finish group].

Innovation: patients have not been able to access the innovations they need due to our inability to commercialise and scale which has been caused by complex procurement processes, a lack of funding, poor uptake, a lack of top-down prioritisation and unprotected short-term budgets. For too long we have failed to prioritise and assumed that the health system can effectively disrupt itself - it simply cannot. Further, accessing capital and sustainable financing poses a significant blocker to innovative companies establishing and prospering in the UK. [Considered by task and finish groups on Prioritisation, Ecosystem and Funding Flows, Access and Uptake and Access to Finance and Investment].

The future: there is a lack of consideration of how dramatically health and life sciences could advance in the next decade for the benefit for patients. If we are to build an NHS fit for the future, we need to build flex and agility into our health systems and regulatory processes is essential to keep up with emerging products. [Considered by the Life Sciences of the Future group and also Lord Darzi's Future State Programme].

RLSI has already profoundly impacted our society, improving countless lives across the world. By addressing these barriers, we can harness its potential to transform the relationship between the citizen and the state. RLSI has the unique potential to address our health challenges and build an NHS fit for the future, all while driving significant growth and productivity.

What we will deliver by 2035

Given the Life Sciences Sector Plan is being developed at the same time as the 10 Year Health Plan, we created 6 Task and Finish Groups: Research and Development, Data and Digital for Research, Access and Uptake, Prioritisation, Ecosystem and Funding Flows, and Access to Finance.

These groups were led by external chairs and included a diverse group of over 200 members from over 120 organisations representing the full breadth of the sector from the NHS, patient groups, industry, academia and government. Alongside these groups, a series of one-to-one engagements on the 'Life Sciences of the Future,' complementary to Lord Darzi's work, took place with key stakeholders. Through the enabling working group meetings, we have also discussed relevant findings and insights from the 10 Year Health Plan public and staff engagement exercise, as far as they relate to the remit of our group, as well as submissions from external organisations and recent publications, including the Innovation Ecosystem Programme.

By using a problem focused approach to policy development, we first agreed a series of problem statements for each group before developing actionable policy solutions to solve these specific problems (see annex 3 for full problem statements). Recognising the opportunity of UK-wide collaboration in improving health and wealth, the groups considered the issues broadly, while acknowledging the predominantly England focus of the 10 Year Health Plan (while the Life Sciences Sector Plan will be UK-wide). Through our broad engagement we have created a simple vision:

The UK will be the best possible global launchpad for the discovery, development and deployment of innovation - for the benefit of patients, NHS sustainability and economic growth.

By achieving this vision, we can simultaneously drive economic growth through attracting significant international investment to the UK and transform the health and productivity of our people though adopting the latest life sciences innovations that improve patient outcomes and experiences. RLSI's vision will bend the healthcare demand curve down, while driving increased, sustainable growth and revenue for the Exchequer.

Delivery of the recommendations set out below, will achieve the following benefits for:

- sustainability of the NHS: driving down the NHS demand curve through innovation in service models and delivery of therapeutics to move care into the community, genomics and innovative diagnostics to shift us into prevention and acceleration of personalised medicine and new treatments to move us to an 'era of cures.'

- patients: speeding up access to care, services and new treatments; reducing healthcare inequalities; increasing labour market participation; and providing greater choice for patients and flexibility in how treatments are delivered

- staff: creating efficiencies in the system and harnessing our data assets properly will free up wasted time so staff can focus on their core purpose: treating the patients who need them most; and boosting staff satisfaction and retention

- investors: an NHS which can discover, demonstrate and deploy innovations is an attractive proposition for companies in a competitive international market for investment

- the economy: improving productivity and attracting significant inward investment to create a positive feedback loop that will stimulate further investment and release more growth stage capital in the future.

Our recommendations

Monopolies find it difficult to disrupt themselves without proactive steps to embrace innovation and research - this involves proactive decision making to invest in technological and organisational research and development, horizon scan for disruptive technologies, adopt a risk (and failure) tolerance to allow for experimentation and embracing cross functional and cross sectoral collaboration. For too long we have assumed that the NHS can disrupt itself, but this is not a safe assumption - particularly against a backdrop of tight finances and huge service pressure, we need to take decisive action to catalyse the necessary change. Driving real, long-term change requires proactive disruption applied from both inside and outside the NHS. To capitalise on the opportunity of uniting our health and life sciences industrial policies, we must address these barriers through both:

- supply-side reforms (and development and data, access to finance) - those that leverage our world-class RLSI assets to create a globally competitive investment proposition and enable innovation

Scaling up research and development, alongside increased gathering of multiomic data at scale will provide greater health and disease insights, inform prevention approaches and address health inequalities of a greater range of the population.

- demand-side reforms of the NHS (access and uptake, ecosystem and funding flows) - those that improve the system in which these innovations are adopted. For example, driving an NHS that can accelerate evaluation, approval, procurement, and adoption of point-of-care solutions at pace and scale

Innovative technologies can help reduce health inequalities by improving access to care and medicines, supporting access to effective treatments, and therefore reducing treatment waiting times and improving population health. This has most recently been demonstrated through the advent a new gene-editing therapy which offers people with sickle cell disease, a devastating condition primarily affecting those from Black African and Black Caribbean backgrounds, hope of a cure and which is now available on the NHS. By taking the approach of a regional set of interventions, it helps to bridge the gaps in health inequalities further by focusing more on different areas across the UK, allowing focus on how specific populations can be most effectively treated.

To ensure delivery, layered across all of this should be clear prioritisation so that everyone across the system is pulling in the same direction. These recommendations will, of course, require support from the organisations which are impacted by them and a single point of accountability for the implementation of each.

Supply-side reforms

To overcome the challenges that we face in healthcare and the economy, we must ruthlessly focus our investment. Research and development drive significant measurable improvements in patient outcomes and the economy, but we are failing to deliver at our full potential in an increasingly competitive global market. To create a world-class research and development environment we need secure business investment and to deliver research excellence as a reliable and predictable partner.

We propose to drive investment and patient outcomes within research and development, as follows:

Recommendation 1: be more strategic and focused with the funding His Majesty's Government puts into research.

To keep the nation in good health for longer and to catch disease earlier, we need to increase the proportion of current research and development spend on prevention and multiple long-term conditions to 40% from the current 19% in ‘Prevention’ (approximately 7%) and ‘Diagnostics and Detection’ (approximately 12%) over the next 5 years to ensure innovations that prioritise population-level health needs are supported and pulled through to widespread use. The public support an increased focus on prevention, believing it will reduce NHS pressure, allow people to contribute more to the economy, and improve outcomes for those who get sick. Additionally, a further portion of existing research and development budget should be redistributed to implementation science, to accelerate the exploration of feasible service models for innovations in high priority areas. [cost neutral - redistribution of funding, short-medium term, key delivery partners - His Majesty's Government research funders].

Focus more funding to existing primary care and community research sites to support their growth. This includes doubling current funding to research active primary care sites over the next 5 years, enabling development of their digital infrastructure and bolstering local pharmacies and community diagnostic centres to support research activity. This aligns with His Majesty's Government and NHS England’s drive to move health and care into the community. Additionally, it will be important to increase funding to Our Future Health (OFH) and set ambitious targets for population-level recruitment and integration of OFH data into NHS databases. [cost neutral - redistribution of funding, short-medium term, key delivery partners - His Majesty's Government research funders].

Creation of a seamlessly integrated national infrastructure and 3 new and distinct research-specific translational networks fully operational by 2028, that will focus research on key areas of need, leveraging regional infrastructure and large patient cohorts, and be designed to attract high volumes of globally mobile industrial investment. These regional disease specific networks will pull together existing resources to carry out multidisciplinary

research and support innovations (either commercially supported or investigator led) through from pre-clinical to large scale phase 3 trials. [Medium quantity spend required about £100 million new funding (costs supported using existing infrastructure and expected to leverage industry investment, medium term, key delivery partners - National Institute of Health Research (NIHR), UK Research and Innovation (UKRI), NHS (primary, secondary, community)].

Provide a new end-to-end route for a managed portfolio of priority innovations through NIHR, to ensure the whole research and development system, not just adoption and spread infrastructure, is geared towards accelerating the development of transformational solutions. NIHR should collaborate with NHS England, National Institute for Health and Care Excellence (NICE), Medicines and Healthcare products Regulatory Agency (MHRA) and wider government and sector stakeholders, to ensure feed-through into late stage implementation and uptake initiatives (including through a National Institute for Health Innovation, further detail below). This ‘golden ticket’ route should utilise a central NIHR fund, to provide wrap-around support and end-to-end financing through linked milestone targets and stage gates [medium cost - but option for redistribution of funding, short-term, key delivery partners - predominantly NIHR].

Recommendation 2: embed research and development at every level in the NHS.

Hold healthcare systems to account for improved delivery against research metrics over a 5-year period with strengthened governance and transparency, aligned to local and national priorities to drive health improvement and local economic growth. This aligns to the Accountability and Oversight group’s proposal to shift to more outcome-based performance metrics. [very low cost - redistribute existing funding - short term, key delivery partners - NIHR, NHS England and locally].

Creating a workforce adept and incentivised to participate in research activity by providing training programmes that support development in and use of new technologies to build a sustainable technology enabled workforce and protected time to undertake research. This must be supported and driven by key research and innovation leaders and a sustainable and increasing investment into research and development training. [medium cost, medium term, key delivery partner Department for Education, NHS, Department of Health and Social Care (DHSC), UKRI, Department for Science, Innovation and Technology (DSIT), NIHR].

Improving research engagement for early-career healthcare workers by ensuring research is integrated into every health and social care training programme. This research lens should be embedded in any new training programmes developed through the proposals of the People working group. [medium cost, medium term, key delivery partner Department for Education, NHS, DHSC, UKRI, DSIT, NIHR].

Investing in mid-career research leaders and in roles that support the delivery of research to stop delays in process and delivery, with the introduction of performance metrics (linked to robust governance and accountability) and incentives to drive research activity. [Very low cost - but a key investment, short term, key delivery partners NHS, NIHR, UKRI].

Recommendation 3: double down on the target to double and double again by 2027 the number of people taking part in commercial clinical research - with an emphasis on interventional studies.

This work includes the underpinning mechanisms and key enablers required to deliver a step change in research delivery, winning us back commercial clinical research opportunities and activity. This could generate significant savings and income for the NHS. This also presents an opportunity to improve the diversity of people participating in clinical research. [Low up front spend (in existing research budget) - expected longer term income, short term, key delivery partners - NIHR, DHSC, NHS].

Given the above, we must get the oversight of the system right - with clear lines of accountability and performance management for non-delivery.

Recommendation 4: NIHR as the single biggest funder of health research in the UK must be viewed by industry and international researchers as a global leader in supporting research delivery.

To compete it must have clear performance targets and mandate to deliver on health and growth goals for the whole sector. [low spend, short term, potential for legislative change required, key delivery partners - DHSC, NIHR].

NIHR is the single biggest funder of health research in the UK, with the access and reach to act as the focal point of research and development activity and driver of foreign direct investment (FDI) but is currently the only health funder without an independent governance board. As the keystone of UK health research, we must equip NIHR with robust, overarching governance, including credible industrial and charity representation, if it is to continue driving UK research and development and investment and providing strategic direction for the whole health research ecosystem.

This should include the immediate establishment of an independent scientific and clinical board with membership that includes the NIHR's key public and industry stakeholders, including appointment of an independent chair, and clear health and growth key performance indicators and performance targets for the next 5 years. Clear and transparent performance targets and delivery against these will show the UK as a solid delivery partner and support positive investment decisions.

Recommendation 5: there should be improved strategic alignment of UK research and development funding across the existing infrastructure, overseen by a central cross-government strategic entity that sets clear direction and priorities across the health research system, with membership that at a minimum includes key research funders, sponsoring departments, His Majesty's Treasury and system users.

This entity will require a full-time chair and could be achieved by strengthening Office for Strategic Coordination of Health Research. [very low spend, short term, potential legislation if options to grant statutory function, Key delivery partners - OSCHR, His Majesty's Government research funders].

A critical foundation of the entire RLSI ecosystem is our health data environment. While longitudinal, diverse and globally unique, our health data landscape is complex and fragmented. By implementing a consistent, fair, transparent, and sustainable commercial model, health data services have significant potential to generate public profit for public good as well as improving treatment standards and care delivery mechanisms. To achieve the unrealised benefit of our fragmented data assets, we recommend:

Recommendation 6: creating a National Health Data Research Service (NHDRS).

[Delivery: NHS England, DHSC, NIHR, DSIT, Office of Life Sciences (OLS) and MHRA as the DHSC agency currently responsible for the established Clinical Practice Research Datalink service. Cost dependent on operating model and level of ambition and will require sustained multi-year investment to deliver the transformational change required. Significant value and benefit gain would require a long-term investment of at least £500 million].

The service will have a single point of access to national and regional datasets, initially ensuring access to 4 key whole population datasets, essential to support the widest range of research and innovation uses: comprehensive national GP data, timely Hospital Episode Statistics, medicine and devices data and death data. Subsequent development should integrate other data, including genomic, imaging and pathology.

It should have a highly regarded, experienced and trusted senior leader, reporting at director level, within the relevant national organisations.

Public funding should be stabilised, and the leader should be held accountable for delivering net revenue to be part reinvested in the service and part in the NHS.

Public profit should be generated for the public good: steps should be taken to accelerate and build the commercial expertise needed in the NHS to ensure the value from secure access to health data assets for research is fully leveraged.

It will incentivise the creation and growth of new UK service sectors in health-tech and AI.

Recommendation 7: legislative clarification and reform.

[Delivery: DSIT, DHSC, NHS England, Health Research Authority, and Information Commissioner's Office. Public deliberations required to inform and support potential legal reform has an estimated cost of about £500,000 to £600,000].

- reform secondary legislation (regulations under section 251 of the NHS Act 2006) to put the sharing and use of GP and other data for planning, service management and commissioning on a much clearer legal basis
- incentivise primary care data sharing
- adopt an assumed consent-for-anonymised-research model
- standardise data access and governance models, establishing a regional data board

Recommendation 8: public, patient and healthcare professional engagement.

A co-ordinated, funded and sustained programme of deliberation and engagement to maintain trust and understanding of the clinical, economic, and operational benefits of health data usage. This should build upon the considerable public and staff engagement that has already taken place, as well as in-depth engagement with front line clinicians (including GPs) and trade unions. Community engagement has highlighted that although the public worry about security risks and data breaches, they do see the opportunity which improved health data presents for themselves and others. [DHSC's national programme of public engagement on data involving several thousand members of the public across England consists of 3 cohorts covering different topics relating to health and social care data. The report from the first cohort, which focuses on data governance and access, is due to be published in February 2025. DHSC hopes to continue its programme, expanding into engagement with health and care professionals in 2025 to 2026, while also formalising internal structures to support ongoing engagement activities in the long-term. These plans require long-term, sustainable funding. A minimum of £5 to 10 million over the course of the spending review period is required to support delivery].

Recommendation 9: in addition to the above, access to finance ('crowding in investment') is a critical lever to ensure that growth-driving sectors, such as Life Sciences, can support growth of the UK economy.

To unlock capital for UK Life Sciences companies, His Majesty's Government should consider introducing additional disclosure requirements on institutional investors, while ensuring sufficient incentives are in place to stimulate pension fund investment into high-growth sectors, as well as more proactively working and partnering with the highest potential growth companies. While this is important to consider in the context of the 10

Year Health Plan, initiatives related to access to finance should predominantly be taken forward as part of the Life Sciences Sector Plan.

Demand-side reform: as it stands, the current system for access and adoption is complex, duplicative and held back by too much friction. Through the 10 Year Health Plan engagement, staff described the existing processes for implementing innovation as 'painfully slow,' despite their transformative potential. At a minimum, we need to get the basics right through implementing these recommendations, all of which can be done quickly through existing structures, and which will accelerate patient access to transformational new treatments and technologies that improve outcomes and experiences. These recommendations include:

Recommendation 10: halving time to NHS access approvals by supercharging MHRA and NICE processes through:

[low additional funding required to boost regulatory capacity and accelerate approvals. While accelerating new products to market could result in increased spend on new products, this is a greater risk for MedTech as NHS spend on newer medicines is largely mitigated through the voluntary scheme. It is also possible to create headroom through routine decommissioning of products that are no longer cost effective and faster access to more lower cost alternatives, including biosimilars and generics. Short-medium term implementation timeframes].

Enhanced MHRA capacity and activity so that it can meet its statutory targets and carry out key non statutory functions for example, scientific advice in a timely manner, and in the future have the capabilities to review emerging digital and AI technologies. As of February 2025, performance targets are being missed on national variations (88%), manufacturing and distribution authorisations (74%) and scientific advice (21%). The backlog on new licence applications is at 166.

Harnessing new regulatory pathways (for example, the Innovative Licensing and Access Pathway (ILAP) and the Innovative Devices Access Pathway (IDAP)) and international recognition routes for medicines and MedTech (for example, streamlined biosimilars approvals) to allow for prioritisation of resource enabling faster licensing and conformity assessment of innovative products, but while maintaining strong safety standards, making the UK an attractive first launch market.

Increased parallel processing between NICE and the MHRA (Canadian model) to allow a seamless transition from marketing authorisation to health technology appraisal.

More dynamic NICE appraisal recommendations which support decommissioning of medicines and MedTech which are no longer cost effective. This would provide budgetary

headroom for quicker roll-out of large-scale population health innovations and other more cost-effective interventions to the benefit of patients.

Recommendation 11: streamlining access and adoption by reducing duplication and friction in the system, including addressing procurement barriers

Streamlining procurement and contracting by introducing an 'NHS passport' for MedTech (whereby compliance against national standards is assured by one accredited NHS organisation, to avoid duplication). Included standards could include the Digital Technology Assessment Criteria (DTAC), Data Protection Impact Assessment (DPIA), and evidence validation requirements. [Minimal costs and some cost releasing with more efficient procurement. Short-term implementation timeframes].

Implementation of value-based procurement (VBP) methodology for MedTech and creating new models for potentially high value innovations, including outcome-based procurement VBP aims to ensure NHS trusts make consistent, evidence-based purchasing decisions, factoring in the wider product benefits beyond simple unit cost. VBP is due to begin shadow testing in March. [Minimal costs for implementing with costs saved from and benefits of faster access to innovations and/or benefits of pre-NICE uptake, if early access. No short-long term costs for running. Short-medium term implementation timeframes].

Reduce the number of local formularies in England from the current 159 to 42 (one per ICB), with the potential to reduce down to 7 in future (one per NHS region) and sharpen their purpose to only be used in specific circumstances (for example, managing local supply issues or to tackle antimicrobial resistance). There should also be improved transparency of the local formulary development process, clear and regularly updated online publications for all formularies and further development of data to track uptake. This will free up clinical and administrative time to spend on patient care and reduce unwarranted variation in the uptake of medicines to ensure patients can access appropriate treatment in a timely manner. [Potential for cost savings through patient outcomes, system improvements and staff time. Medium-term implementation timeframes].

For medicines, undertake a review to explore whether a UK early access model for medicines could be adopted in a way that benefits outweigh the costs, following a similar model used in France for medicines within a very specific criteria (for example, rare diseases with no other treatment options). [Up-front costs to fund but only implemented if the benefits outweighed the costs. Medium-term implementation timeframes].

Recommendation 12: ensuring parity in approach to access and reimbursement between medicines and MedTech

The Rules Based Pathway (RBP) for Medtech, with associated reimbursement for proven MedTech innovations, should be implemented. To be genuinely impactful, a RBP must

provide reimbursement for prioritised products that meet an unmet need (as is the case for medicines that receive a NICE Technology Appraisal). [Substantial funding required, however expected efficiencies or savings expected through implementation of high value MedTech. Short-medium term implementation timeframes].

Amend the necessary regulations to give patients the right to innovations that have been recommended by NICE for use in the NHS, if your doctor says they are clinically appropriate for you. [Potential for cost savings through patient outcome and/or system improvements. Medium-term implementation timeframes].

Create a national list of recommended technologies to be updated annually. Remove outdated technologies from national framework agreements. [Potential for cost savings through patient outcome and system improvements. Medium-term implementation timeframes].

More extensive use of approaches to uptake-related pricing (lower price for higher uptake) and risk-sharing to align incentives for adoption between patients, taxpayers and industry. [Potential for cost savings through patient outcome and system improvements. Medium-term implementation timeframes].

The National Medical Director of NHS England should publish an annual innovative therapies and technologies audit - a data-led approach to quantifying local variation in uptake and use of innovation. The report should include a targeted action plan for addressing key issues in priority areas. [Potential for cost savings through patient outcome and system improvements. Medium-term implementation timeframes].

Recommendation 13: utilising incentives and training to tackle the NHS's innovation-wary culture, to ensure the workforce has the requisite skills and support to engage in innovation.

Develop and implement a 'comply or justify' framework for NHS organisations with demonstrably low use of NICE-approved innovative products. [Cost neutral, short to medium term implementation timeframes].

For relevant tariffs, apply a percentage uplift to reward providers who adopt and percentage penalty for those who do not. [Potential for cost savings through patient outcome and system improvements. Medium-term implementation timeframes].

Modernise training in medical, nursing and pharmacy degrees to include innovation as a core theme, to ensure critical skills and habits are taught early, and clinical innovation careers are viable options for new healthcare professionals - recognising that, in doing so, other aspects of current curricula will need to be deprioritised. [cost neutral, short-medium implementation timeframe].

Continue and expand existing workforce-focused innovation development schemes, such as the Clinical Entrepreneurs Programme, to further encourage workforce led engagement in innovation. [very low spend to restore and boost activities, short-medium timeframe].

Protect time for innovation activities within selected clinical and managerial rotas, to increase support, enthusiasm and capacity for staff engagement in transformation, and shift from the status quo of relying on staff to engage with innovation outside of their contracted hours. [low ongoing spend, short-medium timeframe].

If we want to ensure that patients can harness the opportunities of this era of cures and transformative technologies, simply fixing the basics will not be sufficient to fully maximise the health and economic potential of RLSI. We must also push for paradigm shifting action to create an NHS fit for the future to drive the change required to establish a national health system that can act with greater agility and autonomy. Even outside of the public sector, we know that monopolies find it difficult to disrupt themselves without proactive action. Against the backdrop of huge service pressure, we must not take it for granted that the NHS will be able to disrupt itself. Driving real, long-term change requires proactive disruption applied from both inside and outside the NHS. We therefore propose the following synergic approach:

Recommendation 14: transitioning to a high pull NHS provider landscape of accountable integrated care organisations - with transformation delivered through Local Health Innovation Zones for devolved demonstration of total healthcare system reform for scale-up across the NHS.

[Reasonable but scalable spend split over multiple years for specific innovation activities, largely delivered through devolution of existing budgets - short-medium term].

Innovation in technologies and medicines is not enough if services enabled by those innovations do not change. Monopolies find it hard to disrupt themselves. At a system level, initially 3 to 5 local innovation zones should be set-up to become incubators of both macro and micro health innovation, with the ambition to scale nationally. These will have local change makers embedded into these zones so that people on the ground can be empowered to ensure that innovation is prioritised within their roles.

These will test and generate evidence for complex interventions combining several micro innovations (for example, medicines, MedTech, devices and digital) with macro innovations (for example, patient pathways, financial structures and system architecture). They will be able to do this through delivering both innovation supporting programmes, as well as novel care delivery pathways, as they see fit.

They will be able to attract external investments, be co-located with capabilities in other sectors such as academia, the voluntary, community and social enterprise (VCSE) sector

and finance. They will be given significant new devolutionary freedoms to experiment for example ability to receive and allocate multi-year budgets, more flexible hire and fire rights, strategic commissioning and procurement capabilities and enhanced risk appetite. These could be delivered in close collaboration with the leading Metro Mayors.

Recommendation 15: the creation of a National Institute for Health Innovation to co-ordinate the central offer for health innovation and administer a new 'Sovereign Health Fund'

To aggressively drive service and pathway transformation on a national scale for the 2 to 3 most clinically and cost-effective new innovations each year. [Significant spend, ramped up - room for reprioritisation, medium-long term depending on function].

The National Institute for Health Innovation (NIHI) will be a small but empowered central function to enable and support the NHS to capitalise on the opportunity presented by high value and disruptive innovations, taking a long-term view. It will operate across 3 domains:

- strategy and analytics: to set national priorities and perform robust impact assessment
- infrastructure and skills: to commission and oversee national innovation infrastructure and support and recognise innovation skills in the workforce
- programmes and partnerships: bringing together existing innovation programmes, and harnessing industry partnership and co-investment accelerate the adoption of priority innovations

The NIHI would be accountable for identifying and driving implementation of priority, high value innovation opportunity areas which offer tangible health, growth and productivity benefit, with a focus on leveraging co-investment and emphasis on generating financial returns. Focus areas could include prevention, labour market participation, and the biggest causes of unhealthy life expectancy and inequalities, and so on.

The body should be empowered with autonomy of spending and policy decisions (akin to those afforded to the NIHR, for research activities), clear lines of accountability to the most senior health leaders, ringfenced budgets, and the mandate to attract significant private and philanthropic co-investment.

The NIHI would also administer a new 'Sovereign Health Fund.' This would identify, fund, and ensure implementation of proven evidence-based population health innovations with the highest potential for benefit to the UK's health and economy, with a particular focus on net cost saving to the UK. The fund would focus on delivery through innovative and sustainable care delivery models particularly those outside of standard NHS services, for example, direct to consumer, direct to pharmacy, direct to home and digital only.

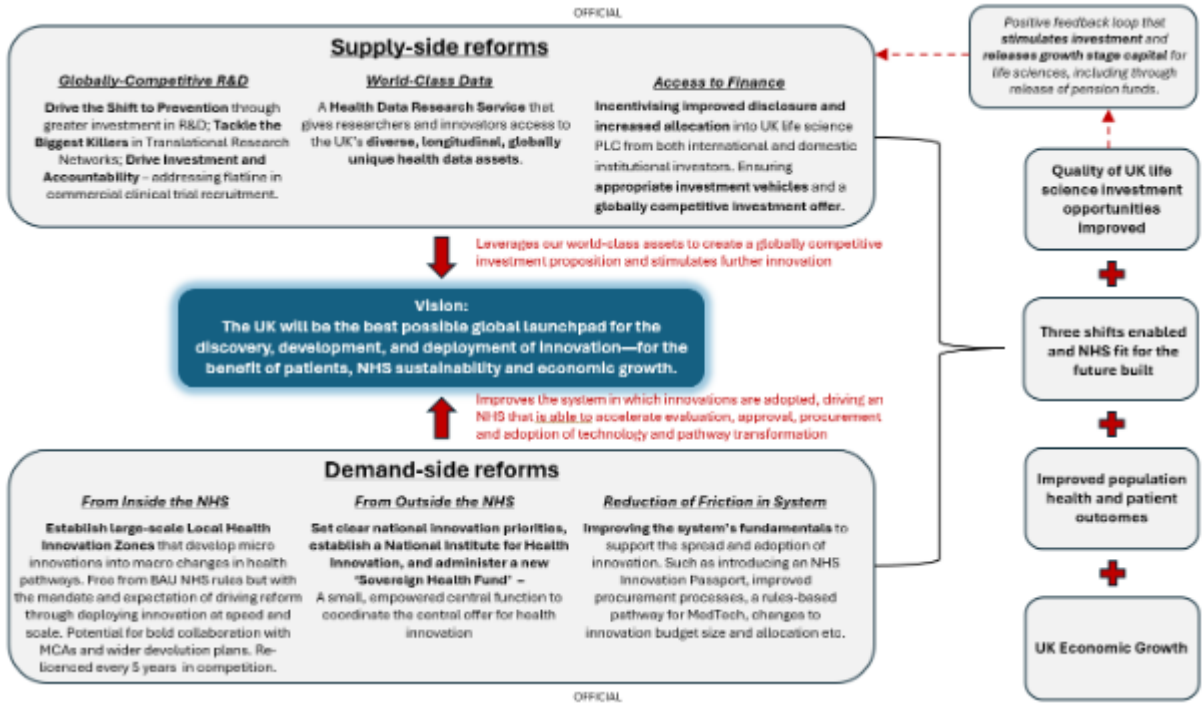
Recommendation 16: establish and apply a structured, evidence-based framework to define national innovation priorities that deliver on the Health and Growth Missions. We must then commit to these priorities with sustained focus, ensuring their integration into government and NHS delivery mechanisms.

Previously we have failed to prioritise and therefore failed to consistently deliver, losing the trust of the public, patients and the sector. Government, with input from key stakeholders, should define a small number of national innovation priorities, reviewed every 3 years, across 3 innovation horizons - discover horizon (focused on building a world-class research and development pipeline), demonstrate horizon (focused on the development and demonstration of disruptive new models of care), and deploy horizon (focused on scaling and embedding proven innovations). A structured prioritisation framework should underpin decision-making, ensuring rigor, and transparency.

National innovation priorities must be communicated with clear goals, defined investment commitments, and tangible actions that signal long-term intent to industry, investors and the health system.

National innovation priorities must be fully embedded within the core delivery mechanisms of both the government and the NHS. This requires alignment, sustained investment, clear accountability and supportive legislation to drive effective implementation.

Figure 3: overall representation of proposed changes to system



[This figure shows how supply side reforms, and demand side reforms, both feed into the vision that the UK will be the best possible global launchpad for the delivery, development and deployment of innovation. It then shows outcomes and impacts on the right-hand side.]

Case Study: Population Health Interventions (inspired by recent learnings from obesity innovations)

After the United States, the UK suffers from among the highest rates of obesity in the OECD. Despite a broad range of public health measures being deployed, it has not yet been possible to sustainably or substantially reduce population rates of obesity: leading to deleterious impacts for citizens, their communities, the NHS and the economy.

The development of new medicines and digital technologies has the potential to revolutionise the treatment and care for people with obesity, especially for those with more severe disease.

But it also creates a real challenge: the first drugs for obesity were approved more than 10 years ago and we still do not know the best way of combining them with face-to-face, digital and community-based models of prevention and care. More medicalised obesity services, often based in tertiary settings, only have capacity to treat about 30,000 patients per year; in some areas it can take more than 2 dozen service contacts to get access to a more medicalised service; and the paucity of available services means a very large private market has developed - entrenching health inequalities and creating risks to patient safety.

If we delivered the programme of reform set out in this paper, we imagine a much-reduced timeframe from discovery of new drugs and innovations to full adoption into the NHS for population-scale impact:

- through a research and development system more focussed on prevention and more capable of supporting commercial interventional clinical trials, a greater proportion of globally mobile research and development investments will fund research on earlier identification of the risk factors for obesity, optimising the use and development of novel obesity drugs

- through more sophisticated demand signalling and horizon scanning in the National Institute for Health Innovation, new digital health therapies and wearables are more rapidly prototyped and developed in the UK

- NIHI would, working with the research and development ecosystem, MHRA and NICE - proactively have identified the new medicines and digital therapies as one with potentially very significant health and economic impact - and recognising its disruptive potential - commissioned, with funding from the UK's Sovereign Health Fund, a series of novel service models to experiment with how the new medicines and technologies could be more clinically and cost effectively delivered

- these novel services models would be implemented and researched in Local Health Innovation Zones. These zones would have strong clinical, financial and operational leadership and a high performing research infrastructure and so be given the freedom

to do away with the typical bureaucratic barriers which stifle innovation and would have a higher risk appetite to drive population-wide change. Local government and the local voluntary sector would collaborate in neighbourhoods to test new ways of integrating planning, community and lifestyle services so that these new medicines and digital therapies are testing in a less obesogenic environment

- the learnings from these novel service models would be evaluated through NIHR funded high quality research and submitted to NICE for approval

- NICE approved models of care, integrating the new medical, digital and social approaches to obesity would be defined as standards of care and adopted by the wider NHS more quickly through one off digital passports for technologies and outcome based procurement supported by planning guidance, incentives and publishing data to so that the public can see where are not getting access to the NICE approved models of care

- the UK's new Health Data Research Service would allow for close monitoring, for safety, performance and research purposes, of the new assets and the pathways they sit within, driving continuous improvement and refine of pathways

What needs to be true

For these recommendations to be implemented and thus our vision to be realised, there is a set of supporting enablers which need to be true:

- long-term funding and resourcing - the government's commitment to 3-year rolling Spending Reviews is welcomed and provides the long-term certainty which previous attempts at transformation on this scale have lacked

- implementation focus - there is a danger of 'mission drift' in the implementation of such strategies as other priorities take over in future years. Therefore, a ruthless and sustained focus on implementation from all delivery partners involved is an essential enabler for success

- governance and accountability - while multiple senior people are accountable for different elements of the system, the elements which join-up the ecosystem have been unable to affect change. A continued turnover of political leadership to support the Life Sciences Delivery Board and a lack of levers for the AAC to enforce the consensus it has built has been an impediment. For our recommendations to be realised, there will also need to be a rationalisation of existing governance delivery mechanisms to reduce duplication

- legislative changes and regulatory reforms - we have made clear recommendations which require legislative changes and regulatory reforms (for example, increased powers for local innovation zones) and there is a need for political support for these changes to allow for successful roll-out

- incentives for behavioural and pathway changes - as we know from previous successes, both carrot and stick incentives have acted as useful drivers for behavioural and pathway change in the NHS

Measuring success

As well as a single point of accountability for each recommendation, a suite of robust metrics to measure whether we have achieved this vision will be critical. These metrics will need to be embedded through the accountability and oversight framework that is developed through the 10 Year Health Plan, including clear responsibilities for each metric.

These should cover both health and economic measures, such as:

Health metrics

- number of patients benefitting from new innovations

- number of patients from underserved communities benefitting from new innovations, including diagnostics

- number of innovations entering a new clinical setting

- estimated NHS savings from new innovations

- number of patients on clinical trials, both commercial and academic

- speed of NHS access to new medicines and medical technologies

- uptake of medicines and medical technologies, including variation in adoption regionally and amongst different communities

- changes in inequalities in health outcomes between different protected characteristics and geographic areas

- time to access data

Economic metrics

- amount of investment leveraged through innovation partnerships
- investment leveraged from life sciences companies more generally
- increase in commercial clinical trial activity and associated gross value added
- proportion of FTSE350 companies from the life sciences sector
- percentage of NHS procurements from UK-based life sciences companies
- revenue generation of UK life sciences companies
- number of high-tech jobs created in the UK life sciences sector
- life sciences research and development expenditure
- number of patients transitioned out of economic inactivity as a result of innovation

To ensure our global competitiveness is upheld, the UK's performance should be benchmarked against other G7 countries for those metrics which allow for international comparisons (primarily these will be economic given difficulties in making comparisons between different healthcare systems).

Annexes

Annex 1: tasking statement

Research, life sciences and innovation offer significant potential benefits to NHS patients - at an individual and population level - whether the possibility of new treatments that can improve outcomes, improvements to existing treatments and pathways that lead to more effective care and better patient experience, or medical and digital technologies and medicines that can improve staff lives, efficiency and productivity. The NHS has a vital role to play in the UK's research infrastructure, supporting our role as a world leader in research (the outputs of which bring significant benefits to patients and the NHS as a whole).

An ambitious vision is needed for how we utilise research, innovation and life sciences to support the NHS over the coming decade to maximise benefits to patients in a way that meets their changing needs and overcomes barriers to incubating, developing and spreading new innovations. This will need to consider how the NHS can identify and capitalise on emerging technologies over the coming decade. It will consider how the NHS currently embeds research, innovation and life sciences and what we can do to increase the speed and scale of adoption of new innovations.

There will be close links here between this - NHS-focused - work, and work to grow the life sciences sector more broadly under the Industrial Strategy Life Sciences Sector Plan

Key lines of enquiry:

- How can the NHS enable the UK to become a world leader in the development, adoption and spread of research, innovation and life sciences?

- What are the greatest challenges facing the NHS that research, innovation and life sciences can substantively help address? How should we agree these areas of focus, and what approach should be taken to partner with the research and life sciences sector and innovators to solve these? Prioritisation

- How should investment in research, innovation and life sciences innovation be distributed to ensure a rich pipeline of innovation and new treatments is developed, and subsequently translated into care for maximum patient benefit and productivity (in other words, balance between central and local, research and development versus adoption, long-term versus short term)? Ecosystem and Funding Flows.

- What interventions are needed to ensure that UK patients are among the first in the world to benefit from the most clinically and cost-effective new medicines and medical technologies? Access and Uptake.

- What duplicative or additional processes within the system which prevent, or slow the adoption of innovation in local systems could be removed? What would the impact of removing these be on patient care, safety and productivity? Access and Uptake, Ecosystem and Funding Flows.

- How can key system partners work together in scaling up adoption and evaluation of innovations for which there is not enough evidence for full nationally funded roll out? Access and Uptake, Ecosystem and Funding Flows.

- How can we maximise the volume of research taking place in the NHS (both commercial and non-commercial), and ensure the outputs of this are routinely and rapidly translated into action the NHS (using the full range of policy, financial and procurement levers to deliver this 'pull through')? How can we ensure diversity in research and clinical trials? Research and development.

- What interventions are needed to ensure existing and new spend is managed effectively? How should the value of innovation in technology, medicines, life sciences be assessed and over what timeframe? What should be our objectives regarding return of investment? Access and Uptake.

- Are there particular modalities or types of emerging innovation and research developments that are likely to come to market in the next 10 years, and which will pose particular challenges for the NHS in terms of assessment (of clinical and cost effectiveness) and spread and adoption within the NHS? Life Sciences of the Future.

- How do we harness the revolution in data, digital and technology to support the spread and adoption of innovation? Cross cutting.

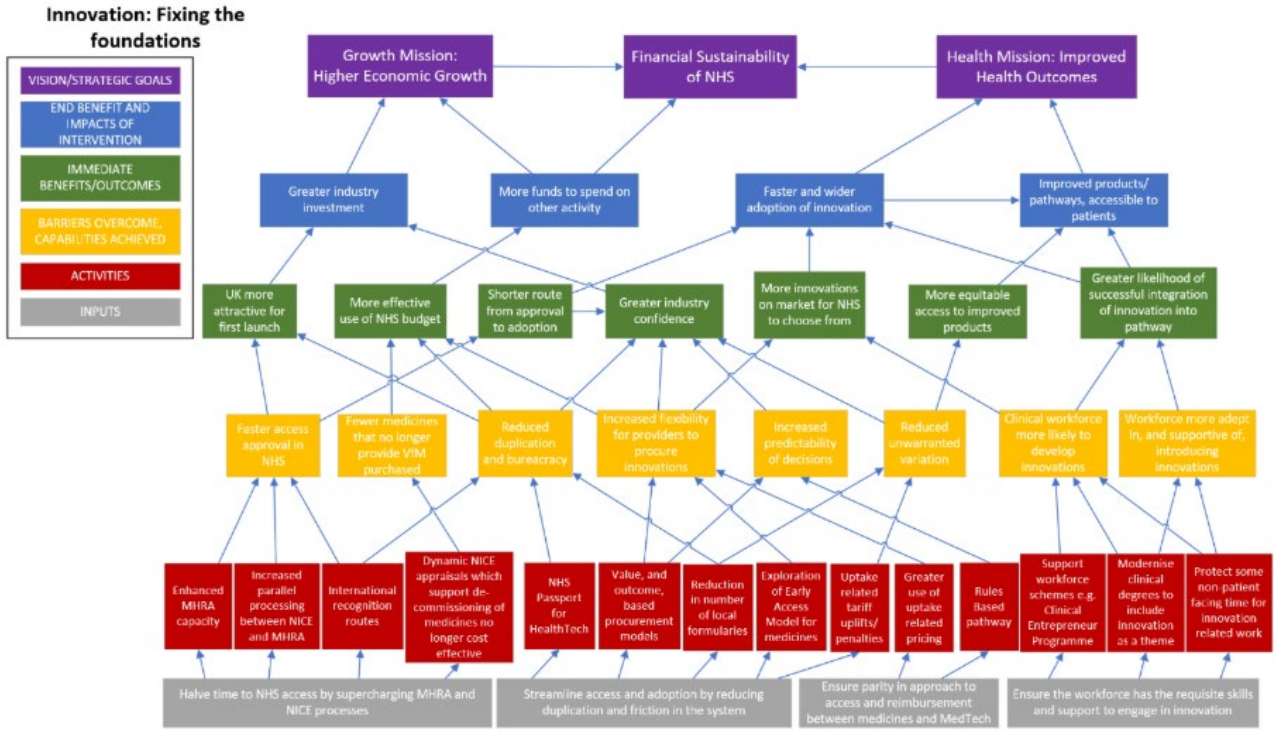
- How do we ensure congruence of the workstream's recommendations with relevant work across government (for example, the development of a National Data Library) and the NHS (for example, the national Data for Research and Development programme). What metrics and measures are required to understand and measure performance, understand if we are succeeding and identify unwarranted variation. What level of intervention is appropriate to address unwarranted variation where it arises? Cross cutting.

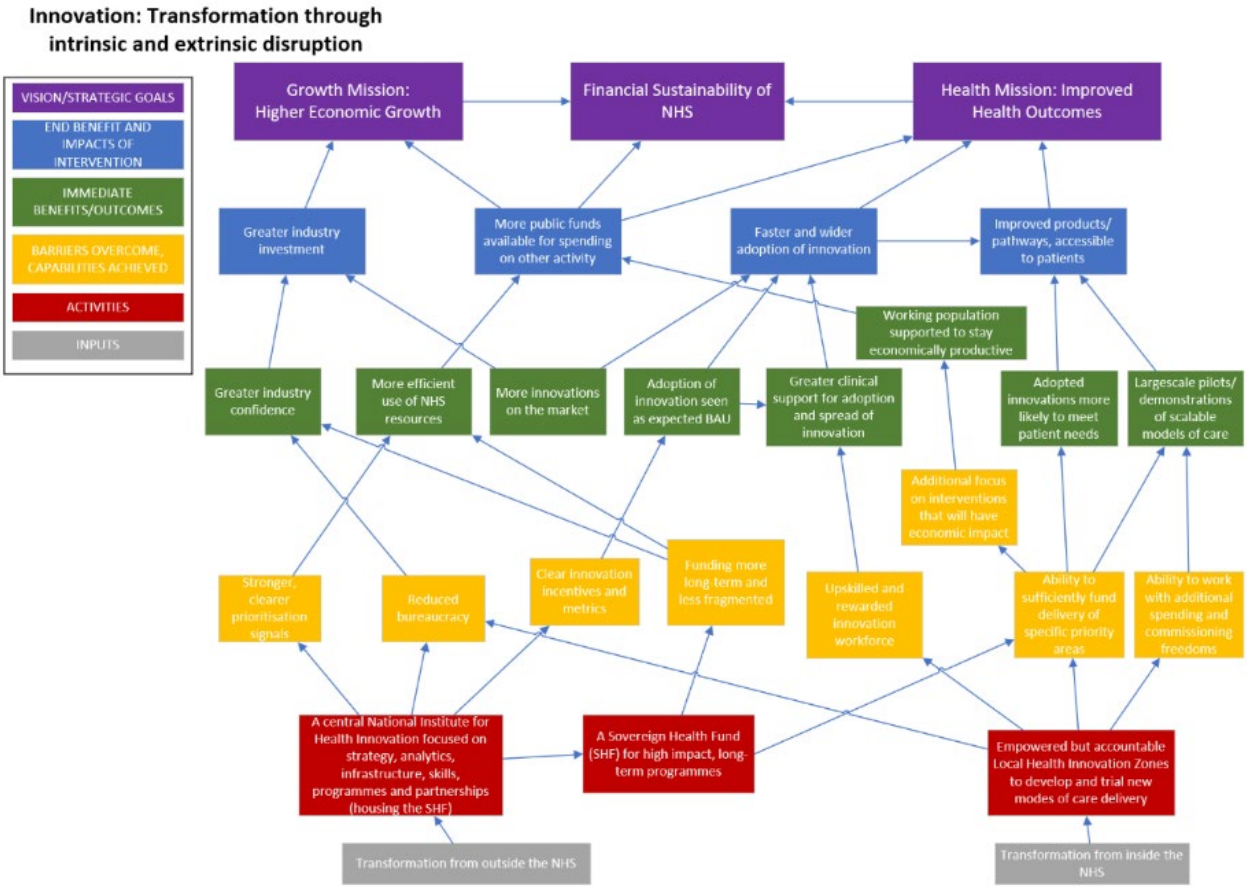
Annex 2: logic models

Vision: The UK will be the best possible global launchpad for the discovery, development, and deployment of innovation – for the benefit of patients, NHS sustainability, and economic growth			
How we can achieve this vision:	**What do we need to do to achieve this?**	**How will we deliver this (enablers)?**	**Outcomes and impacts**
Supply Side Reform	1. Shift funding and focus towards patient-centred research with a focus on prevention and MLTCs. 2. Strengthen existing organisations with improved governance and remit. 3. Create a Health Data Research Service that unites the UK's diverse, longitudinal, globally unique health data assets and gives researchers and innovators easy, secure access. 4. *Nurture a financing environment where continuity of funding is available at different stages of growth, ensuring that companies have the finance to scale – and ultimately list – domestically. [Details covered in Life Sciences Sector Plan]*	• Creating equitability in R&D access and opportunity for MedTech and medicines • Optimising data and digital resources and capabilities • Creating and sustaining capacity and capability across the R&D ecosystem • Public, patient and healthcare professional engagement • Legislative clarification and reform • Appropriate value generation model	• A world-class R&D system which allows quick set-up and recruitment to clinical trials, and inward investment to the UK • A joined-up health data system to empower patients, clinicians and researchers to better understand the impact of innovation on health outcomes • Public profit for the public good generated by monetising secure authorised access to anonymised health data for research
Demand Side Reform: Fixing the Foundations	5. Clearly prioritise research and innovation areas that have the greatest potential value to all society, not just in health terms. 6. Reduce friction and duplicative bureaucracy in the system to accelerate the adoption and spread of innovation, giving patients improved, timely access to innovations. 7. Make procurement more flexible for providers and more predictable for industry, encouraging commercialisation and scaling of innovations within the NHS. 8. Nurture a pro-innovation culture and workforce.	• Optimise market and NHS access approval, setting a target to halve time to approval • Reduce the number of, and clarify the purpose of, local formularies • Ensure there are meaningful consequences for access approval, providing a robust effector arm for the NHS • Introduce an NHS Innovators Passport • Make the system work for innovation as it does for research: in budgets, rules, and an empowered and accountable leadership. • Adjust training and job patterns • Expand the use of alternative procurement and pricing models	• More innovations available for the NHS to procure, that meet health and economic priorities • Increased investment into the UK economy with innovators able to see a clear return on investment • Positive feedback loop that stimulates investment and releases growth stage capital for life sciences, including through release of pension funds
Demand Side Reform: Transformative Disruption	9. Designate 3-5 large scale devolved Health Innovation Zones for demonstration of total healthcare system reform. 10. Establish a national body for innovation – the National Institute for Health Innovation – separate to the NHS, for central enabling support and clarity. 11. Create a UK Sovereign Health Fund, sitting in this national body, acting as a longer-term driver of the UK's key population health priorities, including financial resourcing for innovation adoption and spread.	• Transitioning to a high pull NHS provider landscape of accountable integrated care organisations supported by a small centre • Commissioning or connecting local and national infrastructure to support innovation and create learning systems • Strong ministerial backing • Legislative clarification and reform • Alignment of NHS and government priorities and delivery	• Generation of rich and diverse pool of innovations ready for NHS deployment • Access and uptake of innovations on a par with international competitors • Health and economic gains as a result of NHS innovations

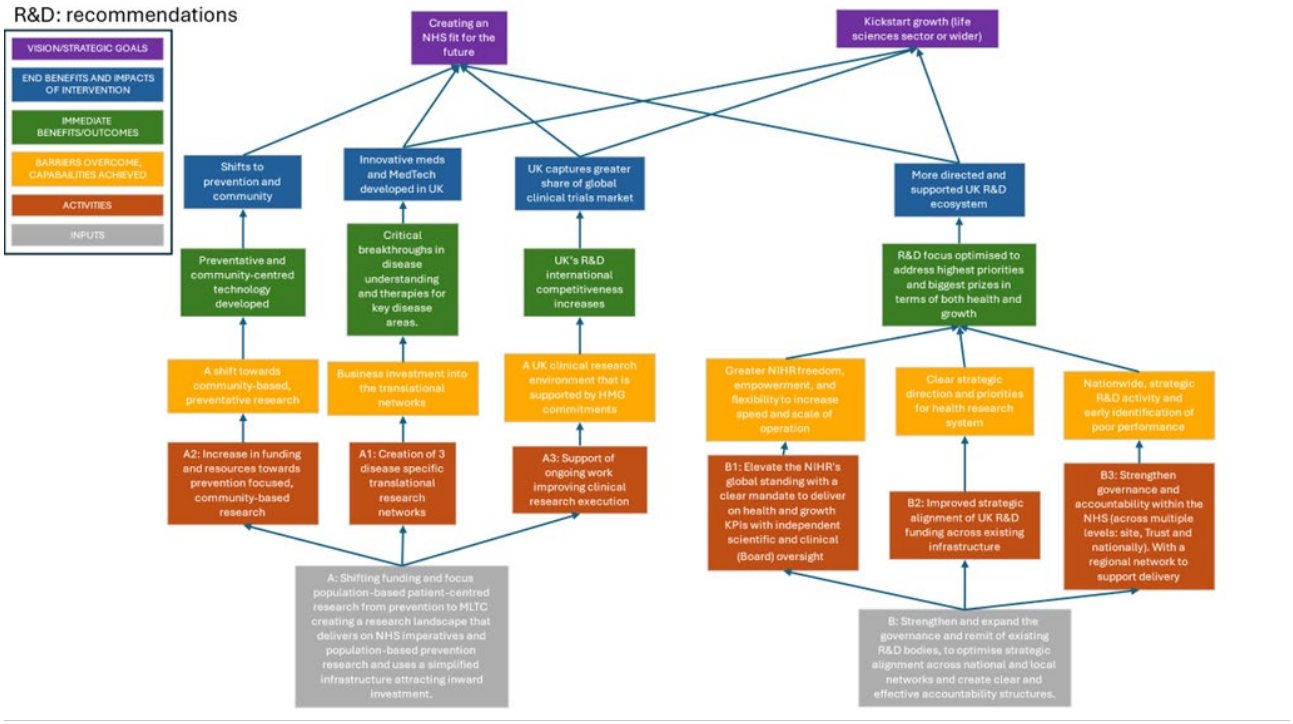
[This figure depicts a logic model showing supply-side reform, demand-side reform (fixing the foundations) and demand-side reform (transformative disruption) on the left side. It then shows for each what we need to do to achieve this, how we will deliver this and outcomes and impacts.

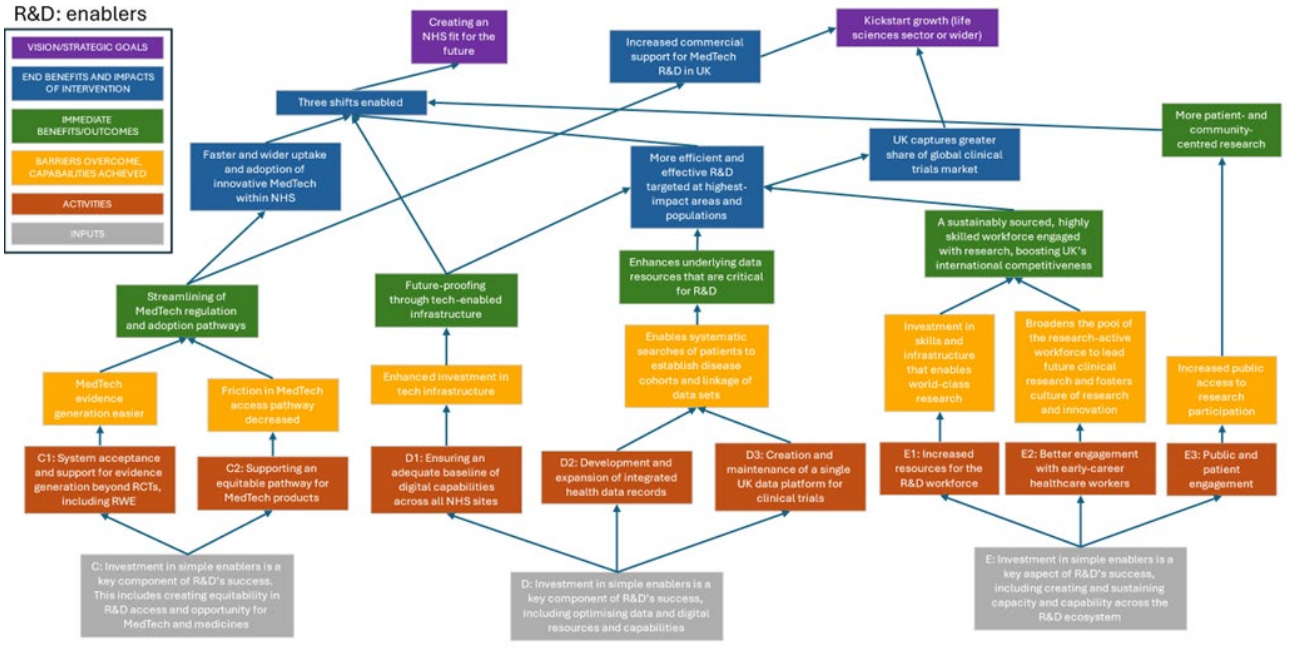
Logic model for innovation recommendations





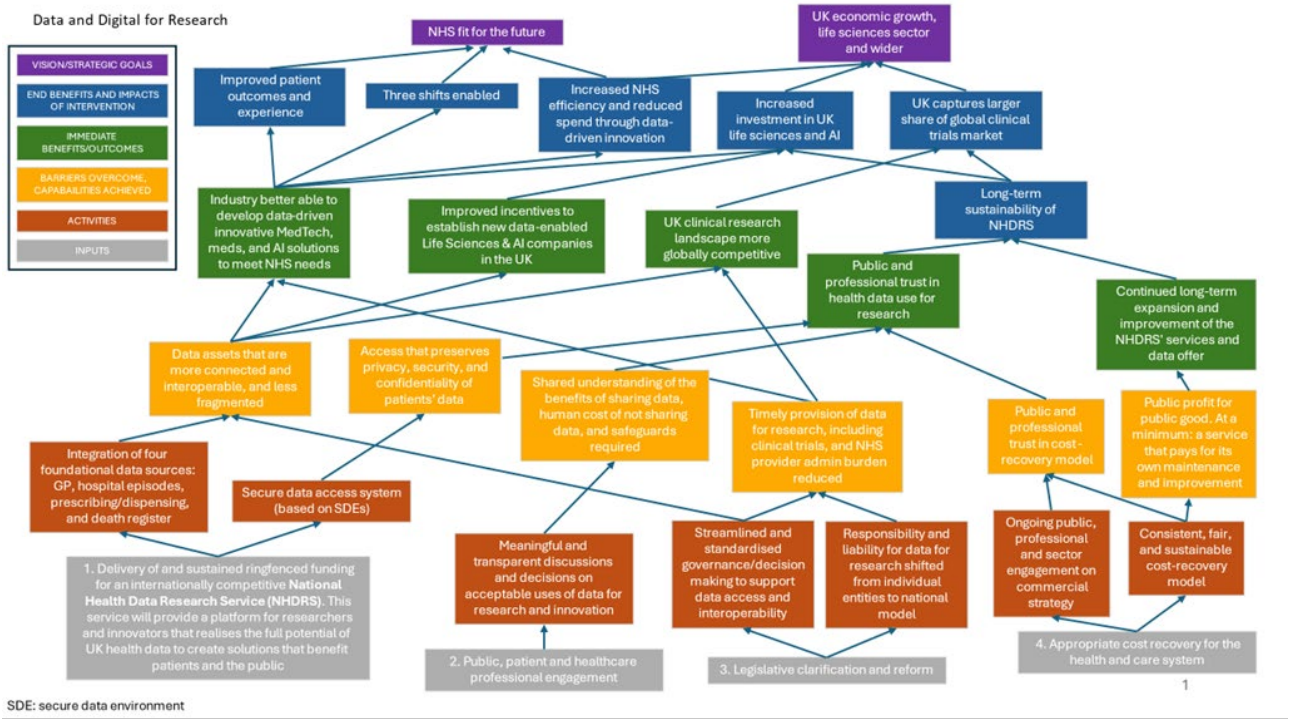
Logic model for research and development recommendations





RCT: randomised controlled trial
RWE: real-world evidence

Logic model for data recommendations



References

Accelerated Access Review: Final Report. 2014

Bell, J. Life Sciences Industrial Strategy. 2017.

Department for Business and Trade. Invest 2035: the UK's modern industrial strategy. GOV.UK. 2024. [Viewed on 27 June 2025]

Department for Science, Innovation, and Technology and others. Bioscience and health technology sector statistics 2021 to 2022. 2024. [Viewed on 27 June 2025]

Department of Health. Best Research for Best Health. 2005.

Fletcher, L. The $100 Genome: Where's the Limit? Front Line Genomics. 2025.

Institute for Public Policy Research. Commission on Health and Prosperity. 2024. [Viewed on 26 June 2025].

Licchetta and others. Fiscal sustainability and public spending on health. Office for Budget Responsibility. 2016.

National Human Genome Research Institute. DNA Sequencing Costs: Data. 2023

NHS England. COVID treatment developed in the NHS saves one million lives. 2021.

NHS England. The NHS Long Term Plan. 2019.

Nicholson, D. Innovation Health and Wealth. Department of Health. 2011.

Office for Life Sciences and others. Life Sciences Vision. 2021.

Office for National Statistics. Business enterprise research and development, UK: 2023. 2023.

Ruparel, R., and others. Improving our Nation's Health: A Whole-of-Government Approach to Tackling the Causes of Long-term Sickness and Economic Inactivity. Boston Consulting Group. 2024.