



The Economics of Health

How the healthcare sector can support the UK economic recovery

April 2021

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About the authors



Richard Sloggett

Richard Sloggett is the Founder and Programme Director of Future Health. He was Special Advisor to the Secretary of State for Health and Social Care from 2018-19 and previously led Policy Exchange's health and social care work. Richard is a regular commentator in the national media on health and social care including in The Times, Telegraph, Financial Times, Economist and on Times Radio, BBC and LBC. He has been named as one of the top 100 people in UK healthcare policy by the Health Service Journal.

During his time with the Secretary of State, Richard worked across Whitehall, the NHS and local government on major policy decisions including the NHS Long Term Plan, the creation of NHSX and the Prevention Green Paper. He also supported Ministers on global healthcare issues including preparations for the G7 and action on antimicrobial resistance. He has fifteen years' experience in public policy and healthcare, starting his career in Parliament before a successful career in public affairs where he led a team of 20 to the prestigious Communique Public Affairs Team of the Year Award.

Richard is undertaking his doctoral thesis in preventative healthcare systems at Liverpool University. He has a Masters Degree with Distinction from the University of Nottingham and a Bachelors Degree from the University of Durham.



Steve Hughes

Steve Hughes is an economist and author. He was previously the head of economic and social policy at the think tank Policy Exchange, and published reports on increasing savings rates and reducing youth unemployment. Before Policy Exchange he worked at the Bank of England, where he helped manage the regulatory system that governs cash distribution in the UK. He has previously worked as an economist at the British Chambers of Commerce where he advised on tax, international trade and SME finance policy, and in parliament, where he researched HM Treasury legislation as it passed through the House of Commons.

About Future Health

Future Health is a future focused Research Centre with a mission to advance public policy thinking that improves the health and wealth of people, communities and nations. Healthcare systems around the world are facing significant challenges of demographic, societal and technological change.

The importance of prevention and the development of new technologies have long been seen as ways to transform health systems to improve patient outcomes and performance, but progress has often been slow.

COVID-19 is an inflection point, demonstrating the need and opportunity of investing in and delivering more effective and efficient healthcare services in the future.

In undertaking cutting edge public policy research and generating new insights and solutions, Future Health seeks to shape the global healthcare policy debate and inform the decisions made by Governments and health systems to enable healthier, wealthier people, communities and nations.



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About WPI Strategy

WPI Strategy is a specialist policy and communications agency led by Dr Sean Worth, a former Downing Street special adviser on health policy and Nick Faith, a leading communications expert who founded the centre-right think tank, Onward.

Our team is made up senior former government advisers from No10, HMT and other Whitehall departments, plus policy and media experts. We work currently for some of the UK's leading commercial brands, including Vodafone, British Land and Tesco, and have delivered major projects for many top health brands, including Bupa, Virgin and the NHS Confederation.

An example of our work relevant to this task force initiative is the Covid Recovery Commission, which we set up recently to feed in ideas on economic recovery to government from the UK's most senior business leaders. The initiative was welcomed publicly by the Chancellor and is engaging on policy at the most senior levels of government.



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Foreword

The COVID-19 crisis has provided a devastating reminder that in the absence of a safe and healthy environment, we resort to surviving instead of thriving. The pandemic has inflicted an unimaginable human cost, it has also savaged our economy, torn apart the social fabric, and exposed and aggravated race, health and wealth inequalities.

COVID-19 has demonstrated that health makes a far greater contribution to the GDP of a country than is captured in the economic data. It *directly* contributes to the creation of thousands of jobs in both the public and private sectors, attracts billions of pounds in direct investment, and is one of the main drivers of the UK's R&D heritage. Health also significantly contributes *indirectly* to the wealth of the nation. Good health enables each individual to fully participate in society, to secure an income, and to improve wellbeing. Yet, GDP metrics do not sufficiently capture the impact that medical innovations have on the health or wealth of a nation.

Despite the unprecedented events of the last year, the UK has taken up the challenge to reset, rebound and rebuild. The heroic resilience of NHS staff, the world-class innovation, the scale and the speed of clinical trials, the leadership in global collaboration and the almighty immunisation programmes have been spectacular displays of Britain's healthcare capabilities, and the confirmation of a huge and mostly untapped economic potential.

The UK can yet go further to unleash the full extent of its health sector, and with the right interventions, millions of lives could be improved, mounting inequalities could be reduced and GDP could be increased.

Janssen commissioned this independent 'Economics of Health' report to identify the pockets of productivity within the healthcare system which could be better utilised and to understand how and where the health sector could help 'level-up' the country. This report also seeks to suggest targeted interventions that could attract innovators and manufacturers to invest in the UK as a result of a more deliberate reform agenda, a more integrated and digitalised system, and a more business-friendly eco-system that exceeds peer countries.

The findings of this analysis are compelling; with the research estimating that over three quarters of a million jobs in the healthcare sector could be created by 2030. Critically for a Government committed to 'levelling up' these jobs will involve wide ranging skills and be spread regionally. Yet immediate and significant actions at both policy and political levels are required to realise the aspirations. A resurgence of the health sector has the potential to improve the standard of living, give the country a unique competitive advantage, and start a new cycle of prosperity. Achieving this vision will demand true partnership and collaboration between all health sector stakeholders. Janssen is committed to taking part in this national effort to improve both the health and wealth of the UK.



Gaëtan Leblay
UK Managing Director, Janssen UK

Executive summary

The Covid 19 pandemic has had a profound impact on both the health and economy of the UK. The higher proportion of deaths experienced in part has been fuelled by poor underlying health and health inequalities.¹

As we start to now look ahead, through and beyond Covid, at how to rebuild our communities and economies, there are opportunities to adopt new policies and approaches that can deliver on the Government's desire to 'build back better.'

The 'Economics of Health' is one such framework the UK Government should adopt as it plots a route forward. This model sees healthcare not solely as a cost to be borne but as a platform for investment, growth and increased prosperity across the country.

Before the pandemic arrived the Government had identified two high profile priorities. Making the UK after Brexit a leading innovation economy and science superpower; and levelling up the regions of the UK and tackling regional inequalities.

The UK's health sector presents an opportunity to deliver on both these ambitions.

The Covid vaccine development and rollout is testament to the strong UK life sciences and health innovation base built up over successive Governments. The sector has strong regional centres of research excellence, and through the NHS and partner organisations is a major regionally based employer. Alongside this, are concerns about how rising demand for healthcare will be met, not only in acute services where shortages exist for doctors and nurses but also more widely across the healthcare ecosystem including for roles such as pharmacists, dentists, informatics, optometrists, public health, management and administration. And how, after Brexit the UK will continue to attract and build top teams of research and science talent to support a thriving healthcare sector and medical and scientific research.

Our research calculates that with the right support the sector could generate 775,000 new jobs by 2030, with strong growth in a range of places across the country including Birmingham, Manchester, Belfast, Bristol and Leicester.

To do so will require a new 'Economics of Health' approach from Government, underpinned by three pillars:

- National co-ordination of ambitions for the healthcare sector including a new recruitment campaign and skills drive across the sector along with new incentives to support inward investment and R&D
- Regional investment in centres of excellence that sees the healthcare sector support ambitions for 'levelling up'
- Utilising healthcare sector growth to tackle health inequalities and improve health outcomes

Adopting this three part model to unlock the economic potential of the healthcare sector will deliver an attractive proposition to global healthcare organisations and investors, catalysing inward investment, that supports jobs and the growth of regional economies whilst tackling underlying health inequalities.

Recommendations

Recommendation 1: The Government should refresh the life sciences strategy post Covid and Brexit to set out an ambitious, co-ordinated future healthcare and life science sector strategy to attract inward investment, growth and jobs to the UK

Recommendation 2: The Government should explore expanding and reforming R&D tax credits to ensure that the UK remains competitive with other global markets in life sciences

Recommendation 3: The Government should increase the national proportions of R&D investment in centres of healthcare research excellence across the UK; seeing these centres as hubs for regional growth and playing a central role in levelling up. It should also look at incentives to attract private sector investment into the UK's regions that supports the healthcare sector

Recommendation 4: Government should set ambitions within accountability frameworks for public services to demonstrate an active role in the delivery of economic growth in their areas

Recommendation 5: The Government should run a well funded 'Armed Forces style' campaign to inform and encourage people into the full range of healthcare sector careers. The NHS should be able to hold the apprenticeship levy at a regional level to invest flexibly in apprenticeships, skills and training opportunities for healthcare sector staff

Recommendation 6: The Government should utilise the new ONS Health Index to set targets for delivering on its ambitions for improving healthy life expectancy

Recommendation 7: Central funds assigned for 'levelling up' should include a role for the healthcare sector and have an ambition to improve the nation's health and reduce regional health disparities

Recommendation 8: Changes to Public Health England should be used to create a co-ordinated and dynamic health and wealth agenda within Government that seeks to unlock the potential of the healthcare sector to drive economic growth and reduce population health inequalities



Introduction: The link between health and wealth

The Covid 19 pandemic has unfortunately regularly pitched health and the economy as topics against one another. Covid restrictions to economic output undertaken by Governments have been done in the names of improving health outcomes. Subsequent openings up from restrictions, as infection rates have fallen, have been done with the justification of restarting economies.

However such a bifurcation is unhelpful. The pandemic has demonstrated the inextricable link between improving health and stronger economies. In the UK widening health and economic inequalities and underlying poor health were drivers of higher proportional death rates from the virus.²

As the UK seeks to launch economic recovery plans beyond the pandemic it is critical that the link between health and wealth plays a central role. Investing in healthcare and the health sector can be a catalyst for improved economic prospects, regional growth and longer term improved health outcomes and prosperity.

Such an approach to the healthcare sector as an economic growth engine is not new. The World Health Organisation has regularly cited the importance of healthcare to the performance of national economies.³ Kluge and Figueras note that: “numerous studies have shown that individuals in better health enjoy improved opportunities for economic participation and earnings compared to their less healthy counterparts. Better health leads to higher rates of labour market participation and later retirement.”⁴

However despite these benefits, it can be challenging to build cases for increasing Government investment in healthcare and the healthcare sector. Finance ministries can see healthcare as a growing cost of national income with demographic and technological changes driving seemingly ever increasing costs. The wider positive benefits of investment in the healthcare sector, including regional jobs, the scale of the wider supply chain and impacts on work and productivity are less salient, transparent and easy to quantify.

It should not be forgotten that when the NHS was established in 1948 that Secretary of State Nye Bevan believed that the institution would pay for itself, as improved healthcare would reduce health need.⁵ The reality has been very different.

The 'Economics of Health'

Not to be confused with the practice of 'health economics'; the 'economics of health' is a field that seeks to demonstrate the economic impact of healthcare systems and interventions. The World Health Organisation (WHO) provides a framework for developing this:

- There is strong evidence that health system spending contributes to better health outcomes;
- While inefficiencies exist in all health systems, health policy-makers can (and increasingly do) prove that they are serious about achieving value for money by monitoring performance and by showing commitment to policies that explicitly seek to minimise waste and the misuse of public resources;
- Health systems are an important component of the macroeconomy, both as an industry that provides a large number of jobs, and also as a key determinant of a productive labour force;
- Health systems support societal well-being by enhancing social protection and reducing impoverishment associated with ill health, as well as through channels such as happiness and life satisfaction that remain elusive to common metrics;
- Health systems help support fiscal sustainability by keeping older people active and able to contribute to society, while also reducing their demands on pensions, welfare payments, and publicly funded health care services⁶

When assessing the WHO's benefits of the economic contribution of the healthcare sector in the UK context, four major areas of importance emerge as set out in Figure 1.

Figure 1 Economics of Health – UK

UK Government spending on healthcare

The link between the UK's health and economic outcomes

The role of healthcare in regional economies

Healthcare and future economic development

It can be argued that success in these areas are good indicators of a nation's prosperity.

UK Government spending on healthcare

Healthcare continues to attract and require greater Government expenditure based on demographic, technological and societal changes. However the levels of new investment made have varied significantly over time.

A study in the United States published in 2020 by Ragupathi and Ragupathi concluded: “a positive correlation between healthcare expenditure and the economic indicators of income, GDP, and labor productivity.” The study stated that: “an increase in healthcare expenditure has a positive relationship with economic performance.”⁷ This correlation reflected similar studies from the fields of international development by Bloom et al⁸ and Bein et al.⁹

In the UK ONS figures from 2018 on healthcare expenditure (the latest figures) show how healthcare spending has been on a consistent, upwards trend. As a proportion of GDP total current healthcare expenditure in the UK accounted for 10% of GDP in 2018, compared with 9.8% in 2017 and 6.9% in 1997.¹⁰

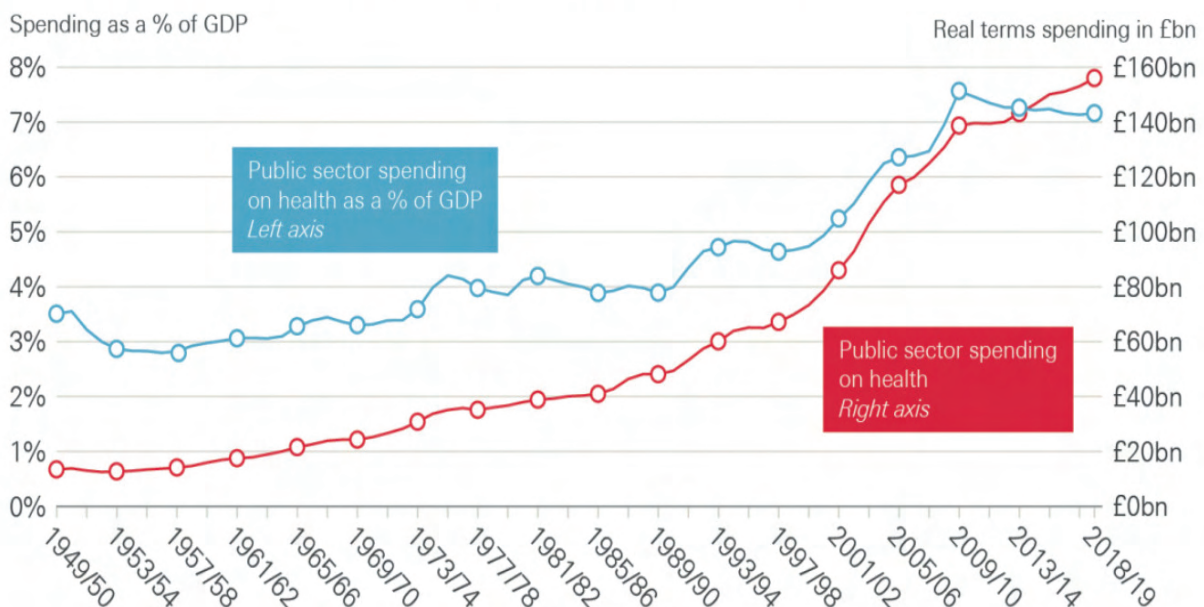
An Institute for Fiscal Studies (IFS) report assessing the last 70 years of healthcare spending found an average real terms growth of 3.6% between 1949–50 and 2018–19. Adding that “since 2009–10 it has grown at the much slower rate of 1.3% per annum. This followed a period of unusually sharp increases at 6.0% pa between 1996–97 and 2009–10, such that the average growth between 1996–97 and 2018–19 was 4.1% per annum (above the long-run average).”¹¹

The majority of this spending is Government (and specifically NHS financed care) with Government-financed healthcare expenditure contributing £166.7 billion accounting for 78% of total healthcare spending.¹² The below chart from the Health Foundation demonstrates the significant rises in healthcare spending in the early 2000s before a flatter trajectory post 2010.¹³

Figure 2: Health Foundation analysis of UK public spending on health

UK public spending on health

Spending in real terms and as a percentage of GDP, 1949/50–2018/19



Note: Health spending is measured as public spending by health 'function', and includes all spending on the NHS in the UK, but excludes administrative costs. It also includes medical research, devolved administrations and local government spending on health.

The IFS notes that “health is now the largest single item of government expenditure and accounts for a steadily increasing share of all public spending. Public spending on health increased from 7.7% of total public spending in the mid-1950s (and 10.4% of public service spending) to 13.4% in 1999–00 (20.2% of public service spending), to 17.9% in 2018–19 (25.9% of public service spending).”¹⁴

The Institute argues that spending has only just kept up with demand:

“Department of Health and Social Care spending has only just met demographic pressures since 2009–10. After accounting for the growth and ageing of the population, DHSC spending was broadly flat between 2009–10 and 2016–17, before rising over the three years to 2018–19. Therefore while recent funding increases have been sufficient to meet demographic pressures, they are unlikely to have been sufficient to also meet all other pressures (such as changes in population health, new medical technology and treatments, and wage pressures).”¹⁵

This is borne out in figures regarding healthy life expectancy, progress on which has stalled in the last decade.

Table 1: ONS data on Healthy Life Expectancy

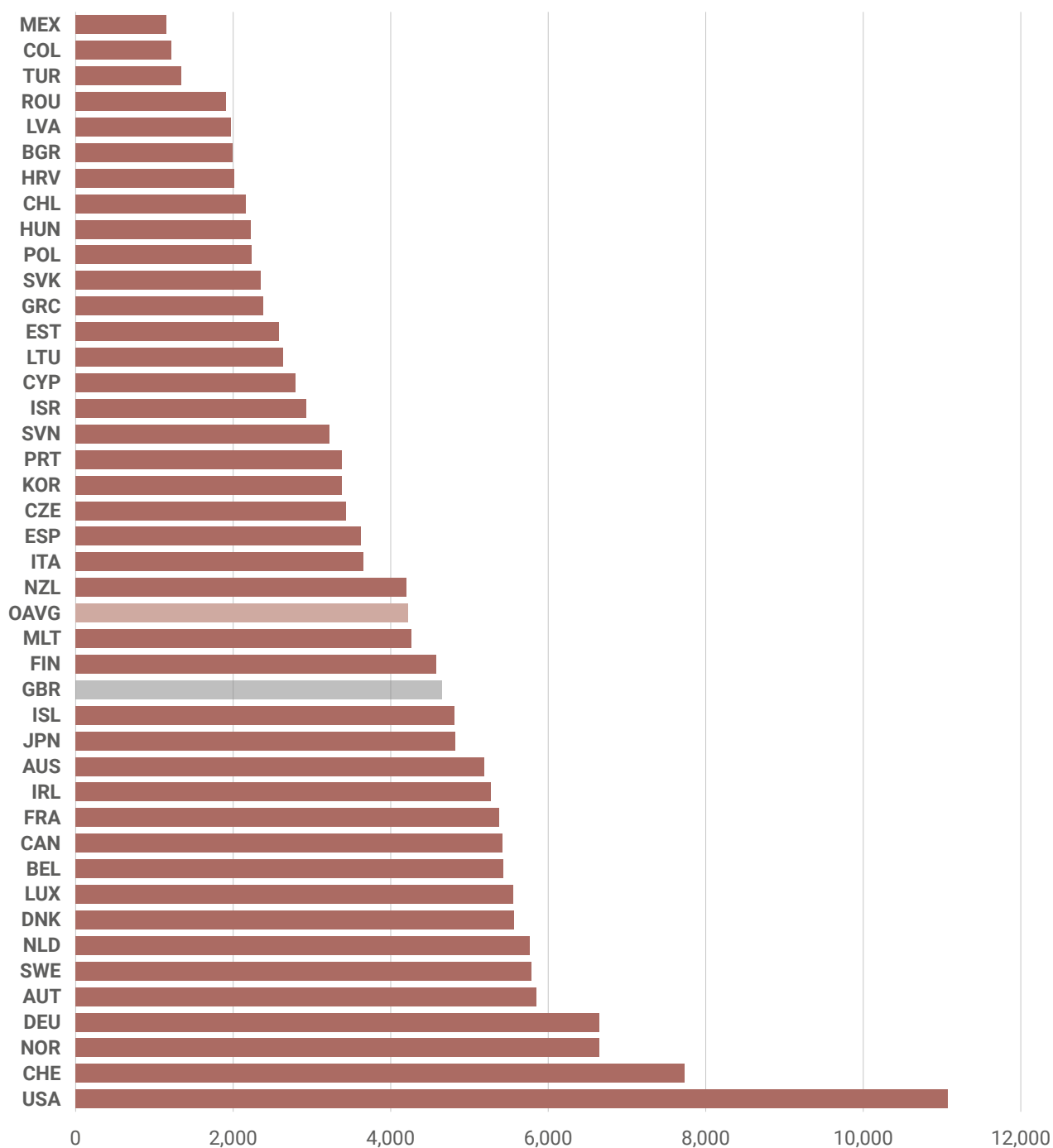
Selected Nations	Health Life Expectancy UK (yrs)	
	Male	Female
2000-2002	60.7	62.4
2009-2011	62.7	63.8
2016-2018	63.1	63.6
2000-02 to 2016-2018 change	2.4	1.2
2009-11 to 2016-2018 change	0.4	-0.2

In March 2021 the ONS published the latest life expectancy data for the UK. This showed that England, Wales and Scotland had ‘among the lowest annual improvements in life expectancy at birth for both males and females.’¹⁶

Out of the G7, UK healthcare spending per person is the second lowest, with France, Germany and the US taking the top three spots respectively.¹⁷ The ONS graph below compares UK healthcare spending with other countries and shows the UK is just above the median for OECD countries.



Figure 3: OECD healthcare spending by country 2019 (dollars per capita)



Source: <https://data.oecd.org/healthres/health-spending.htm>

Summary

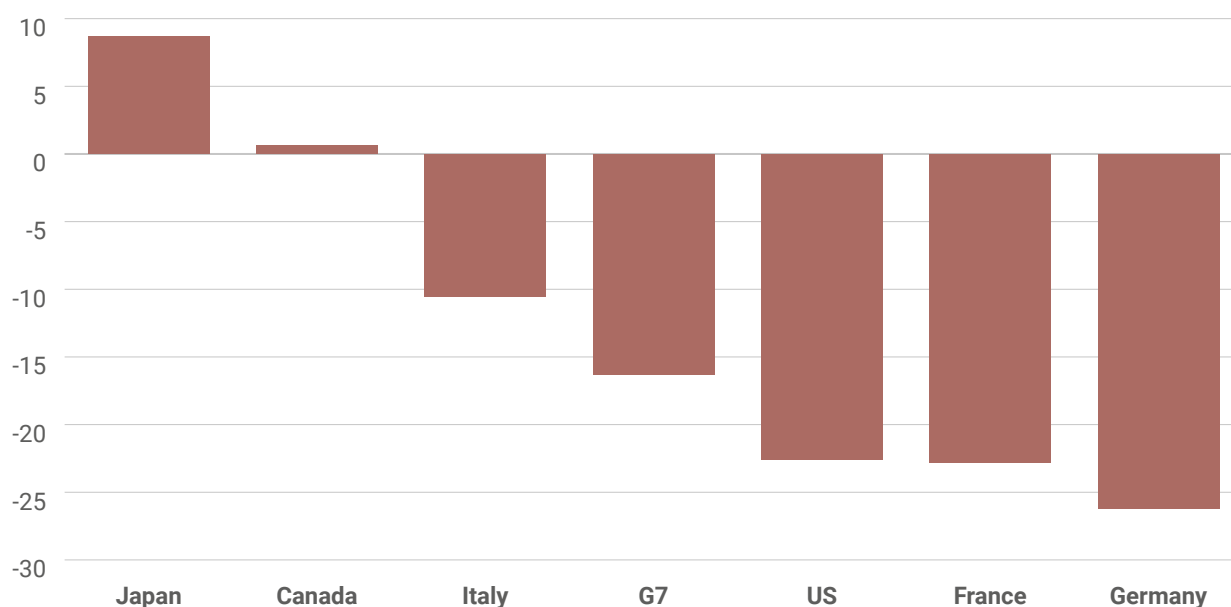
With UK healthcare spending only just meeting demand and with clear links between a strong healthcare sector and an improved economy, there is an opportunity for the Government to adopt a new approach. This would see the UK accelerating investment in the sector as part of future post Covid financial and economic plans. The G7 this year presents an opportunity for the UK to put the health sector as a central part of the global economic recovery effort.

The link between the UK's health and economic outcomes

Improved health outcomes can strengthen human capital and consequently improve productivity – therefore contributing to overall economic performance.¹⁸

According to the ONS the UK suffers a substantial productivity gap on other G7 countries. As set out in the graph below, this has been calculated at 16.3% on a GDP per hour worked basis.¹⁹

Chart 1: UK productivity vs G7 countries based on ONS data (%)



The reasons for the UK's productivity challenges are multi-faceted. Reasons identified have included relatively low levels of public investment, poor quality management and a lack of quality vocational education.²⁰ A report by northern academics in November 2018 found that poor health contributed to over 25% of the productivity gap between the north and the south.²¹

It has been estimated that the cost of ill health amongst working age people in the UK is £100 billion, with sickness absence costing employers £9bn a year.²² Almost 1 in 3 working-age people in the UK have a long-term health condition which puts their participation in work at risk. Around 1 in 5 of the working-age population has a mental health condition.²³

The pandemic has badly affected areas and populations in more deprived communities. A Public Health England analysis from August 2020 found: "people who live in deprived areas have higher diagnosis rates and death rates than those living in less deprived areas. The mortality rates from COVID-19 in the most deprived areas were more than double the least deprived areas, for both males and females. This is greater than the inequality seen in mortality rates in previous years, indicating greater inequality in death rates from COVID-19."²⁴

Similarly there is evidence that the economic impacts of the pandemic have more greatly affected lower earners. A study early in the pandemic by the Resolution Foundation found that: "30% of the lowest earning fifth of employees having been furloughed or lost jobs, compared to 8% of the highest earning fifth."²⁵ Meanwhile the IFS has noted the long term costs an economic downturn can have on people's health:

"An economic downturn has a number of effects on people's lives through increased unemployment, decreased employment, reductions in income and wealth, and increased uncertainty about future jobs and income. The health effects caused by these adverse macroeconomic conditions will be complex, and will differ across generations, regions and socio-economic groups. Groups that are vulnerable to poor health are likely to be hit hardest even if the crisis hit all individuals equally, but evidence is already emerging that the economic repercussions of the crisis are falling disproportionately on young workers, low-income families and women so this will also need to be taken into account."²⁶

Summary

Improved health can support a stronger and more productive economy. Before the pandemic the UK was performing poorly when compared to other G7 countries on its levels of productivity, a proportion of which is fuelled by poorer health.

The Covid pandemic has had a more profound impact in areas of deprivation and poorer population health. As part of the economic recovery efforts and in trying 'to build back better' there is an opportunity for the Government to more closely align the health and wealth agendas to support a stronger and more resilient recovery.

The role of healthcare in regional and local economies

The recent Public Health England profile for the UK's health found the country in the lower-middle ranking of EU countries for life expectancy: "compared with other EU countries, the UK has shifted down the male life expectancy rankings, moving from 6th highest out of 28 countries in 2006, to 10th highest in 2017. Life expectancy for women has ranked consistently lower, 17th in both years."²⁷

These data are underpinned and driven by substantial variations in outcomes across the country. Indeed the UK Secretary of State for Health and Social Care Matt Hancock in launching his priorities for his new term in office in December 2019 noted: "it can't be right that as we enter the 2020s a man born in Buckingham can expect 68 years of good health, but a man born in Blackpool can only expect 53. That's a health-span gap of 15 years."²⁸

The Northern Health Science Alliance (NHSA) has calculated that reducing the number of working age people with limiting long-term health conditions by 10% would decrease rates of economic inactivity by 3% in the Northern Powerhouse. Analysis from the NHSA has found a regional productivity gap between the north and the rest of England of £4 per-person per-hour. Closing this productivity gap by 30% (or £1.20 per-person per-hour), would create an additional £13.2 billion in UK Gross Value Added (GVA).²⁹

With regards to employment, the Alliance states that increasing the proportion of people in good health in the north by 3.5% would reduce the employment gap between the Northern Powerhouse and the rest of England by 10%.³⁰ Additionally, people in the Northern Powerhouse are 39% more likely to lose their job if they experience a spell of ill-health compared to their counterparts in the rest of England. If they subsequently get back into work, then their wages are 66% lower than a similar individual in the rest of England.³¹

Health and social care are major employers regionally, presenting opportunities to utilise the sector to tackle not only health disparities but economic ones as well.

Across England as a whole, health and social care provides 12% of all employment.³² In the Black Country region, the NHS is the largest economic actor – responsible for £8 of every £100 of income.³³

The sector is also facing a workforce crisis. Whilst getting accurate data on vacancies within the NHS is challenging and has been disrupted by Covid, the latest data showed a gap of 100,000 full time equivalent positions currently open.³⁴ Nuffield Trust analysis reveals that these shortages are distributed unevenly across the country, with the highest percentage of full-time equivalent vacancies in London (10.7%) and the lowest in the North East and Yorkshire (5.5%).³⁵

The NHS working with the Health Foundation has begun viewing large NHS organisations as local anchor institutions within their communities. This is defined as a large, public sector organisation with a significant stake in local communities and potential to influence their health and wellbeing in the areas of: employment, procurement and commissioning, estate and workplace, environment sustainability, partnering in a place.³⁶ The Health Foundation's work sets out the case for the NHS in playing an increasingly active role in local places as one that can tackle both health and

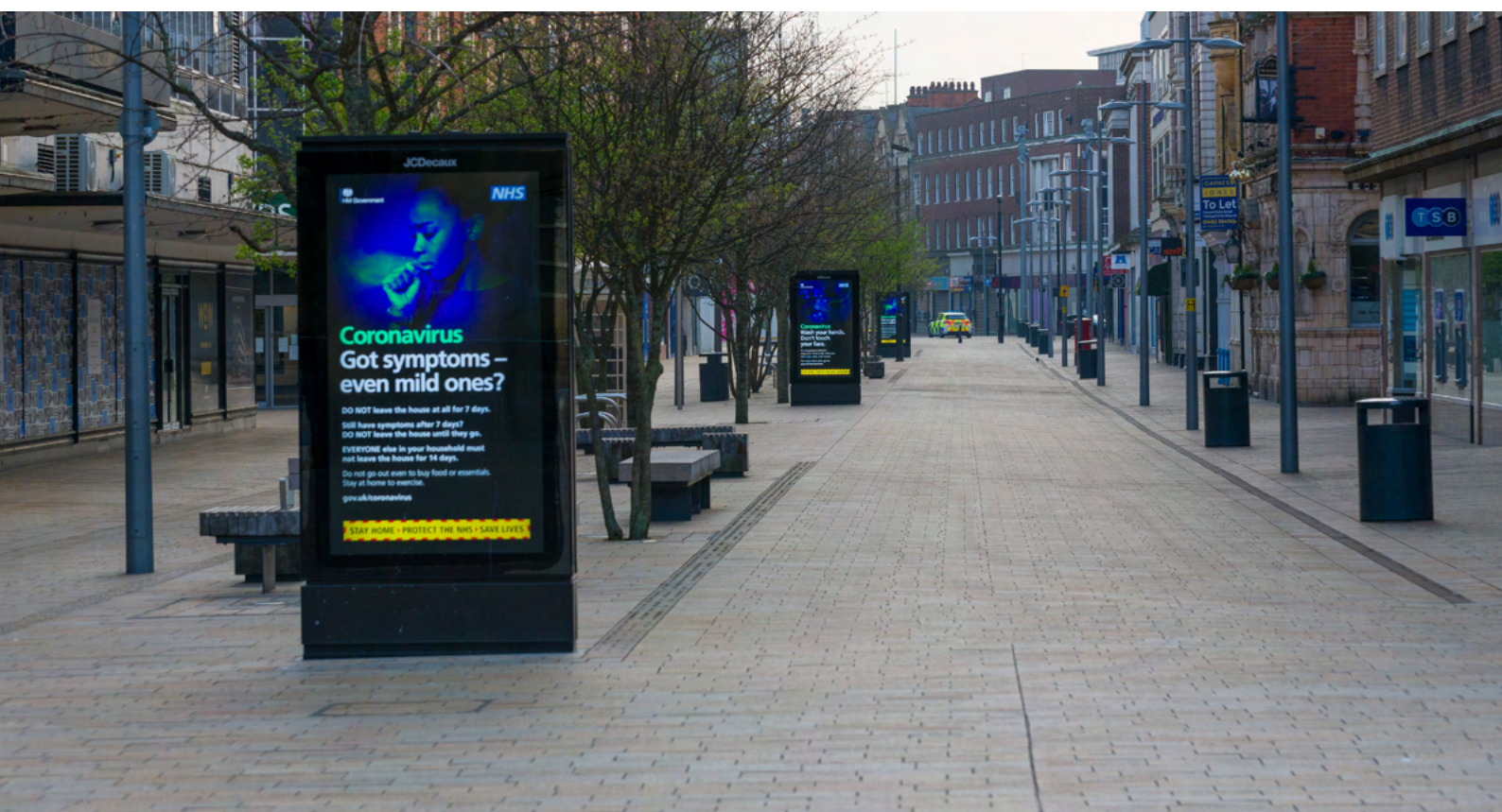
economic challenges: “even if the root causes of poor health and health inequalities are primarily driven by factors outside the control of the health sector, it is the NHS that deals with many of the consequences. It faces increased demand from preventable behavioural and socioeconomic causes, and it is therefore logical to extract the most value from the NHS in its wider role within local communities.”³⁷

The NHS Confederation has also set out the potential of NHS organisations to support small and medium-sized enterprises to enter localised NHS and social care supply chains; and to contribute to the design and delivery of services in new and innovative ways thereby promoting regional growth. Leeds Teaching Hospitals Trust is taking action to address spending on procured goods and services that goes to companies operating outside the wider local area, having found 70% of such spend was doing so.³⁸

As the NHS moves towards more regional Integrated Care Systems (ICSs) there will be opportunities at scale to ensure different parts of the healthcare system are working together to improve the health and wealth of their areas. Particularly in working with Academic Health Science Networks (AHSNs) to build partnerships with industry and the voluntary sector to build hubs of innovation and future economic growth. One example of a region that has adopted a pioneering approach is Yorkshire and Humber. The YHealth4Growth partnership includes the Yorkshire & Humber Academic Health Science Network, NHS Confederation and Yorkshire Universities coming together to tackle socio-economic inequalities and boost health outcomes in the region and promote more cross sector working.³⁹

Summary

The UK suffers from widespread regional variations in health and economic outcomes. As some of the largest employers in their local areas healthcare organisations and the wider healthcare sector can play an important role in delivering healthier and wealthier communities. This can be done through work such as that by NHS Trusts as anchor institutions or through new regional collaborations with local government and other system actors. In adopting such approaches the healthcare sector can be at the heart of regional growth efforts post the pandemic.



The healthcare sector and the future economy

Many NHS organisations are also playing a prominent role in the development of regional health innovation hubs delivering cutting edge research with a range of different partners across the life sciences and technology industries as well as third sector partners. *Deloitte's 2040 Future of Healthcare* report expects healthcare innovation to drive transformational change in how healthcare services operate and deliver care:

"By 2040 (and perhaps beginning significantly before), streams of health data—together with data from a variety of other relevant sources—will merge to create a multifaceted and highly personalised picture of every consumer's well-being. Today, wearable devices that track our steps, sleep patterns, and even heart rate have been integrated into our lives in ways we couldn't have imagined just a few years ago. We expect this trend to accelerate. The next generation of sensors, for example, will move us from wearable devices to invisible, always-on sensors that are embedded in the devices that surround us.

Many MedTech companies are already beginning to incorporate always-on biosensors and software into devices that can generate, gather, and share data. Advanced cognitive technologies could be developed to analyse a significantly large set of parameters and create personalized insights into a consumer's health. The availability of data and personalized AI can enable precision well-being and real-time micro interventions that allow us to get ahead of sickness and far ahead of catastrophic disease."⁴⁰

The companies and organisations pioneering these changes will be at the heart of the economic and regional growth agenda of the future. The Oxford-Cambridge Arc has already been estimated to contribute billions to the UK economy annually and London has seen a 25% increase in life science roles in the decade to 2018.⁴¹

Across the country there are a range of centres of excellence and collaborations being developed exploring the health technologies of the future such as the Northern Advanced Therapies accelerator across the North and Scotland, the northern pathology innovative collaborative and the Medicines Discovery Catapult.

Fifteen AHSNs within the NHS are aimed at supporting the deployment of new technologies at pace and scale within health systems as well as supporting local economic growth efforts. The Network of all AHSNs has calculated that they have helped create nearly 600 jobs, safeguarded close to 500 and leveraged investment worth £322.3m in 2019/20.⁴²

The latest national Government data show that the life science sector has generated almost £81bn in annual turnover and employs close to a quarter of a million people.⁴³ The Office for Life Sciences performance tables also show the UK second out of eleven for Government investment in healthcare Research and Development (R&D) and pharmaceutical spend of £4.5bn in 2018. In recent years the Government has developed two 'sector deals' with the life sciences industry bringing £2bn of inward investment to the UK. According to the NIHR clinical research is worth £2.7 billion a year and supports more than 47,000 jobs."⁴⁴

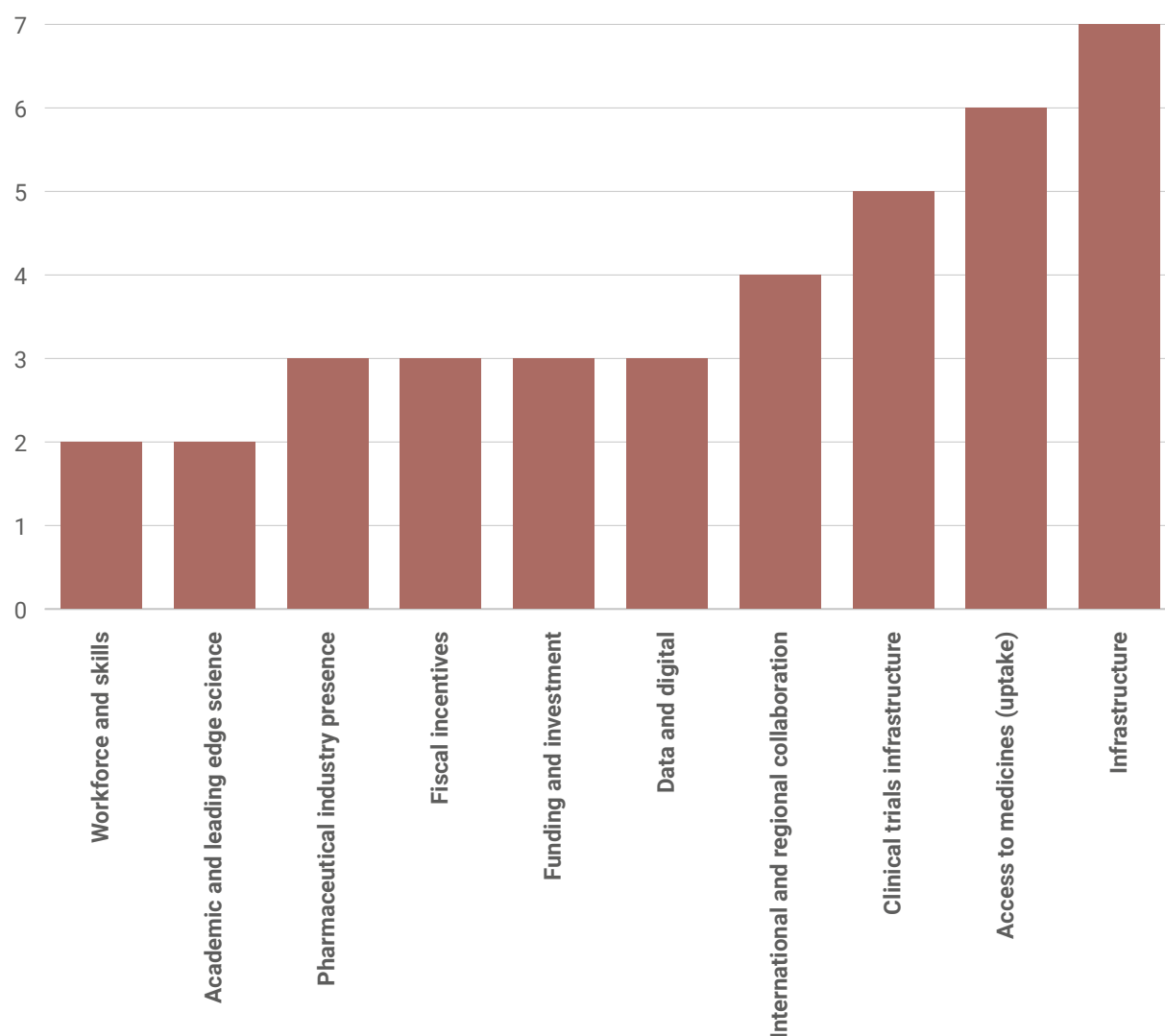
A recent report from the Association of the British Pharmaceutical Industry (ABPI) notes that: "additional revenues and cost savings, such as provision of medicines to patients in trials, provided approximately £28.6million of savings to the NHS, with an estimated total of £335 million from commercial income."⁴⁵

However there remain regional imbalances in the distribution of Government funds for healthcare research and development. The NHS has calculated that health research funding is concentrated in the South East: "London, the South East and the East of England receive over 60% of funding. This is exacerbated by the fact that the Northern Powerhouse's strengths are in applied health research, for which there is high need in the region but much less funding available nationally and regionally."⁴⁶

And the picture of UK life sciences is mixed when assessed at a global level (see figure 4). A 2019 study by PWC found that the UK's approach to life sciences lacked a full ecosystem approach. The UK came out well when assessed on workforce capabilities and scientific capability. However it was found to only be in the middle of the pack on data, clinical trials and fiscal incentives and lagging on access to medicines. The data which compares the UK with the US, China, Singapore, Japan, Germany and France is below (see figure 4).⁴⁷

Analysis from the ABPI has found that for every 100 patients that get a new medicine in its first year of launch in other parts of the EU – including France and Germany – just 21 patients in the UK get access.⁴⁸ For orphan medicines – those for rare diseases with no other treatments – less than half of orphan medicines are reimbursed in England, compared to over 80 per cent in Germany and France. For those that are reimbursed, the process is far slower on average, at roughly 28 months in England, compared to 20 months in France and immediate access in Germany.⁴⁹

Figure 4: PWC analysis of UK performance against ten life science ecosystem factors (Ranking 1 – best, 7 – worst) ⁵⁰



Summary

The UK is playing a leading global role in many aspects of the future of healthcare and the innovation economy, including research and development and clinical trials. This is generating high skilled jobs and inward investment. However there are certain areas where further work is needed such as on access to the latest medicines and technologies in the healthcare system. Much Government investment is clustered in the 'golden triangle' between Oxford, Cambridge and London. With centres of excellence in other regions there are opportunities to adopt a broader regional approach to such investment that supports ambitions for the economic recovery and levelling up.

The Economics of Health in the UK – Summary assessment

- Whilst UK Government investment in healthcare continues to rise it has been doing so at a slower rate than at any other point in recent history, particularly in the 2000s
- The UK is also not investing in its healthcare sector at a rate that is comparative to other advanced economies
- There is a well established body of evidence linking poor UK health outcomes to poor economic outputs, productivity and regional disparities
- The UK's healthcare sector is a major regional employer. The NHS as a large 'anchor institution' and as part of regional innovation hubs is seeking ways to play a more active role in the economic development of its communities
- The UK has a strong range of scientific and research expertise spread across the country pioneering cutting edge work in the healthcare innovation agenda, creating jobs and growth. However the majority of funding for research and development continues to focus on the expertise found in the golden triangle in the South East of England
- When assessing the UK against the 'Economics of Health' framework there are a set of areas for policy development, in particular greater alignment of the health/wealth agendas, increased healthcare sector investment and the prominence of the sector in regional growth strategies



Economic Analysis of the Economics of Health in the UK

With its UK GDP contribution in 2018, the healthcare sector is equivalent to the value of manufacturing sector output and more than a third higher than the value of construction sector output.⁵¹ Moreover, in recent decades the health sector's economic impact has been consistently increasing in size.⁵²

The UK health sector is an important economic asset. It provides employment and growth in a wide variety of contexts and is guaranteed to provide more of both in the future.

The analysis included in this report supports this argument:

- It uses official data sources to show why the health sector will contribute to economic growth in every part of the UK, supporting the Government's levelling-up agenda
- It quantifies the health sector employment opportunity across the UK

The headline estimate is that more than 775,000 additional jobs in health occupations could be created this decade. Most of these jobs will be well above the average wage in the more economically disadvantaged parts of the UK.

Why the UK health sector will grow and support levelling up

The population aged 65 and above in the most "left-behind" parts of England will increase by 1.5 million over the next twenty years. Demand for health sector products and services will increase as a result.

The UK population is getting larger and it is getting older. The population of England is projected to grow by more than four million in the period 2020-2040. While this population growth is expected to be more or less evenly spread across the country, its consequences for health sector demand are not.

Places that have older populations will create higher demand for health products and services than others.⁵³

Our analysis looked at how demographic changes are expected to occur in the most left-behind places in England. It uses a ranking of how "left behind" a council area is based on combined measure of pay, employment, formal education and incapacity benefits, produced by the IFS.⁵⁴

The findings are that:

- The top 20% most left behind councils will see their population aged 65 and above increase by 787,250
- The top 40% of most left behind councils will see their population aged 65 and above increase by 1,515,800

Of the 60 council areas that are categorised as the most left behind, six are expected to have more than a third of their population over the age of 65 by the year 2040. These councils are North Norfolk (40.5%), Isle of Wight (39.1%), East Lindsey (38.0%), Craven (35.9%), Tendring (35.3%) and Torbay (34.4%).

But it is not just old age that can increase demand for health products and services, a lower general health of the population can too. This means that any increase in population – not just the older population – will have raised demand for health sector products and services. This can be a particular problem in the most left-behind areas, where health issues driven by de-industrialisation, long-term unemployment and entrenched socio-economic issues are more prevalent.

Of the 60 council areas that are categorised as the most left behind, those that are expected to see the biggest percentage increases in *overall* population by 2040 are Tendring (16.0%), Swale (15.0%), Fenland (13.3%), Bolsover (12.6%) and East Lindsey (11.8%).

Increased demand for health sector products and services will create more well-paid jobs in the poorer regions of the UK.

More than two million people work in specific health and social care occupations.⁵⁵ These occupations make up between 5.2% and 7.4% of all jobs across the regions and devolved nations of the UK.⁵⁶

Yet there is a wide disparity in pay across specific health and social care occupations. This is evident when looking at the differences in pay data between those in occupations that are categorised as “Health Professionals” and those in occupations categorised as “Health and Social Care Associate Professionals.”⁵⁷

Health Professionals do jobs that require medical treatments and diagnosis, conduct research into treatment and drugs, dispense pharmaceutical compounds, provide therapeutical treatments for medical conditions, and administer nursing and midwifery care. They include medical practitioners, psychologists, pharmacists and dentists.⁵⁸

Health and Social Care Associate Professionals provide technical support functions and services in the treatment of patients to assist physical and psychological recovery and provide social care and related community services. They include paramedics and dental technicians.

Health Professionals are relatively much higher earners within their regions outside of the Greater South East (which comprise London, the South East and the East of England). For instance, the median wage of a health professional in the North East is 44% higher than the median wage across all other jobs. In the North West this figure is 37%.

Health and Social Care Associate Professionals tend to earn less than people in other occupations within the region. In the North East, East Midlands and Wales, Health and Social Care Associate Professionals earn broadly equivalent wages to the median wages of jobs in the region as a whole. But in all other parts of the country people in these occupations earn less – and in some cases quite substantially less – than the median wage of people in other jobs in the wider region.

Table Two, below, compares the figures across all regions. The green shaded cells represent where the median wage in a health occupation is greater than that of the median wage in the region more widely. The red shaded cells represent where this is not the case.

Table 2: Regional comparison of median wages across all jobs and of Healthcare Professionals and Health and Social Care Associate Professionals⁵⁹

	Median wage for all jobs in the region	Median wage of Healthcare Professional jobs in the region	Median wage of Healthcare Professional jobs above / below median wage of all jobs in the region	Median wage of Health and Social Care Associate Professional jobs in the region	Median wage of Health and Social Care Associate Professional jobs above / below median wage of all jobs in the region
North East	£23,253	£33,468	44%	£23,273	0%
North West	£24,294	£33,206	37%	£21,701	-11%
Yorkshire and The Humber	£23,735	£30,402	28%	£21,672	-9%
East Midlands	£24,090	£30,192	25%	£24,323	1%
West Midlands	£24,596	£29,894	22%	£21,347	-13%
East	£24,898	£24,907	0%	£20,344	-18%
South East	£27,152	£31,274	15%	£22,303	-18%
South West	£23,581	£28,688	22%	£21,745	-8%
London	£34,987	£36,481	4%	£27,594	-21%
Scotland	£25,616	£30,647	20%	£24,361	-5%
Wales	£23,323	£31,016	33%	£23,765	2%
UK	£25,780	£30,934	20%	£22,892	-11%

The higher paying Health Professional occupations outnumber the lower paying Health and Social Care Associate Professionals by a ratio of around 3:1 across the country. Moreover, a greater proportion of those in Health Professional occupations (68%) are full-time than those in Health and Social Care Associate Professional occupations (63%).

Local health sector growth has occurred in every part of the country

There are 113,910 health sector enterprises across the UK.⁶⁰ This number has increased from 88,205 since 2010, growth of almost a third (29%). Broadly speaking, those areas with high numbers of health sector enterprises relative to population size in 2010 were the same areas with high numbers of health sector enterprises relative to population size in 2020.

The key message is that the health sector is growing in every community of the UK, and given the anticipated growth of the sector going forward – and need for the health sector within every community – this growth is likely to continue.

The growth in health sector enterprises covers a wide range of organisations, both public and private, from the family-run high-street pharmacy to the globally exporting manufacturer of healthcare equipment.

Of the local authorities with the highest number of health enterprises per 10,000 of population, 30 out of 38 are in the most urban areas across the UK (with many of them in London).

In roughly half of local authority areas (46%), the growth of health sector enterprises outstripped the growth of all enterprises.

Table Three, below, lists the local authorities where health sector enterprise growth was higher than the growth of all enterprises by the widest margin. Half can be found in the South East. But it also shows that some local health sectors around the country saw significant growth over the last decade.

Table 3: Top Ten local authority areas where the growth of health sector enterprises per 10,000 of population outgrew the growth of all enterprises per 10,000 of population, 2010-2020⁶¹

Local Authority	Growth of health sector enterprises per 10,000 of population 2010-2020	Growth of all enterprises per 10,000 of population 2010-2020	Percentage point difference in growth between health sector enterprises and all enterprises per 10,000 of population	Region
Test Valley	102.7%	24.7%	78.0 pp	South East
Slough	134.6%	64.8%	69.7 pp	South East
Blackburn with Darwen	74.8%	27.8%	47.0 pp	North West
Surrey Heath	57.3%	11.4%	45.9 pp	South East
Broxtowe	59.7%	14.1%	45.6 pp	East Midlands
City of London	83.3%	42.2%	41.2 pp	London
Solihull	58.9%	19.7%	39.2 pp	West Midlands
Sevenoaks	50.4%	11.6%	38.8 pp	South East
Bolton	71.0%	33.9%	37.1 pp	North West
Windsor and Maidenhead	53.6%	16.6%	37.0 pp	South East

The high value health sector opportunity

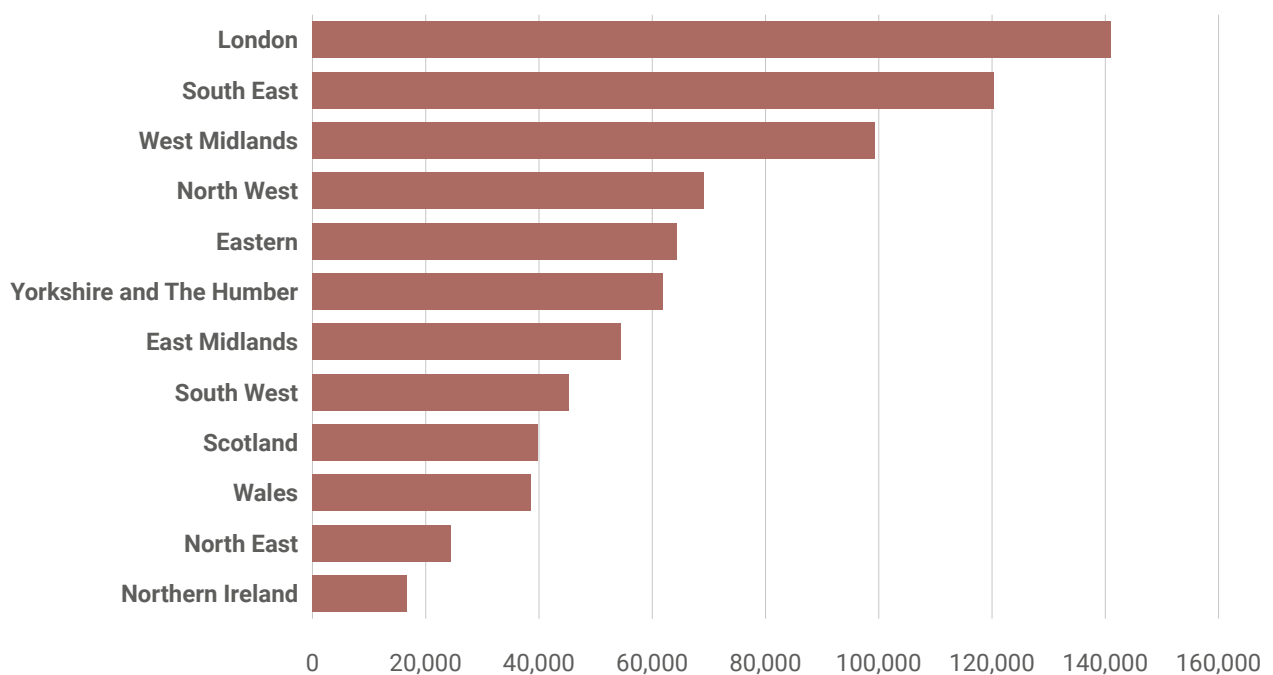
The UK's health sector is a seemingly guaranteed source of employment growth in every part of the country. Of those occupations specifically related to health within this employment growth, the majority will be in occupations that command higher wages – and in some cases much higher – than the regional average.

Using the growth rates of health occupations over the last decade, and the distribution of those occupations across the country, our modelling projects how many additional Health Professionals and Health and Social Care Associate Professionals could be working across the country by 2030.

The headline findings from this modelling exercise are that:

- 775,258 additional jobs in health occupations by 2030. This would take the total numbers working in health occupations to 2.87m by 2030
- 603,210 of these additional jobs (78%) would be higher value – held by those in occupations classed as Health Professionals – commanding higher wages than other jobs within UK regions
- These additional jobs will reflect population growth, meaning that London, the South East and the West Midlands see the biggest increases (see Chart 2, below)

Chart 2: Additional jobs in health occupations by 2030, split by region



Given that these additional jobs in health occupations are spread across the country, it means that every one of the 650 parliamentary constituencies will gain additional jobs in health occupations. With a strong relationship between population levels and the number of health sector occupations held in a particular area, it follows that those places with the largest populations are likely to see the most additional health occupation jobs by 2030.

The additional point to make in relation to this is that it is urban areas that will see the greatest growth in health occupations, which also means that our largest towns and cities will be places where the greatest health innovation will take place. This will see tens of thousands of jobs created across each of the regions of the UK.

Summary

- The UK health sector is an important economic asset. It provides employment and growth in a wide variety of contexts and is guaranteed to provide more of both in the future
- Populations will increase in every part of the country over the next twenty years. Demand for health sector products and services will increase as a result, particularly in those places where populations are older
- More than 775,000 additional jobs in health occupations could be created this decade. Most of these jobs will be above the average wage in their region demonstrating the importance of seeing the healthcare sector as a core part of regional growth plans



CHAPTER

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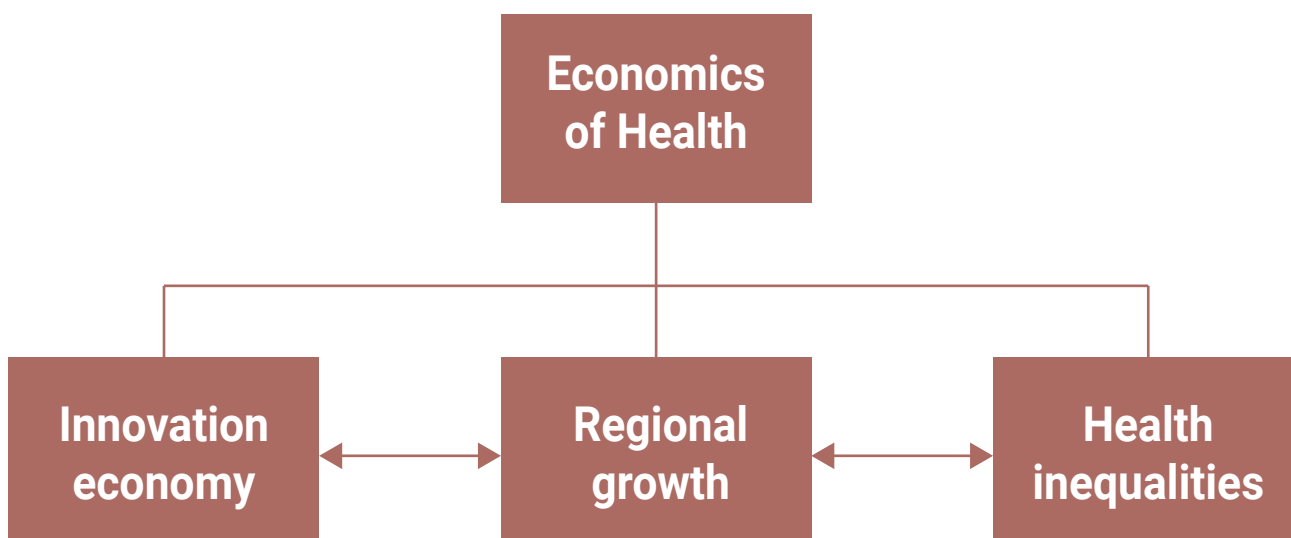
Building a policy framework that supports the UK healthcare sector as an engine of economic growth

The economic impact of the healthcare sector in the UK presents an area of significant growth potential across the regions for the future. For Government, investment and prioritisation of the healthcare sector can support a number of significant policy priorities:

- Developing a global leading life sciences hub post Brexit
- Ambitions for levelling up the regions of the UK and building back better from the coronavirus pandemic
- Delivering five years of healthy life by 2035 and tackling health inequalities

To deliver this a new framework for supporting the economic contribution of the healthcare sector should be taken forward comprising these three pillars.

Figure 5: Policy Framework for UK Economics of Health



The UK health sector and the innovation economy

The coronavirus pandemic has demonstrated that the UK is a world leader in life sciences. From the work of scientists to develop a vaccine, to the genomic sequencing on virus variants, the development of new testing technologies, to the discovery of new treatments for coronavirus, the UK working with international partners has been at the forefront of breakthroughs in the pandemic response.⁶²

In 2017 the Government published a Life Sciences Industrial Strategy that forms the basis of the future approach for the sector to grow and develop in the UK. The document which was refreshed in late 2019 represents the basis of a successful combination of Government and industry collaboration which has been pursued by successive governments.⁶³

Alongside this, the Government has a Life Science Council, aimed at making progress in delivering the modern Industrial

Strategy's Life Sciences Sector Deal. This includes Ministerial representation from the Department of Health and Social Care and the Department for Business, Energy and Industrial Strategy and workstreams focused on specific themes such as the Patient Access to Medicines Programme (PAMP). Professor Sir John Bell has been an active and committed champion for the Sector as Life Sciences Tsar. The Office for Life Sciences provides expert policy input for Government and manages relationships with UK based organisations. Healthcare UK a combined initiative between the Department of Health and Social Care, Department for International Trade and NHS England aimed at supporting UK healthcare businesses overseas has delivered a growth in exports and collaborations between the NHS and other healthcare systems.

With the UK having now left the European Union, there is an opportunity to go further and more closely co-ordinate such activities; particularly by developing a proposition for leading life sciences organisations and healthcare innovators that provides a cutting edge competitiveness against other markets. This should include:

- Taking a 'wide lens' approach setting out how the whole UK health and social care ecosystem, including the NHS, will work with the life science sector to deliver future investment, jobs and economic growth. The Government's planned healthcare reforms and greater directional powers over the NHS present an opportunity to bring forward this more co-ordinated approach
- Exploring fiscal incentives for life science and healthcare organisations to invest in the UK
- Building an ideation to adoption model, setting out how the UK regulator and value assessment processes will work quickly and effectively to ensure NHS patients can benefit from the science and discovery undertaken in the UK
- Advancing the opportunities of the new NHS healthcare data strategy⁶⁴ to support the safe and secure utilisation of healthcare data to deliver improved patient outcomes, opportunities for discovering and researching innovation and critically supporting the uptake of new innovations to UK patients
- A joined-up approach to building healthcare partnerships with other countries globally; this is particularly critical post Brexit and should include the workforce and skills agenda

One former Government Minister noted that the UK needed to adopt an approach to enticing global life science and technology companies like Ireland.⁶⁵ Enterprise Ireland states that it is "home to 9 of the top 10 international pharmaceutical companies, and the presence of these organisations has led to a strong industry in pharma and IT, including companies that specialise in manufacturing efficiencies, packaging, labelling, and clinical trial management. Also, deserving of its own discussion, pharma is a very important business sector for Ireland and one in which Irish clients are very competitive." Adding that Ireland is able to provide a "personal, customised approach to partners."⁶⁶

Similarly there are opportunities through fiscal incentives to support increases in healthcare R&D. Increasing investment in R&D is a mechanism to improve productivity – but is an area the UK has significantly underinvested in since the 1980s.⁶⁷ The Institute for Public Policy Research (IPPR) estimates that UK underinvestment in R&D has totalled £222bn since 1985 when compared to OECD averages. The IPPR recommends that the Government commits to investing £8bn per year of non-industry spend in life science R&D by 2027 as well as ensuring there is a strategy to attract private investment into UK life science R&D. This can be achieved through building the social and physical infrastructure needed to make the UK life sciences globally competitive.⁶⁸

An analysis by the Office of Health Economics highlighted the work of Belgium as a market taking steps to ensure their innovation economy investment is as attractive as possible. According to the OHE Belgium's approach centres on three types of R&D tax incentives that make up more than 70% of Belgium's public support for R&D. The tax relief is provided through a payroll withholding tax exemption, an R&D tax credit, and R&D tax allowance. Compared to the UK, no ceilings are in place for all three types of fiscal reliefs.⁶⁹

A recent report by WPI Strategy set out the potential for creating 12,000 jobs by allowing the capital expenditure needed for research sites, factories, laboratories and machinery to qualify for R&D tax credits. The report noted that: "tax credits

are already used to help businesses claim tax relief for R&D costs, but the cost of these vital facilities is excluded. This contrasts with the approach of France, Spain and Japan among others – a simple reason not to do R&D in the UK.”⁷⁰

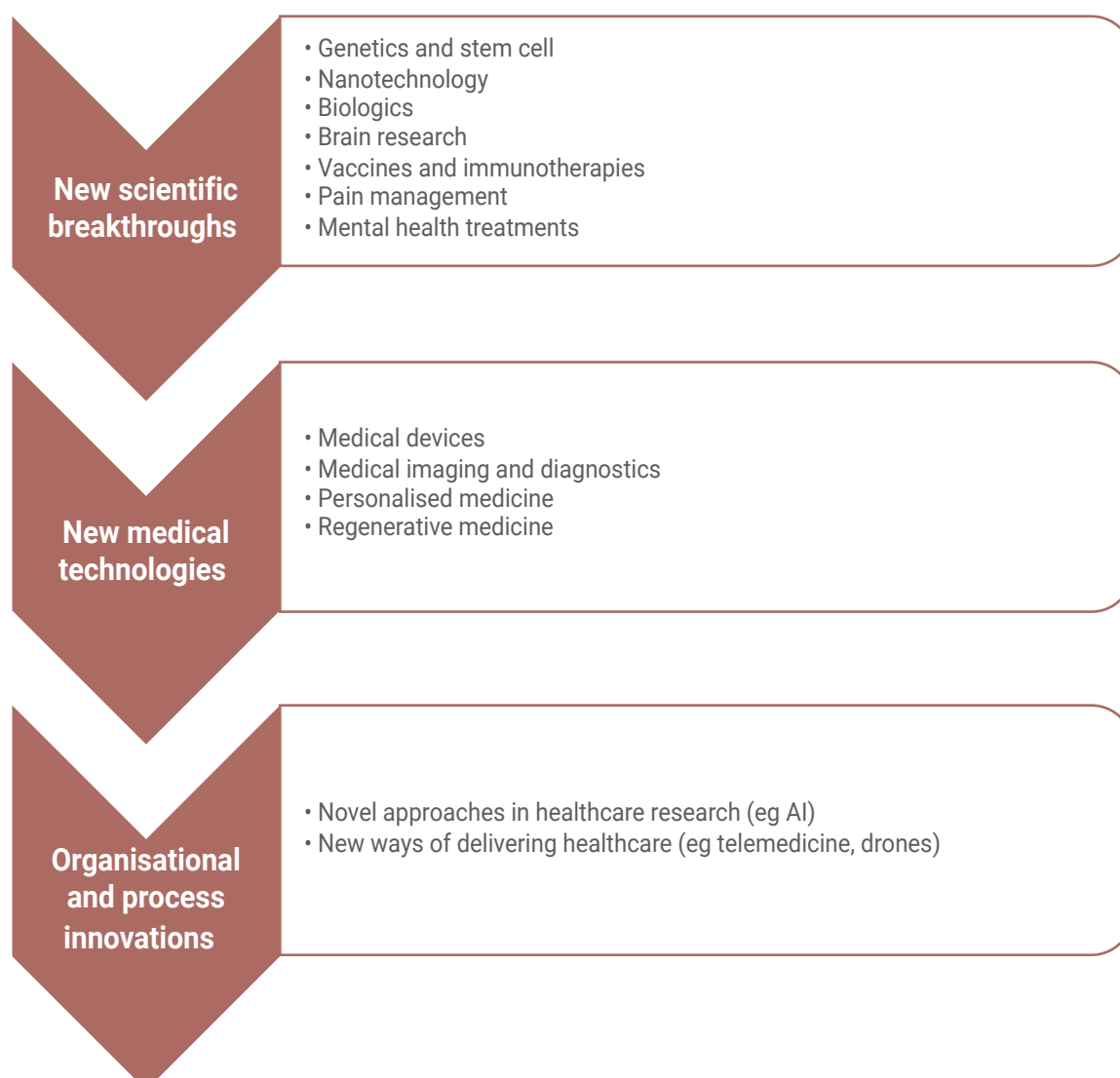
The UK Government is committed to spending 2.4% of GDP on R&D through the Conservative manifesto. With the economic impact of Covid however there is a danger that the level of funding available falls to reflect a smaller economy.

The creation of the Advanced Research and Invention Agency (ARIA) to coordinate and direct the UK’s scientific and economic performance by pursuing high-risk and high-rewards transformative research presents opportunities for healthcare innovation.⁷¹ There are substantial opportunities in the health sector to utilise artificial intelligence, big data, quantum computing and personalised medicine. The development of ARIA presents an opportunity alongside the National Institute for Health Research (NIHR) and UK Research and Innovation (UKRI), to fund ambitious new health research programmes across the UK. Healthcare research has been significantly disrupted as a result of the pandemic and should be a priority area for future Government investment.

For Government there is an opportunity post Covid to bring together these different threads into a compelling and future focused healthcare and life sciences strategy that can position the UK as global leading life sciences hub. This approach can be at the centre of the forthcoming Government innovation strategy planned for summer 2021.⁷²

The Global Innovation Index (GII) in 2019 from Cornell University, INSEAD, and the World Intellectual Property Organisation (WIPO) set out the core opportunities such a strategy could deliver. These are set out in Figure 6 below.⁷³

Figure 6: Adaptation of GII 2019 Medical Innovation Opportunities



The 2020 GII put the UK in fourth place globally for innovation (only behind Switzerland, Sweden and the USA). Life sciences and biotechnology were the second largest global sector of R&D innovation recorded (behind ICT). These findings demonstrate both the strong base the UK has to build from and the global competitiveness for life sciences investment and innovation.⁷⁴

Recommendation: The Government should refresh the life sciences strategy post Covid and Brexit to set out an ambitious, co-ordinated future healthcare and life science sector strategy to attract inward investment, growth and jobs to the UK

Recommendation: The Government should explore expanding and reforming R&D tax credits to ensure that the UK remains competitive with other global markets

Levelling up and regional growth

With the healthcare sector highly regionalised, and with demand for health and social care services growing, particularly in the most deprived parts of the country, there is an opportunity to utilise the sector to deliver on the 'levelling up' agenda. This can be done in a number of ways.

Regional investment in healthcare R&D

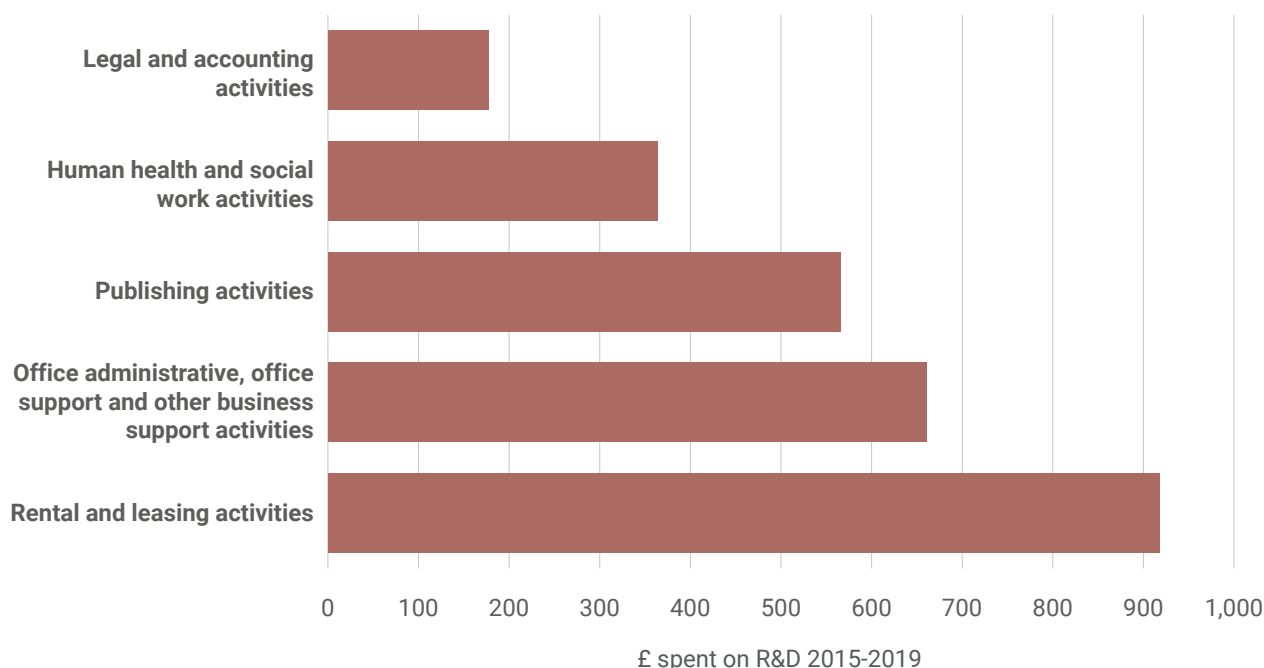
With a multi-year Spending Review planned in 2021 ensuring that the UK retains a strong healthcare research offer backed by regional investment should be a strategic priority for Government. A regional study for the ONS demonstrated that the UK's regions continue to be amongst the least productive when compared to Germany, France, Italy, Spain and the Netherlands: "of UK's 12 regions, 8 are amongst those with the lowest productivity levels; they make up 8 of the 14 lowest ranked regions alongside regions of eastern Germany and southern Italy."⁷⁵

But many of these regions have a number of centres of excellence that could attract future Government investment in healthcare R&D and provide a platform for regional growth and jobs. Particular highlights include Newcastle and ageing and smart data, Liverpool and population and public health, Leeds and medical technologies and Manchester and precision medicine.

Alongside Government investment are opportunities to deliver increased private investment in 'left behind' communities. A recent report from the Centre for Policy Studies (CPS) think tank called for a 'northern big bang' to deliver the productivity gains, economic growth and higher wages that are so desperately needed.⁷⁶

Private sector health and social care R&D has been on the rise. £124m was spent on it over the period 2010-2014 according to ONS figures. Over the period 2015-2019 this figure increased to £364m. But even with this increase, private sector health and social care R&D still pales in comparison to many other sectors (see Chart Three, below). For example, for every £1 spent by firms on health and social care R&D over the period 2015-19, firms engaged in the publishing industry spent £1.55.⁷⁷

Health is a major focus of Government R&D expenditure through both the NHS and work with the life science sector and Government has welcome ambitions in these areas. But private sector R&D on health and social care activities needs to be encouraged and increased if emerging clusters of cutting-edge health sector businesses are to fulfil their potential.

Chart 3: Value of private sector R&D spent on selected activities 2015-2019⁷⁸

Building new incentives to support private sector regional R&D in the healthcare sector is a strong growth opportunity for Government. The CPS 'Northern Big Bang' report included ideas of initial cash incentives for investors and businesses as well as a Northern Infrastructure Bond. Such moves when coupled with existing centres of excellence and clusters of innovation could provide a platform to boost private sector investment in healthcare.⁷⁹

The growth agenda of the NHS and regional health systems

Within the NHS, the role of local NHS trusts as anchor institutions is seeing large NHS organisations playing an increasing role in their communities. Dame Jackie Daniel, Chief Executive of Newcastle upon Tyne Hospitals NHS Foundation Trust told a recent Health Foundation podcast that the pandemic had shown it was no longer possible in her role to separate health and wealth.⁸⁰

Newcastle Hospitals is part of Collaborative Newcastle, an alliance between Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle City Council, Newcastle Gateshead NHS Clinical Commissioning Group and Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust, working closely with Newcastle GP Services, the GP Federation for Newcastle, Primary Care Networks and the voluntary sector. The partnership is designed to "accelerate progress towards a fully integrated health and social care system, enabling the partners to effect significant change for residents. Their aim is to reduce widening inequalities, by preventing avoidable problems from arising and tackling the big things that hold some people back."⁸¹

As the NHS moves towards more regional Integrated Care Systems (ICSs) there will be opportunities at scale to ensure different parts of the healthcare system are working together to improve the health and wealth of their areas. Particularly in working with AHSNs to build partnerships with industry and the voluntary sector to build hubs of innovation and future economic growth. One example of a region that has adopted a pioneering approach is Yorkshire and Humber. The YHealth4Growth partnership includes the Yorkshire & Humber Academic Health Science Network, NHS Confederation and Yorkshire Universities coming together to tackle socio-economic inequalities and boost health outcomes in the region and promote more cross sector working.⁸²

Similarly Greater Lincolnshire's Local Industrial Strategy includes a specific focus on health and social care. It recognises that, although the sector is a large source of employment, it is also relatively unproductive. With an ageing and rural population, this needs to change.

Greater Lincolnshire wants to test new models of care, which includes the exploration of improved physical and digital connectivity to local services and enhancing the capability of the voluntary and community sector.⁸³

Critically for such models to be a success, will be the need for a shared set of objectives to tackle the underlying health and economic inequalities of local populations. The importance of local authorities with their remit for local population and public health will be critical to this. Innovative approaches such as those in Wigan, where the Wigan Deal, sets out how the council, community, public services and business will work together to build a healthier and wealthier borough, demonstrate the value of adopting place based approaches, alongside regional and organisational models.⁸⁴

The Government should begin to set ambitious goals for public health, NHS and social care in how they focus their efforts on health and wealth to further facilitate such collaboration and focus. Specifically:

- Setting clear metrics for national public sector bodies on their contribution to economic growth
- Developing resources and tools for local and regional organisations on how they can ensure that their activities are promoting local and regional economic growth
- Utilising the development of changing healthcare structures, particularly towards more integrated approaches to enable new ways of working between different public services

Regional healthcare skills and workforce development

The shortage of healthcare workers is not only a UK but a global issue.⁸⁵ With the UK facing healthcare staff shortages and potential retention challenges as a result of the Covid pandemic, there is a need for a concerted effort to build a workforce that is fit for the future is critical.

On a national level, Government has made high profile and welcome commitments to recruit and retain more doctors and nurses in the coming years to fill gaps including the creation of a 'science visa' to ensure the UK continues to attract top scientific talent following Brexit.⁸⁶ The announcement of five new medical schools in new areas of the country in 2018 set a positive trajectory for expanding regional opportunities for new doctors.⁸⁷

The Covid 19 pandemic has led to greater enhanced flexibility in the way that the healthcare workforce have been used and deployed. Bureaucracy has been reduced to meet the needs of patients. Again regionally led cross sector approaches provide a platform for future successes. West Yorkshire is taking the lessons from the pandemic to build a regional collaboration and a health and social care observatory to lead an evidence-based approach for workforce planning.⁸⁸

With healthcare being a major regional employer, jobs in the sector set to grow and evidence that the pandemic has led to an uptick in interest,⁸⁹ there is an opportunity for the Government to fund a national recruitment campaign for the whole sector. This should seek to build awareness of the vast range of careers and opportunities that are available (see box below). This could use the model of the 'Armed Forces' style recruitment campaigns or successful NHS career adverts.

Healthcare sector roles⁹⁰

- Allied health (e.g. physiotherapy, radiography, and occupational therapy)
- Ambulance services
- Complementary therapies
- Dentistry
- Health informatics
- Health promotion
- Healthcare administration and management
- Healthcare science (e.g. clinical engineering, biomedical science, and pathology)
- Medical equipment sales
- Medicine (e.g. doctors, surgeons, and GPs)
- Medical research
- Midwifery
- Nursing
- Nutrition and diet
- Optometry and opticians
- Pharmacy
- Psychological therapies

There is also an opportunity for new training and skills funding to be deployed regionally to support local healthcare employers to recruit new staff and to train and invest in their employees. This is even more important in light of the pandemic and restrictions on international travel and recruitment, which has often been a major short-term source of supply for particular professions.

One barrier to progress is the apprenticeship levy for NHS organisations, with much of the money unspent and allocated elsewhere due to challenges in allocating the funding within the framing provided.⁹¹ The Government should explore a more tailored model for NHS organisations that allows them greater flexibility in how the levy can be allocated – for example for higher pay for apprentices and funds to support other staff training and development. There is also the potential to explore how the levy could be held at a regional tier and support wider healthcare skills and training programmes.

Recommendation: The Government should increase the national proportions of research and development investment in centres of healthcare research excellence across the UK; seeing these centres as hubs for regional growth and playing a central role in levelling up. It should also look at incentives to attract private sector investment into the UK's regions that supports the healthcare sector

Recommendation: Government should set ambitions within accountability frameworks for public services to demonstrate an active role in the delivery of economic growth in their areas

Recommendation: The Government should run a well funded 'Armed Forces style' campaign to inform and encourage people into the full range of healthcare sector careers. The NHS should be able to hold the apprenticeship levy at a regional level to invest flexibly in apprenticeships, skills and training opportunities for healthcare sector staff

Reducing health inequalities

The Government set an ambition within the Ageing Grand Challenge for increasing the number of healthy life years of the population by five by 2035.⁹² This was repeated in the Prevention Green Paper⁹³ and the Conservative manifesto in 2019.⁹⁴

However despite such rhetoric, recent action on public health spending and policy from Government has not reflected the level of stated ambition. There has been no national strategy to tackle the public health challenge since 2010⁹⁵ and public health budgets were cut back in the 2015 Comprehensive Spending Review and kept flat in 2020.

A study by IPPR and IPPR North found that reductions to the public health grant had disproportionately affected the Midlands and North: "overall, England has seen a cut of £13.20 per person, whilst the Midlands experienced a cut of £16.70 per person, and the North £15.20 per person. Within this, the North East was worst affected with cuts of £23.24 per person.

The West Midlands, North East and North West, which saw the highest mortality rates in the first peak of Covid-19, are also among the worst affected areas by public health cuts."⁹⁶

A report from Policy Exchange in November 2020 revealed that the UK was on course to wildly miss its ambitions for improving the number of years of healthy life expectancy (HLE) by five by 2035: "on projections from 2000-2002 the Government would miss its 2035 target. Indeed it would take 33 years or until after 2050 to meet its target for males. For females it would not reach the target for 67 years, or 2085, fifty years after the set date. By 2035 on this model, male HLE would be 65.6 and female HLE would be 64."⁹⁷

There is a growing view that a more co-ordinated approach across policy and responsibility areas is needed to tackle health inequalities.

In 2010, the Marmot Review in the UK called for action across central and local government, as well as involvement from the private sector and community groups. 10 years on Marmot repeated his Review with the Health Foundation and continued to make the case for a 'health in all policies approach'.⁹⁸

Case Study

New Zealand's 2019 'Wellbeing Budget' illustrates how health can be attributed greater value in an economy. New Zealand shifted its economic goal from increasing GDP to improving the welfare of New Zealand's citizens. All new government spending is now expected to work towards six priorities: taking mental health seriously, improving child wellbeing, supporting Maori and Pacific island people, building a productive nation, transforming the economy, and investing in New Zealand.¹⁰³

The UK is starting to explore models for increasing the prioritisation of improved health outcomes alongside economic growth. The Wales' Future Generations Act;⁹⁹ as well as the Health Index for England are examples of recent policy developments in this regard. The Index aims to understand the health of the nation in order to show how health changes over time. It recorded a fall in UK health between 2017-18.¹⁰⁰

Utilising the index as a means to assess progress on the ambition of improving healthy life should form a core part of the Government's response to the Prevention Green Paper.

Similarly funds earmarked to support levelling up should be assessed on their ability to contribute to this goal. The Treasury's 'levelling up fund', announced at the recent Spending Review brings together Housing, Transport and the Treasury to arbitrate on which areas of the country should have money allocated.¹⁰¹ Health is not core to these plans and this analysis of future growth opportunities from the healthcare sector suggests it should be.

Currently the health and wealth agendas are siloed across different parts of the Whitehall machine (Treasury, DHSC, BEIS, Public Health England). Policy Exchange has recommended that there should be far closer co-ordination between these different organisations to pull the health and wealth agendas together more closely.¹⁰² This should be a major focus for the replacement organisation/unit/entity for Public Health England, the Office of Health Promotion, to be based in the Department of Health and Social Care, and there is an opportunity for the Treasury health team to look beyond the remit of healthcare spending into economic growth and healthcare outcomes.

Recommendation: The Government should utilise the new ONS Health Index to set targets for delivering on its ambitions for improving healthy life expectancy

Recommendation: Central funds assigned for 'levelling up' should include a role for the healthcare sector and have an ambition to improve the nation's health and reduce regional health disparities

Recommendation: Changing Government structures post Public Health England should be used to create a co-ordinated and dynamic health and wealth agenda within Government that seeks to unlock the potential of the healthcare sector to drive economic growth and reduce population health inequalities



Conclusion

The UK has a growing and vibrant healthcare sector. With demand for healthcare services set to increase, fuelled by an ageing population and the repercussions of Covid, there is an opportunity for Government to embrace the sector as a driver of both national and regional ambitions for economic growth.

To do so will need to involve a change of approach. One in which health is not seen purely as a growing cost to the taxpayer through the NHS. But rather as a deliverer of high quality regional jobs, global leadership on life science and technological innovations and that feeds through to improving health outcomes for the UK population and in reducing health inequalities.

To deliver this ambition will require a re-wiring of Whitehall approaches to the healthcare sector. This will include greater proportions of funding for regional centres of healthcare research excellence, new approaches to R&D tax credits, mandates and opportunities for the healthcare public sector to support economic growth and putting improved healthcare outcomes and reduced inequalities more centrally in Government policy.

The 'Economics of Health' presents a new framework for the UK to build back better from this pandemic. Adopting it will make us both wealthier and healthier in the future.



Annex A: Sources and methodology

A variety of sources were used for the economic analysis:

- ONS population projections (and the population projections of the devolved nations).
- Nomis business counts data.
- Nomis Business Register and Employment Survey data
- IFS data tables on left-behind parts of the country.
- ONS Business enterprise R&D data.

The methodology for the modelling was built upon the following methodology:

1. Growth in the number of health occupations held over time (2010 -2020).
2. Number of health occupations held per head of regional population over time (2010-2020).
3. Using 1. And 2. To project forward how health occupations may grow over time in relation to projected population growth by region (with projected population growth taken from ONS projections).
4. Weighting the additional occupations by the current regional split of Health Professionals and Health and Social care Associate Professional occupations.
5. Splitting projected regional calculations for health occupations by Parliamentary Constituency, using current proportions of a constituency's population as a weighting.

The Standard Industrial Classification codes used in the analysis of health sector enterprises were as follows:

86101 : Hospital activities

86102 : Medical nursing home activities

86210 : General medical practice activities

86220 : Specialist medical practice activities

86230 : Dental practice activities

86900 : Other human health activities

87100 : Residential nursing care activities

87200 : Residential care activities for learning disabilities, mental health and substance abuse

87300 : Residential care activities for the elderly and disabled

87900 : Other residential care activities

88100 : Social work activities without accommodation for the elderly and disabled

88910 : Child day-care activities

88990 : Other social work activities without accommodation nec

21100 : Manufacture of basic pharmaceutical products

21200 : Manufacture of pharmaceutical preparations

26600 : Manufacture of irradiation, electromedical and electrotherapeutic equipment

32500 : Manufacture of medical and dental instruments and supplies

72110 : Research and experimental development on biotechnology

47730 : Dispensing chemist in specialised stores

47741 : Retail sale of hearing aids in specialised stores

47749 : Retail sale of medical and orthopaedic goods (other than hearing aids) nec, in specialised stores

Like the issues with the occupational data – set out below – some of the businesses included with these SIC codes will only be loosely related to the health sector, but all SIC codes have been referenced in other studies as being part of the health sector.

Some of the jobs that are included in the definitions of the health occupations are only loosely related to the health sector as described in this report. For example, veterinarians are included as one of the jobs within the definition of Health Professionals. The data sources we used did not allow for separating these jobs out from the overall total. However, they only make-up a very small percentage of the overall numbers. For instance, other sources suggest that vets make up around 1% of the total Health Professional occupations.

More detailed methodology available upon request.

Endnotes

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Future Health

11 Tufton Street
London
SW1P 3QB

@fh_research

www.futurehealth-research.com

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