



Commission  
on Health and  
Prosperity

# HEALTHY PEOPLE, PROSPEROUS LIVES

THE FIRST INTERIM REPORT OF THE  
IPPR COMMISSION ON HEALTH  
AND PROSPERITY

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April 2023

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# CONTENTS

<b>Summary</b> .....	<b>5</b>
<b>PART 1: THE LINK BETWEEN BETTER HEALTH AND GREATER PROSPERITY</b> .....	<b>8</b>
<b>1. Introduction</b> .....	<b>9</b>
A sicker nation? .....	9
A poorer nation?.....	12
The UK at a crossroad: sicker and poorer, or healthier and more prosperous? .....	13
Methodology .....	14
<b>2. Healthy people, prosperous lives</b> .....	<b>18</b>
Insight 1: Poor health can substantially reduce earnings .....	18
Insight 2: Poor health can undermine our capability to stay in work.....	20
Insight 3: Health shocks undermine our capability to enjoy our work and progress in our career .....	24
Summary of key findings.....	27
<b>3. A stronger, fairer economy</b> .....	<b>28</b>
Insight 4: Health-determined loss of earnings have a large economic cost.....	28
Insight 6: Better health could help deliver a more regionally balanced and modern UK growth model .....	31
Insight 7: Better health could tackle economic inequalities, and help hardwire the UK economy around fairness .....	33
Summary of key findings.....	39
<b>4. Can we do better?</b> .....	<b>40</b>
Why don't we do better? .....	42
The six key themes of unwillingness .....	43
So, what can we do?.....	45
<b>PART 2: THE HEALTH AND PROSPERITY ACT</b> .....	<b>48</b>
<b>5. Step 1: Set the mission</b> .....	<b>49</b>
<b>6. Step 2: Build the right institutions</b> .....	<b>52</b>
Create a new public health body with a legislative duty to advise on targets and delivery, and with the means to hold government to account.....	52
Create an evidence revolution across population health, drawing lessons from healthcare (NICE) and education (EEF).....	54
<b>7. Step 3: Establish the right funding</b> .....	<b>56</b>
Design and deliver a health creation fund, to address underinvestment in prevention.....	56
Create a health investment bank, to better work with the private sector on health creation .....	58
Fund new spending in a way that maximises health and prosperity .....	61
<b>References</b> .....	<b>65</b>

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## ABOUT THIS PAPER

This briefing paper advances IPPR's charitable objective of advancing physical and mental health.

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# SUMMARY

The UK is getting poorer and sicker. The UK faces a challenging economic outlook. While the March budget had some improved economic news, the UK economy is still projected to shrink in 2023, inflation remains high and the fall in household spending power in the next two years is predicted to be the highest in 70 years (OBR 2023). At the same time, population health is going backwards. After rapid progress on life expectancy in the 20th century, the UK has rising rates of death and impairment – including higher prevalence of long-term conditions and greater rates of multimorbidity. Moreover, from 1960 to 2020, the UK has dropped from seventh to 23rd in the Organisation for Economic Cooperation and Development (OECD) on life expectancy at birth (OECD 2020).

Good health has its own value – but this paper tests its relationship with prosperity. Good health is vital to an enjoyable and meaningful life, free from avoidable pain, anxiety and, in the worst cases, premature death. But it is also a crucial determinant of our economic prospects, both at an individual and a national level. This has been poorly accounted for by policymakers. In that context, this paper sets out to quantify whether better health could provide an answer to some of our most deep-rooted economic challenges and what policies could help ‘price in’ its value across all decisionmaking.

Having conducted a multi-year data analysis that follows individuals over time, this report concludes that poor health harms both individual and national prosperity. Looking across the pre-pandemic and pandemic periods, we find that experiencing a physical health condition was associated with a drop in annual earnings of £1,800 (in 2014–19) and £1,700 (in 2020–21), and that mental illness was associated with a drop in annual earnings of £2,200 (in 2014–19) and £1,700 (in 2020–21) fall in earnings. We also found, between 2020–21, that the long-term physical illness of another household member was associated with a fall in annual earnings of £1,224.

Lost earnings have a significant impact on Gross Domestic Product (GDP). We estimate that long-term-sickness-determined loss of earnings cost the UK economy £43 billion in 2021, equivalent to around two per cent of GDP. This is just one route by which health impacts on the economy. Lower business spend on overheads, business costs from sick days, lower production and the impact of short-term illness could be significant additions to this figure.

We find that people leaving employment because of ill health is central to earnings loss and overall economic cost. In further disaggregating this result, we show that poor health was associated with over half of the 3.3 million exits from paid employment in the five years running up to the pandemic. The impact of health on employment exit was more pronounced among lower earners and women, particularly during the pandemic. This suggests that the impact of long-term illness on the labour market is not unique to the period since the pandemic and that explanations for current labour market challenges should not solely rest on early retirement.

Good health doesn't only matter because of its relationship with earnings, growth and consumption – it also determines which people and places share in prosperity across the UK. Illness is unequally distributed across geography, class, gender and ethnicity. Our findings show that better health could also help tackle the interplay between health inequalities and economic disadvantage. To explore this idea, we undertake an analytical experiment, exploring the impact on earnings

of a 10 percentage point reduction in the incidence of illness among a range of sociodemographic groups. We find the following.

- This level of health improvement would increase women's earnings at twice the rate of men's – with both groups experiencing an average increase in earnings.
- People from Bangladeshi or Pakistani backgrounds would see the largest average increase in income – worth 2.1 per cent of current income per person in this group, on average.
- People with the lowest current incomes would see the sharpest increase in income from health improvement.
- People in Wales would experience the highest rise in average earnings, worth around 1.8 per cent of current earnings on average. People in the West Midlands and North East would also see average earnings per person increase by around 1.7 per cent of current earnings.

All figures are average increases in the whole population (not just the smaller group of people who avoid sickness). This reflects that health creation can be a means both to strengthen the economy overall and to make it work more fairly for everyone.

There is real potential for health outcomes to get better across the UK. Our analysis is only valuable to policymakers insofar as UK health can actually improve. As such, we also explore what potential there is to do better. We show that the UK: performs worse on healthy life expectancy than similar countries; has seen a slower rate of growth in healthy life expectancy than comparable nations, and has a large proportion of preventable morbidity and mortality within its total 'burden of disease'. That means the UK could become healthier, and so more prosperous. This could be achievable through more prevention, better treatment, faster access to care, and more effective employment support services and workplace interventions for people with existing long-term conditions, mental health problems or other impairments.

The biggest barrier is not a paucity of policy or innovation, it is lack of capacity across government to make or sustain positive change. While better policy ideas or new innovations are always helpful, there is no lack of evidence-based interventions that could support better health in the UK. The more pertinent challenge is the level of willingness and commitment to sustained progress among UK policymakers. Other agendas have faced similar challenges, and successfully transitioned from a status quo of inaction to one of sustained cross-government, cross-society progress – specifically, the transformation of the UK climate agenda since the Climate Change Act 2008. Mission-orientated approaches have a strong evidence base, and success is most likely when they have an ambitious but stretching mission, combined with strong institutions, clear accountability, set delivery mechanisms and extensive accountability.

We propose the UK government introduce a new Health and Prosperity Act<sup>1</sup> to hardwire health across all we do. We recommend such a Health and Prosperity Act be a single piece of primary legislation actioning three core components:

1. **Set the mission:** We propose a new, whole society 'healthy lives mission' for the UK. This would have two commitments, each covering a 30-year period. First, a commitment to make the UK the healthiest country in the world by the end of the period – replicating rapid success in countries like Japan (in the late 20th century) and South Korea (between 2000 and 2020). Second, a commitment to

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<sup>1</sup> In line with devolution, we do not suggest this is enacted from the centre on devolved nations. Rather, we suggest this is a framework for similar mechanisms and acts that are needed across the UK, and could be introduced by each of the four nations.

increase healthy life expectancy to at least the UK state retirement age across all regions.

2. **Design the institutions:** First, a new legislative body – the Committee on Health and Prosperity – modelled on the Climate Change Committee (CCC) and designed to independently advise on the above mission (and hold all government accountable to it). Second, a ‘what works’ centre to rapidly expand the evidence base on interventions that support the health of the public, take a broader view of what evidence is ‘good enough’, and establish cost-efficacy of different interventions.
3. **Create the right investment flows:** First, a health creation fund, to put ‘what works’ evidence into practice and tackle health inequalities. Second, a health investment bank, to provide a reliable source of low-cost long-term capital for health-creating innovations – allowing us to ‘go for health’ as a national economy.

We do not suggest these changes in government architecture and overall approach to health policy would constitute a silver bullet; the specifics of the policy programme will be critical. Instead, we contend the above proposals have the power to shift the default in the UK from apathy on actively pursuing good health to one where policy implementation, innovation and strategic investment is the norm.

**PART 1**

**THE LINK BETWEEN  
BETTER HEALTH  
AND GREATER  
PROSPERITY**



# 1. INTRODUCTION

The IPPR Commission on Health and Prosperity has been launched to test one central hypothesis: that a fairer country is a healthier one, and that a healthier country is a more prosperous one.

The link between better health and greater prosperity is intuitive. Most of us know from our own lives that good health is a prerequisite for finding a good job, working productively and getting on in our career. It follows from this that good health would also boost national output, the strength of the UK labour market and overall productivity. Despite this, health is rarely considered as a common-sense economic lever: its prospective gains are too often not accounted for in government policy and investment decisions.

Covid-19 provides us with an opportunity for reflection. The pandemic has demonstrated, with new clarity, the strength of the relationship between the UK's health and its prosperity. In the first year of the pandemic – one in which the UK had among the highest excess mortality in the world – the UK experienced a historic drop in GDP (House of Commons 2021). We have to look back over 300 years to find an equivalent one-year drop in national output (ibid).

The impact of the pandemic – and associated disruption to health, healthcare and other public services – has outlasted national lockdowns and social distancing policies. Challenges in both the National Health Service (NHS) and the UK labour market are indicative of its continued consequences. On the NHS, waiting lists remain at around 7.2 million in England alone (NHS Digital 2023)<sup>2</sup>, while excess mortality for the year to date in England and Wales is 12 per cent higher than the previous five-year average (ONS 2023). On the labour market, economic inactivity has risen sharply in the last three years, with economic inactivity due to long-term sickness reaching record levels (ONS 2022a).

## A SICKER NATION?

It is, however, important not to conclude that the close relationship between health and prosperity is unique to the pandemic period. While it might be tempting to think that Covid-19 must be behind the UK's current population health challenges, a wider view of the evidence suggests that the UK was on a trajectory towards becoming a sicker nation a long time before Covid-19 emerged<sup>3</sup>.

This can be seen when assessing the UK's performance on both all-cause mortality and disability-adjusted life years over the last 30 years. Our analysis of global burden of disease data shows that the rate of deaths from all causes (per 100,000 people) improved consistently between 1990 and 2011. Since then, progress has begun to reverse. In 2019, deaths per 100,000 people were at their highest level

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2 Similar trends can be observed in Scotland (Public Health Scotland 2022) and Wales (Senedd Research 2023).

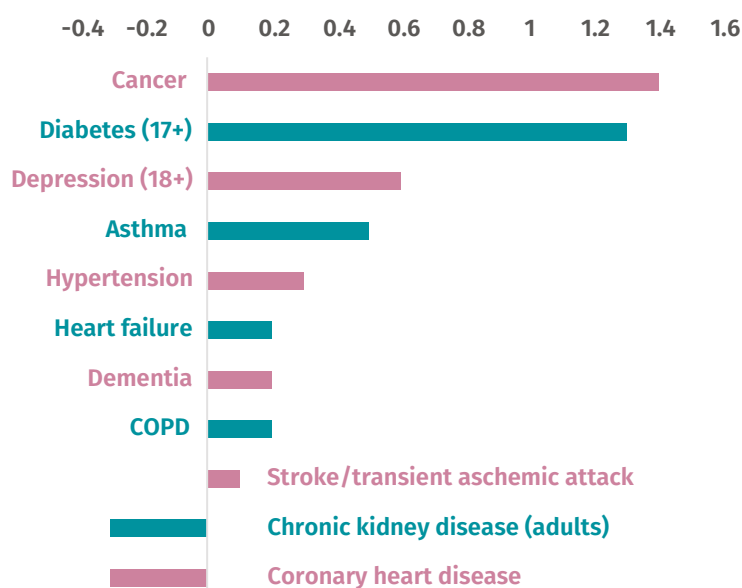
3 While evidence on the mechanism that has driven increased sickness is contested, an increasingly compelling evidence associates this decline in population health outcomes with the consequences of austerity (for example, Marmot et al 2020).

since 2005 (authors' analysis of IHME 2020). Our analysis further shows that the rate of disability-adjusted years of life lost to disease (per 100,000 people) improved consistently from 1990 to 2011, but that progress since then has also reversed, with the highest level of deaths since 2008 reached in 2019 (ibid). Elsewhere, OECD data shows that, among members, the UK has gone from the sixth longest lived country (1960) to the 23rd (2020).

Sickness prevalence estimates, derived from Quality and Outcomes Framework (QOF) data, show a similar trend (figure 1.1).<sup>4</sup> With a small number of exceptions, most major long-term health conditions are rising in prevalence (indicating more sickness in the population as a whole). Figure 1.1. shows percentage point changes from 2011/12 to 2020/21. Even small percentage point rises represent large numbers of people affected – and can represent significant proportionate rises in prevalence of health conditions over the 10-year period<sup>5</sup>.

**FIGURE 1.1: PREVALENCE OF MOST MAJOR CONDITIONS IS RISING**

Percentage point change in prevalence of chronic conditions, 2011/12 and 2020/21, England only



Source: NHS Digital 2022

Beneath these national trends, the burden of disease is not distributed equally across the country. Healthy life expectancy at birth varies extensively by nation/region – with lower healthy life expectancy in the north of England and the devolved nations (table 1.1).

A more comprehensive measure of health – the ONS' Health Index<sup>6</sup> – shows that health outcomes are worst in the north of England (even after accounting for deprivation). It provides an index score of population health, accounting for the social determinants of health, behaviours, health outcomes and a range of other factors. Figure 1.2 shows index scores by local authority, split by those in the South and those outside the south of England. It shows both that deprivation predicts poor health – but also, that above and beyond deprivation's impact, health is worse outside the South of the country.

4 Analysis for England due to lack of UK-wide prevalence timeseries.

5 For example, a 0.2 percentage point rise in dementia represents a 40 per cent rise in prevalence; a 1.4 percentage point rise in cancer represents an almost 80 per cent rise in total prevalence.

6 The Health Index is currently an England-only measure.

**TABLE 1.1: THERE ARE CONSIDERABLE INEQUALITIES IN HEALTHY LIFE EXPECTANCY BY UK NATION AND BETWEEN ENGLISH REGIONS**

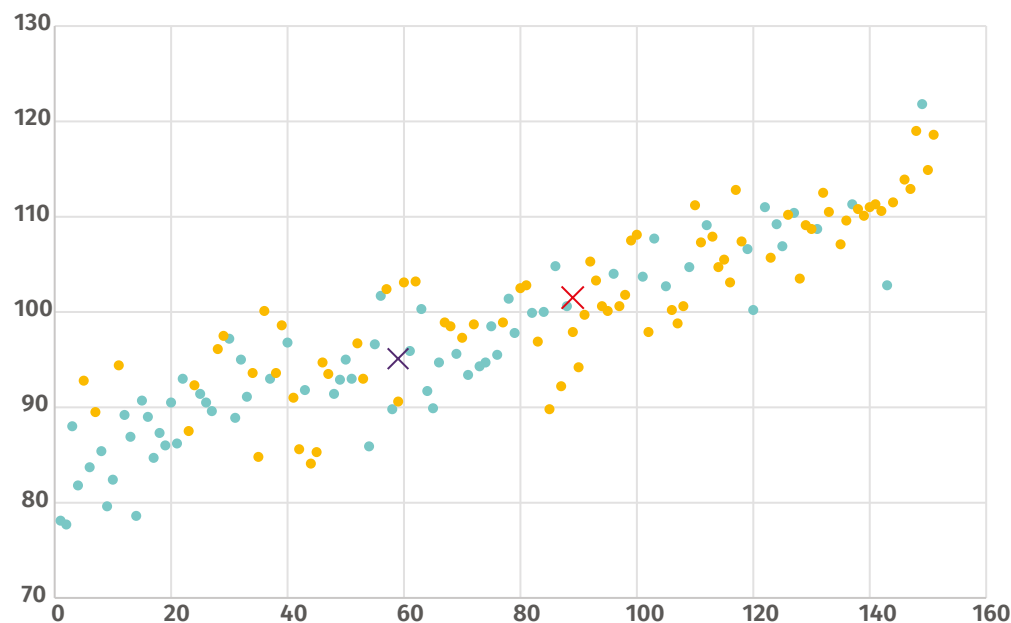
Healthy life expectancy by region and devolved nation, UK (pink shading indicates healthy life expectancy below the UK average)

		Male Healthy Life Expectancy	Female Healthy Life Expectancy
UK		62.8	63.6
England		63.1	63.9
<b>English regions</b>			
	North East	59.1	59.7
	North West	61.5	62.4
	Yorkshire and the Humber	61.1	62.1
	East Midlands	62.0	61.8
	West Midlands	61.9	62.6
	East of England	64.6	65.0
	London	63.8	65.0
	South East	65.5	65.9
	South West	64.7	65.6
Wales		61.5	62.4
Scotland		60.9	61.8
Northern Ireland		61.5	62.7

Source: ONS (2022)

**FIGURE 1.2: HEALTH IS WORSE OUTSIDE THE SOUTH OF ENGLAND**

ONS Health Index score by geographic area, where light blue denotes local authorities outside the south of England (purple cross = average score) and yellow denotes local authorities in the South of England (pink cross = average score)



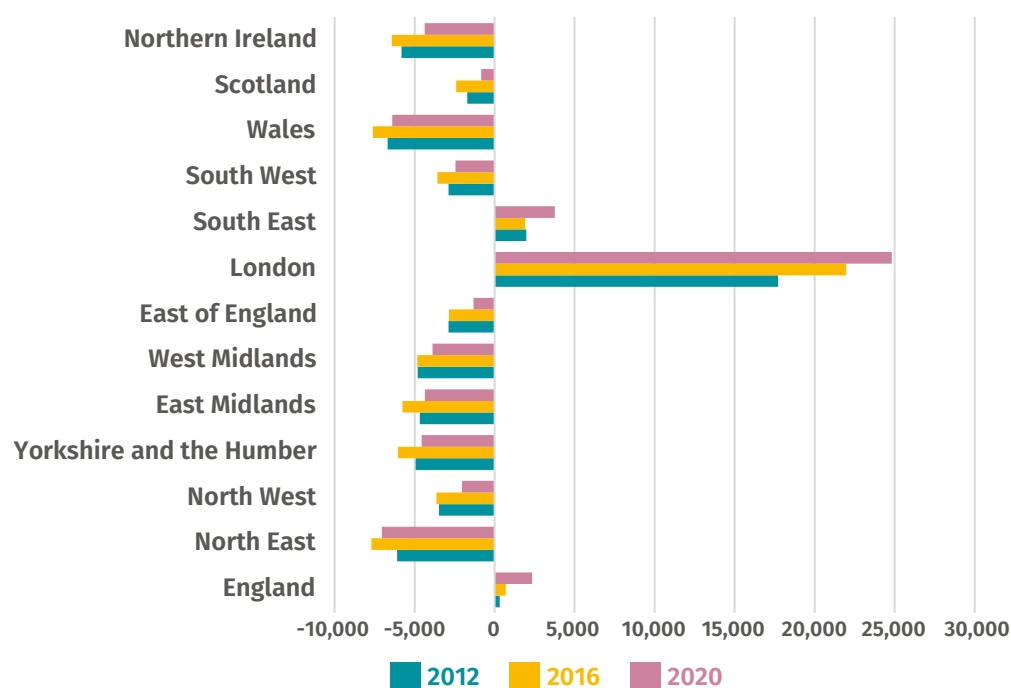
Source: Authors' analysis of ONS 2022b

## A POORER NATION?

At the same time, the UK faces a challenging economic outlook. High inflation means the cost of living, and particularly the cost of energy and food, is rising, interest rate rises have increased the cost of both mortgages and rent (Bank of England 2023a), but incomes are struggling to keep up. Official indicators suggest a sharp rise in the number of working-age adults experiencing material deprivation (Brewer et al 2023).

**FIGURE 1.3: THE UK HAS VAST PRODUCTIVITY INEQUALITY BY REGION/NATION**

Output per hour worked by international territorial level 1 UK region or nation, relative to the UK average, 2020



Source: Authors' analysis of ONS 2022c

Headline national economic indicators show further difficulties. While there is some good news – inflation may now be in a downward trajectory, the need for interest rate rises has decreased, unemployment is very low and the UK is not now predicted to enter a technical recession – there is also much that is more challenging. In many cases, these challenges pre-existed Covid-19 (but have of course been accentuated by the pandemic).<sup>7</sup>

- **Growth:** In 2018, the Institute for Fiscal Studies (IFS) estimated that the economy was £300 billion smaller than it would have been had it maintained pre-2008 financial crisis growth trends (Cribb and Johnson 2018). The UK is the only advanced economy predicted to shrink in 2023 according to International Monetary Fund estimates (IMF 2023).
- **Living standards:** In their latest projections, the Office for Budget Responsibility (OBR) projected the largest fall in household spending power (disposable income) in 70 years (OBR 2023).
- **Productivity:** Since the 2008 financial crash, the UK economy has experienced productivity hysteresis – the permanent loss of productivity from a temporary

<sup>7</sup> As well as subsequent events such as Russia's invasion of Ukraine.

shock. Between 1974 and 2008, UK productivity grew at around 2.3 per cent per year – since 2008, it has increased by just 0.5 per cent per year (National Institute of Economic and Social Research 2022).

- **Labour market:** On the upside, the UK’s unemployment rate is relatively low. Even if projections that suggest it may double in the next two years hold, the UK’s unemployment rate would remain low by historic standards. Economic inactivity is a greater concern, having reached a seven-year high of 9 million people in late 2022 (ONS 2022a; see also Thomas 2022). The Bank of England Monetary Policy Committee has linked rising inactivity to inflation and its decision, in February 2023, to raise interest rates (Bank of England 2023b).

These economic challenges are also unequally distributed across the UK. Indeed, economic disadvantage tends to cluster in the same places as health inequality. Figure 1.3 shows the substantial disparity between GVA/head/year by UK nation and English regions – and the particular gap between London and the North East (a difference of £30,000).<sup>8</sup> Figure 1.4 shows a similar gap in disposable household income.

**TABLE 1.2: DISPOSABLE HOUSEHOLD INCOME IS LOWER OUTSIDE THE SOUTH OF ENGLAND**  
**Difference in gross disposable household income per head (percentage, basic current prices), 2020, £, UK nations and English regions**

Area	Difference from UK average (£, 2020)
London	8,450
East of England	870
South East	3,111
East Midlands	-2,596
North West	-2,540
South West	-323
West Midlands	-3,077
Northern Ireland	-4,139
Yorkshire and the Humber	-3,321
North East	-4,024
Wales	-3,848
Scotland	-1,734
<b>UK (average)</b>	<b>0</b>

Source: Authors’ analysis of ONS 2022d

### THE UK AT A CROSSROAD: SICKER AND POORER, OR HEALTHIER AND MORE PROSPEROUS?

This report’s hypothesis is that the UK’s worsening health and declining wealth are not unrelated trends. That is, we hypothesise that our trajectory towards shorter, less healthy lives causes significant economic harm – both for individuals and for the nation as a whole.

If this holds, it suggests that the UK stands at an important crossroads. If population health continues to get worse, it could lead to a vicious cycle between health and prosperity: where weak health undermines our economy, and a weak economy suppresses health in turn. Alternatively, if the experience of the Covid-19

<sup>8</sup> This difference has increased by around £8,000 since 2012 (see Thomas 2022).

pandemic proves a catalyst for bold action and sustained progress on health, then the UK has a path to become a fairer, healthier and more prosperous nation.

As such, this report looks at the relationship between health and prosperity – and its implications for policy – in a number of ways.

- Chapter 2 explores the role of good health in supporting individual prosperity – exploring issues like labour market participation, household income and job progression.
- Chapter 3 examines the potential of better health to support better economic performance, exploring the relationship between good health and GDP, the labour market, national productivity and the overall fairness of the economy.
- Chapter 4 explores the limits of the way in which we think about health – including our dominant national focus on sickness, overall lack of ambition, and our long-term inability to invest in long-term outcomes, sustainability and resilience.
- Chapters 5 to 7 explore, on that basis, the case for embodying an approach to health similar to that taken on climate 15 years ago and embedding a Health and Prosperity Act modelled on the Climate Change Act 2008.

#### **WHY SHOULD WE CARE ABOUT HEALTH?**

This paper's focus on prosperity is not intended to preclude that health is important above and beyond any economic value – as a precondition of good, enjoyable and long lives. Instead, our analysis is above and an addition to this value.

This focus is based on the fact that health's relationship to prosperity is too rarely accounted for in UK policy and investment decisions – impacting the quality of policy, and the level/regularity of strategic investment in good health.

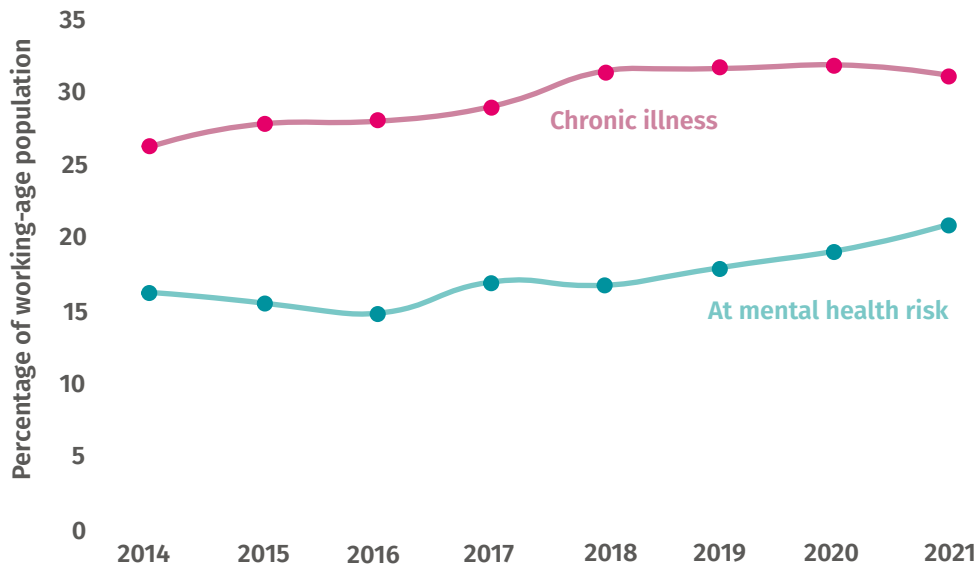
#### **METHODOLOGY**

This report uses data from the UK Household Longitudinal Study (UKHLS), which follows more than 29,000 individuals over time. We use this time variation to analyse how illness impacts people's economic lives while controlling for other factors, such as age, gender, region and ethnicity. Within this study we analyse the impact of long-term illness and mental ill health on economic outcomes. Figure 1.4 shows how health need reported in the UKHLS has changed over the last decade.

Unless otherwise stated, we analyse people who were of working age during the study periods. We look at the impacts over time in two separate periods: the five years running up to the pandemic (end 2014 to end 2019, which we denote as 2015–19) and the Covid-19 pandemic (2020–21). We do so to analyse whether the pandemic has altered some of the relationships observed in the pre-pandemic period, or where relationships remain unchanged.

**FIGURE 1.4: ALMOST ONE-THIRD OF THE WORKING-AGE POPULATION REPORT A LONG-TERM ILLNESS**

Self-reported proportion of working-age population reporting either a long-term physical health condition or mental ill health, 2014–21



Source: Authors' analysis of UKHLS (Understanding Society 2022)

Note: The ratios are calculated for the population that is of working age at each given year.

For both periods we estimate a number of regressions using the following model equation:

$$Y_{t,i} - Y_{t-1,i} = \alpha + \beta_0 Y_{t-1,i} + \beta_1 X_{t-1,i} + \beta_2 (\text{Chronic}_{t,i} - \text{Chronic}_{t-1,i}) + \beta_3 (\text{Mental}_{t,i} - \text{Mental}_{t-1,i}) + e_{t,i}$$

Where, in the different regression models we run:

- 'Y' is monthly income, hours worked, or pay per hour respectively.
- The 'chronic' variable refers to individual responses to the question: "Do you have a long-standing illness or impairment?". Through this report, we refer to this as presence of long-term physical health conditions.
- 'Mental' illness refers to the mental health 'caseness' variable constructed in the UKHLS. This is a yes/no (dummy) variable of mental health risk, constructed based on General Health Questionnaire-12 scores, which is also known in the literature as the 'caseness' measure of mental health – where an individual scores highly enough on measures of anxiety and depression to be classed as a clinical case (Bambra et al 2022). As such, we refer to it as mental ill health throughout this report.
- 'X' is a vector of control variables which includes gender, age, ethnicity, education (graduate vs non-graduate), region (which we construct as south of England vs rest of UK), the lagged dependent variable and urban vs rural.

We also use logit regressions to estimate the odds of exit from work due to illness, with the same control variables. We further use ordinal regressions to estimate the effect of illness on respondents' job satisfaction. We exclude self-employed respondents from regression models as the way income is stated is well known to

be unreliable and prone to confound results. Other datasets will be better suited to analyse effects on ill health on self-employed people. In all our charts and analysis, we use longitudinal weights to account for sample attrition.

### THE QUESTION OF CAUSALITY

Recent literature has conducted careful analysis establishing a causal link running between ill health and economic outcomes: a causal relationship between 'health shocks' and income is established in Lenhart (2019); Jones et al (2020) show a causal relationship between health shocks and labour market participation, and Bambra et al (2018) show a causal relationship between health inequality and regional productivity.

In 2020, the Department for Work & Pensions also conducted an in-depth study looking at the labour market impacts of health. Focussing on the time over which good and poor health develops, they found that a health shock is associated with a greater likelihood of job loss in the same period and, to a lesser extent, one year after. Among those who remained in employment following an incident health problem, some negative effects were observed, notably a greater likelihood of an individual becoming dissatisfied with their job. Finally, they find that the risk of job loss following an incident mental health problem is mitigated by having a university degree or working in a larger workplace (with 200 or more employees) (DWP 2021).

We contribute to this literature by:

- providing a more complete breakdown on the relationship between illness and economic outcomes, labour market earnings, working time, productivity and likelihood of labour market exit
- exploring both long-term physical health conditions and mental health caseness in tandem, and
- estimating both the overall costs of illness and outlining routes and policies through which this can be addressed.

We also provide further evidence for the causal link running from ill health to worsened labour market outcomes (building on what is established in the literature). Our longitudinal study set-up allows us to look at individuals over time, providing stronger indications of a causal relationship than a mere descriptive static analysis.

However, it does not allow us to entirely preclude the potential for reverse causality. While our confidence in the direction of the relationship is boosted by our results' coherence with the literature, we have performed the following analysis to further assure our findings:

- Sensitivity analysis: We run regressions also in a dynamic differences-in-differences set-up, where we investigate whether illness in a previous period predicts earned income decline in the contemporaneous period (controlling for previous trends in income). We find similarly sized significant coefficients.
- Cases where reverse causality is implausible: Especially for chronic illness, many of the conditions underlying people's statement of chronic illness (such as heart disease, diabetes and cancer) are unlikely to expose strong reverse causality. That is, it is unlikely that people losing their jobs get asthma or chronic obstructive pulmonary disease (COPD) as an immediate result of the job loss (though job loss may predict such conditions over a longer time horizon). It is more plausible that the heart disease (for example) – in most cases – will be responsible for people's change in labour market status.



- Coherence with insights from wider survey data: Other data, such as the Labour Force Survey, asks people directly why they quit work. In mid-2022 about 2.5 million reported sickness to be their main reason for not being in the labour force (ONS 2022a).

In table 1.3, we summarise our high-level empirical findings, highlighting in which regressions the chronic and mental health variables were significant and in which they were not. The first two chapters of this report explore these findings, in the context of wider health and economic challenges in the UK, in more detail.

**TABLE 1.3: OVERVIEW OF REGRESSION STATISTICAL SIGNIFICANCE FOR FALLING ILL (BOTH STUDY PERIODS)**

		Coefficients for 2015–19 and 2020–21
Individual earnings	Chronic	<b>Earnings loss</b>
	Mental	<b>Earnings loss</b>
Likelihood of exiting work	Chronic	<b>Higher chance of exit</b>
	Mental	<b>Higher chance of exit</b>
Fewer hours worked	Chronic	<i>Insignificant</i> (pre-pandemic), <b>Fewer hours worked (pandemic)</b>
	Mental	<b>Fewer hours worked</b> (pre-pandemic), <i>Insignificant</i> (pandemic)
Productivity	Chronic	<i>Insignificant</i>
	Mental	<i>Insignificant</i>
Earnings loss due to another person in same household getting ill	Chronic	<i>Insignificant</i> (pre-pandemic), <b>Earnings loss (pandemic)</b>
	Mental	<i>Insignificant</i>
Job satisfaction	Chronic	<b>Decline in job satisfaction</b>
	Mental	<b>Decline in job satisfaction</b>

Source: Authors' analysis

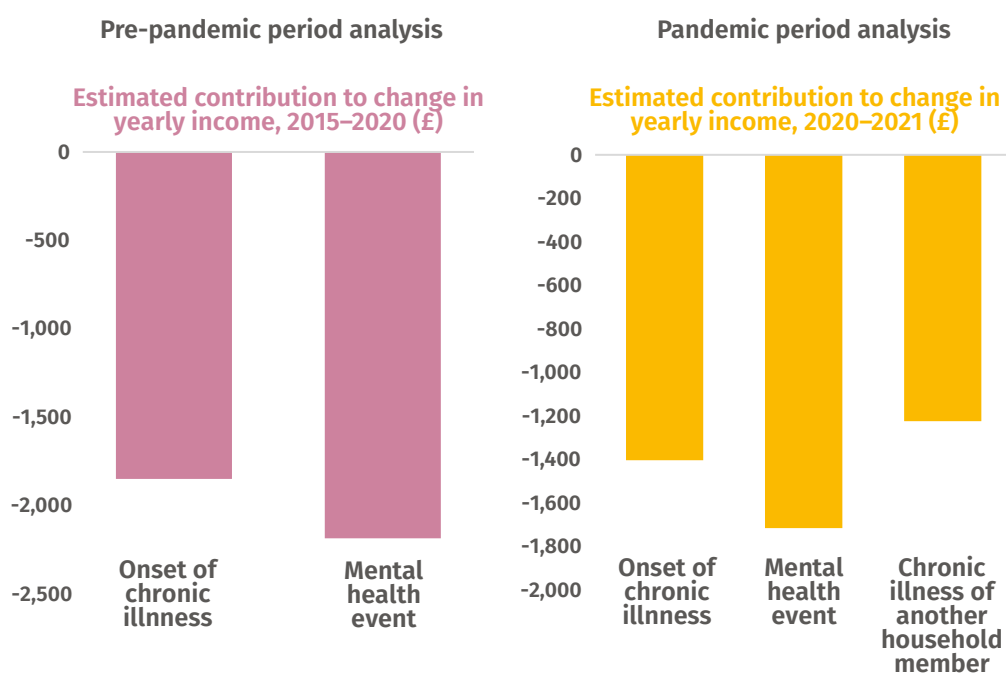
## 2. HEALTHY PEOPLE, PROSPEROUS LIVES

### INSIGHT 1: POOR HEALTH CAN SUBSTANTIALLY REDUCE EARNINGS

Our research finds that onset of a long-term illness or mental ill health predicts a significant decrease in earnings (figure 2.1). In the study period before the pandemic, we find that the onset of a chronic illness led to a reduction in individual annual earnings of over £1,848 at the end of the period studied, while the onset of mental ill health predicted a typical reduction in an individual’s annual earnings of nearly £2,184.

**FIGURE 2.1: IN OUR MODELLING, BOTH PHYSICAL AND MENTAL HEALTH ARE ASSOCIATED WITH A CONCURRENT DROP IN ANNUAL EARNINGS**

Regression analysis of impact of a long-term health condition or mental ill health on individual and household annual earnings during two study periods, UK



Source: Authors’ analysis of UKHLS (Understanding Society 2022)

Note: The above numbers represent significant regression coefficients from the regressions (as presented in the Methodology section). Earnings are inflation adjusted. All coefficients are significant at least at the one per cent level ( $p < 0.01$ ) except the ‘household effect coefficient’, which is significant at the 10 per cent level. The household effect is with regards to the dummy variable of one or more other household members experiencing the onset of a chronic illness.

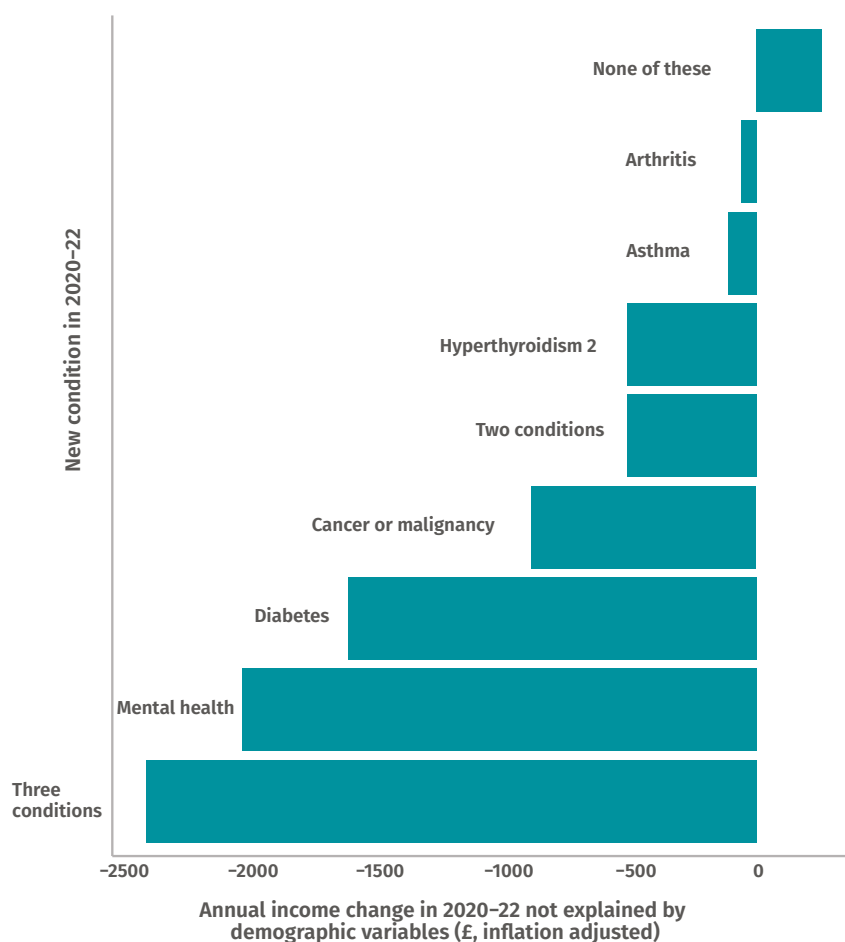
In the study period during the Covid-19 pandemic, we find a similar loss of individual annual earnings – of £1,404 for a physical health condition and £1,716 for a mental health condition. Also, during the pandemic study period,

we additionally find a statistically significant impact<sup>9</sup> of the onset of a chronic illness on the earnings of wider household members (in other words, if another member of their household falls ill), worth £1,224.

This suggests that the impact of poor health on earnings is not just a trend associated with the pandemic, but rather part of longer, unstudied trend of health's impact on individual prosperity.

**FIGURE 2.2: A VARIETY OF HEALTH CONDITIONS ARE ASSOCIATED WITH SIGNIFICANT EARNINGS LOSS**

**Earnings change not explained by demographic variables plotted against the onset of high-burden health conditions, 2020–21, UK**



Source: Authors' analysis of UKHLS (Understanding Society 2022). Note: This chart shows regression residuals averaged over a select number of health conditions. It is based on our annual earnings loss regression, controlling for the demographic variables described in the Methodology (but omitting broader physical/mental health variables). We only show data for where the sample size of conditions was at least n = 50.

This challenges any perception that in the UK – by contrast to countries with markedly different healthcare systems – the NHS's 'free at the point of delivery' principle generally protects people from any life-changing financial costs caused by illness. This analysis challenges that perception. Indeed, when looking at distribution of impact on earnings (rather than the average impact), we can see the extent to which sickness can have a life-changing impact on earnings.

9 At a 10 per cent level.

- In the five years running up to the pandemic, 32 per cent of people who experienced the onset of a chronic illness had experienced a 10 per cent or greater fall in earnings by the end of that period – the equivalent of 2.1 million people across the UK.
- This was more profound during the Covid-19 pandemic, during which 40 per cent of those who fell ill (chronic or mental ill health) experienced at least a 10 per cent or greater loss of earnings.
- Moreover, our model predicts that about 740,000 people exited employment due to chronic or mental ill health in the five years before the pandemic, therefore losing all their earnings.

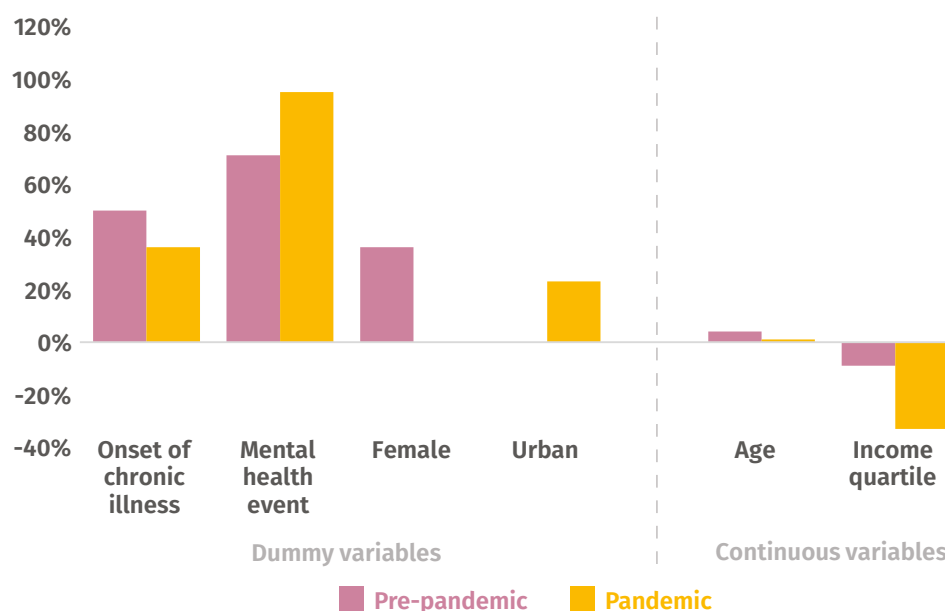
Our modelling further shows that the impact on earnings is observable following a wide range of long-term health conditions. Figure 2.2 shows that, while there is some variation, major health conditions regularly predict a fall in earnings (as do multiple health conditions). By contrast, not having a health diagnosis predicts an increase in annual earnings, on average.

### INSIGHT 2: POOR HEALTH CAN UNDERMINE OUR CAPABILITY TO STAY IN WORK

By far the strongest driver of earnings loss was employment exit. Our analysis shows that the onset of a long-term health condition increased chance of exit from employment by around 50 per cent in the pre-pandemic period and by 53 per cent during the pandemic. A mental health event increased the likelihood of employment exit 71 and 112 per cent respectively in the pre-pandemic and pandemic periods (figure 2.3).

**FIGURE 2.3: THERE IS A STRONG RELATIONSHIP BETWEEN WORSENING HEALTH AND LIKELIHOOD OF EMPLOYMENT EXIT**

Percentage change in log odds of exiting employment, 2015–19 and 2020–21



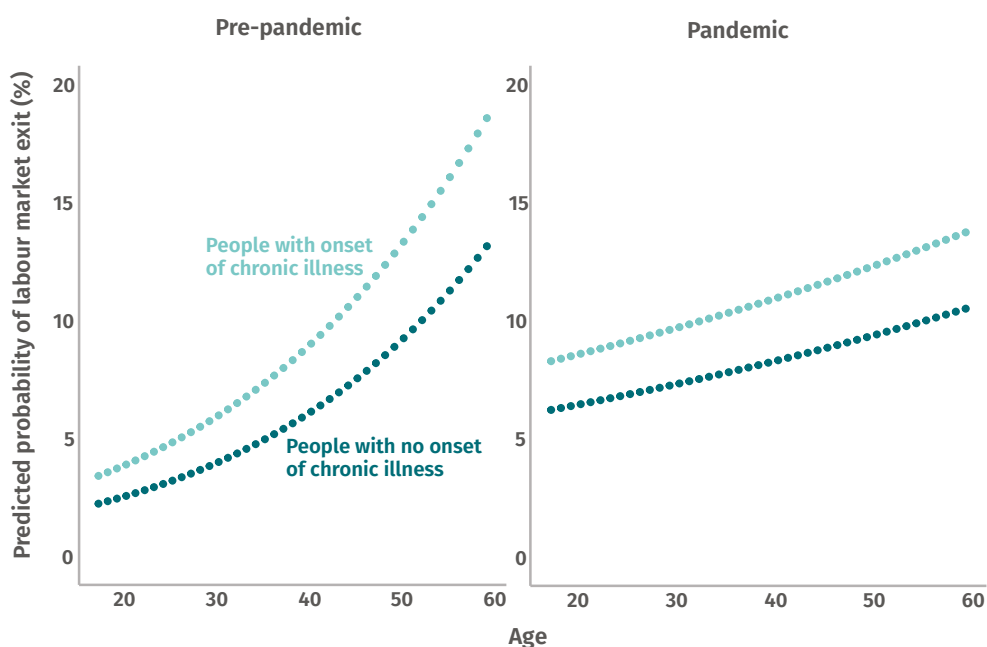
Source: Authors' analysis of UKHLS (Understanding Society 2022).

Note: The predicted probabilities are based on a logit model, estimated for 2015–19. See Methodology. The bars in this figure represent the regression coefficient that were significant at least at the one per cent level, transformed into odds ratio impact they have on the odds of exiting employment. The bars on the left of the dotted line are yes/no ('dummy') variables, those on the right of the dotted line are numeric: 'age' refers to the per cent of odds of leaving employment of one additional year of age. For 'income quartile' it means moving from one quartile to the next higher one.

In addition to making people more likely to exit work, illness also had a negative effect on those not in employment. In the pre-pandemic period, people with the onset of a chronic health condition were 14 per cent less likely to start employment and those with a mental health event were 53 per cent less likely to start employment than those with an unchanged health status.<sup>10,11</sup>

In figure 2.4, we spell out the implications of the above through simulating predicted likelihoods of exit from employment of different groups. The impact of worsening health on increasing a person’s likelihood of exiting employment was observed across all age groups and income quartiles. Figure 2.4 shows that as health declines, the chance of a person leaving employment increases, across all working ages. As people get older, the impact of the onset of a health condition increases the likelihood of exiting employment.<sup>12</sup>

**FIGURE 2.4: POOR HEALTH AND AGE BOTH INCREASE LIKELIHOOD OF LABOUR MARKET EXIT**  
Annual probability of labour market exit for people with and without onset of long-term chronic illness, UK



Source: Authors’ analysis of UKHLS (Understanding Society 2022).

Note: The predicted probabilities are based on a logit model, estimated for 2015–19 and for 2020–21. See Methodology.

The impact of health on the likelihood of exiting employment was higher among older working-age adults both pre-pandemic and post-pandemic. However, during the pandemic, the impact of poor health on the likelihood of younger working-age adults leaving work was exacerbated substantially. This is consistent with Labour Force Survey findings on the relative increase in younger adults leaving work due to sickness in the last three years (ONS 2022a).

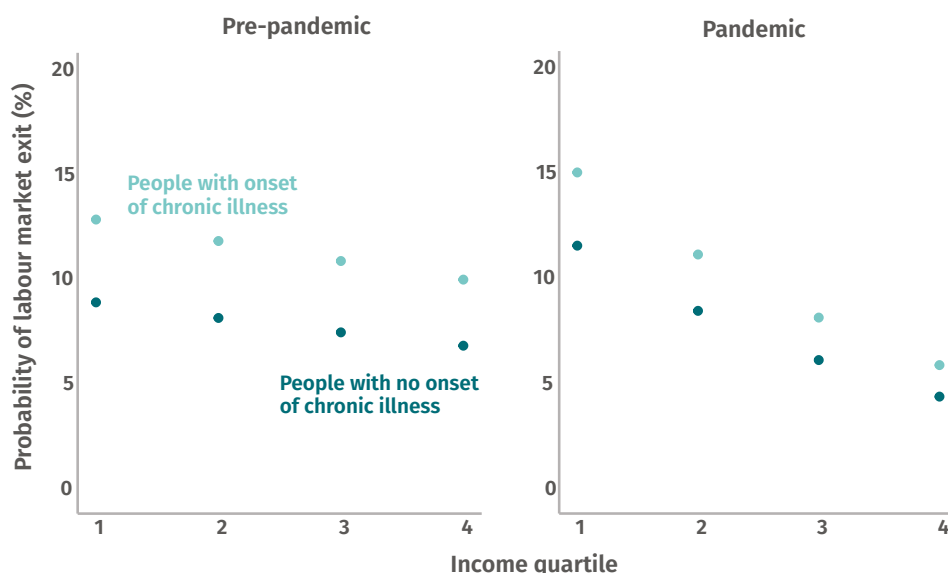
10 During the pandemic, chronic health made people six per cent less likely to enter employment while mental health made them 38 per cent less likely to enter.

11 Yet another way of looking at this is looking at labour market status most recently (rather than changes in labour market status). In the regression on this we find that those with a chronic illness were 54 per cent less likely and those with a mental health case were 44 per cent less likely to be in employment than those who were healthy.

12 This may support wider evidence on poor health as a determinant of early retirement (see Thomas 2022).

Our results also show that health has an impact on our ability to stay in work across income quartiles (figure 2.5). Long-term illness increased the probability of labour market exit at all income levels.

**FIGURE 2.5: POOR HEALTH AND INCOME BOTH PREDICT LIKELIHOOD OF LABOUR MARKET EXIT**  
Probability of labour market exit, people with and without chronic illness, by income quartile (pre-pandemic regression), UK



Source: Authors' analysis of UKHLS (Understanding Society 2022)

Note: The predicted probabilities are based on a logit model, estimated for 2015–19. See Methodology.

Notably, this figure also shows that people on a lower income were the most likely to leave employment whether or not they experienced a health condition – and that long-term illness had a bigger impact on their likelihood of exiting employment than it did on people with higher incomes. Again, the impact of long-term illness was exacerbated for people in lower income quartiles in the pandemic period, compared to the pre-pandemic period. This is consistent with Resolution Foundation findings that the rise in economic inactivity due to sickness has fallen disproportionately on people with lower levels of wealth (Murphy and Thwaites 2023).

### THE RELATIONSHIP BETWEEN WORK AND HEALTH

This chapter explores the role of good health in supporting people to remain in employment. However, evidence suggests the relationship between work and health is bidirectional – and it is important to also consider how both employment, and the nature of work, relate to good health.

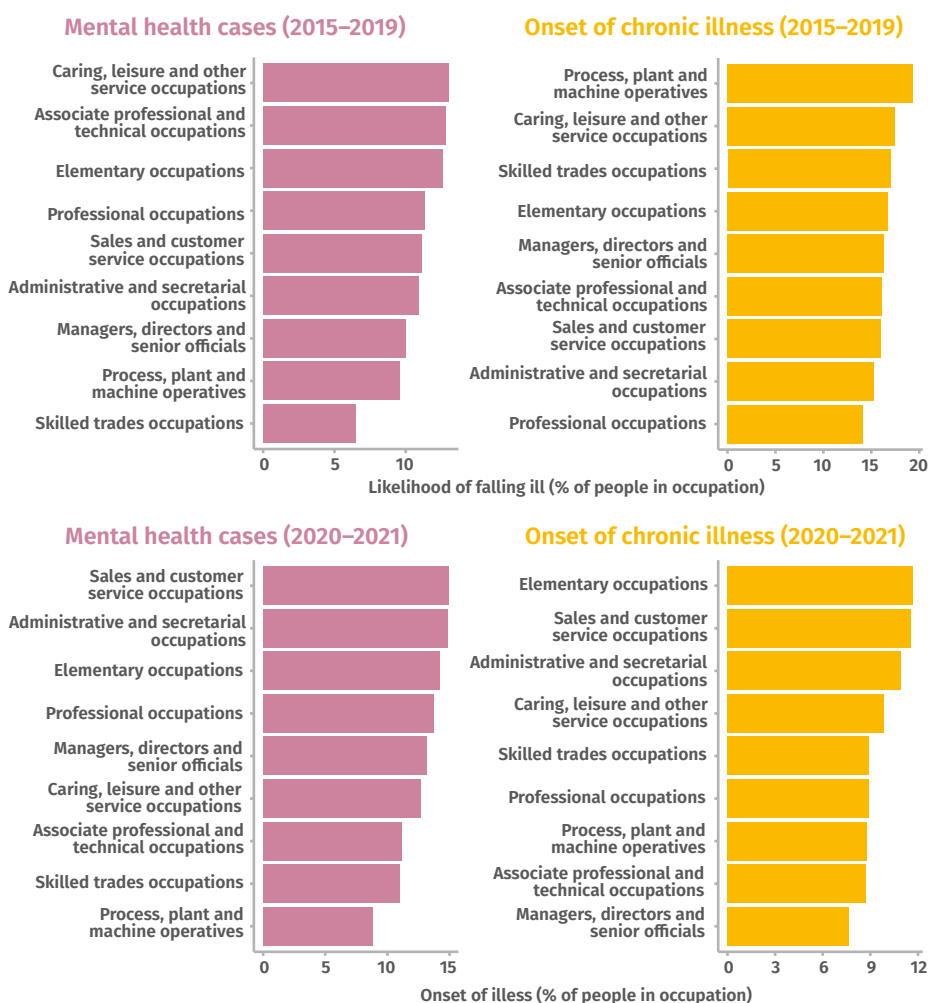
There is strong evidence that good-quality employment has a positive effect on our health and wellbeing (Patel and Jung 2022). The Whitehall Studies showed that good jobs can significantly improve health (Marmot et al 1991). By contrast, low autonomy, low pay, low flexibility and low-security jobs can be as harmful to health as unemployment (Patel and Jung 2022). This is in addition to the known health risks associated with work – with Labour Force Survey estimates suggesting that 1.8 million people are living with a work-related illness in the UK. This is roughly split between mental and physical health conditions and spans a wide range of roles and sectors (HSE 2023).

Our analysis adds more recent evidence on how (the nature of) work can determine health. Figure 2.6 shows that there is variation in rates of onset of chronic or mental ill health across occupations. Workers in people-facing service occupations, such as care and sales, had the highest degree of onset of mental and second highest of chronic illness, both before and during the pandemic.

In other words, it is possible for health and work to exist in either a virtuous or a vicious cycle. On the one hand, good health can support good work and better business outcomes, while good work can support good health in turn. On the other hand, poor work standards can undermine health, while poor health can have costs for individuals and businesses alike. Steering towards the former will rely to some extent on government – but also on the success of working with employers and businesses to maximise their potential for health creation.

**FIGURE 2.6: OCCUPATIONS AND ONSET OF MENTAL AND CHRONIC ILLNESS, BEFORE AND DURING THE PANDEMIC**

**Self-reported prevalence of conditions by sector, both study periods, mental health and chronic physical illness, UK**



Source: Authors' analysis of UKHLS (Understanding Society 2022)

Note: The figures exclude occupations for which the sample size was too small to draw statistical inference ( $n < 100$  for an individual occupation).

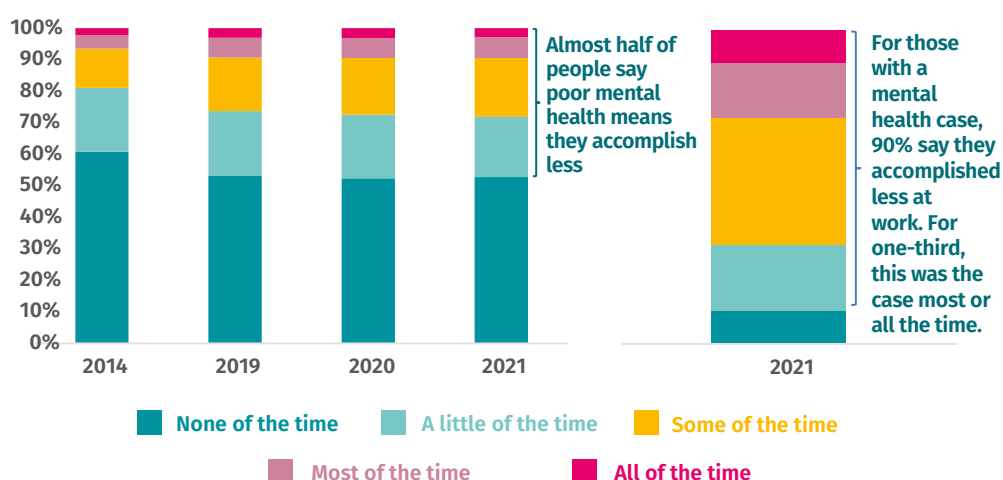
### INSIGHT 3: HEALTH SHOCKS UNDERMINE OUR CAPABILITY TO ENJOY OUR WORK AND PROGRESS IN OUR CAREER

Good work – and the capability to get on, progress and flourish in the work we do – is an important determinant of income, as well as social mobility, economic equality and overall prosperity. It intuitively follows that poor health might decrease our capacity to perform, progress and thrive in the work we do. In line with this, Lenhart (2019) finds decreased productivity of workers after a health shock: a reduction in equivalent to about £2 per hour worked, nine years after the health shock. Bambra et al (2018) find that poor health explains as much as a third of the productivity gap between the Northern Powerhouse region and the rest of England.

Our modelling showed a negative relationship between illness and productivity (proxied by hourly pay), but not at a statistically significant level. It did, however, show wider indications of a relationship between health and our experience of work.<sup>13</sup> Figure 2.7a demonstrates that, among the whole population,<sup>14</sup> almost half in 2021 reported that their mental health impacts how much they accomplish at work, at least some of the time. Among respondents with mental ill health,<sup>15</sup> the number reporting that their mental health negatively impacts their work at least some of the time rose to 90 per cent the same year (figure 2.7b).

**FIGURE 2.7: A LARGE PROPORTION OF RESPONDENTS SAY THAT POOR MENTAL HEALTH MEANS THEY ACCOMPLISH LESS AT WORK**

Percentage of survey respondents who report that mental ill health impacts the amount they accomplished at work (compared to having better mental health), 2014–21, UK



Source: Authors' analysis of UKHLS (Understanding Society 2022)

Note: This is a direct question in UKHLS. We use longitudinal weights.

We also find a relationship between illness and job satisfaction. Figure 2.8 shows that, in the five years before the Covid-19 pandemic, people who had experienced a large drop in job satisfaction (a more negative number) were significantly more likely to have experienced the onset of a chronic illness or mental health event.

13 In our regressions, we find a negative coefficient though it is insignificant at the 10 per cent level.

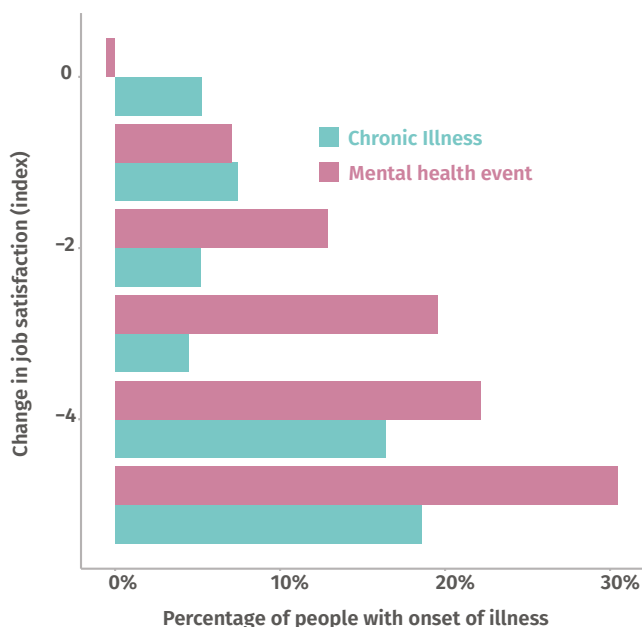
14 Not *just* those with mental ill health above a clinical threshold.

15 As established through our caseness measure.



**FIGURE 2.8: ONSET OF ILLNESS IS ASSOCIATED WITH A SHARPER DECLINE IN JOB SATISFACTION**

**Prevalence of illness among people reporting different declines in job satisfaction 2014–21**



Source: Authors' analysis of UKHLS (Understanding Society 2022).

In figure 2.9 we break this down by occupation in the pandemic period. Looking at people who experienced either the onset of a chronic illness or a mental health event, we show that average job satisfaction declined for people in most occupations – but that the impact was moderated by the kind of work a person performs.

- Managers, directors, and senior officials experienced the biggest drop in job satisfaction following the onset of either a mental or physical long-term illness.
- People working in sales and customer service occupations and care workers experienced the next biggest decline following the onset of a long-term condition.
- Following the onset of poor mental health, those in 'professional occupations' (such as nurses, medical practitioners and teachers) and 'associate professional and technical occupations' (including paramedics, police officers and artists) reported the steepest decline in job satisfaction.

Finally, our analysis also indicates that poor health can impact the hours of paid work people are able to sustain. Pre-pandemic, we find a statistically significant relationship between hours worked and the onset of mental ill health (table 2.1).<sup>16</sup> During the pandemic, we find a statistically significant relationship between a long-term physical health condition and a decline in hours worked.<sup>17</sup>

<sup>16</sup> Onset of a physical long-term condition associated with a fall in hours, but not at a statistically significant level for this period.

<sup>17</sup> Onset of a mental ill health condition associated with a fall in hours, but not at a statistically significant level for this period.

**FIGURE 2.9: MANAGERS AND CUSTOMER-FACING JOBS EXPERIENCED THE BIGGEST DROPS IN WELLBEING DURING THE PANDEMIC**

Onset of illness and job satisfaction, by occupation, 2020–21



Source: Authors' analysis of UKHLS (Understanding Society 2022)

Note: We only include occupations with a sufficiently large sample size of at least n = 100 to allow for statistical inference.

**TABLE 2.1: PEOPLE WHO FELL ILL SAW A SIGNIFICANT REDUCTION IN HOURS WORKED PER WEEK**

**Significant regression coefficients**

	2015–20	2020–21
	Change in hours worked	Change in hours worked
Onset of chronic illness	-	-0.8
Mental health event	-1.1	-
Female	-4.4	-
Age	-0.1	-0.2
Income quartile	0.9	-
Previous hours	-0.7	-0.1
Urban	-	-
Graduate	-	-2.5
'Non-South'	-	-

Source: Authors' analysis of UKHLS (Understanding Society 2022). Note: The table shows all coefficients significant at at least the 10 per cent level. A '-' means the coefficient was insignificant. For statistical reasons of sample size we included in 'non-South' all regions other than London, the South East and the South West.

**SUMMARY OF KEY FINDINGS**

- In the study period during the Covid-19 pandemic, there was a loss of earnings following the onset of a long-term physical health condition or mental ill health of £1,404 and £1,716 respectively. Additionally, there was a significant impact on earnings if another member of a household falls ill, worth £1,260.
- Both before and after the Covid-19 pandemic began, onset of physical or mental ill health increased the likelihood of employment exit across all working ages. Among those not in employment, people with the onset of physical or mental ill health were 14 and 53 per cent less likely to start employment.

### 3.

## A STRONGER, FAIRER ECONOMY

Where the previous chapter reported on our analysis of the relationship and people's individual prosperity, this chapter focusses on national prosperity. We explore the relationship between population health and the strength and fairness of the UK economy.

#### INSIGHT 4: HEALTH-DETERMINED LOSS OF EARNINGS HAVE A LARGE ECONOMIC COST

Our analysis enables a bottom-up calculation of the impact of health-determined loss of earnings on GDP. This approach is distinct from much of the existing literature on health and GDP, which is often limited to more 'top-down' methodologies. A bottom-up methodology is preferable, where possible, in increasing accuracy of estimates.

Overall, we estimate the earnings loss associated with the onset of long-term health conditions at £43 billion in 2021 (Figure 3.1) – or the equivalent of around two per cent of GDP. The GDP cost is greater for physical than for mental health conditions (though both are substantial) and comes at a time when the UK is the only advanced economy predicted to shrink in 2023 (IMF 2023).

#### METHODOLOGY

We use the percentage of working-age people with onset chronic and mental ill health in 2015–19 and 2020–21, as well as the overall prevalence of illness in the most recent period (2021). All three are shown in figure 3.1a. We then apply this to the average number of working-age people in the respective period and then the regression coefficient for chronic or mental ill health. Note that we run a separate regression for each period which yields varying but similarly sized estimates.

An underlying assumption of these cost estimates is that earnings lost by people falling ill results in a net earned income loss to the economy. We thus assume that there is no significant substitution happening, for example from unemployed people taking up employment from those falling ill. We expect this to be a reasonable assumption in the periods we analyse, where unemployment is both historically low and relatively stable.

**FIGURE 3.1: EARNINGS LOSS DUE TO NEW HEALTH CONDITIONS HAD AN ESTIMATED COST OF £43 BILLION IN 2021**



Source: Authors' analysis of UKHLS (Understanding Society 2022)

Loss of earnings is one of the clearest routes through which poor health might impact GDP. However, there are other prospective channels (that sit beyond the scope of this study) that might contribute to the total economic cost of health. These include the following.

- Production loss not included in labour and household earnings loss: this includes business overheads above and beyond salary costs. Using assumptions from National Institute for Health and Care Excellence (NICE)'s methodology for estimating the wider societal costs of ill health, alongside our modelling, would suggest an additional economic cost of £7 billion.
- Self-employed earnings loss: data quality excludes analysis of the impact of illness on self-employed earnings loss – though on the basis of results reported here, a relationship might be expected.
- Unpaid work is not counted in GDP but is an important component in measuring the impact of health on 'net production'. Using NICE's methodology for estimating wider societal costs of illness, alongside our modelling, suggests a loss of unpaid care work worth the equivalent of £37 billion.

- Our methodology is not suitable for exploring the economic impact of short-term illnesses. However, in 2021 the UK lost 149.3 million working days to minor illness (illnesses that can be confidently assumed to be outside our model estimates). Estimates have put business costs of a sick day at £720 per day (CBI 2018), while there may be earnings loss if an employee moves to statutory sick pay.
- Similarly, our methodology does not include environmental factors that can cause long-term illness, such as diet or obesity. Wider estimates for these factors exist (see Bell et al 2022), but often include the conditions that result from obesity in their calculations, so cannot be considered entirely additional to our estimates.
- We also do not calculate avoidable healthcare costs or the cost of increased use of other public services as a result of illness.

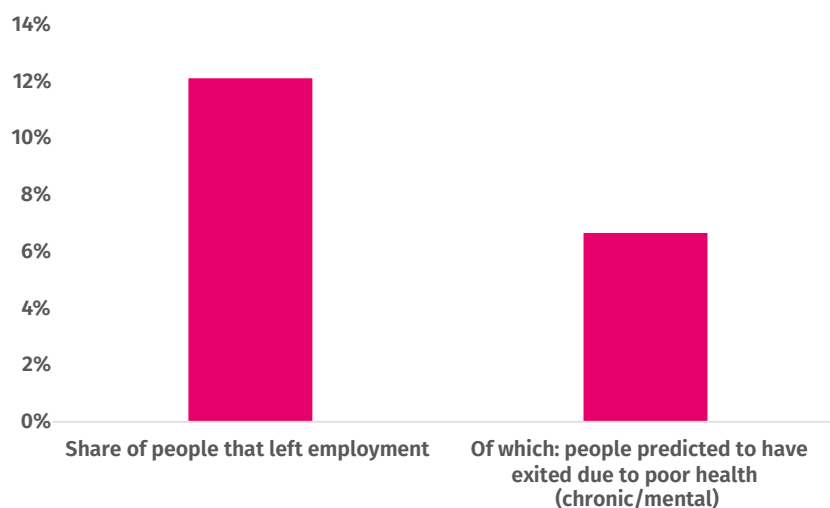
Each would make useful priorities for future, bottom-up research – following directly from this study – in calculating the total economic burden of sickness.

**Insight 5: Poor population health undermines the strength of the UK labour market**

Our analysis also provides evidence on the overall impact of illness on the labour market. We estimate that poor health was associated with more than half (56 per cent) of the 3.3 million exits from employment in the five years preceding the pandemic.

**FIGURE 3.2: BETTER HEALTH COULD HAVE PREVENTED OVER HALF OF ALL EMPLOYMENT EXITS IN 2015 TO END 2019**

Percentage of people exiting employment, 2015–19



Source: Authors' analysis of UKHLS (Understanding Society 2022)

Note: Authors' analysis based on logistic regression model.

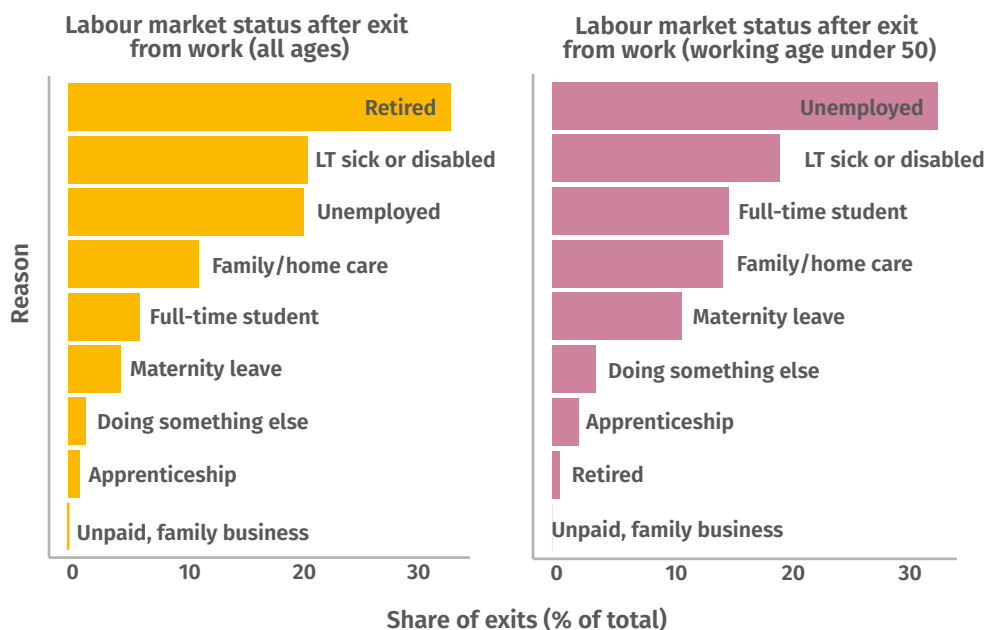
Of course, it does not follow from our analysis that all of these exits could have been prevented. While a significant proportion of health conditions can be prevented, better managed or better treated, there will always be a base level of long-term sickness. Instead, our results indicate that health is an important lever in optimising the UK labour market. Whether through better population health, a stronger relationship between work and health, swifter access to better employment services, or faster and more effective health and

care services, policymakers have many available options to better tap into the potential value of improved health.

There has been recent debate on whether ill health or early retirement is the predominant reason for rising levels of economic inactivity (and which policymakers should subsequently focus on) (see IFS 2022; Tinson et al 2022). However, evidence is increasingly clear that poor health is often a determinant of early retirement in its own right – that is, that the two cannot be seen as entirely separate factors (see Thomas 2022; Murphy and Thwaites 2023). Figure 3.3 provides further evidence of this. It shows that long-term illness often led to early retirement among older working-age adults, but to unemployment among younger working-age adults.

**FIGURE 3.3: THE MOST COMMON ROUTE OF EXIT FOLLOWING ONSET OF CHRONIC OR MENTAL ILL HEALTH WAS EARLY RETIREMENT, BUT FOR THOSE UNDER 50 IT WAS UNEMPLOYMENT OR LONG-TERM SICKNESS (IN 2015–19)**

**Labour market status following exit from work, working-age adults older/younger 50 years old, pre-pandemic, UK**



Source: Authors' analysis of UKHLS (Understanding Society 2022)

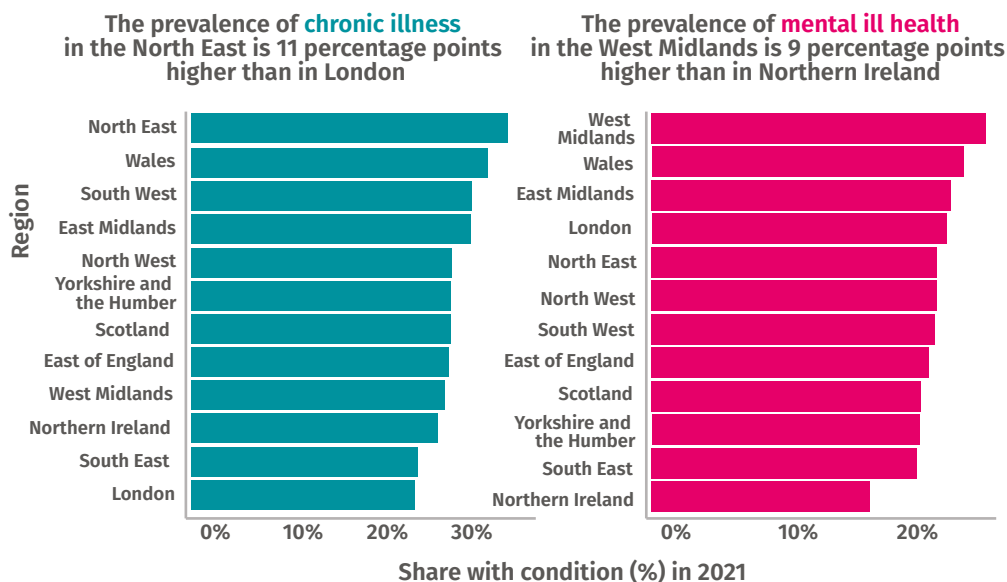
This indicates that any focus by government on overly simplistic attempts to incentivise people back to work, without considering the spectrum of factors that determine retirement (like illness), may prove ineffective.

**INSIGHT 6: BETTER HEALTH COULD HELP DELIVER A MORE REGIONALLY BALANCED AND MODERN UK GROWTH MODEL**

As this paper has already shown, poor health outcomes are more common in some UK regions and nations than in others. Figure 3.4 shows that working-age people living in the north of England, the Midlands and Wales were substantially more likely to report the onset of chronic illness than people living in the south of England. People in the Midlands and Wales were more likely to report the onset of a mental health event than people in the south east of England or Northern Ireland.

**FIGURE 3.4: WORKING-AGE PEOPLE LIVING IN THE NORTH, THE MIDLANDS AND WALES WERE SIGNIFICANTLY MORE LIKELY TO BE ILL THAN THOSE LIVING IN THE SOUTH OF ENGLAND**

**Likelihood of onset of illness/mental health event, by UK nation or region**



Source: Authors' analysis of UKHLS (Understanding Society 2022). Note: While this broadly correlates to wider evidence on distribution of poor health across the UK, self-reported illness may have some discrepancies with other prevalence data. Nonetheless, there is very strong and established correlation between UKHLS self-reported data and objective prevalence data (including from our analysis).

Evidence from the Commission on Health and Prosperity has already shown that poor health is more prevalent outside the south of England – and that, in turn, nations and regions with the worst health are hardest hit by economic inactivity due to long-term sickness. Indicatively, economic inactivity due to long-term illness is twice as prevalent in the North East, Scotland and Wales as in the South East (Thomas 2022).

This paper adds to this by exploring the impact of reducing regional health inequality on earnings by region. To test this, we construct an analytical experiment, in which we explore the impact of the prevalence of long-term physical and mental ill health reducing by 10 percentage points. Under this scenario, health improves in the regions with the worst health outcomes by more than it improves in the regions with the best health outcomes.

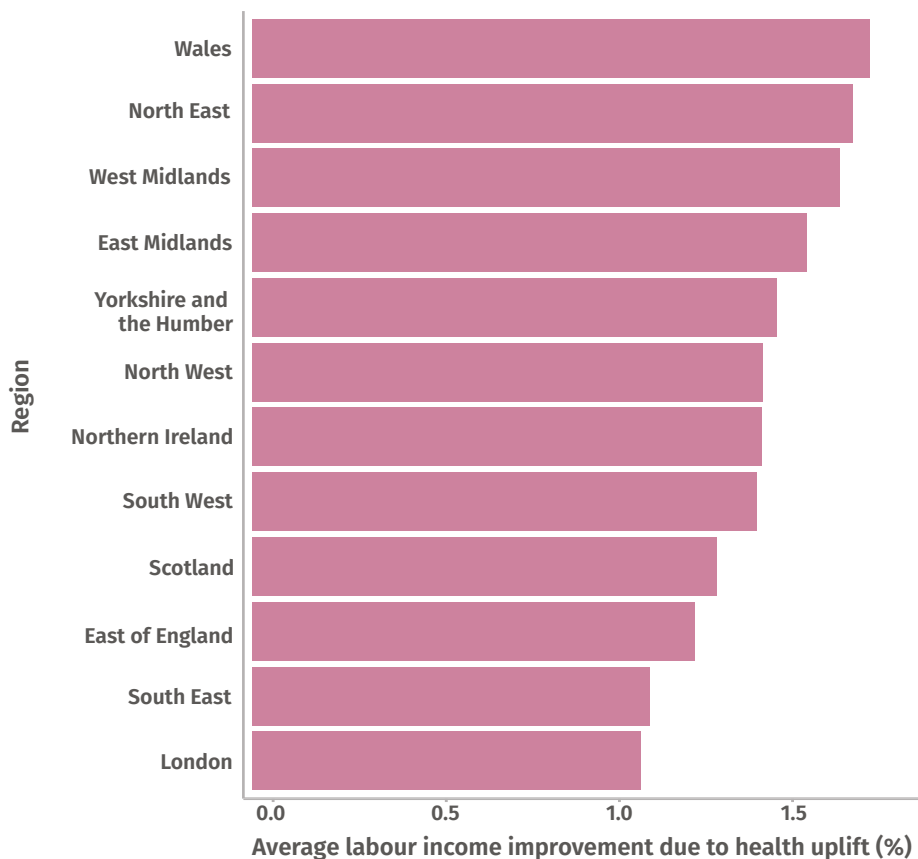
While this level of improvement is possible, it is not suggested as a prediction of what could or should happen. Rather, it provides an analytical route to explore how the benefits of good health could flow – and whether health creation is a potential lever in ensuring a balanced, inclusive UK economy and growth model.

As figure 3.5 shows, under the above scenario, we find earnings would increase most in Wales, where the average working-age person's earnings would increase by 1.7 per cent. Similar gains in income could be observed in the West Midlands and the North East. Meanwhile, at a lower level, health creation could still support higher earnings in London and the South East.



**FIGURE 3.5: BY LEVELLING UP ON HEALTH GAPS ACROSS UK NATIONS, WE COULD EXPECT TO SEE REGIONAL EARNINGS IMPROVED BY AS MUCH AS 1.8 PER CENT PER ANNUM**

**Expected improvement in labour market earnings from a 10 percentage point reduction in prevalence of long-term physical and mental ill health**



Source: Authors' analysis of UKHLS (Understanding Society 2022).

The implication is that better health could support a more balanced UK growth model – where wealth and prosperity is created and spread across the whole country and based on lower levels of earning inequality than is currently the case.

### **INSIGHT 7: BETTER HEALTH COULD TACKLE ECONOMIC INEQUALITIES, AND HELP HARDWIRE THE UK ECONOMY AROUND FAIRNESS**

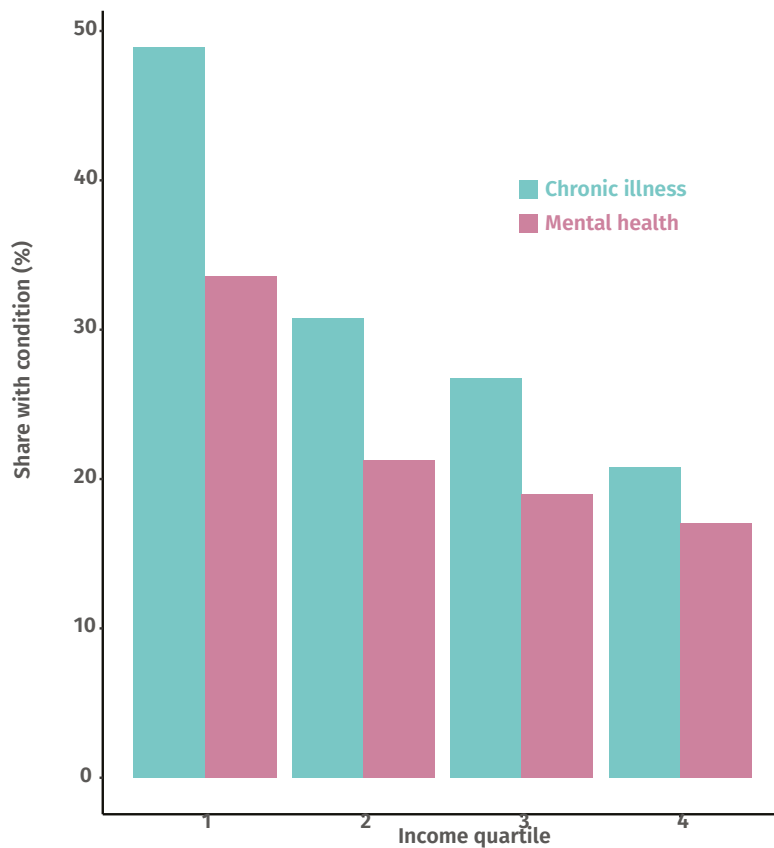
The place we live is not the only determinant of health and earnings inequality. As such, we also explore the interaction between health and wealth by gender, ethnicity and income level. In each case, we test the potential of better, more equal health to support more equal earnings distribution through the same analytical experiment outlined above.

#### **Health, prosperity and income quartile**

First, we look at the impact of better health by different income levels. People living on lower incomes are more likely to experience ill health than their more affluent peers throughout their life course (figure 3.6).

**FIGURE 3.6: PEOPLE WITH THE LOWEST EARNINGS FACE THE HIGHEST RATES OF CHRONIC PHYSICAL ILLNESS AND POOR MENTAL HEALTH**

**Likelihood of a working-age individual experiencing chronic physical illness or a mental health event, by individual earnings quartile**



Source: Authors' analysis of UKHLS (Understanding Society 2022)

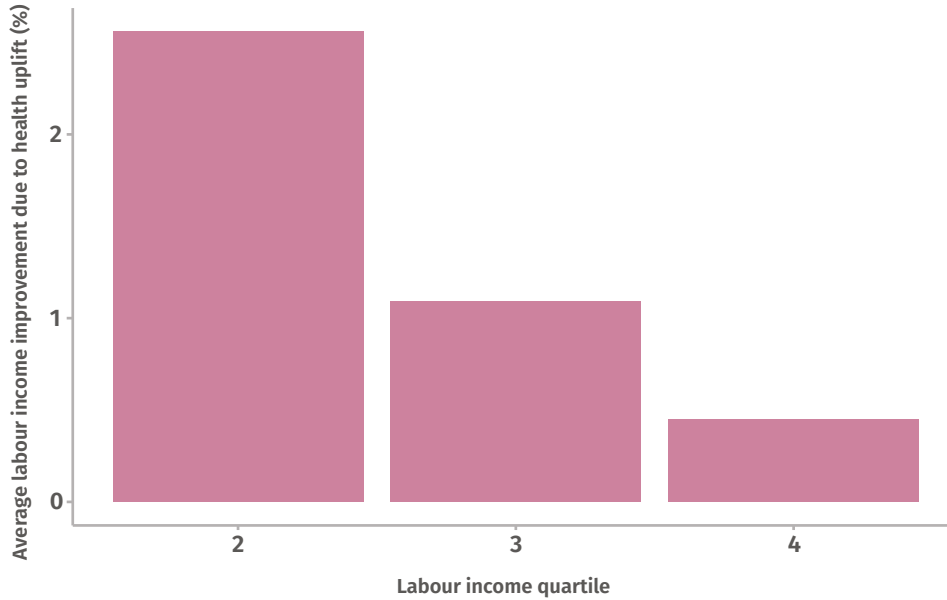
Note: Income quartiles are calculated for individuals using earned income.

We then test the impact on earnings if health improved 10 percentage points in each quartile. This shows that those who are currently earning less stand to gain five times more than their more affluent neighbours from reducing rates of chronic illness and mental ill health (figure 3.7).

With the regional analysis, the gains of better health could contribute to reducing economic inequality in the UK.

**FIGURE 3.7: A 10 PERCENTAGE POINT REDUCTION IN RATES OF ILL HEALTH (BOTH LONG-TERM PHYSICAL AND MENTAL) WOULD BOOST EARNED INCOME THE MOST AMONG THE LOWEST PAID**

Effect of improving health by 10 percentage points, by earnings quartile

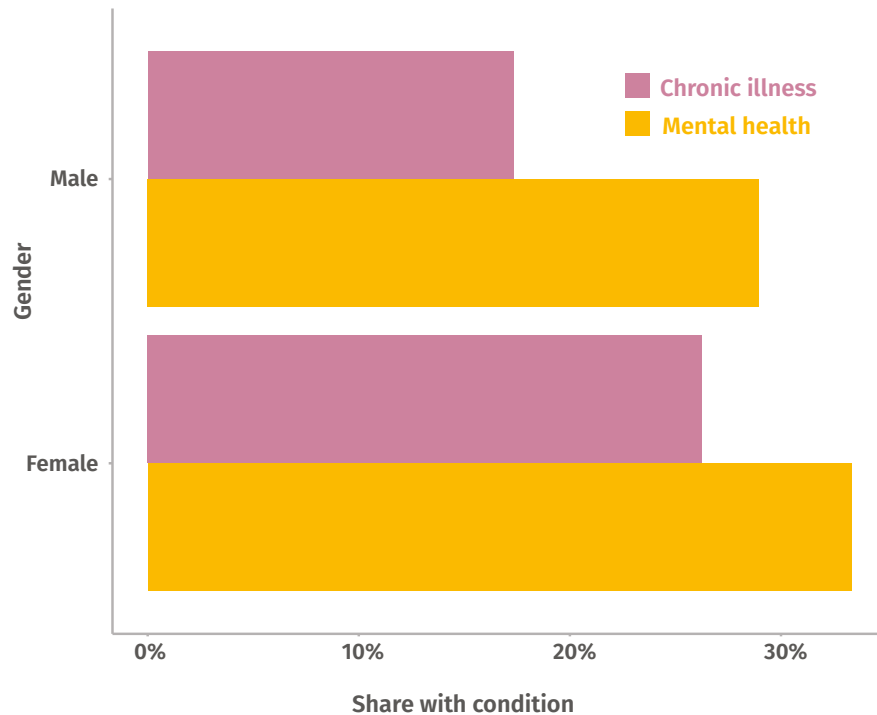


Source: Authors' analysis of UKHLS (Understanding Society 2022)

Note: the first income quartile is excluded here for presentational reasons, as the low base level of earned income leads to very large percentage point increase.

**FIGURE 3.8: WORKING-AGE WOMEN ARE MORE LIKELY THAN WORKING-AGE MEN TO EXPERIENCE CHRONIC ILLNESS OR MENTAL ILL HEALTH**

Likelihood of an individual experiencing chronic illness or mental ill health by gender



Note: Authors' analysis of UKHLS (Understanding Society 2022)

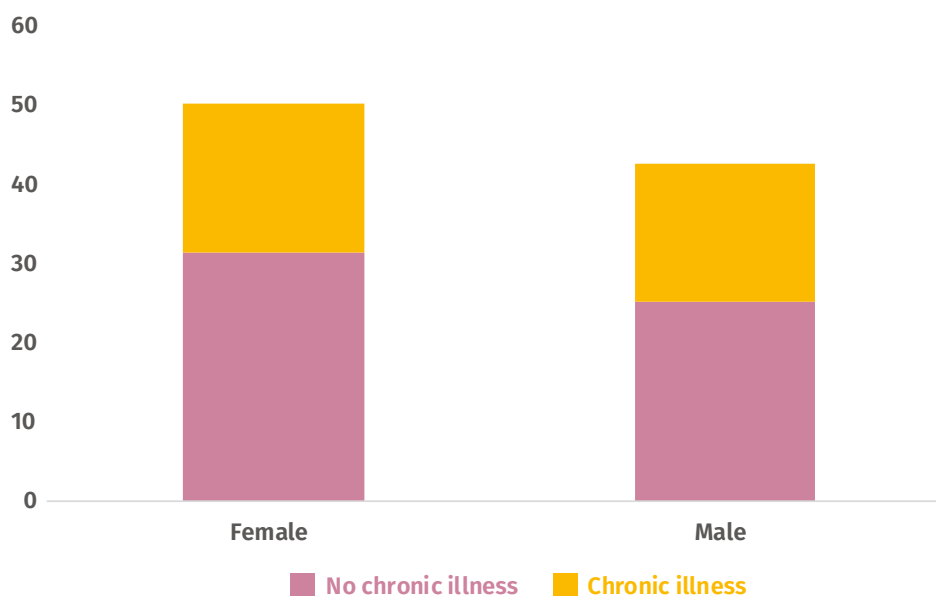
### Health, prosperity and gender

Health is also shaped by gender. In our data, working-age women were more likely than men to experience poor mental health and also more likely than men to report a long-term health condition (figure 3.8). This picture is, however, complicated by stubborn gender gaps in both life expectancy and healthy life expectancy. Life expectancy at birth remains around four years lower for men than for women in England, and the typical UK woman can expect to enjoy just under a year longer in good health than the typical man (Raleigh and Holmes 2021).

This adds to existing inequality of women earning on average less than men (as evidenced in the government's gender pay gap statistics). Moreover, our model predicts that women are less likely than men to be in work and that illness contributes to this fact (figure 3.9).

**FIGURE 3.9: WOMEN ARE MORE LIKELY TO NOT BE IN EMPLOYMENT THAN MEN, AND ILLNESS MAKES THIS WORSE**

#### Predicted likelihood of not being employment



Source: Authors' analysis of UKHLS (Understanding Society 2022)

Note: The predictions are based on our cross-sectional 'stocks' logit model which predicts likelihood of being in employment in the most recent UKHLS model.

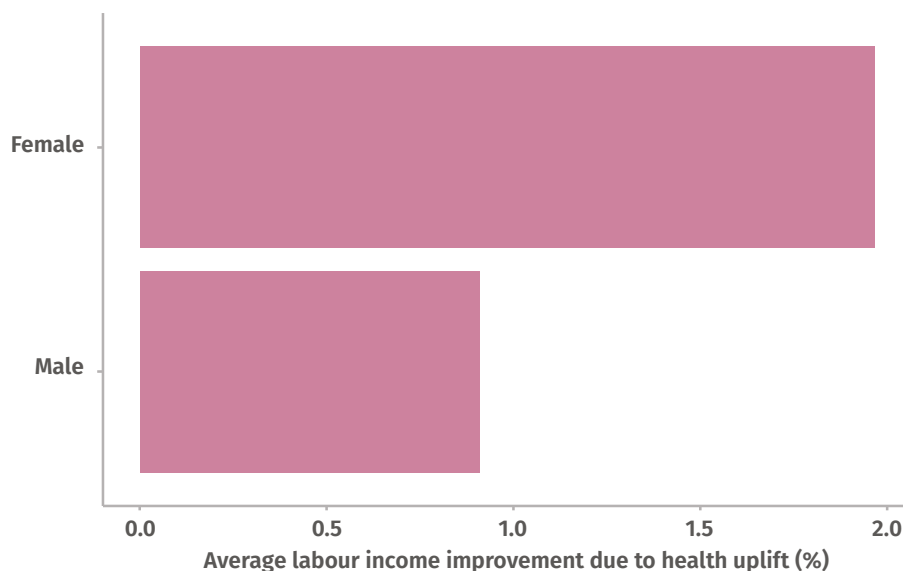
In figure 3.10 we again apply our analytical experiment, and find that a 10 per cent improvement in health prevalence could increase the average woman's earned income by around two per cent – twice as much as the improvement to the average man's increase (0.9 per cent). This is the average gained across all women, not just the smaller group who avoid illness.

In the context of a persistent gender pay gap across the UK, this suggests better health could help support gender equality across the economy.

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**FIGURE 3.10: BETTER HEALTH COULD BENEFIT FEMALE EARNINGS TWICE AS MUCH AS MALE EARNINGS**

**Average annual income improvement as a result of improving chronic and mental ill health rates by 10 percentage points across the population**



Source: Authors' analysis of UKHLS (Understanding Society 2022)

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**Health, prosperity and ethnicity**

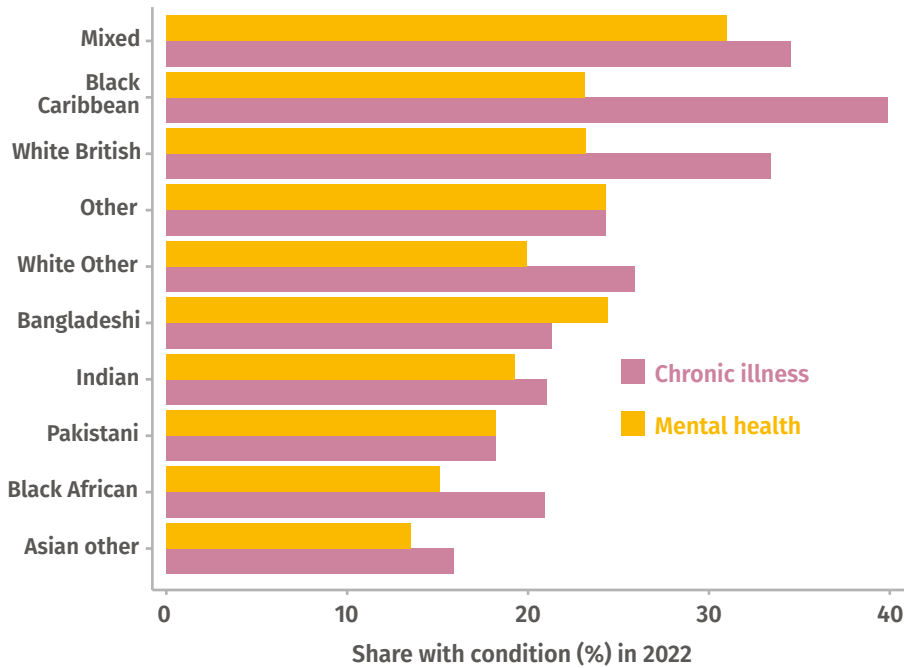
Finally, we look at health inequalities between ethnic groups. The Covid-19 pandemic shed light on the sharp inequalities that shape Black and minority ethnic people's experiences of health and healthcare in the UK, as minority ethnic groups experienced higher infection and mortality rates than the white population (Raleigh and Holmes 2021).

Figure 3.11 gives a breakdown in prevalence of long-term physical conditions, and mental ill health, by ethnic group. Mental health problems are most prevalent among Mixed, Black Caribbean, White British, Bangladeshi and 'Other' ethnic groups. Long-term physical health conditions were particularly high among Black Caribbean, White British, Mixed and White Other groups.

Figure 3.12 shows the results of again applying our analytical experiment. We find that this could translate into an earnings boost of 2.1 per cent and 1.9 per cent respectively for Bangladeshi and Pakistani groups, and boost earnings by around 1.6 per cent among Black Caribbean, Black African and Mixed groups.

**FIGURE 3.11: WORKING-AGE PEOPLE WITH BLACK CARIBBEAN HERITAGE ARE MORE LIKELY TO REPORT A CHRONIC ILLNESS THAN ANY OTHER ETHNIC GROUP, WHILE PEOPLE WITH BANGLADESHI OR MIXED HERITAGE ARE THE MOST LIKELY TO EXPERIENCE MENTAL ILL HEALTH**

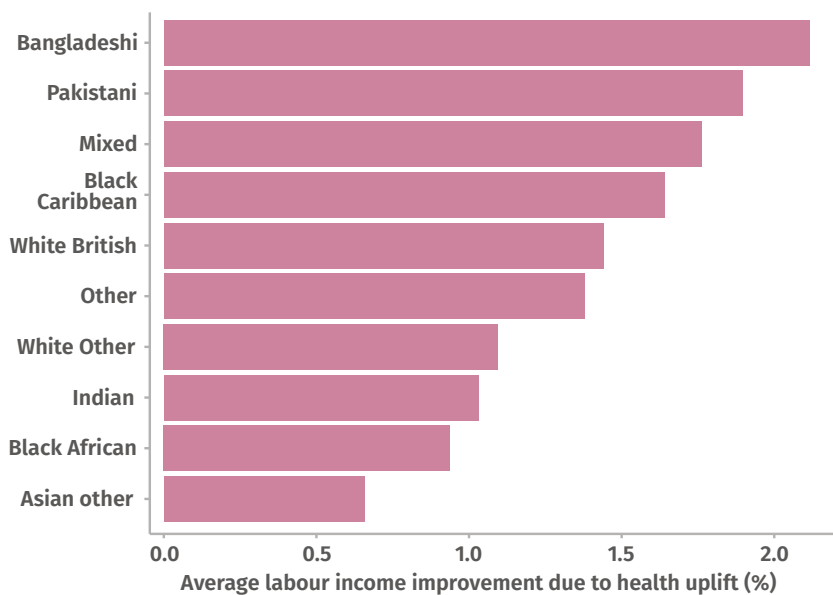
Likelihood of an individual experiencing chronic physical illness or a mental health event by ethnicity



Source: Authors' analysis of UKHLS (Understanding Society 2022)

**FIGURE 3.12: IF WE ACHIEVED A 10 PERCENTAGE POINT IMPROVEMENT IN RATES OF CHRONIC AND MENTAL ILL HEALTH, WE WOULD EXPECT TO SEE A 2.1 PER CENT BOOST TO AVERAGE EARNINGS AMONG BANGLADESHI PEOPLE**

Scenario estimates: Average annual earnings change as a result of improving chronic and mental ill health rates by one percentage point



Source: Authors' analysis of UKHLS (Understanding Society 2022)

Against a backdrop of wide ethnicity pay gaps for each of these groups compared to their White British counterparts, this suggests that narrowing population health inequalities could play a significant role in narrowing earnings inequality.

### SUMMARY OF KEY FINDINGS

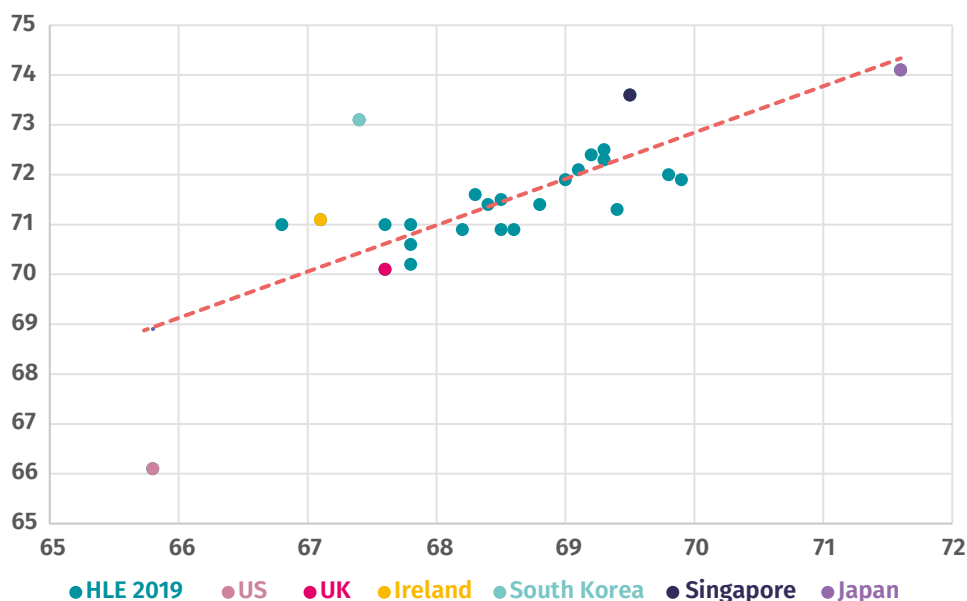
- Alone, the impact of poor health on earnings has an economic cost of £43 billion – equivalent to around two per cent of GDP. This is not the sum of poor health's total economic burden.
- Leading up to the pandemic, poor health predicts more than half of exits from employment. The onset of a physical or mental health condition disproportionately increased the likelihood of employment exit among people with lower incomes.
- The benefits of good health would support economic equality. They would disproportionately flow to poorer regions (Wales, North East), women and people with the lowest earnings.

## 4. CAN WE DO BETTER?

This report demonstrates the economic case for prioritising better health. However, that is little use to policymakers unless the extent to which better health is possible can also be established. There are strong indications that significant progress is, indeed, plausible. First, international comparisons show that the UK has both a lower healthy life expectancy at birth than other comparable nations and a slower rate of progress over the last 20 years (figure 4.1).

**FIGURE 4.1: THE UK HAS A LOWER HEALTHY LIFE EXPECTANCY AT BIRTH THAN COMPARABLE COUNTRIES**

Healthy life expectancy at birth, 2000 and 2019 (latest), selected high-income countries



Source: WHO 2020

The line of best fit is particularly notable. It shows the average pace of improvement in healthy life expectancy over the last 20 years, among this group of high-income countries. Those above the bar demonstrated a higher than average improvement in healthy life expectancy (compared to average improvement across these nations), while countries below the line demonstrated a lower than average improvement. The UK sits below the line, while some nations (Singapore and South Korea most notably) have achieved very rapid improvements through the last 20 years.

A second indicator that better health is plausible is the sheer level of impairment and death attributable to known, preventable risk factors in the UK. For instance, in 2019:



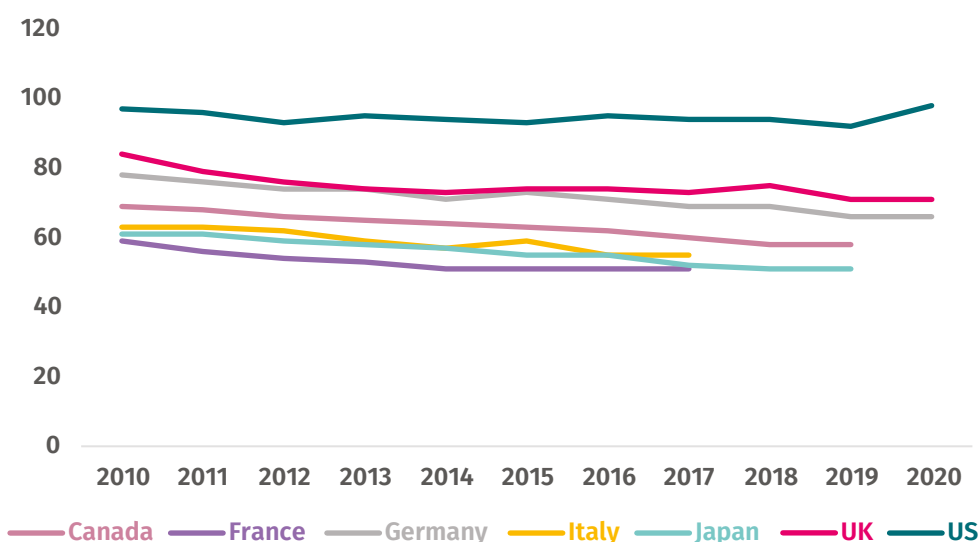
- the UK mortality rate was 925 per 100,000 people from all causes; 517 deaths per 100,000 people were attributable to a known risk factor<sup>18</sup> – or around 55 per cent
- the UK lost just over 29,000 ‘disability-adjusted life years’ per 100,000 people; just over 12,500 of those per 100,000 people were attributable to a known risk factor – or 43 per cent (authors’ analysis of IHME 2020).

As before, this does not indicate that entirely eliminating preventable impact of conditions is achievable. But it does indicate that there is plenty of poor health and premature mortality that is amenable to policy.<sup>19</sup>

A third is the UK’s significant capability to diagnose conditions earlier, or to treat them more effectively. Treatable mortality – that is, deaths amenable to treatment – is an internationally comparable indicator of this potential. Figure 4.2 shows standardised rates of treatable mortality across the G7. The UK performs second worst, better only than the US.<sup>20</sup>

**FIGURE 4.2: THE UK HAS HIGHER TREATABLE MORTALITY THAN MOST OTHER G7 COUNTRIES**

Treatable mortality per 100,000 people, 2010–20 (or latest), G7 nations



Source: Recreated from OECD 2022b

Even where better treatments, greater prevention, new innovation, or faster access to care are not feasible, there remain methods to mitigate the impact of sickness on the rest of our lives and individuals’ overall prosperity. Following the logic of the social model of disability, policymakers can aim to reduce the societal barriers faced by people living with health conditions or impairments – including their barriers to good jobs, career progression and a fair wage. Research by NICE indicates that after six months out of work due to sickness, only one in five return

18 That is, variables with well-evidenced link to health harms – from environmental (weight, diet, alcohol use, tobacco use) to occupational (nature of work, defined safety hazards).

19 The commission’s most recent report estimated that matching the rates of preventable mortality in Japan (best performing G7 nation) among just the working-age population would save an estimated 26,000 lives across the UK per year (around 4 per cent deaths).

20 Meeting the level of treatable mortality observed in Japan would reduce annual deaths by an estimated 13,400, while meeting the rate in the best performing OECD country (South Korea) would reduce annual deaths by an estimated 19,000 per year (around three per cent of deaths).

to work – and that after two years out of work following sickness, someone is more likely to die than re-enter the labour market – indicating the importance and potential efficacy of swift interventions to reduce the wider economic impacts of sickness (NICE 2009).

### WHY DON'T WE DO BETTER?

The problem is not a paucity of well-evidenced policies that could improve health through the life course. Across the life course, from healthcare to the social determinants, are no shortage of options with evidence of both efficacy and return on investment available. This suggests the biggest barrier is not one of means, but one of willingness.

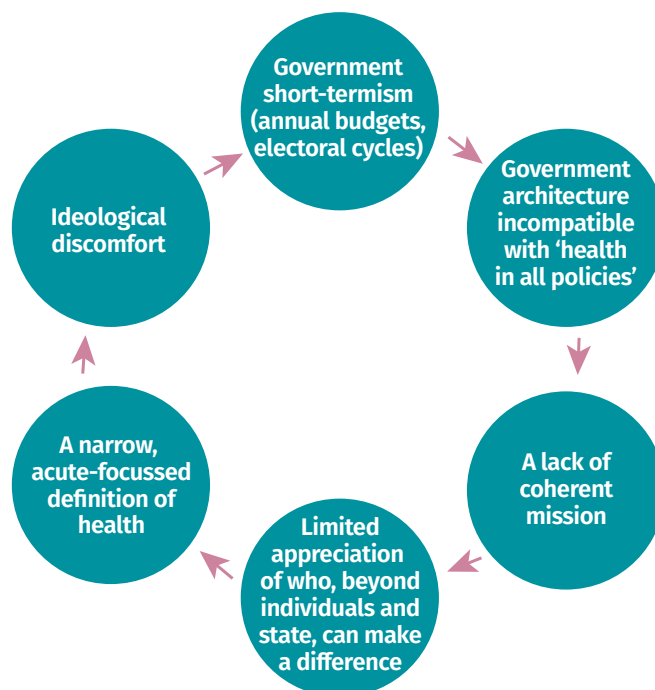
#### WHAT IS KNOWN TO WORK?

There are well-evidenced means to improve health through the life course and across a range of different levers. Non-exhaustive examples include the following.

- **On the 'causes of the causes':** Often otherwise defined as the social determinants of health. Evidence is strong on the link between poverty and poor health. A range of research has shown that reforms to the social security system could make a big difference. IPPR research suggests that ending the two-child limit and increasing child benefit by £20 per week per child could lift hundreds of thousands of families out of poverty (Statham and Parkes 2022).
- **On the 'causes':** Otherwise defined as environmental factors which impact health, like diet, weight, exposure to pollution or occupational health hazards. There is excellent evidence on individual interventions to help tackle obesity, including junk food marketing restrictions before the watershed (Boyland 2019; Davies 2019).
- **On treatment:** The UK lags behind in ensuring quick, effective access to the best diagnostics, and care and treatments. While there are some success stories (genomics, gene-cell therapies), the broader trend is one of later diagnosis and slower spread of new treatments (even following licence by NICE) (see OLS 2022; Arnold et al 2019).
- **On management:** Even if a condition cannot be prevented or cured, there is excellent evidence on mitigating its impacts on wellbeing and our economic lives. Individual Placement Support has a strong evidence base, and has been piloted within healthcare settings, but still suffers inadequate provision (Suijkerbuijk et al 2017). One-to-one support, use of specialist employment advisors and role models also have promising evidence (Smith et al 2019; Asquith et al 2013). Employer-led interventions – such as employee assistance programmes, good sick pay provision, autonomy in the workplace and access to flexible, self-directed working patterns are also effective (CBI 2018).
- **On care:** Other countries have shown that significantly better models of social care are possible, without a significant change in cost, including the Buurtzorg Model (World Economic Forum 2017; KPMG 2016) and so-called 'dementia villages' (Haeusermann 2017). Translation of demonstrably better care models to the UK is limited at best.

To explore this in more detail, IPPR have looked to establish specific barriers that underpin our capacity to implement policy and realise change. We suggest six key themes (figure 4.3).

FIGURE 4.3: WHAT DRIVES THE DEFICIT OF WILLINGNESS?



Source: Authors' analysis

### THE SIX KEY THEMES OF UNWILLINGNESS

1. **Government short-termism:** Health improvements can often take a long time to achieve. Specifically, there is generally a lag between a policy intervention and its benefits (including return on investment) becoming apparent in outcome measures (Barr et al 2017). This can be challenging for government, which is often held accountable for more immediate progress on the biggest issue of the day – and, at best, operates on a five-year election cycle. It is particularly challenging for HM Treasury, where political incentives to short-termism are particularly strong.
2. **Government architecture incompatible with 'health in all policies':** While this paper has shown a significant economic case for health creation, maximising healthy lives requires a cross-government approach: from Treasury supporting investment, to business departments supporting innovation, to social security and education policies conducive to progress on the social determinants of health. Yet, actually achieving consistent, cross-government action is challenging in reality:
  - **Limited accountability:** Beyond the Department of Health & Social Care (DHSC), few departments have direct accountability for improving health – even if they have lots of levers to do so.
  - **Few levers:** Those who are accountable to health outcomes have relatively few levers. For example, the secretary of state for health and social care has little hard means to influence the policy of colleagues – unlike

the prime minister, who can pick and reshuffle cabinet roles, and the chancellor, who sets budgets.

- **Where savings are accrued:** If other departments did prioritise health, at least a significant proportion of the benefits might flow elsewhere. This can make health challenging for departments beyond DHSC to ‘price in’ or otherwise justify health.
  - **‘Not my problem’:** Equally, population health is impacted by a significant range of social and corporate determinants. This means lots of levers are available, but it also means that any single lever is unlikely to be decisive. It is easy for individual policymakers to suggest that the onus for health creation lies elsewhere.
3. **A lack of coherent mission:** While the health sector has lots of targets – emergency department waiting times; early diagnosis of cancer; provider deficits – it has little in the way of an overarching mission. Unlike climate (net zero) or economic departments (GDP, fiscal rules), there is little clear sense of what the unifying, long-term ambition looks like – beyond, perhaps, politically tolerable NHS performance.
  4. **A limited view of who can make a difference:** Too often, health policy views healthcare as the role of the state, and wider health creation as predominantly the responsibility of individuals. It has developed little capacity to make health a whole society mission, covering wider public services, businesses, employers, local government, communities and civil society. This limits the span and scope of interventions available – and underpins the lack of capability in UK governments to shape and partner with the private sector, employers, voluntary organisations and a whole range of other institutions across society on health creation.
  5. **A narrow focus on sickness:** The public salience of the NHS routinely leads to policy focussed on sickness, rather than policy focussed on using the full range of levers available to (strategically) maximise population health. This can mean interventions on the social determinants are underutilised; or can lead to patients or clinicians undervaluing or underutilising interventions before a diagnosis (for example, screening, vaccines, public health services, preventative medications). This status quo is not working for prevention or cure. On the former, prevention is rarely prioritised – even as a strategy to manage NHS demand. On the latter, the sheer pressure on the NHS makes change, modernisation and transformation increasingly difficult. That is, the choice is not between whether we do prevention or cure but rather whether we have an approach that allows us to do either prevention and/or cure well.
  6. **Ideological discomfort.**

### THE CASE OF OBESITY

Taken as a whole, overweightness and obesity present one of the UK’s gravest public health challenges. Causal evidence on the impact of obesity on health is very strong, with studies showing a link to type II diabetes, coronary heart disease, several types of cancer and a range of other long-term conditions. Despite this, we have struggled to bring down obesity rates in the last 30 years. According to OECD data, the proportion of the adult population overweight or obese has increased from 49 per cent to 64 per cent in the UK since 1991 (OECD 2022a). This leaves the UK with the fourth highest prevalence of overweightness and obesity in Europe (WHO 2022).<sup>21</sup>

21 Behind Israel, Malta and Turkey.

Despite this, the case of obesity provides a clear example in stagnant, poorly sustained progress. A 2021 mixed-methods study in *Milbank Quarterly* evaluated obesity interventions in England between 1992 and 2020 (Theis and White). The study identified 14 government strategies, containing 689 different policies. It concluded that policies were largely proposed in a format unlikely to lead to implementation: more specifically, that they almost all lacked detail on who would implement the policy, over what timeframe, how it would be evaluated or monitored, a sense of cost or directly allocated budget, evidence to support the policy, and a clear theory of change to underpin the policy. The study also found that the majority of policies made extensive demands of individual agency and responsibility, rather than outlining the role that a wide range of institutions – from state, to businesses, to public services, to civil society – could have.

Moreover, obesity coheres to each of the six barriers outlined above. The possible gains of action are likely to be significant, but to be accrued over a long period. Real progress depends on cross-department and cross-society efforts – covering employers, media regulation, tax policy, incentives, local government and schools. So co-ordinated ‘health in all policy’ efforts have proven a challenge. A sense of what the goal is has seemed elusive. As Theis and White point out, obesity is challenged by a political predilection to focus on individual agency and responsibility too exclusively.

## SO, WHAT CAN WE DO?

Fortunately, this is not an insurmountable challenge. There are demonstrable examples of how the default of whole policy agendas have been changed from broad inaction to cross-society, multi-lever, sustained progress.

The country’s approach to climate policy is one such example. As evidence on the cost of inaction reached a critical mass, the government implemented the 2008 Climate Change Act – a radical upscale of ambition on global warming. Specifically, the act:

- made climate everyone’s business, including a wide range of government departments, rather than a single Climate Change department, but also businesses, civil society, trade unions and individuals. This was achieved by the Committee on Climate Change (CCC) allocating recommendations across specific government departments – and through creation of metrics broken down by sector, against which progress was expected and could be easily measured
- set the overarching, long-term ambition, including legislation that formally defined net zero as a reduction in emissions to 80 per cent of 1990 levels<sup>22</sup>
- put in place fit-for-purpose institutions, including the CCC, with clear independence, a function embedded in legislation and respected leadership
- described the process for delivery, by setting out a process for carbon budgets, which break down climate targets into five-year delivery plans. Each is signalled well in advance to help socialise the change needed among businesses, government departments and individuals. The regularity of carbon budgets also helped normalise climate policymaking in departments where that wasn’t the norm – much as fiscal events normalise budget setting and bids to Treasury.

22 With slight variation in how this target is set and expressed across the four UK nations.

## LESSONS IN SUSTAINING PROGRESS

Health improvement often relies on sustained improvement, and progress generally has a lag (Barr et al 2017). Contrasting the Climate Change Act with other government missions provides clues about which of its features helped sustain progress, where other ‘mission-orientated’ approaches had shorter-lived or more temporary impact.

- **Child Poverty Act:** A 1999 commitment to halve child poverty by 2010 and eradicate it by 2020.
- **English Health Inequalities strategy:** A target to make progress on health inequalities, through cross-government efforts, reformed NHS funding flows and action on the social determinants of health.
- **Healthy Ageing Grand Challenge:** A 2018 target to ensure people can ‘enjoy at least five extra healthy, independent years of life by 2035’.

The last of these missions is more recent, but the articulation of a mission preceded progress in the case of child poverty and health inequalities. In both cases, the challenge was sustaining that progress – after some incremental successes, both agendas have since seen progress stagnate and/or reverse.

Even so, each has also suffered from a much weaker approach to embedding the mission across government, in legislation and across a full range of societal actors. In most cases, the missions above were not embedded in law – at least, to the same extent and with the same clarity as net zero.<sup>23</sup> Few were combined with a bespoke institutional infrastructure – with legislative function and clear independence – as per the CCC. Few were institutionalised as ‘common sense’ within the Treasury, in the way enabled by the Stern review preceding the 2008 act. And none had as clear a process for delivery (and maintaining progress on delivery) as enabled by carbon budgets.

To that end, most struggled to maintain long-term political and institutional will. The English Health Inequalities strategy was abandoned early after the election of the 2010 coalition government. The Child Poverty Act was repealed in 2016 (following a decade of limited progress). And the Healthy Ageing Grand Challenge has been succeeded by Levelling Up missions.

It is not a silver bullet. Alone, it does not mean there are no challenges or concerns around meeting our long-term commitments and aspirations<sup>24</sup>. But putting in place the right government and institutional architecture has helped create and maintain progress, as positive evaluation of the Act and its individual components has since shown (CCC undated; OECD 2021; Fankhauser et al 2018). Since the act, despite five changes of UK prime minister, the UK has met its carbon budget targets.

As such, the cause of better health and greater prosperity could learn much from this approach. The rest of this report looks at how it can be adapted to health. As with the Climate Change Act 2008, a health equivalent would not be a silver bullet in supporting health and prosperity – the individual nature of policies would remain important.<sup>25</sup> But, we argue, it would serve to shift the default status

23 The Child Poverty Act is an arguable exception, but the legislation was only passed in 2010 – 11 years after the mission to abolish child poverty was set, and just months before a UK general election.

24 Indeed, there are numerous challenges – including those identified by IPPR’s Commission on Environmental Justice (Murphy et al 2021).

25 And will be the focus of future publications of the IPPR Commission on Health and Prosperity.

quo from inaction and a deficit of willing towards intervention to support health creation as the norm. Our proposed approach has three central pillars.

1. **Set the overarching mission:** Missions should be stretching but aspirational, based on outcomes people care about, and things that can be delivered by a range of different actors.
2. **Build the right institutions:** Including institutions with well-defined legislative functions to support evidence creation, to establish cost efficacy, and to set out who is responsible for change and how change should be delivered.
3. **Establish the right funding:** To include flexible resource to invest in traditional public health programmes – but ideally, means to support, shape and partner with the private sector on the health impacts of the real economy.

### IMPLEMENTATION ACROSS THE UK

The policies below are aimed at the Westminster government. While they could implement this, top-down, across the whole UK, many of the policy agendas important to creating health and prosperity are devolved. That is, without active buy-in from devolved governments, progress is likely to be limited. As such, we do not recommend such blunt implementation. Instead, we propose the below instruments as a framework for health and prosperity in England. Given the UK nature of the analysis in this paper, we suggest similar are needed in each devolved nation. The measures outlined below could each and should each be adapted to Wales, Scotland and Northern Ireland. As with legal definitions of net zero, this could include space to adapt the overarching mission, funding and institutional structures to nation-specific contexts.

**PART 2**

**THE HEALTH AND  
PROSPERITY ACT**



## 5.

# STEP 1: SET THE MISSION

Health policy has a proliferation of targets. These targets have historically tended to focus on inputs in the system – on the number of hospital beds, on activity in A&E, on the number of procedures, on the number of late discharges. This can be problematic: first, because such targets are open to ‘gaming’; and second, and perhaps more importantly, because there is not always a straightforward relationship between activity and healthcare outcomes (Mears 2014; King’s Fund 2010).

This has driven the shift across health and care services towards outcome measures. One of the central aspirations of England’s Integrated Care Systems – and, before them, Scotland’s Integration Authorities – is that by bringing services and leaders together, the focus can move from activity to outcome. This is welcome. However, it is likely to still have limitations. Integrated Care Systems<sup>26</sup> are good vehicles to facilitate a shift from a focus healthcare activity to a focus on health and care quality. However, they still lack access to a vast array of cross-society, cross-government levers that determine the most important health indicators: the length of our lives, and our capacity to live those lives in as good health as possible.

Improvement on these indicators relies on everything from levels of research investment, to schools and social security policy, to the action of communities, civil society and individuals, to employment standards and investment decisions within financial markets. The NHS – or even a well-co-ordinated group of the NHS, public health bodies and social care providers – is unlikely to be the most appropriate vehicle for this mission.

In other words, there remains a need for a bigger mission, located above and beyond health, care and public health services. As such, our first recommendation is a new long-term, cross-societal and explicitly ‘whole government’ healthy lives mission. There is good evidence on how to design implementable missions (Mazzucato 2020; UCL IIPP 2019). Specifically, they should be:

- bold, inspirational, with wide societal relevance
- clear, targeted, measurable and time-bound
- ambitious, but not unrealistic
- cross-disciplinary, cross-sectoral and cross-actor
- achievable through a wider range of ‘bottom-up’ solutions.

There is further evidence that focussing on creating healthier lives is better than a focus purely on longer lives. Public attitudes research indicates that most people are not motivated by endlessly increased longevity, with just one in three people in the UK indicating they’d like to live to 100 in recent polling by Ipsos Mori, compared to 49 per cent who said they wouldn’t like to live this long (2022). Moreover, healthy life expectancy will be a better driver of prosperity – given the findings in this report on the interaction between poor health and prosperity among working-age adults, and the wider context that the UK’s healthy life expectancy remains below retirement age. Following substantial longevity gains through the 20th century –

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26 Or integration authorities in Scotland. Wales has a slightly different approach to integrating care, including an Integrated Care Fund.

when life expectancy increased from around 50 to almost 80 years old (ONS 2015) – our aspiration for the 21st century should be putting life in life expectancy.<sup>27</sup>

To this end, we propose two components to our proposed health mission, to be delivered over a 30-year time horizon. First, we suggest that the Westminster government should set in law a target for the UK to become the healthiest high-income country in the world by the end of the period. This is clearly aspirational – as it stands, people born in the UK can expect to live four fewer years in good health than people born in Japan, the best performing comparable nation. However, a range of reasons, supported by aspirational policy and long-term political will, suggest it is achievable.

- It is possible to sustain above average health improvement: Between 2000 and 2019, South Korea's healthy life expectancy improved by 5.7 years (having begun the millennium at a comparable level to the UK). Ireland, Singapore and Switzerland have also observed fast improvements in healthy life expectancy over the same period (WHO 2020).
- Other nations have gone from among the least healthy to among the healthiest in the world: As the Commission on Health and Prosperity has previously shown, Japan has experienced a transformation in health outcomes since the 1970s – transitioning from the G7's shortest to its longest lived nation today. In the last 20 years, South Korea has also transformed its health outcomes. Having had among the lowest healthy life expectancy at birth at the turn of the millennium, it is now the third most healthy advanced economy (authors' analysis of WHO 2020).

Second, we suggest that a focus on health inequality is an important focus within the mission. Evidence in this paper has already shown that tackling health inequality can support both the strength and fairness of the UK economy. Moreover, other Commission outputs have shown that other countries have significantly lower geographic health inequality than the UK. On that basis, we recommend that the mission also includes an aspiration that every UK nation and region achieves an average healthy life expectancy above the state retirement age.<sup>28</sup>

As it stands, the biggest improvement required to meet this goal would be an 8.5 years gain in healthy life expectancy at birth in the North East of England – or a rate of improvement of around 0.28 years extra healthy life expectancy at birth throughout the 30 years. Again, international evidence is suggestive of the plausibility of this aspiration. Since 2000, South Korea has achieved broadly this rate of progress, while, between 2000 and 2010, Ireland achieved a greater average rate of progress. Achieving the same (or a slightly higher) trajectory within the parts of the UK where health outcomes are currently worst – but where the interventions needed to support health are relatively clear-cut – should be feasible.

Missions are more likely to be successful if they are combined with short-term 'sub-missions' and implementable delivery plans (Fankhauser 2020). In climate policy, long-term net zero ambitions are broken into carbon budgets – limits on emissions in a five-year period, combined with a policy roadmap to achieve that progress. Evaluation by the London School of Economics has found carbon budgets have helped reduce emissions (particularly in the power sector), while expert qualitative interviews have also documented the perception that carbon budgets have been integral to making progress against net zero in the UK (ibid; Averbchenkova et al 2020).

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27 This, moreover, is a better way to achieve on the potential prosperity gains outlined by this report.

28 Measured by healthy life expectancy at birth.

**TABLE 5.1: A HEALTHY LIVES MISSION ADHERES TO ESTABLISHED BEST PRACTICE FOR SETTING MISSIONS**

Best practice on setting missions	Healthy lives mission
Bold, inspirational, wide societal relevance	The healthy lives mission would have clear societal relevance – everyone has a stake in how long they can expect to live in good health. Business and industry groups increasingly understand their vested interest in a healthier workforce and good health is likely to improve public service financial sustainability.
Targeted, measurable, time-bound	The proposed mission has a clear metric (healthy life expectancy), is targeted on a specific issue (health creation) and suggested over a 30-year period.
Ambitious but realistic	The rate of progress would need to be world-leading – but is not above what other, comparable countries have achieved in the last 20 years.
Cross-disciplinary innovation	Healthy life expectancy is amenable to innovation in public health, across public services, within the NHS, in the life sciences and through biomedical research.
Open to multiple, bottom-up solutions	Healthy life expectancy is amenable to bottom-up solutions through individual businesses, across government departments, via whole industries, and via technology and innovation.
Cross-actor, cross-institution, cross-society	An overarching purpose of the healthy life expectancy is providing greater means, onus and incentive for making health everyone's business, rather than just a mix of the state (healthcare delivery) and the individual (good health beyond healthcare).

Source: Authors' analysis of Mazzucato and Dibb 2019

Inevitably, shorter-term goals for the healthy lives mission would look different to carbon budgets – insofar as they would not intend to limit an activity (emissions), but rather support the creation of an outcome (healthier lives). But their central function would be broadly the same: to establish the progress needed to be made in a five-year period to consider ourselves on track; to set out, based on what is already known, a cost-efficient pathway to reaching that target; and to identify, based on what we don't know, what innovation and knowledge is most urgently needed. They may, like carbon budgets (and the English Health Inequalities Strategy), make a judgement on what different actors – DHSC, wider government departments, employers and the private sector – should be expected to contribute to that aim, helping embed health as a cross-societal, cross-institution and cross-government department responsibility.

## 6.

# STEP 2: BUILD THE RIGHT INSTITUTIONS

### CREATE A NEW PUBLIC HEALTH BODY WITH A LEGISLATIVE DUTY TO ADVISE ON TARGETS AND DELIVERY, AND WITH THE MEANS TO HOLD GOVERNMENT TO ACCOUNT

Missions are useful and have an increasingly strong evidence base. However, the chance of sustained progress is improved when missions are combined with the right institutions.

The success of the Climate Change Committee (CCC) provides a blueprint that could be replicated within the framework of a new health mission. Evaluation of the CCC has noted that it has been a strong influence on UK climate policy since its inception, has provided a source of trusted and well-used analysis for stakeholders (across the debate), and that its statutory advice has generally been followed. Impact can be found on its core objectives (meeting statutory carbon targets), on process (steering parliamentary debate) and on substance (influencing new laws) (Averchenkova et al 2018).

Like climate, action on the link between health and prosperity requires action across government, long-term commitment to change and trustworthy curation of evidence on 'what works'. Introducing a new institution, modelled on the CCC, could help support significant and sustained progress on better, more equal health outcomes (and the economic benefits that result). In replicating this model, the focus should be on what attributes of the CCC make it effective. Evaluation has pointed to a range of factors, including:

- a clear statutory mandate
- a high-profile chair
- sufficient resources and skills
- a track record of rigorous, independent research, and
- firm independence (ibid).

Of these, independence combined with a clear statutory mandate are particularly important. These are areas where health institutions often struggle. Indeed, the Office for Health Improvement & Disparities is indicative of a dilution of the independence of the country's public health agency – its successor (Public Health England) having, itself, had less independence than the Health Protection Agency.

A Committee on Health and Prosperity should have a statutory basis and level of independence modelled directly on the CCC. On the former, its statutory requirement could include: advising government on setting health aspirations and shorter-term budgets (both on what health gains it will achieve, and what investment is available); an annual report on progress towards meeting short-term and long-term goals; evaluation of the health impacts of policy decisions contained in fiscal events, and advice on major opportunities across government to align health and economic goals. Beyond providing evidence-based policy ideas and evidence, this is likely to increase accountability and political incentive across government for implementing better health policy.

**TABLE 6.1: HOW WOULD A COMMITTEE ON HEALTH AND PROSPERITY WORK?**

The Committee on Climate Change	The Committee on Health and Prosperity
Measures progress against net zero, outlining progress that is needed by different years to remain on track.	Measure UK progress against healthy lives mission, outlining progress that is needed by different years to remain on track.
Advises on the maximum amount of greenhouse gases that the UK can emit over a five-year period – and advises on the cost-efficient path to meeting climate objectives. Provides an evaluation of contribution needed by different sectors.	Advise on the minimum action needed to deliver healthy life expectancy, where new solutions or innovations are most needed, and on what the cost-efficient path looks like.  The CHP should explore what is required of different actors (state, employers, manufacturers, investors, civil society, individuals) and what is required within different economic sectors.
Outlines policy recommendations across departments 12 years in advance of each carbon budget, giving businesses, individuals, state and policymakers time to prepare.	Outline policy recommendations across departments, six to 12 years in advance, giving time to prepare. It is likely health policy would have fewer implications for policymakers and business, meaning a shorter lead-in time may be justified.
Government delivers a carbon budget order, making shorter targets legally binding. In the majority of cases, government has accepted the CCC’s proposals.	The CCC process could be replicated directly. Or, more aspirationally, the government could give the health equivalent of the CCC powers to set legislative targets without the needed for a carbon budget order <sup>29</sup> .  A health equivalent may also benefit from a ‘force majeure’ clause, – allowing it to recommend changes to health budgets if the external environment changes. More so than emissions, population health is sensitive to changes in social and economic context (for example, the onset of a cost-of-living crisis). Some capacity to react to unexpected socioeconomic changes is likely to be important.
CCC maintains an accountability function – reporting to parliament, gauging progress, identifying new/ missed opportunities, and providing independent, trusted evidence to the policymaking process.	Maintain an accountability and monitoring function – gauging progress, identifying new/missed opportunities, and providing independent trusted evidence to the policymaking process.

Source: Authors' analysis

One of the key aspirations of the Committee on Health and Prosperity should be embedding health as everyone’s business, including across different government departments. As an agenda, health struggles from only really being an accountability for the NHS and the Department of Health & Social Care – which lacks many of the levers it needs to maximise health creation (for example from public services to housing supply to the flow of investment into R&D/innovation). As such, we suggest advice on how best to progress towards the healthy lives mission includes specific plans for departments outside the DHSC: making it clear who is responsible for what, on what timeframe, and to what effect.

<sup>29</sup> That the CCC’s advice needed parliamentary approval was one of the main critiques of the 2008 Climate Change Act. The Conservative Party suggested that this would weaken the independence of the new body, and that it should have the power to set legislative targets without recourse to government. Government and parliament would retain the power to set the specific policy through which targets would be delivered (and ultimately, power to change targets or alter the process through legislation).

## CREATE AN EVIDENCE REVOLUTION ACROSS POPULATION HEALTH, DRAWING LESSONS FROM HEALTHCARE (NICE) AND EDUCATION (EEF)

Health policy has a strong ‘what works’ body for new technologies, in the form of National Institute for Health and Care Excellence (NICE).<sup>30</sup> It has been a world-leader in evaluating evidence, licensing innovation and establishing cost-effective improvements in practice. Many other countries follow its lead in their own judgements on best practice and innovation adoption (Dillon 2020). However, NICE also has limitations, including:

- relatively limited means to ensure genuine and nationwide adoption of best practice
- a limited scope on advising around health promotion, protection and prevention
- an overly rigid evidence hierarchy – making some interventions (for example, where randomised controlled trials are less appropriate) more difficult for NICE to evaluate.

In setting a healthy lives mission, there is both space and need for an evidence body with a remit to establish what works across the broadest definition of health as well as a stronger and more active role in supporting widespread adoption of the best innovations. Arguably, this could come through a reformed and more expansive role for NICE. However, this would have risks: NICE is not trusted on non-clinical interventions; NICE has institutionalised an approach to evaluation that is not equally appropriate to all interventions, and NICE’s specialist function underpins its global reputation.

Instead, we recommend forming a complimentary body: the National Institute for Excellence in Health Creation (NIEH). NIEH would be a ‘what works’ centre focussed exclusively on providing the evidence (including on return on investment) needed to deliver the healthy lives mission. Within this, NIEH would have a role in establishing what actually works and what could be delivered within a suitable cost-efficiency framework, and in advocating for adoption and spread of best practice. Interventions could span the full range of levers that support healthier lives.<sup>31</sup>

### THINKING THROUGH EVIDENCE STANDARDS

The National Institute for Excellence in Health Creation might make one key departure from the approach taken by both NICE and the Education Endowment Foundation (EEF). In both organisations, there is a strict hierarchy of evidence – with Randomised Controlled Trials (RCTs) considered the gold standard. This can make it hard for interventions with strong evidence of efficacy – but which do not have RCT evidence – to achieve widespread implementation.

This can prove problematic for prevention. Many preventative interventions are not appropriate for RCT study designs – but can nonetheless achieve extensive evidence of efficacy through natural experiment, real world data, observational studies and qualitative research.

NIEH should have rigorous evidence standards – but greater flexibility in what standards and types of evidence meet that threshold (for similar proposals see Kaplan et al 2011; Roitberg 2012).

30 Covering England, Wales and Northern Ireland. Remit is with the Scottish Medicines Consortium in Scotland – though studies have shown, while slightly quicker in publishing guidance, the proportions of drugs recommended for NHS use by NICE and SMC are similar (Ford et al 2012).

31 This will need careful coordination with NICE (and the Scottish Medicines Consortium, in the case of implementing the Act for Scotland from Holyrood).

There is good evidence that ‘what works’ bodies have a substantial, positive impact – particularly in supporting a mission-orientated strategy. One recent example is the Education Endowment Foundation (EEF), founded by the Sutton Trust in partnership with Impetus Trust and supported by a £125 million grant from the Department for Education. In just over a decade, the EEF has:

- funded more randomised controlled trials in education than any other organisation, globally
- doubled the amount of available evidence from trials in education in the country
- commissioned more than 10 per cent of all known education trials in the world,
- improved education and economic outcomes for children. Independent analysis has found that the productivity gains for students receiving EEF-funded projects is equal to three times the costs of delivering them (EEF 2016).

We are not the first to suggest the need for an evidence revolution in health. In 2019, Nesta recommended the creation of an innovation and research excellent centre – The Nightingale – ‘to equip us with the knowledge we need to improve the social, behavioural and environmental determinants of health’. They recommended that The Nightingale:

- cuts across disciplines, such as public health, social science, data design and community development
- operates an intensive R&D model that creates evidence-based solutions at pace
- receives a budget of £140 million per year by 2025 (Cromwell et al 2019).

We suggest similar principles for NIEH – with an additional focus on establishing best practice on implementation and adoption; on establishing the cost efficacy of interventions with similar rigour to NICE (but with a broader definition of return on investment), and on undertaking significant evaluation of new programmes and interventions. Given the budgets of similar organisations, such as the EEF, and Nesta’s proposed budget for The Nightingale, we estimate that this organisation would need a budget of around £150 million per year.



# 7.

## STEP 3: ESTABLISH THE RIGHT FUNDING

### DESIGN AND DELIVER A HEALTH CREATION FUND, TO ADDRESS UNDERINVESTMENT IN PREVENTION

Looking across the full range of factors that support healthy lives, the UK tends towards underinvestment, particularly in health creation and prevention. This includes underinvestment in the following.

- **Departments beyond DHSC with a critical role in health creation.** Spending on the biggest social determinants of health has reduced in the last 12 years. Compared to 2010, funding for communities and housing, work and pensions, education, and culture have all fallen. Moreover, there is no evidence or audit of how much of these department's budgets is (or should be) spent on health-positive interventions, or how that has changed over time.
- **Public health services.** Previous IPPR analysis has shown that the public health grant has been cut substantially in real terms since 2013/14. These cuts have been particularly felt by the most deprived parts of the country – as of 2019, £1 in every £7 that had been lost from the grant had come from just the 10 most deprived upper-tier local authorities (Thomas 2019).
- **Local government.** Above and beyond the public health grant, local authorities oversee a range of services and functions that are important for preventing and reducing health need. As of 2019/20, local government budgets in England were £10 billion lower than in 2010/11 (2019/20 prices) (Institute for Government 2020).
- **NHS prevention spend.** Despite rhetoric that prevention is a central agenda for the NHS, investment in preventative interventions – including within primary care, on public awareness, screenings, preventative medications or vaccines – has remained broadly stagnant (a flat 0.5 per cent of total healthcare spending).<sup>32</sup>

The consequence of suboptimal investment in prevention has a direct impact on the UK's capacity to deliver excellent health and care services when people fall sick. Aside from the Department for Environment, Food & Rural Affairs (DEFRA), no government department has seen a larger, proportionate increase in funding in the last decade than the DHSC.<sup>33</sup> Despite this, healthcare services have become increasingly unsustainable – while running the NHS 'hot' has also limited opportunities for innovation and modernisation. Focussing on prevention is not, necessarily, about trading off 'prevention and cure'. Rather, it is about having a strategy to manage demand on the NHS – enabling better, more innovative and safer care for those who need it (particularly in the mid-long term).

To address this picture of underinvestment, we suggest the government create a new 'health creation fund'. As with NIEH, the fund should be exclusively focussed on delivery of the healthy lives mission – and on facilitating the translation of 'what works' into practice. It should have the following principles:

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32 Rising slightly to 0.7 per cent in 2020, reflecting greater spend on Covid-19 detection, awareness and prevention during the pandemic.

33 The vast majority of the DHSC budget, in turn, is allocated to the NHS.



- **Opportunities to deliver ‘what works’.** Working with evidence from the NIEH, the health creation fund should have a relentless target on what works. It should target these interventions on the biggest barriers to good health within any given place. This might vary substantially across the country: it might be infant mortality in Blackpool, education inequality in Liverpool and vaccine uptake in London.
- **A focus on inequality.** There is extensive evidence on the link between poor health, low prosperity and multiple deprivation. Moreover, a focus on deprivation was a key feature in the success of the English Health Inequalities Strategy between 1997 and 2010 (Barr et al 2017). We suggest the health creation fund’s investments are informed by deprivation, ensuring the health creation fund has the capacity to make a positive impact on health and economic inequalities across the country.
- **A full range of levers.** Unlike the public health grant, the health creation fund should ensure funding is not limited to a narrow base of service-based interventions. Indeed, the programmes it could support could be diverse: ranging from interventions with schools, through local government, to support vaccines or spread of preventative health technology, to services embedded within job centres or wider employment services.

In terms of design, the health creation fund should learn from the problems associated with the government’s Levelling Up Fund. While investment in local infrastructure is welcome – and, indeed, likely to have health and wellness benefits – this fund’s design has well-established problems. First, the competitive nature of the funding means many local places have been forced to invest time and money in bids, many of which were eventually unsuccessful. Relatedly, the fund has proven relatively poor at allocating funding on the basis of need – with many high deprivation, poor health, low prosperity neighbourhoods receiving little funding.

The health creation fund should be designed to avoid both unhelpful competition between areas, and too little funding going to the places that need it most. To that end, we recommend a process that works as follows.

- Everywhere should be eligible for health creation funding, recognising that deprivation and poor health exist even in the most affluent parts of the UK. However, the fund should also use established formulas to define how much money will ultimately be available for each local authority. This will avoid competition between places, ensure transparency and clarity about where funding is going, and facilitate a broadly progressive distribution of funding. The Advisory Committee on Resource Allocation (ACRA) has existing capabilities on advising around allocations.<sup>34</sup>
- The fund should be devolved, rather than centrally controlled, not least given emerging evidence on the health benefits of devolution (Britteon et al 2022). In the first instance, Directors of Public Health should be budgetholders – and have remit to set place-based targets for the fund and to put in place structures for allocating funding, to evaluate new programmes and to coordinate intervention. This would likely require investment in capacity and capability of public health teams.
- In each place, funding should be allocated across institutions using a grant model. Organisations – which could include the public sector (for example, schools, local government, job centres) but also civil society, charities, community groups and businesses – could make applications to the fund. This would require Directors of Public Health to play a role in proactively identifying settings where health creation funds could be put to good use and inviting tenders.

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<sup>34</sup> Though in this case, expertise would need to be expanded from England-only to Britain-wide.

The relationship between the health creation fund and existing public health funding streams<sup>35</sup> will need careful consideration. It is important that the health creation grant is not considered a replacement for service funding in any UK nation, such as stop smoking services or sexual health clinics. Indeed, like the public health grant, the funding should be ringfenced for new health creation programmes. It may also be possible for some less service-orientated funding streams within the public health grant to be moved to the health creation fund. Indicative opportunities in England's public health grant include health at work programmes (£14.7 million in 2022/23), public mental health programmes (£76.4 million in 2022/23) and some programmes categorised as miscellaneous or other (£483.4 million in 2022/23).

### LINKING NIEH AND THE HEALTH CREATION FUND

One of the effective elements of NICE's design is its capacity to licence interventions for us. In theory (though, sometimes not in practice), NICE approval should make medicines and technologies available on the NHS. It is unlikely such a strong role for NIEH will be effective – the spectrum of interventions is too large, and the budget too small. However, a well-thought-through relationship between the 'what works' institution and the health creation fund is likely to be helpful.

We suggest the right balance is for NIEH to approve interventions that work and have a high return on investment. Over time, this should create a broad menu of interventions that are known to be promising and have strong evidence of both efficacy and value. Applications for funding from the health creation grant could then pick from this menu – with scope to make reasonable adaptations to interventions, on the basis of local context and need.

### CREATE A HEALTH INVESTMENT BANK, TO BETTER WORK WITH THE PRIVATE SECTOR ON HEALTH CREATION

The health creation fund is a more 'traditional' model of social spending, justified on the basis of the large economic gains this paper has shown are possible through better population health. However, above and beyond government social programmes, population health is also determined by the nature of the economy: the standards of employment, the level of pay, the innovations that attract investment or the products that dominate supermarkets. British business has a vital role in health creation – and, as this report has demonstrated, a vested interest in good health for all.

As such, to succeed in its healthy lives mission, the government needs to build its capacity to better shape the economy, partner with business, support the best health innovations and deliver better health through the real economy.

Internationally, national investment banks have proven useful means to build such capabilities. Indeed, the UK is arguably unusual in not having a (whole-nation) investment bank<sup>36</sup> – such models are in place in Germany, the Nordic Region, China, Brazil and Mexico (among others). As such, we propose the formation of a UK health investment bank to meet this need.

35 The public health grant in England and equivalents in the devolved nations [where funding streams often sit within the NHS (and are distributed through community pharmacies, as for example in the case of the public health component of the NHS' Community Pharmacy contract in Scotland)].

36 At UK level – Scotland does have one.

### CASE STUDY: KfW

The Kreditanstalt für Wiederaufbau – or KfW – is a German national development bank, created in 1948 and based in Frankfurt. It was formed to tackle key local and international challenges and was initially capitalised through Marshall Plan funding. Key priorities include supporting SMEs, start-ups, housing, environmental protection, innovation, education and export finance. In most instances, KfW funds take the form of low-interest loans – but also, in a minority of cases, grants. As of 2014, the KfW held assets worth nearly \$600 billion, making it one of the largest investment banks in the world.

While the KfW has a wide-ranging remit, its main purpose is small and medium-sized enterprise (SME) finance. In 2010 the KfW financed nearly €30 million-worth of loans for SMEs (94 per cent of commitments for the year). This generally worked through an ‘on-lending’ procedure, whereby an SME applies for a loan at their regular bank; if successful, the bank forwards the application to the KfW, which then refinances the loan with more favourable interest rates. This allows liability to be shared between the KfW and the intermediary – with the latter sharing in the KfW’s access to better interest rates and high level of security.

As internationally, a UK health investment bank would be a state-owned institution. While it would act as a commercial entity, it would neither pay out dividends to its shareholders (in this case, taxpayers), nor be expected to maximise profits (though national investment banks are usually profitable). Instead, it would provide the UK with a critical capacity both to take a long-term view (in a way Treasury investment often fails to), and to pursue good health through work with markets, employers, businesses and innovators (Dolphin and Nash 2012). It would also correct a very real problem in the UK economy – namely, that the best health innovations often struggle with access to sufficient patient capital (ScaleUp Institute 2021; see also BIA 2022).

A UK health investment bank need not be in competition with private sector investment capacity. A key strategic goal of many national investment banks is to ‘crowd-in’ private investment (and this is also a goal of the UK Infrastructure Bank). This would be useful given the UK’s wider struggles in attracting global private investment (see Dibb 2022).

### SHIFTING THE REAL ECONOMY TOWARDS HEALTH

The UK food system provides one of the clearest cases for the need for government capacity – in achieving a healthy lives mission – to shape the real economy. As Henry Dimbleby’s National Food Strategy has argued, left to its own devices, the UK food system tends towards high-processed products (‘the junk food cycle’). This happens because humans have a biological predilection for calorie-dense foods, and calorie-dense food is cheaper to produce and has a higher profit margin. Companies therefore disproportionately invest both time and money in developing, marketing and selling calorie-dense, nutrient-low products. This increases sales, and sector reliance on, calorific foods, in turn increasing consumer reliance on highly processed, calorie-dense or nutrient-poor products and consequently directing further investment towards these products (Dimbleby 2022).

By contrast, healthy food and drink businesses and innovators struggle to compete for market share in a market dominated by well-established, high-value businesses, for shelf space in national supermarkets, for product

promotion against unhealthy food brands with substantial advertising budgets, and for access to the capital needed to scale.

Recent pilots have shown the potential for mission-orientated, long-term capital to disrupt this status quo through innovation. The Good Food Programme accelerator is a business support and venture fund aimed at scaling businesses and products with the potential to help tackle childhood obesity, run by Mission Ventures and Impact on Urban Health. Their original investment of £1.4 million in a pilot fund was matched by over £6 million of further investment within 12 months. Initial evaluation of the scheme has shown:

- the revenue of brands that went through the accelerator increased 63 per cent in their first 12 months
- seven brands secured major supermarket listing within 12 months of the programme
- some evidence that sales of the brands were predominantly ‘substitutions’ from less healthy products, and
- that while brands had a lot of potential, they required tailored support to develop resilient businesses, indicating both a knowledge and funding gap among early-stage food businesses in the UK (Impact on Urban Health 2023).

Relative to capital markets, this scheme is a small portfolio of products and investment. Nonetheless, it should give policymakers confidence in the capacity for mission-orientated finance to help shift the real economy towards health creation – particularly in sectors where health externalities are currently most common.

Either a health portfolio within a wider UK national investment bank or a bespoke health investment bank would need to define its mission clearly. In the first instance, as it builds its initial portfolio, we suggest a focus on four sub-areas.

1. **Healthier food systems:** That is, a new programme expanding and scaling what has been shown to work in the Good Food Programme (as already outlined in this report). Studies have estimated that diet is behind 14 per cent of deaths in the UK (GDB 2017 Diet Collaborators 2019).
2. **Health and housing:** A lack of affordable housing, overcrowded housing and poor health standards among the existing housing stock present significant health hazards. Long-term finance options could include supporting best in class social landlords, community interest businesses and charities to acquire higher standards of housing.
3. **Biomedical and preventative innovation:** The UK is rich in scalable, innovative small and medium enterprises focussed on a full range of health innovation – from prevention to biomedical – but lacking access to affordable patient capital needed to scale. This is particularly the case in the north of England, as IPPR North research has previously shown (Raikes 2016). Supporting this sector (with a focus on the north of England and devolved nations) would support both UK health innovation and the flow of good jobs to places where they will have the biggest impact on health inequalities.
4. **Health capital and infrastructure:** National investment banks can also provide long-term capital to the public sector. This is often attractive to both providers – who can fund capital investment through revenue budgets<sup>37</sup> – and to finance departments for whom the investment is ‘off books’. A similar logic

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37 In small, affordable, annual payments – including once the capital asset is operational (in other words, making invest-to-save propositions more operationally viable).

underpinned the popularity of private finance initiatives (PFI) in the UK in the 2000s – a scheme that, while expensive and high risk, did support significant expansion of UK health infrastructure (Thomas 2019). A UK health investment bank would offer a means to provide similar advantages at much lower cost and risk – that is, offer the benefits of PFI without many of the (extensive) downsides (as in Dolphin and Nash 2012; Holtham 2011).

National investment banks are generally formed with long-term aspirations to generate profit through their activities (albeit, with this aim balanced against their focus on missions). This is unlikely to happen immediately. Two years from its launch, the Scottish National Investment Bank posted losses of £3.4 million. However, early losses are an expected and planned-for part of its institutional model – profitability comes in the medium-long term, as capital investments appreciate and as the bank’s portfolio (and capabilities) mature. Internationally, national investment banks have shown a consistent capacity to achieve regular returns, which can be invested elsewhere (such as government spending).

### **ARE SELF-FINANCING INVESTMENT BANKS FEASIBLE?**

In the short term, it is unlikely for a state-owned investment bank to be self-sustaining. Investment banks require government support for capitalisation (see below). They are then likely to need ongoing support – as the right staff and leadership are brought on board, as an initial portfolio is developed and begins to mature, and as the bank’s missions are determined and refined. The nascent Scottish National Investment Bank is not expected to be financially sustainable for at least three years (having launched in 2020). In the longer term, investment banks can be self-funding. The Brazilian Development Bank (BNDES) – which primarily invests in Brazilian infrastructure, industry and SMEs – is one such example (KfW is another) (see Dolphin and Nash 2012).

### **FUND NEW SPENDING IN A WAY THAT MAXIMISES HEALTH AND PROSPERITY**

A health investment bank and a health creation fund would both have significant spending implications. The latter would require an increase in day-to-day spending. The former would require capitalisation – which could be delivered immediately or, as with the Scottish National Investment Bank, could be delivered over a period of time (such as 10 years).

Given the focus on prevention in this chapter, one funding option could be to levy health-harming economic activities (a health harms levy). That is, the government might look to levy the profits of established, health-harming activities, and reinvest the revenue in supporting business through better population health for all and cheaper, more accessible long-term finance. The circulatory nature of this is appealing: businesses that create negative health externalities, which in turn harm business as a whole, would fund interventions that improve health and support business and prosperity.

The government’s Soft Drinks Industry Levy (SDIL) provides precedent that levies can be effective. While its primary goal was to maximise product reformulation, rather than to create revenue, the revenue has been consistent, year on year, since the levy was introduced in 2018, and it still raises around £300 million each year.

The following interventions could each be considered in implementing a health harms levy.

- A sugar and salt levy, expanding the logic of the SDIL. Similar policies have been successfully introduced in both Mexico and Hungary (see Hochlaf and Thomas 2020), while the National Food Strategy projected that a Sugar and Salt Tax alone could raise between £2.9 and £3.9 billion per year in the UK (Dimbleby 2022).
- Formalisation and expansion of the voluntary levy on gambling companies. Currently, the Gambling Commission aims to generate voluntary donations of £10 million from gambling companies – equal to around 0.1 per cent of Gross Gambling Yield – to distribute across the third sector, NHS providers and academic institutions. This is not proportionate to gambling harms – and a mandatory levy, worth one per cent of Gross Gambling Yield, has been recommended elsewhere and would raise an estimated £144 million per year (Advisory Board for Safer Gambling 2020).
- An expanded tobacco levy. Tobacco industry harms continue to significantly outweigh any economic benefit, by an order of magnitude. Action On Smoking And Health (ASH) has proposed a levy on tobacco manufacturers and estimated this could raise £700 million in its first year (ASH 2023).
- Modernised alcohol levies. Alcohol duty has regularly been frozen at UK fiscal events and remains frozen at the time of publication. University of Strathclyde research has estimated a 10 per cent increase in UK alcohol taxes could increase national income by £850 million and create 17,000 jobs (Fraser of Allander Institute 2018). This finding is consistent with international evidence (Institute of Alcohol Studies 2023).

While this small shortlist could raise almost a combined £6 billion per year, we do not suggest it as a final, exhaustive recommendation for how funding could work. Instead, government should review a full range of options available, indicatively, by including the best way to use levies and tax in supporting health and revenue creation within NIEH's immediate priorities.

### DOES THE 'POLLUTER PAYS PRINCIPLE' WORK?

There is ongoing debate around whether the polluter pays principle is effective. In recommending its wider translation to health policy, it's important to engage with this debate.

**A 'right to pollute':** One concern with the polluter pays principle – particularly, emission trading systems – is that it provides a right to pollute. This is unlikely to be a problem in health, where the approach is not designed to limit an 'emission', but rather to reduce the level to which health-harming activities are profitable.

**Sector dependence:** Another concern is that levies on harmful activities, products or industries can make government more dependent on them. This is answered by our proposal in two ways: first, by the fact that the funding from these sectors can be channelled – through the proposed health investment bank – into harm-creating competitors and disruptors; second, by the fact that the health investment bank may reduce the need for levy-funding over a long enough period, as it becomes profitable (in other words, a source of funding for the fund). This could allow for the levy to be explicitly time limited or for regular review of its ongoing necessity.

**Behaviour change reduces funding:** Even levies that have predominantly focussed on behaviour change (such as SDIL's focus on reformulation of soft drinks) have generated stable and substantial revenue streams.



To ensure that behaviour change is maximised, revenue is maintained at sufficient levels, and levies can account for new negative health externalities, we further suggest that the NIEH has a workstream focussed on best practice in supporting health through tax and fiscal policy.

### CAN LEVIES BE PROGRESSIVE?

We acknowledge concerns about the regressive nature of the kinds of levies outlined above. As it stands, common consensus is that levies have a regressive financial impact, but a progressive health impact. In some ways, this is inevitable: levies without this dynamic would risk doing little to tackle health inequality – or actively exacerbate it.

However, studies showing a regressive financial impact have rarely if ever accounted for the positive financial impacts of better health. As such, this paper contributes to the debate on health harms levies by showing how better health can improve earning potential. This transforms the cost-benefit analysis.

On average, the poorest 10 per cent of households spend £2.50 per week on soft drinks (£5 average among all households). At most, the soft drinks levy would increase this spend by several pennies per week, or a few pounds per year. Yet, for every individual who avoids the onset of a physical or mental health condition because of the levy, the earnings benefit will be significant – particularly, among people with lower incomes (see figures 2.1 and 3.6). That is, levies which increase the price of consumer goods need to only make a relatively small contribution to good health – and to narrowing health inequalities – for their health benefits to make them financially progressive.

Beyond this, levies can be designed in a way that makes them more progressive. For example, using a proportion of revenue derived from sugar/salt taxes to make healthier alternatives to levied products cheaper would further mitigate the overall potential for levies to be regressive. Either the health creation fund (healthy food subsidies) or the health investment bank (cheaper healthy alternatives) could be used to achieve this.

We also acknowledge concerns about how such levies interact with the elasticity of goods, and impact UK business. However, these concerns can also be answered.

- **Business impact:** Studies have shown that the SDIL levy did not have a sustained impact on business performance of soft drinks manufacturers (Law et al 2020; Pell et al 2021).
- **Elasticity:** Studies have suggested taxes do not currently optimise yield (Institute of Alcohol Studies 2016). More importantly, our proposals for levies focus on manufacturers (rather than consumers). This will protect revenue from levies on elastic products, by limiting manufacturers' capacity to pass the levy to the consumer in the form of price increases.

Setting a target for health harms levies to create around £6 billion a year, for at least a 10-year period, would allow government to allocate funds as follows:

- immediate capitalisation for the national health investment bank (or health portfolio within a broader national investment bank model) – with a commitment of £28 billion of funding over a 10-year period
- direct support for the public health fund, at £3 billion per year for 10 years – before assessment of level to which ongoing investment can be supported by health investment bank returns, and
- provision of running costs for the two new institutions recommended above – the NIEH and the Health and Prosperity Committee.

Any profits arising from the health bank could also be further reinvested in public health programmes in the longer term.



# REFERENCES

- Action On Smoking And Health [ASH] (2023) “No More Delay – We need a Tobacco Control Plan now” urge local leaders’, press release. <https://ash.org.uk/media-centre/news/press-releases/no-more-delay-we-need-a-tobacco-control-plan-now-urge-local-leaders>
- Advisory Board for Safer Gambling (2020) ‘Advice to the Gambling Commission on a Statutory Levy’, guidance. <https://www.gamblingcommission.gov.uk/print/advice-to-the-gambling-commission-on-a-statutory-levy#:~:text=Establish%20a%20statutory%20levy%20on%20all%20gambling%20operators,Levy%20Board%20to%20oversee%20the%20distribution%20of%20funds>
- Arnold M, Rutherford MJ, Bardot A, Ferlay J, Andersson T M-L and Myklebust TA (2019) ‘Progress in Cancer Survival, Mortality, and Incidence in Seven High-income Countries 1995-2014 (ICBP SURVMARK-2): A population-based study’, *The Lancet Oncology*, 20(11). [https://www.thelancet.com/journals/lanonc/article/PIIS1470-2045\(19\)30456-5/fulltext](https://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(19)30456-5/fulltext)
- Asquith H, McDonnell P, Hopewell A and Shenker S (2013) *A Review of Employment Support for People with Mental Illness, Physical Disabilities and Learning Disabilities, Joint Strategic Needs Assessment*. <https://www.jsna.info/sites/default/files/Employment%20Support%20JSNA.pdf>
- Averchenkova A, Fankhauser S and Finnegan JJ (2018) *The Role of Independent Bodies in Climate Governance: The UK’s Committee on Climate Change*, Grantham Institute at LSE. <https://www.lse.ac.uk/granthaminstitute/publication/role-independent-bodies-in-climate-governance-uk-committee-on-climate-change/>
- Averchenkova A, Fankhauser S and Finnegan JJ (2020) ‘The Impact of Strategic Climate Legislation: Evidence from expert interviews on the UK Climate Change Act’, *Climate Policy*, 21(2). <https://www.tandfonline.com/doi/full/10.1080/14693062.2020.1819190>
- <https://www.bankofengland.co.uk/bank-overground/2023/how-are-the-rising-cost-of-living-and-interest-rates-affecting-households> Bambra C, Munford L and Brown H, et al (2018) *Health for Wealth*, Northern Health Science Alliance. <https://www.thenhsa.co.uk/app/uploads/2018/11/NHSA-REPORT-FINAL.pdf>
- Bambra C and Munford L, et al (2022) *The Parallel Pandemic: Covid-19 and mental health*, Northern Health Science Alliance. <https://www.thenhsa.co.uk/app/uploads/2022/07/NHSA-MENTAL-HEALTH-REPORT.pdf>
- Bank of England (2023a) How are the Rising Cost of Living and Interest Rates Affecting Households’ Ability to Pay their Mortgage? <https://www.bankofengland.co.uk/bank-overground/2023/how-are-the-rising-cost-of-living-and-interest-rates-affecting-households#:~:text=Rising%20living%20costs%20and%20interest,such%20as%20energy%20and%20food>
- Bank of England (2023b) ‘Monetary Policy Report (February 2023)’. <https://www.bankofengland.co.uk/monetary-policy-report/2023/february-2023#:~:text=The%20Bank%20of%20England’s%20Monetary,percentage%20points%2C%20to%204%25>
- Barr B, Higgerson J and Whitehead M (2017) ‘Investigating the Impact of the English Health Inequalities Strategy: Time trend analysis’, *British Medical Journal*. <https://www.bmj.com/content/358/bmj.j3310>
- Bell M, Deyes K and Vitello E (2022) ‘The Annual Social Cost of Obesity in the UK’, news article, Frontier Economics. <https://www.frontier-economics.com/uk/en/news-and-articles/articles/article-i9130-the-annual-social-cost-of-obesity-in-the-uk/>
- BioIndustry Association [BIA] (2022) *UK Biotech Financing in 2021*. <https://www.bioindustry.org/static/971705d9-651c-4db3-b563b39ba4f49d17/91c3d748-048d-4ab3-b6717fc3dcbfbc04/BIA-report-UK-biotech-financing-in-2021.pdf>
- Boylard E (2019) *Unhealthy Food Marketing: The impact on adults*, Obesity Health Alliance. <https://obesityhealthalliance.org.uk/wp-content/uploads/2019/05/JFM-Impact-on-Adults-Boylard-May-2019-final-002.pdf>

- Brewer M, Fry E and Try L (2023) *The Living Standards Outlook 2023*, Resolution Foundation. <https://www.resolutionfoundation.org/publications/the-living-standards-outlook-2023/>
- Britteon P, Fatimah A, Lau Y-S, Anselmi L, Turner AJ, Gillibrand S et al (2022) 'The Effect of Devolution on Health: A generalised synthetic control analysis of Greater Manchester England', *The Lancet Public Health*, 7(10). [https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(22\)00198-0/fulltext#:~:text=Findings,with%20similar%20pre%2Ddevolution%20trends](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(22)00198-0/fulltext#:~:text=Findings,with%20similar%20pre%2Ddevolution%20trends)
- Climate Change Committee [CCC] (Undated) 'The Benefits of the Climate Change Act', webpage. <https://www.theccc.org.uk/about/our-expertise/the-benefits-of-the-climate-change-act/>
- Confederation of British Industry [CBI] (2018) 'Time for Employers to Place Workplace Health and Wellbeing Front of Mind', article. <https://www.cbi.org.uk/media-centre/articles/time-for-employers-to-place-workplace-health-and-wellbeing-front-of-mind-cbibupahca-heathcare/>
- Cribb J and Johnson P (2018) *10 Years On – Have we recovered from the financial crisis?*, IFS. <https://ifs.org.uk/articles/10-years-have-we-recovered-financial-crisis>
- Cromwell C, Khan H and Mulgan G (2019) *The Nightingale*, Nesta. <https://www.nesta.org.uk/report/nightingale/>
- Davies S (2019) *Time To Solve Childhood Obesity: CMO Special Report*. <https://www.gov.uk/government/publications/time-to-solve-childhood-obesity-cmo-special-report>
- Department for Work & Pensions [DWP] (2021) *A Study of Work and Health Transitions: Analysis of Understanding Society*. <https://www.gov.uk/government/publications/a-study-of-work-and-health-transitions-analysis-of-understanding-society/a-study-of-work-and-health-transitions-analysis-of-understanding-society>
- Dibb G (2022) 'Cutting Corporation Tax is not a Magic Bullet for Increasing Investment', blog post, IPPR. <https://www.m.ippr.org/blog/cutting-corporation-tax-not-magic-bullet-for-increasing-investment>
- Dillon A (2020) The International Impact of NICE, article, Carnall Farrar. <https://www.carnallfarrar.com/nice-international-impact/>
- Dimpleby H (2022) 'National Food Strategy: The Plan', webpage. <https://www.nationalfoodstrategy.org/>
- Dolphin T and Nash D (2012) *Investing for the Future: Why we need a British Investment Bank*, IPPR. <https://www.ippr.org/publications/investing-for-the-future-why-we-need-a-british-investment-bank>
- Education Endowment Foundation [EEF] (2016) *The EEF at 5*. [https://educationendowmentfoundation.org.uk/public/files/Presentations/Publications/5th\\_Anniversary\\_Brochure\\_Final.pdf](https://educationendowmentfoundation.org.uk/public/files/Presentations/Publications/5th_Anniversary_Brochure_Final.pdf)
- Fankhauser S, Averchenkova A and Finnegan JJ (2018) *10 Years of the Climate Change Act*, Grantham Research Institute at LSE. <https://www.lse.ac.uk/granthaminstitute/publication/10-years-climate-change-act/>
- Fankhauser S (2020) 'What are Britain's Carbon Budgets?', explainer, Grantham Research Institute at LSE. <https://www.lse.ac.uk/granthaminstitute/explainers/what-are-carbon-budgets-and-why-do-we-have-them/>
- Ford JA, Waugh N, Sharma P, Sculpher M and Walker A (2012) 'NICE Guidance: A comparative study of the introduction of the single technology appraisal process and comparison with guidance from Scottish Medicines Consortium', *BMJ Open*, 2(1). <https://bmjopen.bmj.com/content/2/1/e000671>
- Fraser of Allander Institute (2018) *The Economic Impact of Changes in Alcohol Consumption in the UK*. <https://fraserofallander.org/wp-content/uploads/2021/02/2018-04-11-Economic-impact-of-changes-in-alcohol-consumption-in-UK.pdf>
- GBD 2017 Diet Collaborators (2019) 'Health Effects of Dietary Risks in 195 Countries, 1990–2017: A systematic analysis for the Global Burden of Disease Study 2017', *The Lancet*, 393(10184):1958–1972. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(19\)30041-8/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)30041-8/fulltext)
- Haeusermann T (2017) 'The Dementia Village: Between community and society', in *Care in Healthcare: Reflections on Theory and Practice*, Krause F and Boldt J (eds). <https://www.ncbi.nlm.nih.gov/books/NBK543750/>

- Health and Safety Executive [HSE] (2023) 'Health and Safety Statistics', dataset. <https://www.hse.gov.uk/statistics/>
- Hochlaf D and Thomas C (2020) *The Whole Society Approach: Making a giant leap on childhood health*, IPPR. <https://www.ippr.org/research/publications/the-whole-society-approach>
- Holtham G (2011) 'Essential Investment Requires State Enterprise', in *Going for Growth* (2011) Straw W (ed), Left Foot Forward/IPPR/Friedrich Ebert Stiftung
- House of Commons (2021) 'Coronavirus: Economic Impact', research briefing. <https://commonslibrary.parliament.uk/research-briefings/cbp-8866/>
- House of Commons (2022) 'Average Earnings by Age and Region', research briefing. <https://commonslibrary.parliament.uk/research-briefings/cbp-8456/>
- Impact on Urban Health (2023) *How Can Innovation Support a Healthier Food Industry?*. <https://urbanhealth.org.uk/insights/reports/how-can-innovation-support-a-healthier-food-industry>
- Institute for Fiscal Studies [IFS] (2022) 'Is Worsening Health Leading to More Older Workers Quitting Work, Driving up Rates of Economic Inactivity?', article. <https://ifs.org.uk/articles/worsening-health-leading-more-older-workers-quitting-work-driving-rates-economic>
- Institute for Government (2020) 'Local Government Funding in England', article. <https://www.instituteforgovernment.org.uk/explainer/local-government-funding-england>
- Institute for Health Metrics and Evaluation [IHME] (2020) 'Global Burden of Disease, UK, 1990–2019', dataset. <https://vizhub.healthdata.org/gbd-compare/>
- Institute of Alcohol Studies (2016) *Dereliction of Duty: Are UK alcohol taxes too low?*. <https://www.ias.org.uk/uploads/pdf/Derelictionof-duty.pdf>
- Institute of Alcohol Studies (2023) 'Budget Submission: March 2023'. <https://www.ias.org.uk/wp-content/uploads/2023/02/IAS-Budget-submission-Spring-2023.pdf>
- International Monetary Fund [IMF] (2023) *World Economic Outlook Update: Inflation peaking amid low growth*. <https://www.imf.org/en/Publications/WEO/Issues/2023/01/31/world-economic-outlook-update-january-2023#:~:text=Global%20growth%20is%20projected%20to,19%20average%20of%203.8%20percent>
- Ipsos Mori (2022) 'One in Seven Britons Expect to Live to be 100 Years Old, Down by a Third since 2019', data briefing. <https://www.ipsos.com/en-uk/one-seven-britons-expect-live-be-100-years-old-down-third-2019>
- Jones AM, Rice N and Zantomio F (2020) 'Acute Health Shocks and Labour Market Outcomes: Evidence from the post-crash era', *Economics & Human Biology*, 36(1). <https://www.sciencedirect.com/science/article/pii/S1570677X19300115>
- Kaplan BJ, Giesbrecht G, Shannon S and McLeod K (2011) 'Evaluating Treatments in Healthcare: The instability of a one-legged stool', *BMC Medical Research Methodology*, 11(64). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3103483/>
- KPMG (2016) *Value Walks*. <https://assets.kpmg.com/content/dam/kpmg/pdf/2016/05/value-walks.pdf>
- Law C, Cornelsen L, Adams J, Pell D, Rutter H, White M and Smith R (2020) 'The Impact of UK Soft Drinks Industry Levy on Manufacturers' Domestic Turnover', *Economics & Human Biology*, 37(1). <https://www.sciencedirect.com/science/article/abs/pii/S1570677X19302606?via%3Dihub>
- Lenhart O (2019) 'The Effects of Health Shocks on Labor Market Outcomes: Evidence from UK panel data', *European Journal of Health Economics*, 20(1): 93–98. <https://link.springer.com/article/10.1007/s10198-018-0985-z>
- Marmot MG, Smith GD, Stansfield S, Patel C, North F, Head J, White I, Brunner E and Feeney A (1991) 'Health Inequalities among British Civil Servants: The Whitehall II Study', *The Lancet*, 337:1387–1393. <https://pubmed.ncbi.nlm.nih.gov/1674771/>
- Marmot M, Allen J, Boyce T, Goldblatt P and Morrison J (2020) *Health Equity in England: The Marmot Review 10 Years On*. [https://www.health.org.uk/publications/reports/the-marmot-review-10-years-on?gclid=CjwKCAiAxxvGfBhB-EiwAMPakqgG7bMIODP8ijdvTAfjYCD0VuR4pdGZ\\_RfwOsi2yYKRwDTqYQCUBU3BoCzDUQAvD\\_BwE](https://www.health.org.uk/publications/reports/the-marmot-review-10-years-on?gclid=CjwKCAiAxxvGfBhB-EiwAMPakqgG7bMIODP8ijdvTAfjYCD0VuR4pdGZ_RfwOsi2yYKRwDTqYQCUBU3BoCzDUQAvD_BwE)

- Mazzucato M and Dibb G (2019) *Missions: A beginner's guide*, UCL IIPP policy paper. <https://www.ucl.ac.uk/bartlett/public-purpose/publications/2019/dec/missions-beginners-guide>
- Mazzucato M (2020) *Mission-oriented Research & Innovation in the European Union*, UCL. <https://www.ucl.ac.uk/bartlett/public-purpose/publications/2020/jan/mission-oriented-research-innovation-european-union>
- Mears A (2014) 'Gaming and Targets in the English NHS', *Universal Journal of Management*, 2(7):293–301. <https://www.hrpub.org/download/20140902/UJM5-12102398.pdf>
- Murphy L, Massey-Chase B, Frost S, Emden J, Rankin L, Killick E, Laybourn L, Nyman M, Plummer A and Coleman P (2021) *Fairness and Opportunity: A people-powered plan for the green transition*, IPPR. <https://www.ippr.org/research/publications/fairness-and-opportunity>
- Murphy L and Thwaites G (2023) *Post-Pandemic Participation*, Resolution Foundation. <https://www.resolutionfoundation.org/publications/post-pandemic-participation/>
- National Institute of Economic and Social Research (2022) *Why is UK Productivity Low and How Can It Improve?*. <https://www.niesr.ac.uk/blog/why-uk-productivity-low-and-how-can-it-improve#:~:text=The%20United%20Kingdom's%20economy%20has,and%202020%20at%20around%200.5%25>
- National Institute for Health and Care Excellence [NICE] (2009) 'Workplace Health: Long-term sickness absence and incapacity to work', guidance. <https://www.nice.org.uk/guidance/PH19>
- NHS Digital (2022) 'Quality and Outcomes Framework (QOF) data', dataset. <https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/general-practice-data-hub/quality-outcomes-framework-qof>
- NHS Digital (2023) 'Consultant-led Referral to Treatment Waiting Times', dataset. <https://www.england.nhs.uk/statistics/statistical-work-areas/rtt-waiting-times/>
- Office for Budget Responsibility [OBR] (2023) 'Economic and Fiscal Outlook – March 2023', briefing. [https://obr.uk/docs/dlm\\_uploads/OBR-EFO-March-2023\\_Web\\_Accessible.pdf](https://obr.uk/docs/dlm_uploads/OBR-EFO-March-2023_Web_Accessible.pdf)
- Office for Life Sciences [OLS] (2022) *Life Science Competitiveness Indicators 2022*. <https://www.gov.uk/government/publications/life-science-sector-data-2022/life-science-competitiveness-indicators-2022>
- Office for National Statistics [ONS] (2015) 'How has life expectancy changed over time?', article. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/howhaslifeexpectancychangedovertime/2015-09-09>
- Office for National Statistics [ONS] (2022a) 'Half a Million More People are out of the Labour Force because of Long-term Sickness', article. <https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/economicinactivity/articles/halfamillionmorepeopleareoutofthelabourforcebecauseoflongtermsickness/2022-11-10#:~:text=Between%20Quarter%201%202021%20and,before%20becoming%20long%20term%20sick>
- Office for National Statistics [ONS] (2022b) 'Health Index for England 2015 to 2020', dataset. <https://www.ons.gov.uk/releases/healthindexforengland2015to2020>
- Office for National Statistics [ONS] (2022c) 'Regional Gross Value Added (Balanced) per Head and Income Components', dataset. <https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominalregionalgrossvalueaddedbalancedperheadandincomecomponents>
- Office for National Statistics [ONS] (2022d) 'Regional Gross Disposable Household Income: All ITL level regions', dataset. <https://www.ons.gov.uk/economy/regionalaccounts/grossdisposablehouseholdincome/datasets/regionalgrossdisposablehouseholdincomegdhi>
- Office for National Statistics [ONS] (2023) 'Deaths Registered Weekly in England and Wales, Provisional: Week ending 27 January 2023', dataset. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsregisteredweeklyinenglandandwalesprovisional/weekending27january2023>
- Organisation for Economic Co-operation and Development [OECD] (2020) 'Life Expectancy at Birth', dataset. <https://data.oecd.org/healthstat/life-expectancy-at-birth.htm>

- Organisation for Economic Cooperation and Development [OECD] (2021) *The United Kingdom's Pioneering Climate Change Act*. <https://www.oecd.org/climate-action/ipac/practices/the-united-kingdom-s-pioneering-climate-change-act-c08c3d7a/>
- Organisation for Economic Co-operation and Development [OECD] (2022a) 'Overweight and Obese Population', dataset. <https://data.oecd.org/healthrisk/overweight-or-obese-population.htm>
- Organisation for Economic Co-operation and Development [OECD] (2022b) 'Avoidable mortality rates', dataset. <https://stats.oecd.org/index.aspx?queryid=96018>
- Patel P and Jung C (2022) *A Healthy Labour Market: Creating a post-pandemic world of healthier work*, IPPR. <https://www.ippr.org/research/publications/a-healthy-labour-market>
- Pell D, Mytton O, Penney TL, Briggs A, Cummins S, Penn-Jones C, Rayner M, Rutter H, Scarborough P, Sharp SJ, Smith RD, White M and Adams J (2021) 'Changes in Soft Drinks Purchased by British Households associated with the UK Soft Drinks Industry Levy: Controlled interrupted time series analysis', *British Medical Journal*, 372. <https://www.bmj.com/content/372/bmj.n254>
- Public Health Scotland (2022) 'NHS Waiting Times – Stage of Treatment', dataset. <https://www.publichealthscotland.scot/publications/nhs-waiting-times-stage-of-treatment/stage-of-treatment-waiting-times-inpatients-day-cases-and-new-outpatients-30-september-2022/>
- Raikes L (2016) *Health Innovation: Breathing life into the northern powerhouse*, IPPR North. <https://www.ippr.org/publications/health-innovation-breathing-life-into-the-northern-powerhouse>
- Raleigh V and Holmes J (2021) *The Health of People from Ethnic Minority Groups in England*, The King's Fund. <https://www.kingsfund.org.uk/publications/health-people-ethnic-minority-groups-england>
- Roitberg B (2012) 'Tyranny of a "Randomized Controlled Trials"', *Surgical Neurology International*, 3:144. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3551523/>
- ScaleUp Institute (2021) *ScaleUp Annual Review 2020*. <https://www.scaleupinstitute.org.uk/scaleup-review-2020/accessing-finance-2-2/>
- Senedd Research (2023) 'Reducing the NHS Waiting List Backlog', article. <https://research.senedd.wales/research-articles/reducing-the-nhs-waiting-list-backlog/>
- Smith MJ, Smith JD, Fleming MF, Jordan N, Oulvey EA, Bell MD, Mueser KT, McGurk SR, Spencer E-S, Mailey K and Razzano LA (2019) 'Enhancing Individual Placement and Support (IPS) – Supported employment: A Type 1 hybrid design randomized controlled trial to evaluate virtual reality job interview training among adults with severe mental illness', *Contemporary Clinical Trials*, 77(1): 86–97. <https://doi.org/10.1016/j.cct.2018.12.008>
- Statham R and Parkes H (2022) *A Lifeline for Families: Investing to reduce child poverty this winter*, IPPR. <https://www.ippr.org/publications/a-lifeline-for-families>
- Stuckler D and Basu S (2013) *The Body Economic: Why Austerity Kills*, Basic Books
- Suijkerbuijk YB, Schaafsma FG, Van Mechelen JC, Ojajärvi A, Corbière M and Anema JR (2017) 'Interventions for Obtaining and Maintaining Employment in Adults with Severe Mental Illness, a Network Meta-analysis', *Cochrane Database of Systematic Reviews*, 12(9). <https://doi.org/10.1002/14651858.CD011867.pub2>
- Theis D and White M (2021) 'Is Obesity Policy in England fit for Purpose? Analysis of government strategies and policies, 1992–2020', *Milbank Quarterly*, 99(1): 126–170. <https://pubmed.ncbi.nlm.nih.gov/33464689/>
- The King's Fund (2010) 'Have Targets Improved NHS Performance?', article. <https://www.kingsfund.org.uk/projects/general-election-2010/performance-targets>
- Thomas C (2019) *The 'Make Do and Mend' Health Service: Solving the NHS' capital crisis*, IPPR. <https://www.ippr.org/research/publications/the-make-do-and-mend-health-service>
- Thomas C (2022) *Getting Better?: Health and the labour market*, IPPR. <https://www.ippr.org/research/publications/getting-better-health-and-labour-market>
- Tinson A, Major A and Finch D (2022) 'Is Poor Health Driving a Rise in Economic Inactivity?', news article, Health Foundation. <https://www.health.org.uk/news-and-comment/charts-and-infographics/is-poor-health-driving-a-rise-in-economic-inactivity>



- UCL Institute for Innovation and Public Purpose [UCL IIPP] (2019) *A Mission-oriented UK Industrial Strategy*. <https://www.ucl.ac.uk/bartlett/public-purpose/publications/2019/may/mission-oriented-uk-industrial-strategy>
- Understanding Society (2022) *The UK Household Longitudinal Study*. <https://www.understandingsociety.ac.uk/documentation/mainstage>
- World Economic Forum (2017) “Buurtzorg”. The Dutch word that could revolutionize healthcare’, article. <https://www.weforum.org/agenda/2017/06/the-dutch-community-care-revolution/>
- World Health Organization [WHO] (2020) ‘Life Expectancy and Healthy Life Expectancy’, dataset. <https://www.who.int/data/gho/data/themes/topics/indicator-groups/indicator-group-details/GHO/life-expectancy-and-healthy-life-expectancy>
- World Health Organization [WHO] (2022) *WHO European Regional Obesity Report 2022*. <https://apps.who.int/iris/bitstream/handle/10665/353747/9789289057738-eng.pdf>



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