



# **BROKEN HEARTED**

**A SPOTLIGHT PAPER ON  
CARDIOVASCULAR DISEASE**

**Chris Thomas**

February 2024

## ABOUT IPPR

**IPPR, the Institute for Public Policy Research**, is the UK's leading progressive think tank. We are an independent charitable organisation with our main offices in London. IPPR North, IPPR's dedicated think tank for the North of England, operates out of offices in Manchester and Newcastle, and IPPR Scotland, our dedicated think tank for Scotland, is based in Edinburgh.

Our purpose is to conduct and promote research into, and the education of the public in, the economic, social and political sciences, science and technology, the voluntary sector and social enterprise, public services, and industry and commerce.

IPPR  
14 Buckingham Street  
London  
WC2N 6DF  
T: +44 (0)20 7470 6100  
E: [info@ippr.org](mailto:info@ippr.org)  
[www.ippr.org](http://www.ippr.org)  
Registered charity no: 800065 (England and Wales),  
SC046557 (Scotland)

This paper was first published in February 2024. © IPPR 2024

The contents and opinions expressed in this paper are those of the authors only.

The progressive policy think tank



# CONTENTS

<b>Summary</b> .....	<b>5</b>
<b>1. Introduction</b> .....	<b>7</b>
<b>2. The prosperity case for progress</b> .....	<b>9</b>
<b>3. Can we get better?</b> .....	<b>12</b>
<b>4. Doing better, for health and prosperity</b> .....	<b>15</b>
1. Supercharge prevention .....	15
2. More capacity, better management .....	16
3. More research and innovation .....	19
<b>Conclusion</b> .....	<b>21</b>
<b>References</b> .....	<b>22</b>

## ABOUT THE AUTHORS

Chris Thomas is a principal research fellow at IPPR.

## ABOUT THIS PAPER

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

## ACKNOWLEDGEMENTS

The author would like to thank Jamie O'Halloran and Carsten Jung for contributing analysis to this paper, as well as Richard Maclean, David Wastell, Liam Evans and Mel Wilkes for their contributions.

We would like to thank the founding partners of the Commission on Health and Prosperity who made this work possible. IPPR retained full editorial control.



---

### Download

This document is available to download as a free PDF and in other formats at:

<http://www.ippr.org/articles/broken-hearted>

### Citation

If you are using this document in your own writing, our preferred citation is:

Thomas C (2023) *Broken hearted: A spotlight paper on cardiovascular disease*, IPPR.

<http://www.ippr.org/articles/broken-hearted>

### Permission to share

This document is published under a creative commons licence:

Attribution-NonCommercial-NoDerivs 2.0 UK

<http://creativecommons.org/licenses/by-nc-nd/2.0/uk/>

For commercial use, please contact [info@ippr.org](mailto:info@ippr.org)



# SUMMARY

**Progress on cardiovascular disease (CVD) was a significant driver of better population health and greater prosperity in the latter half of the 20th century.**

However, progress has recently stalled – with indications it may be in reverse. This is likely down to policy choices made in the last 15 years, particularly since the global financial crisis, above and beyond the more recent impact of the Covid-19 pandemic (Bambra and Marmot 2023). Had the rate of preventable mortality from CVD in the UK improved between 2011 and 2019 at even half the rate of improvement observed in the five years previous, we would expect around 33,000 less deaths from this cause in 2019.

**Stalling progress on CVD costs lives, but also undermines individual and national prosperity: that is, it costs lives and livelihoods.**

New analysis for this report finds that cardiovascular disease is one of the most prevalent conditions among those economically inactive due to sickness; that it is a particular challenge for older, inactive working age adults; and that onset of CVD is the major condition with the highest individual impact on labour market prospects.

**There are signs that the UK could be doing far better.**

Had we matched European peers since 2010 on acute myocardial infarction (AMI) mortality, new Carnall Farrar (CF) and IPPR analysis predicts we would have observed around 30,000 fewer deaths in the decade beginning 2020. And had local authorities in England performed at least as well as the 10th percentile local authority, we predict that we would have observed more than 30,000 fewer cardiovascular deaths in 2022, in England and Wales alone – indicating the profound role of CVD in both health and economic inequalities.

**In the interest of health, wellbeing, prosperity, and fairness, we need to raise our ambition on cardiovascular disease.** Specifically, we recommend a three-pronged approach.

1. **Supercharge prevention:** For a condition that contributes so much to the UK's total disease burden, cardiovascular disease mortality is highly preventable: as much as 80 per cent of cardiovascular disease is preventable. Three risk factors play a particular role in preventable deaths: diet and nutrition, metabolic risks (high BMI) and tobacco use. Even modest progress on these public health threats could significantly reduce cardiovascular deaths.

While the government plans to introduce welcome legislation on delivering a truly smokefree future, it has not acted nearly as decisively to make healthy food cheaper and more accessible – including as inflation raises food prices substantially – and has overseen an overall rise in obesity from already high pre-pandemic levels. As such, we recommend an expansion of the soft drinks industry levy to all high-fat and high-salt products – as recommended in the National Food Strategy.

2. **Better condition management:** New IPPR analysis of NHS waiting list data shows a substantial spike in the number waiting for cardiology services since 2021 – and that the cardiology waiting list has more than tripled since 2012. Cardiology waiting lists have risen more sharply than the elective waiting list as a whole (more than tripled compared with around 2.8 times growth in electives as a whole).

We need a comprehensive and urgent plan to address this. First, we propose a focus on retention, to maximise the number and productivity of staff working

through the backlog. Second, we recommend efforts to increase access to preventative medications, to help manage demand. Third, we suggest an expansion in access to truly personalised care. Finally, we suggest that we do not need to start from a blank page, and could deliver much progress by simply tackling avoidable variation in access to high quality care basics across the country through tools like CVDAAction, which use data to highlight inequality hotspots, opportunities for prevention, and is currently being piloted in select London Primary Care Networks.

- 3. More science, more innovation:** Great leaps in cardiovascular disease have come when a mix of public health, preventative, diagnostic and biomedical innovation have come together to make progress possible. Indeed, it is case studies like our late-20th century achievements on heart disease that underpin the UK government's commitment to make the UK a science superpower. Yet, the evidence is clear: compared to its contribution to the UK's disease burden, cardiovascular disease research is underfunded. Indeed, aligning heart disease research investment with its total impact on the nation's health would require more than £600 million investment each year. Given evidence that a) the UK invests too little public funding in R&D, b) that these forms of productive investment can increase growth and improve productivity and c) that public investment crowds-in private investment, we recommend the government urgently makes up this shortfall – working alongside civil society and charity partners.

# 1. INTRODUCTION

Over the last 150 years, there have been a few ‘great leaps forward’ in population health. In the latter part of the 1800s, it was vast improvements in the standard of housing, sanitation, and education. In the first half of the 20th century, it was the discovery of penicillin and other antibiotics, the expansion of childhood immunisation and the move to universal healthcare coverage.

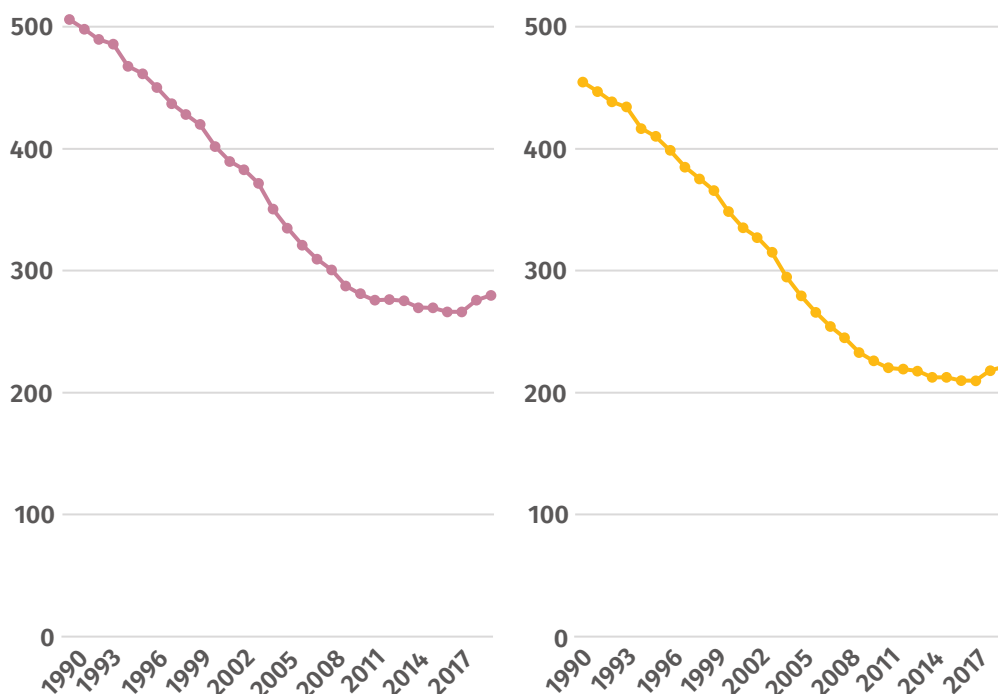
In more recent decades, notably the end of the 20th century, one of the biggest drivers of better health outcomes has been progress on cardiovascular disease (CVD). This wasn’t down to one single invention, discovery, or lever – but rather a complementary approach across public health, prevention, healthcare and beyond. Smoking rates dropped and salt intake fell (primary prevention); intervention on high blood pressure became more systematic; medical research uncovered a range of more sophisticated treatment options.

It is worrying, then, that since 2010 – and even before Covid-19 – progress on cardiovascular disease has come to a stuttering halt. Our analysis of Global Burden of Disease data shows a stagnation – and the beginnings of a reversal – in overall mortality per 100,000 people and in preventable mortality per 100,000 people (figure 1.1).

Had rates of improvement in CVD preventable mortality improved at even just half the rate as between 2005 and 2010 (inclusive), between 2010 and 2019, we would expect CVD mortality to have been around 30,000 lower in 2019. While we recognize such sustained improvement would have been challenging, we discuss why progress remains possible later in this report; note historic improvements were sustained for longer than a decade; and note that even this rate of improvement would not have made the UK a leader on CVD prevention among advanced economies.

**FIGURE 1.1: PROGRESS ON CARDIOVASCULAR DISEASE MORTALITY, AND PREVENTABLE CARDIOVASCULAR DISEASE MORTALITY, HAS STALLED**

UK deaths per 100,000 from CVD, total (left) and preventable (right), 1990–2019



Source: Authors' analysis of Global Burden of Disease (2020)

Global Burden of Disease data ends in 2019 – but data since indicates things have got significantly worse in the last three years. British Heart Foundation analysis of excess deaths data shows that there have been nearly 100,000 more deaths involving cardiovascular disease than otherwise expected since February 2020. This makes cardiovascular disease the current biggest driver of excess deaths in the UK today (British Heart Foundation 2023).

In the context of these challenges, this spotlight paper explores the current state of cardiovascular disease outcomes and policy in the UK. We explore whether, as well as impacting national health, the reversal of progress on cardiovascular disease is also undermining national prosperity (**chapter 2**). In the context of both government and opposition pledges on CVD, we explore the extent to which recatalysing significant progress is possible (**chapter 3**). And we outline priorities for policymakers looking to capture the significant health and prosperity gains possible, through better prevention, treatment, and science (**chapter 4**).

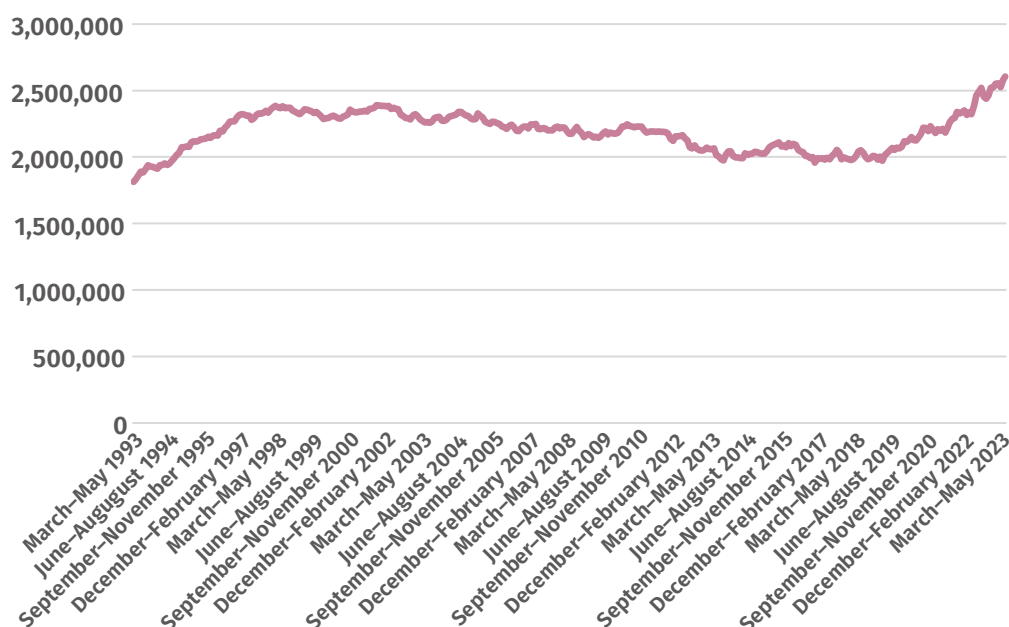


## 2. THE PROSPERITY CASE FOR PROGRESS

Beyond the impact of CVD on overall population health outcomes, we also find that our stalling progress on CVD has a significant impact on economic prosperity in the UK. In particular, it is having a pronounced role in the on-going challenge of economic inactivity caused by long-term illness.

At a headline level, the ONS Labour Force Survey shows that nearly 2.6 million working aged people are currently experiencing economic inactivity primarily due to long-term sickness (ONS 2023a). This is the highest number ever recorded and comes at a time that overall economic inactivity is a key concern for businesses, government, and economic agencies (see lots of citations). Health-related economic inactivity has also proven stubborn, as wider economic inactivity begins to fall – with the OBR noting that sickness-driven inactivity tends to be harder to reverse than other barriers to economic participation (OBR 2023).

**FIGURE 2.1. ECONOMIC INACTIVITY DUE TO SICKNESS HAS RISEN MARKEDLY**  
Economic inactivity primarily due to sickness, seasonally adjusted, 1993–latest, UK



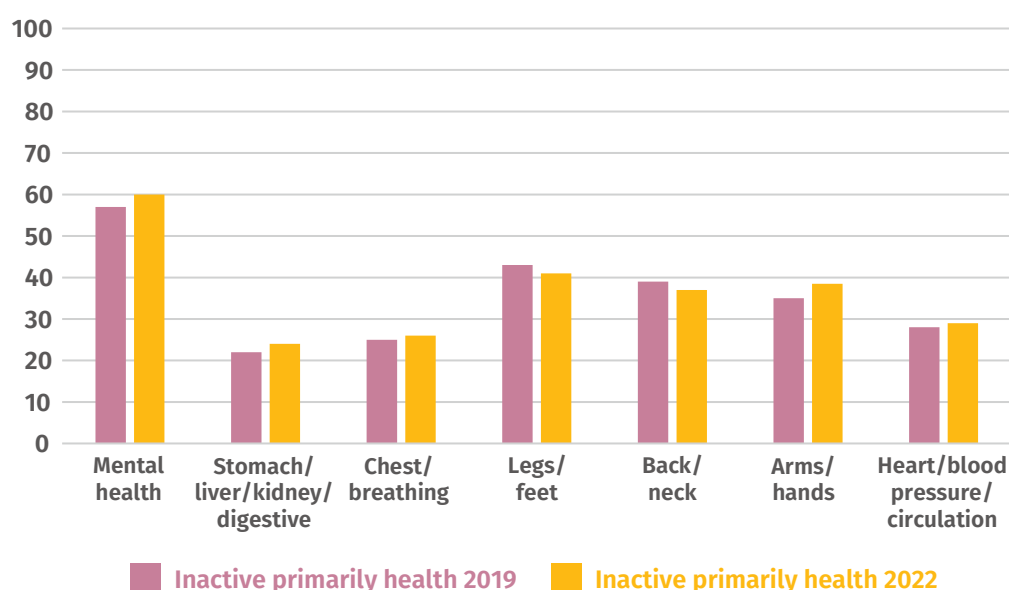
Note: Data releases have been paused on economic inactivity by reason due to data quality concerns around recent Labour Force Surveys. The ONS has confirmed that data releases from before October 2023 are unaffected.

Source: Author's analysis of ONS (2023a)

Our analysis further shows that heart conditions are among the most prevalent health conditions reported by those unable to participate in the economy due to sickness. Indeed, as of the end of the second quarter of 2022, nearly 30 per cent of this group reported a long-term condition relating to their heart, blood pressure or circulatory system. This makes it the fifth most prevalent condition among this group – behind mental health problems, problems with legs or feet, problems with back or neck, and problems with arms or hands.

**FIGURE 2.2. HEART, CIRCULATORY AND BLOOD CONDITIONS ARE HIGHLY PREVALENT AMONG PEOPLE WHO ARE ECONOMICALLY INACTIVE PRIMARILY TO SICKNESS**

**Prevalence of select conditions among people who are economically inactive due to sickness, Q2 2019 and Q2 2022, seasonally adjusted, UK**



Source: Authors' analysis ONS (2023a)

Underneath this figure is significant variation by age. Younger working age adults who are economically inactive due to long-term sickness are significantly less likely to report having a heart, blood pressure or circulatory condition (9 per cent). This rises to 44 per cent among 60–64-year-olds. This indicates policymakers may need to focus on different priorities for different age groups: mental health support for younger working age adults, CVD interventions for older working age adults.

To further understand the labour market impacts of cardiovascular disease, IPPR has also undertaken longitudinal analysis of *Understanding Society* data. The UK Household Longitudinal Survey (*Understanding Society 2022*) follows more than 29,000 people over time. We use the variation to analyse how the onset of sickness impacts people's economic lives.<sup>1</sup>

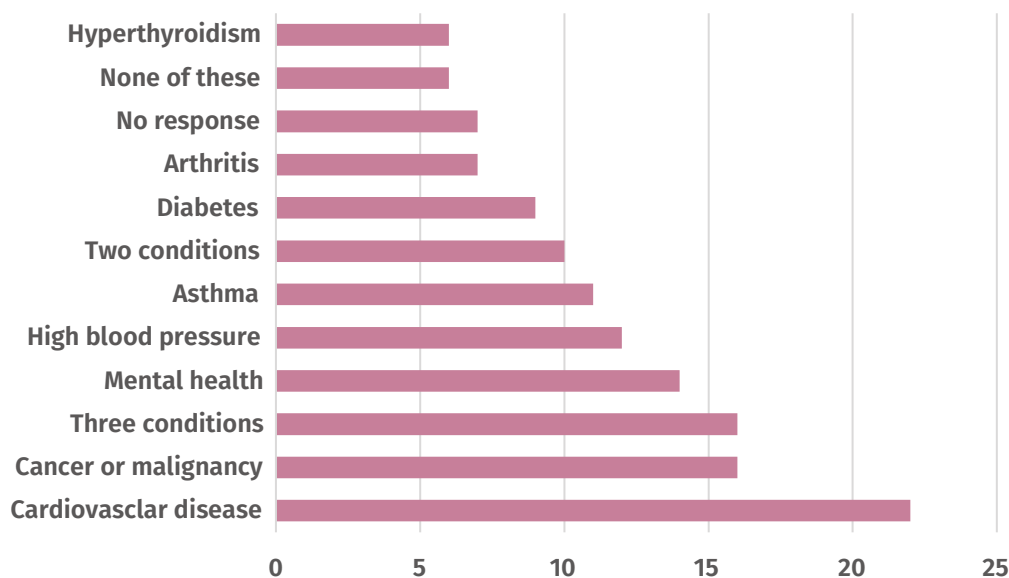
We find significant impact of cardiovascular disease on labour market outcomes. Figure 3.1. shows the share of people who report a condition, against the size of its impact on their likelihood of remaining in the labour market.

<sup>1</sup> One advantage of this analysis is it is able to account for health impacts on the labour market above and beyond a) what people self-report as the cause of their economic inactivity and b) above and beyond the Labour Force Survey's focus on 'primary' causes of inactivity.

---

**FIGURE 2.3. CARDIOVASCULAR DISEASE – AND RISK FACTORS FOR CVD – HAVE SIGNIFICANT LABOUR MARKET IMPACTS**

**Relationship between the onset of health condition and the probability of exiting employment**



Source: IPPR analysis of Understanding Society (2022)

---

This shows that cardiovascular disease is the condition that increases the risk of exit from employment most sharply. This finding is significant - cardiovascular disease has not been a focus of government labour market interventions, which have focused on mental health and arthritis. A focus on CVD would be a justifiable priority for the spring budget. Also notable is the fact that high blood pressure, a substantial risk factor for CVD, is correlated with labour market exit – particularly important given how preventable a cause of heart disease this is. Early results from Our Future Health, one of the most comprehensive studies of UK health ever undertaken, revealed that one in four people have untreated high blood pressure (Our Future Health 2023).

That the labour market of sickness is higher for people with multiple conditions is also significant. Heart disease is linked to diabetes, arthritis and kidney disease, suggesting that people with a heart condition may be more likely to have multiple conditions.

This analysis underlines that policy efforts to restart progress on cardiovascular disease could significantly support the economy – including, on some of the UK’s most prescient current challenges – beyond the more obvious (and important) human and social justice case for action.

### 3.

## CAN WE GET BETTER?

It might seem intuitive that, having seen big improvements in the 20th century, some slowdown of progress on CVD is inevitable. However, there are clear indications that the UK could be doing far better on CVD outcomes.

#### BOX 3.1: WHAT LEVERS ARE AVAILABLE?

The UK Labour Party has pledged to reduce cardiovascular disease by a quarter over the next decade (Labour Party 2023), while the government's 'Major Conditions' strategy has prioritised progress on CVD, as one of five priority conditions. This begs the question: how much progress is genuinely possible?

There are historic examples of very large drops in the mortality rate. For example, between 1993 and 2003, heart disease deaths across both sexes and all ages fell from 486 per 100,000 to 372 per 100,000 – a reduction of around 25 per cent (authors' analysis of Global Burden of Disease 2020). However, what has been possible historically does not necessarily impact what is possible today. Repeating such significant progress would require the government pulling the full range of available levers, including the following.

- **Diet, obesity, and activity:** A 2019 study of cardiovascular disease in the WHO European region concluded that one in every five premature cardiovascular disease deaths are related to metabolic risks (Meier et al 2019).<sup>2</sup> Exercise has been shown to reduce the risk of cardiovascular disease deaths – ranging from a 17 per cent risk reduction for pulmonary heart disease to a nearly 60 per cent reduction in aortic aneurysm (ibid). British Heart Foundation analysis links BMI with one in six CVD deaths (BHF 2023).
- **Tobacco and pollution:** Research from the Heart Research Institute concludes that smoking causes 20,000 deaths from cardiovascular disease in the UK every year (Heart Research Institute 2023). And an estimated 11,000 are attributable to particulate matter pollution per year (British Heart Foundation 2023).
- **Risk identification, management, and treatment:** Of the nearly 14 million adults in England with hypertension, only 60 per cent have a diagnosis, and 20 per cent with a diagnosis are not treated to NICE guidelines. Yet hypertension is implicated in half of all strokes and heart attacks. Similar challenges can be observed regarding high cholesterol, despite evidence that every 1mmol/l fall in LDL<sup>3</sup> cholesterol (eg from statin treatment) reduces year-on-year risk of heart attack and stroke by a quarter (British Heart Foundation 2018). Moreover, people with Diabetes and chronic kidney disease are at higher risk from CVD – and bespoke, additional and preventative support for these patient cohorts could be justified.

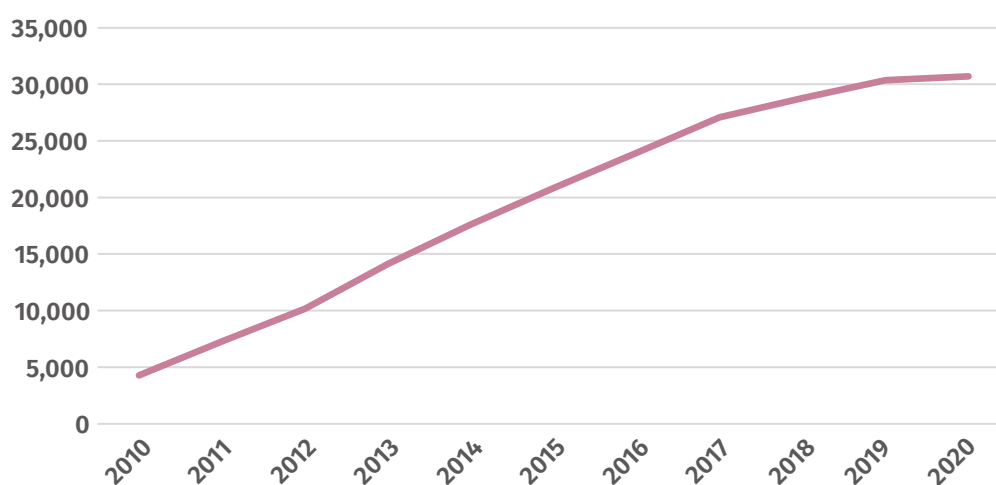
2 Out of around 160,000 circulatory disease deaths per year, around 48,000 are considered premature (30 per cent). Translated, optimised diet could reduce cardiovascular disease deaths by 6 per cent each year.

3 Low-density lipoprotein.

Indeed, better is being achieved demonstrably in some places. This is first suggested by international comparisons. New IPPR and Carnall Farrar analysis suggests that the UK is doing worse than comparable countries in tackling CVD. To give one example, our analysis suggests meeting just the European average mortality for acute myocardial infarction (AMI) could have saved 30,709 lives over the last decade (see figure 3.1). Naturally, this figure includes outlier European countries who are performing below what is demonstrably possible – matching the best performers, either in Europe or globally, would have saved yet more lives.

**FIGURE 3.1. THE UK WOULD HAVE PREVENTED TENS OF THOUSANDS OF DEATHS IF IT HAD MATCHED EUROPEAN MORTALITY RATES ON ACUTE MYOCARDIAL INFARCTION**

Cumulative deaths avoided had UK matched European AMI rates, 2010-20



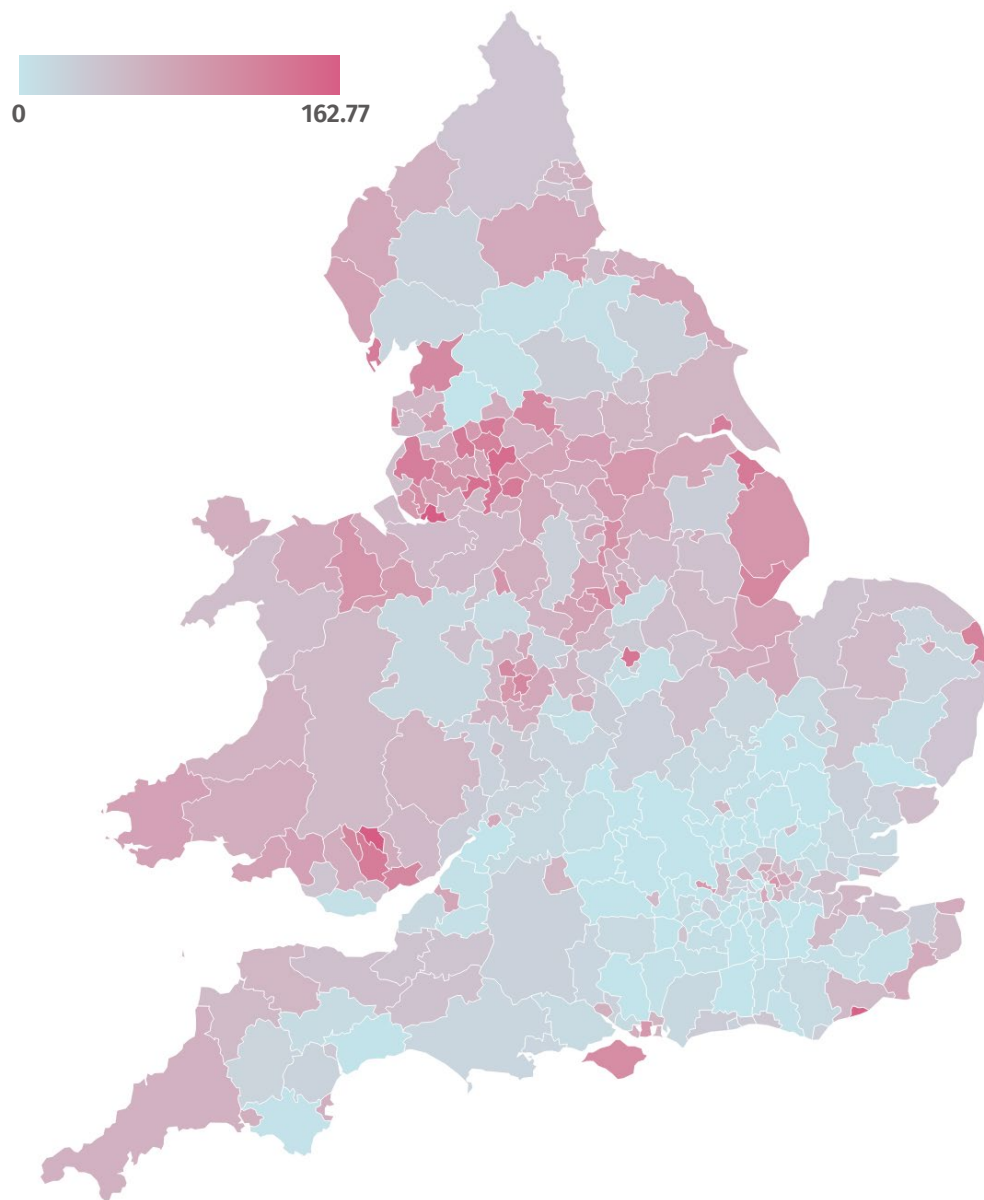
Source: CF analysis of OECD (2023)

Inequalities between and within places in the UK also show that better is demonstrably possible. New IPPR analysis below shows wide variations between different places. Specifically, we show how many fewer deaths there would have been in each part of the country had that local authority observed at least the same performance as the 10 percentile best performing local authority. Extrapolated out, this level of equality would have meant around 32,000 fewer deaths in 2022 alone – or over 10 per cent of all mortality – in England and Wales.

---

**FIGURE 3.2. THERE ARE SUBSTANTIAL SPATIAL INEQUALITIES IN CARDIOVASCULAR DISEASE MORTALITY IN ENGLAND AND WALES**

**Difference between CVD mortality by local authority compared to 10th percentile best performer, England and Wales, 2021**



Source: Author's analysis of ONS 2023b

---

This is not to say correcting this level of inequality is easy, but it is indicative of just how much progress is possible, even based on health outcomes already identifiable within some parts of the country.

## 4.

# DOING BETTER, FOR HEALTH AND PROSPERITY

Better is possible. Indeed, it's an imperative for health, prosperity, and fairness in the UK. But achieving it will require significant and consistent policy effort. And as with the progress observed between 1980 and the early 2000s, it is likely to rely on a coordinated mix of better prevention, improved condition management, faster diagnosis, and new innovation. This forms the basis of our policy recommendations.

### 1. SUPERCHARGE PREVENTION

Few health conditions are as preventable as cardiovascular disease. And there are three risk factors which play a particular role in otherwise avoidable mortality: diet and nutrition, metabolic risks including high BMI, and tobacco use.

Even relatively modest improvements on these risk factors could translate into substantial gains on overall cardiovascular disease outcomes – but given the significant impacts of CVD on individual employment and the wider economy, it's clear the ambition should be higher.

Against a backdrop of slow progress on tobacco, the government's recent proposal of a genuine 'endgame strategy' for smoking – by legislating so that children born after 2009 can never legally buy cigarettes – is a welcome policy with cross-party support. Even then, there remain means to go further and faster, including use of the 'polluter pays' principle to levy negative externalities caused by the tobacco industry. This has been proposed to align the tax the tobacco industry pays with the cost its products cause society and the NHS (tax receipts of around £10 billion, compared to a societal cost between £17 and £31 billion, OBR 2023, ASH 2023).

But the most obvious opportunity, then, is likely to be an expansion of the same ambition shown on tobacco, to obesity. The prevalence of obesity has increased from already very high levels since Covid-19 – particularly, in the most deprived parts of the country (King's Fund 2022). Before that, the UK already ranked fourth in Europe for the number of adults with overweight or obesity (WHO 2022). Healthy, nutritious food is three times more expensive than unhealthy products, per calorie (Food Foundation 2022) – with inflation likely to worsen this further.

Fiscal policies offer one of the best and best evidenced ways to correct this. The UK's experience of the soft-drinks industry levy shows that levies can be an effective tool to incentivise business behaviour change, better population health, and even better stock market performance among the impacted companies.

#### **BOX 4.1: USING FISCAL POLICY FOR PREVENTION SUCCESSFULLY**

In the 2016 budget, the chancellor announced plans to introduce a soft drinks industry levy – designed to encourage the reformulation of high sugar beverages. The levy was implemented in 2018.

- Soft drinks containing less than 5g of sugar per 100ml are exempt from the levy.
- Soft drinks containing 5g to 8g of sugar per 100ml are subject to an 18p/L levy.
- Soft drinks containing more than 8g of sugar per 100ml are subject to a 24p/L levy.

Evaluation of the impact of the levy has been wholly positive. In terms of health, a recent study estimated that the levy had led to a 6,600 reduction in calorie intake per UK resident, 80 per cent of which was attributed to reformulation of drinks (rather than changes in consumer behaviour) (Dickson et al 2023). Further studies have shown that companies that reformulated their drinks saw stock-market values above and beyond previous predictions, suggesting that the government's role in driving innovation had in fact strengthened them (Law et al 2020).

Despite this, government appetite to expand on this success appears low. Recommendations from independent reviews to introduce salt and sugar taxes, or to apply the polluter pays principle to the tobacco industry, have not led to further announcements or actions. This implies significant scope to go further and faster, subject to political will.

As such, we recommend a levy is expanded across food and drink products that cause cardiovascular disease – namely, those high in salt and those high in sugar. The first order goal would be to incentivise innovation: from harmful to healthier products, through reformulation. Second order benefits include that it is popular among the public; that, by targeting 'non-essential foods', it may decrease overall supermarket spend among consumers during a period of high food inflation and cost of living pressures; and that it has a revenue raising potential of around £3 billion per year (Dimbleby 2022).

In turn, these revenues could be turned to progressive means. There is an extensive evidence base, for example, on using proceeds to directly fund healthy food subsidies (eg via Rose Vouchers)<sup>4</sup> (Hawkes et al 2014), or local authority stop smoking services (Public Health England 2019). More systematically, IPPR have previously recommended funding was allocated to a Health Creation Fund and a National Health Investment Bank – to support government capacity to make strategic investment in long-term public health – in the first interim report of the Commission on Health and Prosperity (Thomas et al 2023).

## **2. MORE CAPACITY, BETTER MANAGEMENT**

While prevention is likely to be the engine behind the most significant and sustained gains on cardiovascular disease outcomes, there is also substantial scope to improve management and secondary prevention in the UK.

Most immediately, efforts should be made to address the significant disruption to cardiology services, including those witnessed over the last three years. New IPPR analysis of NHS waiting list data shows a major spike in the number waiting for

---

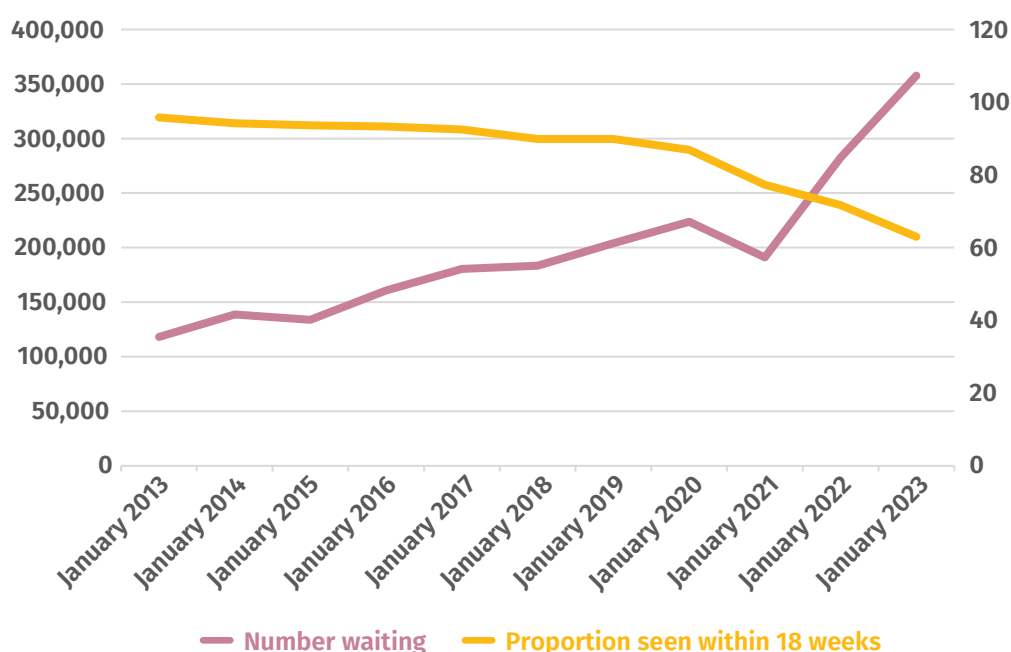
4 A scheme that supports people to buy fresh, local produce through vouchers.



cardiology services since 2021 (figure 4.1). Indeed the number waiting for cardiology services specifically has more than tripled between January 2013 and January 2023 – a rate of increase faster than that of the overall elective waiting list, which increased by around 2.8 times in the same period. This means cardiology waiting lists have risen more sharply than the elective waiting list as a whole – there has been a 229 per cent increase in the cardiology waiting list, compared to a 196 per cent increase in the overall waiting list.

**FIGURE 4.1. THE CARDIOLOGY WAITING LIST HAS RISEN SUBSTANTIALLY**

Number waiting, and proportion seen within 18 weeks, cardiology waiting list, England



Source: IPPR analysis of NHS Digital (2023)

The number waiting a long time has also increased markedly. Most people could expect to be seen within 18 weeks between 2012 and 2017 – but sharp drops between 2019 and 2020, between 2021 and 2022 and between 2022 and 2023 mean just 63 per cent are seen within 18 weeks today. Given the urgency of much cardiovascular disease, this should worry policy makers – and is likely a driver of the significant excess death already noted in this paper.

We need a comprehensive and urgent plan to address this – to which end we recommend the following.

- Efforts to improve workforce retention** of health and care staff, above and beyond the new workforce strategy. While this should include pay, it must also go further – and address the working conditions, levels of stress and other reasons staff are leaving the NHS. Notably, the number of NHS staff leaving due to sickness has risen sharply in the last three years (see Patel et al 2023) and provision of much better mental health support and services could have an immediate impact on retention and staff wellbeing (see Thomas 2020).
- Efforts to increase access** to preventative medication. IPPR analysis in 2021 showed that 470,000 fewer new prescriptions (people commencing a medication for the first time) of preventative cardiovascular drugs (antihypertensives, statins, anticoagulants etc) had been administered

in 2020. We estimated that this could lead to 12,000 avoidable heart attacks and strokes by 2026 (Patel et al 2021). Since that analysis, revised estimates have suggested that the consequences of disrupted care are worsening, not getting better. We recommend government use their review of the Quality Outcome Framework (QOF) to solidify and improve incentives around preventative care, prescriptions, and information in primary care specifically.

- 3. Personalising care to address complexity.** It is also important to ensure that people living with cardiovascular disease as a long-term condition get the support they need to live well and flourish. There is no reason why a cardiovascular disease diagnosis – even if it cannot be fully treated or effectively prevented – should do such extensive economic harm.

The NHS' personalised care agenda offers an opportunity to better support people with long-term or complicated conditions. However, as it stands, the commitments to personalise care made within the Comprehensive Model for Personalised Care (2019) are not being effectively rolled out in practice. Polling for IPPR/YouGov showed most – including those with life-limiting conditions – are not getting the support they need to lead good, prosperous lives.

**TABLE 4.1. PEOPLE ARE NOT RECEIVING PERSONALISED, PREVENTATIVE INTERVENTIONS**  
Which, if any, of the following types of support or assistance have you been given? Please select all that apply [n = 1,330] (%)

Intervention	All	People with an illness impacting on day-to-day activities
A longer appointment to discuss your issue, diagnosis or condition	16	22
A personalised care plan	5	8
Formal education or training about your health condition or lifestyle	4	6
Support from a link worker, peer support network/ expert, or care coordinator	4	10
Access to additional technology	3	5
A social prescription (eg befriending services, arts activities, group learning, cookery classes)	2	3
Access to a personalised health budget	1	2
None of the above	68	59

Source: IPPR/YouGov polling, recreated from Thomas (2023)

Not least given the focus on multiple conditions in the government's *Major Conditions Strategy*, exploring what interventions people living CVD alongside other conditions need – and ensuring the NHS has the means, incentives, and skills to address this complexity – is a key modernisation agenda.

### **BOX 4.2: DOING WHAT WE KNOW WORKS, BUT CONSISTENTLY**

Beyond addressing the specific challenges emerging since the Covid-19 pandemic, there is much that can be achieved by doing what we know to work – but consistently, across the country. In other words, by redoubling efforts to address the pronounced ‘postcode lottery’ that exists in CVD provision, on both health and economic grounds.

#### **1. CVDAction**

Within the NHS, many people with CVD are not given optimal preventative therapy – with a significant postcode lottery across the country in delivery of optimal care, in line with NICE guidelines. Updated NICE guidance and use of QOF have done little to change this status quo.

Yet, UCLPartners research suggests that if blood pressure optimisation rates were improved 12 points, 14,000 heart attacks and strokes could be prevented over the next three years – saving lives and reducing NHS costs. It also finds that if the number of people with CVD who are treated with statins increase to 90 per cent, a further 12,000 heart attacks and strokes could be prevented (UCLPartners 2023a).

Based on this, UCLPartners have launched CVDAction – a dataled approach that shows practices and primary care networks where the gaps, inequalities and opportunities in condition management are. This includes hotspots where patients have untreated hypertension, or where diabetes is not being targeted with preventative interventions.

Rolling out tools like CVDAction would help the NHS improve progress through interventions that are already widely used and that are known to work. The tool is free, and is about to be trailed in several London Primary Care Networks. (UCLPartners 2023b).

#### **2. Stroke reorganisation**

In some parts of the country, stroke services have been organised to a more centralised and specialist care delivery model. London, Greater Manchester and Northumbria have made significant progress in concentrating services into a fewer number of ‘Hyper Acute Stroke Units’ – where the best equipment and specialists can be brought under one roof. In London, this has been linked to 100 saved lives per year, and saved money. Yet, despite this evidence, nationwide progress towards this model is patchy at best.

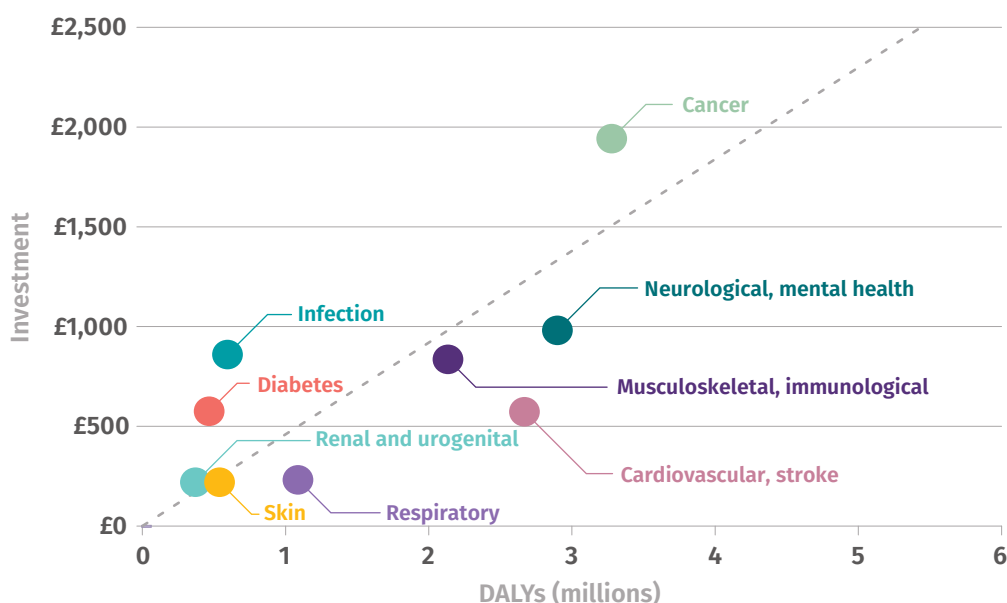
### **3. MORE RESEARCH AND INNOVATION**

The UK government has, rightly, maintained its commitment to becoming a science superpower – with the life sciences one of the strategic pillars within that aspiration. This is sensible: life sciences offer the UK a competitive advantage, can generate significant economic growth and return on investment, and support better health outcomes through innovation.

However, there are some types of health research that are underfunded – when comparing research investment to disease burden. Specifically, cardiovascular disease, neurological conditions, mental health, and immunological conditions receive less research investment than their disease burden would imply.

**FIGURE 4.2. CARDIOVASCULAR DISEASE RESEARCH IS UNDERFUNDED**

Private, public and charity spend by major conditions compared to disease burden (DALYs)



Source: Recreated from Thomas and Nanda (2020)

Public investment can be a powerful lever to correct this. Beyond making a direct contribution to closing the research funding gap, evidence shows public (and charity) investment in research ‘crowds-in’ private investment. As such, we would expect a multiplier effect for any new government investment in heart disease research.

We estimate that aligning heart disease research investment to its impact on the nation’s overall health would require an investment of £650 million (see Thomas and Nanda 2020). Given that government estimates that £1 of government investment eventually stimulates around £2 of private investment, we recommend an immediate injection of £220 million public R&D investment in cardiovascular disease – with an explicit goal of crowding in £430 million of private investment, over time.

This funding should also look to diversify the kinds of research undertaken in the UK. IPPR research has previously shown that we underfund research in prevention, early detection, and similar interventions. As such, we recommend the above funding is allocated to an explicitly wide range of research priorities – including:

- research into interventions around obesity, diet, tobacco control, air pollution and e-cigarettes
- research into early diagnosis and condition management – including how new technologies and AI can be leverages to deliver better outcomes
- biomedical research into new therapies and treatment options.

As well as a significant uplift in capacity for evaluation of new public health interventions, care pathways and technologies.

# CONCLUSION

Progress on cardiovascular disease was the engine behind health gains in the second half of the 20th century. Progress, delivered through a mix of public health policy and clinical innovation, saved many lives – and therefore, livelihoods.

While progress has since stalled, there is no reason to think that is inevitable. There are still huge opportunities to do better. Indeed, both other countries – and some parts of England – are real world case studies of this potential.

But getting that right means, once again, bringing together public health, NHS and innovation policy to push together towards progress. We will not do better if we do little on obesity and other preventable causes of heart disease. We will not do better if people cannot access timely, effective care. And we will not do better if we are slow to create, adopt and spread lifesaving new technologies, medicines and clinical interventions.

We should be spurred on by the sheer prize of getting this agenda right. Cardiovascular disease has a significant, under-appreciated role in the economy: it is important for labour market outcomes, particularly among older working age adults. In turn, less unmet need would protect individual earnings and national GDP. It is an illustration of how health could drive wealth.

And government have shown the ability to intervene in bold, evidence-based ways. The introduction of a New Zealand ‘tobacco endgame’ strategy shows that change is possible when there is political will. It is this ambition that needs to be expanded further.

# REFERENCES

- Action on Smoking and Health [ASH] (2023) *Delivering a Smokefree 2030*. <https://ash.org.uk/resources/view/delivering-a-smokefree-2030-the-all-party-parliamentary-group-on-smoking-and-health-recommendations-for-the-tobacco-control-plan-2021>
- Bambra C and Marmot M (2023) *Expert report by Professor Clare Bambra and Professor Sir Michael Marmot*. <https://covid19.public-inquiry.uk/documents/inq000195843-expert-report-by-professor-clare-bambra-and-professor-sir-michael-marmot-dated-30-may-2023/>
- British Heart Foundation (2018) *The CVD challenge in England*. <https://www.bhf.org.uk/for-professionals/healthcare-professionals/data-and-statistics/the-cvd-challenge/the-cvd-challenge-in-england>
- British Heart Foundation (2023) *Statistics Factsheet – UK*. <https://www.bhf.org.uk/-/media/files/for-professionals/research/heart-statistics/bhf-cvd-statistics-uk-factsheet.pdf>
- British Heart Foundation (2023) 'Excess deaths involving CVD in England since the onset of the Covid-19 pandemic: an analysis and explainer', news article. [https://www.bhf.org.uk/what-we-do/news-from-the-bhf/news-archive/2023/june/100000-excess-deaths-cardiovascular-disease#:~:text=There%20have%20been%20more%20excess,and%20Disparities%20\(OHID\)%20finds](https://www.bhf.org.uk/what-we-do/news-from-the-bhf/news-archive/2023/june/100000-excess-deaths-cardiovascular-disease#:~:text=There%20have%20been%20more%20excess,and%20Disparities%20(OHID)%20finds)
- Dickson A, Gehrsitz M and Kemp J (2023) 'Does a spoonful of Sugar Levy Help the Calories Go Down? An analysis of the Soft Drinks Industry Levy', *The Review of Economics and Statistics*. [https://direct.mit.edu/rest/article-abstract/doi/10.1162/rest\\_a\\_01345/116187/Does-a-Spoonful-of-Sugar-Levy-Help-the-Calories-Go?redirectedFrom=fulltext](https://direct.mit.edu/rest/article-abstract/doi/10.1162/rest_a_01345/116187/Does-a-Spoonful-of-Sugar-Levy-Help-the-Calories-Go?redirectedFrom=fulltext)
- Dimbleby D (2022) *National Food Strategy: The Plan*. <https://www.nationalfoodstrategy.org/>
- Dunley S and Chamberlain A (2016) 'Multimorbidity in older patients with cardiovascular disease', *Curr Cardiovasc Risk Rep*, 10(3). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4889124/>
- Food Foundation (2022) *The Broken Plate Report 2022*. <https://foodfoundation.org.uk/press-release/major-report-highlights-impact-britains-disastrous-food-policy>
- Global Burden of Disease (2020) 'GDB Compare', dataset. <https://vizhub.healthdata.org/gbd-compare/>
- Labour Party (2023) *Build an NHS fit for the Future*. <https://labour.org.uk/wp-content/uploads/2023/05/Mission-Public-Services.pdf>
- Law C, Cornelsen L, Adams J, Penney T, Rutter H, White M and Smith R (2020) 'An analysis of stock market reaction to the announcements of the UK Soft Drinks Industry Levy' *Econ Hum Biol*, 38(1). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7397522/>
- Meier T, Gräfe K, Senn F, Sur P, Stangl G, Dawczynski C, März W, Kleber M and Lorkowski S (2019) 'Cardiovascular mortality attributable to dietary risk factors in fifty-one countries in the WHO European Region from 1990 to 2016: a systematic analysis of the Global Burden of Disease Study', *European Journal of Epidemiology*, 34(1). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6325999/>
- NHS England (2023) 'Referral to Treatment RTT Waiting Times', dataset. <https://www.england.nhs.uk/statistics/statistical-work-areas/rtt-waiting-times/>
- Office for Budgetary Responsibility [OBR] (2023) *Fiscal Risks and Sustainability*. <https://obr.uk/frs/fiscal-risks-and-sustainability-july-2023/#:~:text=In%20this%2C%20our%20second%20FRS,on%20the%20UK's%20public%20debt.>
- ONS (2023a) 'Labour Force Survey', dataset. <https://www.ons.gov.uk/surveys/informationforhouseholdsandindividuals/householdandindividualsurveys/labourforcesurvey>
- ONS (2023b) 'Mortality statistics', dataset. <https://www.nomisweb.co.uk/datasets/mortsa>

- Patel P, Thomas C and Quilter-Pinner H (2021) *Without skipping a beat*, IPPR. <https://www.ippr.org/research/publications/without-skipping-a-beat#:~:text=Over%20120%2C000%20people%20have%20now,since%20the%20second%20world%20war>.
- Payne N, Brown K, Alarilla A and Froguel A (2022) *Smoking prevalence projections for England based on data to 2021*, Cancer Research UK. [https://www.cancerresearchuk.org/sites/default/files/cancer\\_research\\_uk\\_smoking\\_prevalence\\_projections\\_england.pdf](https://www.cancerresearchuk.org/sites/default/files/cancer_research_uk_smoking_prevalence_projections_england.pdf)
- Pringle P (2021) 'Around 31,000 heart and circulatory deaths attributed to excess weight and obesity every year', news article, British Heart Foundation. <https://www.bhf.org.uk/what-we-do/news-from-the-bhf/news-archive/2021/april/31000-heart-and-circulatory-deaths-obesity-each-year>
- Thomas C and Nanda S (2020) *The science-based economy*, IPPR. <https://www.ippr.org/research/publications/the-science-based-economy>
- Thomas C, Quilter-Pinner H and Verma P (2020) *The innovation lottery*, IPPR. <https://www.ippr.org/files/2020-06/the-innovation-lottery-june20.pdf>
- Thomas C, Jung C, Statham R and Quilter-Pinner H (2023) *Healthy people, prosperous lives: The first interim report of the IPPR Commission on Health and Prosperity*, IPPR. <https://www.ippr.org/research/publications/healthy-people-prosperous-lives>
- Thomas C (2023) *Healthcare and prosperity: The NHS at seventy-five*, IPPR. <https://www.ippr.org/research/publications/the-nhs-at-75>
- Understanding Society (2022) 'UK Household Longitudinal Survey', dataset. <https://www.understandingsociety.ac.uk/documentation>
- World Health Organisation (2022) *WHO European Regional Obesity Report 2022*. <https://apps.who.int/iris/handle/10665/353747#:~:text=Overweight%20and%20obesity%20affect%20almost,in%20the%20WHO%20European%20Region>.







## **Get in touch**

For more information about the Institute for Public Policy Research, please go to [www.ippr.org](http://www.ippr.org)

### **Institute for Public Policy Research**

Registered Charity no. 800065 (England & Wales),  
SC046557 (Scotland), Company no, 2292601 (England & Wales)

**The progressive policy think tank**