



Left  
Behind  
Neighbourhoods

# Overcoming health inequalities in 'left behind' neighbourhoods



## A report of the APPG for 'left behind' neighbourhoods

January 2022

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This report was researched by OCSI and NHSA. It was funded by Local Trust, Secretariat to the APPG for 'left behind' neighbourhoods.

**Local Trust**



## About the APPG evidence session

The APPG held its sixth evidence session on 23 March 2021: 'NHS – neighbourhood health services'. It looked at the real state of health of residents living in England's 225 'left behind' neighbourhoods one year from the start of the lockdown. The evidence session included new research commissioned for the APPG that helped to provide a better understanding of the potential longer-term impact of COVID-19. Members explored the role of communities in tackling health inequalities, and what sort of hyper-local initiatives and neighbourhood-based preventative healthcare measures could help improve people's physical and mental wellbeing.

Thanks to the expert witnesses who gave evidence to the APPG:

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Christina Gray, Director for Communities and Public Health, Bristol City Council

Sharon Barnes, Chair, and Kate Whitmarsh, Development Officer, Ewanrigg Local Trust

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Cite as: Munford, Mott et al. (2022). Overcoming health inequalities in 'left behind' neighbourhoods. Northern Health Science Alliance and the APPG for 'left behind' neighbourhoods

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## About the APPG

The All-Party Parliamentary Group for 'left behind' neighbourhoods is a cross party group of MPs and Peers. It was formed to increase opportunities and improve the quality of life for people living in areas which face a mixture of economic deprivation and insufficient social infrastructure – the connections, organisations and spaces to meet that enable communities to make positive changes for themselves.

[appg-leftbehindneighbourhoods.org.uk](http://appg-leftbehindneighbourhoods.org.uk)  
[@appgleftbehind](https://twitter.com/appgleftbehind)

## About Local Trust

Local Trust is a place-based funder supporting communities to transform and improve their lives and the places where they live. We believe there is a need to put more power, resources and decision-making into the hands of local people. Our aims are to demonstrate the value of long term, unconditional, resident-led funding through our work supporting local communities to make their areas better places to live, and to draw on the learning from our work to promote a wider transformation in the way policy makers, funders and others engage with communities and place.

[localtrust.org.uk](http://localtrust.org.uk)  
[@LocalTrust](https://twitter.com/LocalTrust)

## About OCSI

Oxford Consultants for Social Inclusion (OCSI) works with public and community organisations to improve services. OCSI turns complex datasets into engaging stories, and make data, information and analysis accessible for communities and decision-makers. A spin-out from Oxford University, OCSI has helped hundreds of public and community sector organisations to make their services more efficient and effective.

[ocsi.uk](http://ocsi.uk)  
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## About NHSA

Northern Health Science Alliance (NHSA) is a health research partnership between the leading NHS trusts, universities and Academic Health Science Networks in northern England. It was established in 2011 with a mandate from its member organisations to act, and add value, across the North on their behalf. NHSA works together with its members, industry and Government to mobilise the North's assets for the benefit of the people and the economy. It does this by brokering research collaborations, building expert networks, attracting investment, and providing a unified voice for the region's health research system.

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# Preface from our vice-chair

One of my biggest interests in public policy is how to tackle health inequalities.

I was therefore very pleased to chair the APPG's sixth evidence session into health outcomes in 'left behind' neighbourhoods. This was an issue that I knew was important before COVID, but the pandemic has revealed just how stark the health inequalities are in many of those 'left behind' communities that as members of the APPG we represent in Parliament.

Whether it is child obesity or poor mental health, we know that worse health outcomes can often lead to poor educational and employment outcomes. I know there is more we can do to address this important policy area on a cross-party basis, which is why I joined the APPG for 'left behind' neighbourhoods. If we want to make a difference and improve the health and wellbeing of 'left behind' neighbourhoods, we need to work together.

This very timely report highlights why we must act, and identifies some of the things we could do if we are to make inroads into tackling the growing health inequalities that blight our communities. One important area is how we can make sure we support communities themselves – and the people that live there – to have a greater say and influence over their own health and wellbeing.

As we emerge from the pandemic, we need to make sure that those communities that have suffered the most receive the investment and resources they need.

## Nicola Richards

MP for West Bromwich East

Vice-chair of the APPG for 'left behind' neighbourhoods, and chair of the APPG's sixth evidence session

## A note on terminology

For comparative purposes, information in this report is presented as relating to:

- 'left behind' neighbourhoods as a whole – the aggregate average score for all 225 'left behind' areas. These are referred to as LBNs, and feature in the most deprived 10 per cent of areas according to the Index of Multiple Deprivation (IMD) and the 10 per cent areas of greatest need in the Community Needs Index (CNI).

The CNI was developed for Local Trust by OCSI and measures how an area performs in terms of social infrastructure. This is the structures, organisations and activities that transform a place into a community through:

- civic assets – the places for communities to meet, green space and recreational opportunities;
- community engagement – the number of registered charities, voter turn out and levels of volunteering;
- physical and digital connectivity – public transport provision, travel times to key services, car ownership, and broadband speeds;
- 'other deprived areas' – areas that rank in the most deprived 10 per cent in the 2019 IMD, but not in the 10 per cent of areas of highest need according to the CNI. They are therefore not classified as 'left behind' – and are referred to as 'other deprived areas';
- the national average, or for England as a whole.

# Foreword from our co-chairs

**The data could not be clearer. People living in the 225 'left behind' neighbourhoods across England, such as the ones we represent in our constituencies, have far worse health outcomes than those in the rest of the country. Perhaps most striking of all, not only do residents in these areas have lower life expectancy, they also have worse health outcomes in the years they do live.**

This inequality has been magnified by COVID-19. When we first started our inquiry into the issues affecting 'left behind' neighbourhoods, we looked at the early impact of COVID-19 on these communities. We found that, with a greater prevalence of high-risk health conditions compared to England as a whole, for example higher levels of obesity (12 per cent compared to 9.8 per cent) and diabetes (7.9 per cent compared to 6.8 per cent), residents were significantly more vulnerable to further waves of the virus. We now know that people in 'left behind' neighbourhoods are 46 per cent more likely to have died from the virus than those in the rest of England, and 7 per cent more likely to have died of the virus than those living in other deprived areas.

Poor health and wellbeing also translates into poor economic outcomes. In a previous evidence session, our APPG looked at the issues around employment in 'left behind' neighbourhoods, and we are aware of the many challenges residents often face. This report looks more closely at the economic costs of health inequalities. We can see that people in 'left behind' neighbourhoods are hardworking despite their ill health. Although their rates of sickness benefits are higher, and their mental health is worse, they work more hours on average than those elsewhere in the country.

However, the nature of their jobs means average productivity in these neighbourhoods is lower, average wages are lower and the gap between the national average is larger for 'left behind' neighbourhoods in all these cases than for other, similarly deprived areas.

'Left behind' neighbourhoods are defined by a lack of social infrastructure – the structures, organisations and activities that transform a place into a community, somewhere people want to live and businesses want to trade. This report shows the critical relationship between social capital – the networks within and beyond the community – the community's sense of agency and ability to change things, the physical and civic assets of the local area and local health outcomes. Targeted investment in social infrastructure, which provides the mechanisms and processes to build social capital and community power as well as improve the health, safety and amenities of the local environment, is a key route for improving the health outcomes in 'left behind' neighbourhoods.

The analysis in this report shows that reducing health inequalities by improving health outcomes in local authority areas that contain 'left behind' neighbourhoods and bringing them up to England's average would add an extra £29.8bn to the country's economy each year. Improving the health of residents in local authorities that contain 'left behind' neighbourhoods to the level of residents in local authorities with other deprived areas could add £2bn per year to the national economy.

This should not be a 'battle of the most deprived'. Every person in the country deserves to live a long life in good health – but the distinctive features of 'left behind' neighbourhoods cannot be ignored. This is why we think the work of the APPG is so important, and why tackling health inequalities should be central to the levelling up agenda.

But levelling up cannot be done without working together with these communities and the people that live there. To be successful over the long term, this has to involve listening to them, supporting them and investing in the local social infrastructure in ways which will enable residents to take an active role in safeguarding their health, and improving the quality of their lives and that of their community.

**Paul Howell MP** and **Rt Hon Dame Diana Johnson DBE MP**

Co-chairs of the APPG for 'left behind' neighbourhoods

# 60 second summary

**Areas identified as 'left behind' have among the worst health outcomes in England, with growing disparities between them and the rest of the country.**

'Left behind' neighbourhoods have:

- a higher proportion of people who self-reported their health to be 'bad' or 'very bad' (9.1 per cent) than other deprived areas (8.1 per cent) and England as a whole (5.5 per cent). Of the 225 LBNs, 223 have higher levels of 'bad' or 'very bad' health than the national average.
- a higher prevalence of 15 of the most common 21 health conditions compared to other deprived areas and England as a whole, including high blood pressure, obesity and chronic lung conditions (COPD). In addition, people in LBNs claim almost double the amount of incapacity benefits due to mental health related conditions as in England as a whole.

As a result of these health disparities, people in LBNs are living shorter lives than elsewhere, with around 7.5 fewer years' life in good health. Whilst life expectancy in LBNs and other deprived areas is similar, all 225 LBNs have lower healthy life expectancy than the national average for females and males, and life expectancy for those living in LBNs – and other deprived areas – actually decreased in the mid-2010s.

These health inequalities have been highlighted by the COVID-19 pandemic with people living in LBNs being 46 per cent

more likely to die of COVID-19 compared to the national average. In addition, LBN residents were 7 per cent more likely to die of COVID-19 than people living in deprived, but not 'left behind', neighbourhoods.

Tackling these health disparities will not only improve the lives of millions of citizens, it will also bring significant savings to the taxpayer. If the health outcomes in local authorities that contain LBNs were brought up to the same level as in the rest of the country, an extra £29.8bn could be put into the country's economy.

With a well-established relationship between place, the people who live there and their health and wellbeing, communities are a key player in reducing health inequalities. Where local residents have the right capacity and support in place, there is significant potential for communities to develop effective, locally appropriate and preventative solutions, with huge potential benefits for an over-stretched health service.

Investment in the social infrastructure which LBNs lack is a key policy solution. It can transform the physical and social environment in 'left behind' neighbourhoods and strengthen residents' capacity to address the health disparities and other poor outcomes that they experience, with long-term benefits for the local community and for the country as a whole.

# Key findings

## 'Left behind' neighbourhoods have the worst health outcomes in England.



### Life expectancy for men and women living in LBNs decreased in the mid-2010s

A similar picture is observed in other deprived areas. But there is a growing gap in health inequalities, with LBNs falling further behind the rest of the country.

### Men live 3.7 years fewer and women 3 years fewer than the national average.

Life expectancy for 223 out of the 225 LBNs is lower than the average.

- For female life expectancy, there is a three-year gap between LBNs and the English average (80.1 years vs. 83.1 years).
- For males, the gap – at 3.7-years – is even bigger (75.8 years vs. 79.5 years).
- Life expectancy in LBNs and other deprived areas is similar.

For healthy life expectancy, the gaps are even larger – men and women can expect to live 7.5 fewer years in good health than their counterparts in the rest of England, and all 225 LBNs have lower healthy life expectancy than the national average for females and males.

- A woman born in an LBN can expect to have 57.3 healthy years on average, compared to 64.8 healthy years nationally.
- A man born in an LBN can expect to have 55.9 healthy years on average, compared to 63.5 healthy years nationally.
- Healthy life expectancy in LBNs and deprived non-LBNs is similar.



### People in 'left behind' neighbourhoods are more likely to self-report their health as 'bad' or 'very bad'

9.1% compared to 8.1% in other deprived areas and 5.5% in England as a whole. 223 out of 225 LBNs have higher levels of 'bad' or 'very bad' health than the average across England.



## People living in LBNs have a higher prevalence of 15 of the most common 21 health conditions.

 **14.9%** have high blood pressure, compared to 13.6% of people living in other deprived areas and 14.0% nationally.

 **12.9%** are obese, compared to 11.9% in other deprived areas and 9.8% nationally.

 **12.0%** have depression, compared to 11.2% in other deprived areas and 9.9% nationally.

 **6.3%** have asthma, compared to 6.1% in other deprived areas and 5.9% nationally.

 **4.7%** have chronic kidney disease, compared to 4.2% in other deprived areas and 4.1% nationally.

 **3.7%** have coronary heart disease, compared to 3.3% in other deprived areas and 3.2% nationally.

 **3.0%** have COPD, compared to 2.4% in other deprived areas and 1.9% nationally.

 **1.9%** have had a stroke and/or transient ischaemic attack, compared to 1.7% in other deprived areas and 1.8% nationally.

 **1.2%** have cardiovascular diseases, compared to 1.2% in other deprived areas and 1.1% nationally.

 **1.0%** have epilepsy, compared to 0.9% in other deprived areas and 0.8% nationally.

 **1.0%** have heart failure, compared to 0.9% in other deprived areas and 0.8% nationally.

 **0.8%** have rheumatoid arthritis, compared to 0.8% in other deprived areas and 0.7% nationally.

 **0.8%** have peripheral arterial disease, compared to 0.7% in other deprived areas and 0.6% nationally.

 **0.7%** have learning disabilities, compared to 0.6% in other deprived areas and 0.5% nationally.

 **0.5%** require palliative care, compared to 0.4% in other deprived areas and 0.4% nationally.

# Mortality rates are higher in 'left behind' neighbourhoods

**People in LBNs were 46% more likely to die of COVID-19** the than

people in the rest of England in the period March 2020 to March 2021. They were also 7% more likely to die of COVID-19 than people living in other deprived areas.



**LBNs have above average rates of deaths from respiratory diseases**

(155.0 per 100,000) and cancer (139.2 per 100,000) compared to other deprived areas (146.8 and 132.9 per 100,000, respectively) and much higher than the national average (104.8 and 102.4 per 100,000, respectively).



**Pre-COVID-19, age-standardised mortality rates for all causes were consistently higher in LBNs than the rest of England.**

- 222 out of 225 LBNs had higher than average all-cause mortality rates (133.2 per 100,000 compared to the national average of 102.4 per 100,000), indicating that 30.8 more people per 100,000 died in LBNs than did so nationally. The corresponding value is 131.6 in other deprived areas.
- The gaps are even larger when considering the all-cause mortality rates for under 65s. The LBNs' under 65 mortality rate was 50.8 per 100,000 higher than the national average (150.8 vs. 100.0). The all-cause mortality rate amongst the under 75s was 49.4 per 100,000 higher (152.9 vs. 103.5).



## Health impacts on work

**LBNs have nearly twice the proportion of people out of work due to sickness than the England average.**

Increased ill health in LBNs means people are more likely to claim disability and sickness benefits. The Personal Independence Payment claimant rate is double the national average.



**People living in LBNs are more likely to not be in employment due to mental health conditions,**

claiming almost double the amount of incapacity benefits due to mental health related conditions compared to England as a whole, with 4.4% compared to 4.1% in other deprived areas and 2.3% nationally.



**People in LBNs work more hours on average than those in the rest of England**

and slightly more hours than people living in other deprived areas. They tend to work in more manual jobs whereas people in the rest of England are much more likely to have managerial and professional occupations.



**Higher unemployment rates in LBNs are consistent with people working longer hours.**

People fear that working fewer hours may lead to unemployment as there is a larger supply of unemployed people waiting to take their jobs.



## Health and productivity

Productivity, measured by Gross Value Added (GVA), in local authorities that contain LBNs is significantly smaller than in the rest of England, and falling even further behind. This is not explained by people working fewer hours in local authorities that contain LBNs. In 2018, the average GVA in local authorities that contained LBNs was £20,400 per person. This was £1,400 lower per person than in local authorities that contained other deprived areas and £6,386 lower per person than in the rest of England.

**The gap in productivity between local authorities that contain LBNs and the rest of the country was £124.1bn.**

### Poor health accounts for 7% of the productivity gap

between local authorities that contain LBNs and local authorities that contain other deprived areas.

**Eradicating these health inequalities** in local authorities that contain LBNs **could generate an additional £2.5bn a year in GVA.**

There are larger productivity gains to be made in improving health in local authorities that contain LBNs than in England as a whole. Poor health accounts for 36 per cent of the productivity gap in local authorities that contain LBNs when compared to the rest of England (local authorities that contain neither LBNs nor other deprived areas). **Eradicating these health inequalities could generate an additional £29.8bn a year in GVA.**

## Risk factors

### People in LBNs have higher rates of smoking, drinking and poor diet.

34.9% of adults smoke in LBNs compared to 31.9% in other deprived areas and 22.2% across England.



**People in LBNs are less physically active than in other deprived areas and across England.**

## The importance of place and community

### A local approach is needed to improve health outcomes in LBNs.

The economic, social and physical environment all play important roles in improving population health. This includes the poverty rates, unemployment rates, wages, the type of work and employment available in an area.



**Areas with high levels of social cohesion and social capital have better mortality rates,** general health, mental health and health behaviours.

### The social aspects of a place are also important to health.

This includes services provided publicly and privately such as childcare, transport, food availability, access to a doctor or hospital. It includes housing, work and education.

**Negative impacts can come from the stigma or reputation of an area and the physical environment** – how close an area is to waste facilities, brownfield or pollution - while green space has positive effects.



# Social infrastructure is foundational

## Social infrastructure provides the mechanisms and processes to build social capital and community power.

It includes places to meet locally, active community organisations, and connectivity to other places, both physical (public transport) and digital (broadband speeds).



## LBNs lack social infrastructure

but with targeted investment there is huge potential for residents to develop effective, lasting solutions, in partnership with others, to address the health disparities and other poor outcomes they experience, as programmes like Big Local show.



## Policy recommendations

**1** The government's national 'levelling up' strategy must include a strand on reducing spatial health disparities through targeting multiple neighbourhood, community and healthcare factors, with the new Office for Health Improvement and Disparities an opportunity to catalyse action for population health.

**2** Long-term ring-fenced funding is needed to ensure more effective delivery of resources on the ground, and for targeted health inequalities programmes (drawing on initiatives such as Healthy New Towns), with a hyper-local focus that prioritises those 'left behind' areas with the worse health outcomes and which have been most affected by COVID.

## 3 Consistent and long-term (eg.10-15 years) financial support is needed to build local social infrastructure

in 'left behind' communities that lack the community capacity, civic assets and social capital needed to support and benefit from preventative and neighbourhood based health initiatives. This is key to improving local outcomes, and could be achieved through mechanisms such as the Community Wealth Fund, which would give local residents the means to develop those services and facilities that best meet their needs.



## 4 Community public health budgets should be safeguarded

so that action to relieve acute NHS backlogs does not undermine efforts to tackle the root causes of ill-health and boost health resilience in deprived and 'left behind' communities.



## 5 Government and local authorities should prioritise 'left behind' neighbourhoods for investment in new Family Hubs,

to help improve wellbeing and local life chances. Existing services should be redesigned to respond to the specific challenges within a local area and local health initiatives prioritised that increase the level of control local people have over their life circumstances, from community piggy bank and community health champions initiatives to more structured forms of community governance and decision-making.



# Where are 'left behind' neighbourhoods located?



# Introduction

“The communities that the APPG is talking about have been left behind in terms of economic development, but residents also die earlier than people in other neighbourhoods.”

Clare Bamba, Professor of Public Health, Newcastle University, giving evidence to the APPG.

This APPG research report sets out new evidence and analysis on health inequalities in ‘left behind’ neighbourhoods. It follows on from ‘Communities at risk’, the APPG report from July 2020 that looked at the early impact of COVID-19 in these communities. This found that, due to the greater prevalence of high-risk health conditions, residents of ‘left behind’ neighbourhoods were more vulnerable and exposed to the effects of the virus.

As the APPG heard in its evidence session and as we see from the OCSI data, ‘left behind’ neighbourhoods (LBNs) suffer from significantly greater health inequalities than the rest of England. This has an impact in those areas and on the nation as a whole, with decreased productivity caused by people in LBNs living consistently shorter, less healthy lives.

It is clear that the disparities in health outcomes are deep-rooted, persistent and increasing. For example, in England, the gap in life expectancy for women between the most and least deprived areas (including all LBNs) has recently increased from 6.8 years to 7.1 years (Department of Health and Social Care 2017). The COVID-19 pandemic

has also been experienced unequally with death rates twice as high in LBNs (OCSI 2021) and amongst more excluded social groups (Bamba et al. 2020).

There is also emerging evidence that the COVID-19 pandemic is reducing life expectancy gains – for example, with life expectancy falls of around 1 year on average in England and Wales between 2019 and 2020 as a result of the pandemic (Aburto et al. 2020). These immediate COVID-19 related decreases in life expectancy are likely to be higher in LBNs – potentially increasing health inequalities into the future (Bamba et al. 2020).

Today, post COVID and with a new emphasis from government on ‘levelling up’ left behind areas, the agenda to tackle health inequalities has much greater currency. The history of health initiatives over the last twenty years suggests that a national policy, which combines different levels of interventions, from addressing neighbourhood and community factors through to NHS funding changes, delivered locally by the NHS, local authorities and local charities, can significantly reduce health inequalities.

Part I of this report briefly sets out this history. It then explores the relationship between improvements to health in local areas and the local context (physical, social and economic), the people who live there, their networks (social capital) and sense of control, and wider public policy. Case studies evidence the key role that community involvement can play – and the investment in social infrastructure that supports this. Part II is a deep dive into the OCSI data across a breadth of health outcomes, with additional analysis from NHSA to understand the impact of health inequalities on economic outcomes in LBNs. Part III sets out conclusions and policy recommendations.

Addressing the glaring and growing disparities set out in this report will require investment over the long term, in people as well as places. It will need concerted action by central, regional and local government and agencies, public health commissioners, clinicians and health and care professionals, partners and providers.

To 'level up' and tackle health inequalities in those 'left behind' areas facing the worst health outcomes will also require the engagement and support of local residents themselves, given the complex relationship between health, place and community; and given the enormous potential of local people to develop and deliver locally appropriate and sustainable solutions in partnership with others, where the support and investment locally enables them to do so.

# Part I

## Health and the community

### The History: National national health and wellbeing policies 2000-2020

“National government actually works best when it partners localism and local government, partly because it isn’t very good at joining up services, and we need to join up at the local level if we are going to tackle the multi-faceted nature... of the reasons for ill health.”

Participant at the APPG evidence session.

#### 2000-2010: A National Health Inequalities Strategy

Government health inequalities policy in the 2000-2010 period was shaped by the Acheson Inquiry (1998) which led to the implementation of a national health inequalities strategy in England. The strategy focused specifically on supporting families, engaging communities in tackling deprivation, improving prevention, increasing access to health care, and tackling the underlying social determinants of health.

Responsibility for health inequalities lay within the NHS both locally and nationally and it was delivered by the NHS, local authorities and local charities. The government also set national public service agreement (PSA) targets: to reduce the life expectancy and infant mortality gaps between the 20 per cent most deprived local authorities (so-called Spearhead areas) and the English average by 10 per cent.

Nationwide initiatives included: an increase in NHS budgets – particularly in more deprived areas (the ‘health inequalities weighting’ added to NHS funds was geographically distributed, so that areas of higher deprivation received more funds per head to reflect their higher health needs); Sure Start Children’s Centres; and the New Deal for Communities. Locally delivered initiatives included: Health Improvement Programmes; Health Action Zones; and Healthy Living Centres.

Reductions in health inequalities were broadly achieved by 2010 (Robinson et al. 2019b; Barr et al. 2014; Barr et al. 2017). See Appendix B for further details. The findings suggest that a national policy, which combines different levels of interventions from addressing neighbourhood and community factors through to NHS funding changes, delivered locally by the NHS, local authorities and local charities can significantly reduce health inequalities.

## 2010-2020: Locally addressing health inequalities

Health inequalities policy in the 2010-2020 period was shaped by the Marmot Review (2010) which underpinned a new public health system as outlined in the Health and Social Care Act 2012. This included the transfer of public health responsibilities from the NHS to local authorities with the establishment of Health and Wellbeing Boards (between local authorities and local clinical commissioning groups (CCGs) of general practitioners). Public Health England (PHE) was also created in 2012 as a national body with some responsibility for reducing health inequalities at the national level and between local communities. In addition, NHS England and Clinical Commissioning Groups, established under the Health and Social Care Act 2012, were given a legal duty to reduce inequalities in access to and outcomes from NHS care.

## 2022 onwards: A post-COVID strategy for levelling up?

Public policy responsibility for addressing health inequalities is currently shared across local authorities, Integrated Care Systems (replacing CCGs), NHS England, and two new national bodies replacing the functions of PHE, the Office for Health Improvement and Disparities, and with a greater focus on pandemic preparedness and infectious disease surveillance, the UK Health Protection Agency. The government has made a commitment to “*protect the public’s health, improve population health resilience and level up unacceptable variations in health*” (Department of Health and Social Care 2020).

As the country recovers from COVID, the government’s focus on ‘levelling up’ represents a unique opportunity to tackle the longstanding inequalities and improve outcomes for people in LBNs that experience enduring health disparities caused by a number of complex factors. Previous efforts to address health inequality have made some inroads but this has not been long-lasting, and recently health

inequalities have worsened. Evidence in the literature and presented to the APPG has shown that there are a variety of ways in which the health of LBNs can be improved, but partnership-working and enabling collaboration at the community level are key for enduring results.

## Health, place and community

“As an organisation that works with people in the deprived area of our town, we have found a number of barriers to people wanting to change their health habits. Firstly, when you have a low income and can't afford expensive holidays or nice things, some see their only 'pleasure' as perhaps a cigarette or a bar of chocolate! The other barrier is that sports clubs, leisure centres are not affordable to those with very little disposable income. Finally, policy can change quite easily but attitudes take time. Short interventions don't work.”

Participant at the APPG evidence session.

The relationship between health and place can be considered in terms of the interplay between the composition of the place (i.e. who lives there), the *context*/environment of the place (i.e. what the place is like) and the wider public policy context (Bambra, Smith and Pearce 2019).

In compositional terms, the health of a given place is determined largely by the characteristics of the individuals who live within it. In turn, the health of individuals is shaped by their health behaviours and their socio-economic status. In the compositional view, smoking, alcohol, physical activity, diet, and drugs are considered as individual lifestyle factors or risky health behaviours. These influence the health of people – and therefore places – significantly. On average, places with higher rates of unhealthy behaviours amongst individuals living there will have worse health than other places.

The socio-economic status of people living in an area is also of huge health significance. Socio-economic status is a term that refers to a combination of occupational class, income and educational factors. People with higher occupational status (e.g., professionals such as teachers or lawyers) have better health outcomes than non-professional workers (e.g., manual workers). Having a higher income or being educated to degree-level can also have a protective health effect, whereas having a lower income or no educational qualifications can have a negative health impact.

The contextual dimension highlights that the nature of a place itself also matters for the health of the people living in that place – that is, it is not just individual, personal characteristics that matter, but people’s collective, community and local experience (Bambra, Smith and Pearce 2019). In this way, health differs between areas (i.e. between LBNs and other areas) because our health is also determined by the economic, social, and physical environment of where we live: places can be health-promoting or health-damaging environments.

There are three contextual aspects to place that are important to health: the economic, the social and the physical.

Area-level economic factors that influence health are often summarised as economic deprivation. They include area poverty rates, unemployment rates, wages, and types of work and employment in the area. Area-level economic factors such as poverty are a key predictor of health, including of cardiovascular disease, all-cause mortality, limiting long-term illness, and health-related behaviours.

Places also have social aspects which impact on health. These include the services provided, publicly or privately, to support people in their daily lives such as childcare, transport, food availability or access to a family physician or hospital, as well as the availability of health promoting environments at home (e.g., housing quality, access and affordability), at work (quality work) and through education (e.g., high-quality schools). Community factors and the levels of social cohesion and social capital within the community also matter. Areas with higher levels of social capital have better health, including better mortality rates, general health, mental health, and health behaviours. More negative impacts on health can come from the stigma or reputation of an area (Halliday et al. 2021).

The third key contextual factor is the physical environment. Proximity to waste facilities, brownfield or contaminated land and air pollution have negative impacts on community health whilst access to green space has positive health effects (Pearce et al. 2010).

Public policy can also shape the health of places and communities as contextual-level factors are shaped by policies e.g. employment policy, housing policy, the NHS, social security, agricultural policy etc. These factors are often outside the direct control of the individuals, communities, and places they affect.

Compositional, contextual and public policy factors interact with each other, and all contribute to the complex relationship between health, place and community (Bambra, Smith and Pearce 2019). Together they result in health inequalities between LBNs and other areas in England, as can be seen in the inequalities between LBNs and other areas in terms of COVID-19.

## 'Left behind' neighbourhoods and inequalities in COVID-19

LBNs have much higher rates of COVID-19 cases and have higher COVID-19-related death rates (Oxford Consultants for Social Inclusion 2021):

- LBNs have a higher COVID-19 case rate (6,935 per 100,000), than across England as a whole (5,708 per 100,000).
- LBNs recorded higher mortality from COVID-19 (154.6 per 100,000 people) than other deprived areas (141.8 per 100,000) and England as a whole (122.4 per 100,000).
- Mortality rates from COVID-19 were particularly high in LBNs in the North East: seven of the 10 areas with the highest mortality rates are in this region (including three in County Durham), with the highest recorded rate in Hemlington (Middlesbrough).
- LBNs have higher levels of vulnerability to COVID-19 than England as a whole – according to British Red Cross analysis from 2020, 199 of the 225 LBNs have higher COVID-19 vulnerability scores than the national average. The average COVID-19 vulnerability index in LBNs is 127.7, higher than in other deprived areas (112.1) and considerably higher than the national average (85.9).

We can understand these inequalities in COVID-19 by examining the factors that shape health, place and community (Bambra et al. 2020):

- Increased vulnerability: A higher burden of pre-existing health conditions in LBNs (such as diabetes and respiratory conditions, heart disease, hypertension, obesity) increases the severity and mortality of COVID-19.
- Increased susceptibility: With immune systems weakened by long-term exposures to adverse living and environmental conditions, people living in LBNs are more vulnerable to infection from COVID-19.
- Increased exposure: Lower paid workers – many of whom live in LBNs – were much more likely to go to work during lock down, less likely to be able to work from home and more likely to be reliant on public transport.
- Increased transmission: LBNs have higher population densities (particularly in urban LBNs), are more likely to contain houses of multiple occupation, more likely to have overcrowding (and lack ventilation and outside space), and lower access to communal green space.

## Case study

### Redesigning place to improve health outcomes: Darlington Healthy New Towns

Healthy New Towns (HNT) was a three-year (2016-19) NHS England initiative which provided resources to ten housing development sites across England to shape the health of communities and to rethink how health and care services could be planned more effectively from a whole systems and more integrated approach in addition to being delivered from an environmental and new models of care perspective. Given a national context of housing shortages, there was a recognition that the rapid development of new places and communities provided an opportunity to design and shape new towns so they would promote health and wellbeing, prevent illness and keep people independent for longer (Norman and McDonnell 2017; Watts et al. 2020; NHS England Healthy New Towns 2019).

Darlington, a large market town in the North East of England, was selected as one of the ten HNT demonstrator sites in 2016. The Darlington HNT programme was delivered through a collaboration between Darlington Borough Council (lead agency), Darlington Clinical Commissioning Group, County Durham and Darlington NHS Foundation Trust, the housing developer Keepmoat, and InHealthcare, a digital health and telehealth technology provider.

#### Aims:

1. To shape new towns, neighbourhoods, and communities to promote health and wellbeing, prevent illness, and keep people independent.
2. To radically rethink delivery of health and care services, supporting learning about new models of deeply integrated, place-based care.
3. To spread learning and good practice to other local areas and national programmes.

#### What happened

The HNT programme in Darlington facilitated the development of new, and the maintenance of existing, partnerships both within Darlington and the wider Tees Valley region which were fundamental in attracting extra resources to continue the Darlington HNT vision beyond the end of NHS England funding in March 2019. These partnerships benefited from the creation of new spaces which allowed stakeholders to develop new ideas, reflect on emerging findings and adapt the programme accordingly, and identify key trusted assets at the community level to build capacity among residents living in one of the area's most deprived wards.

The Darlington HNT programme acted as a catalyst to accelerate ideas that were percolating before the NHS England HNT programme was announced. The programme provided resources and spaces for working collaboratively across the health and social care sector and allowed stakeholders to be innovative and work through a process of testing, learning, and adapting. These spaces enabled, for example, the inclusion of HNT design principles in the local plan for Darlington which cements health within local policy in perpetuity. Partnership and cross-organisation working enabled Darlington HNT to begin working in more integrated ways across the system too.

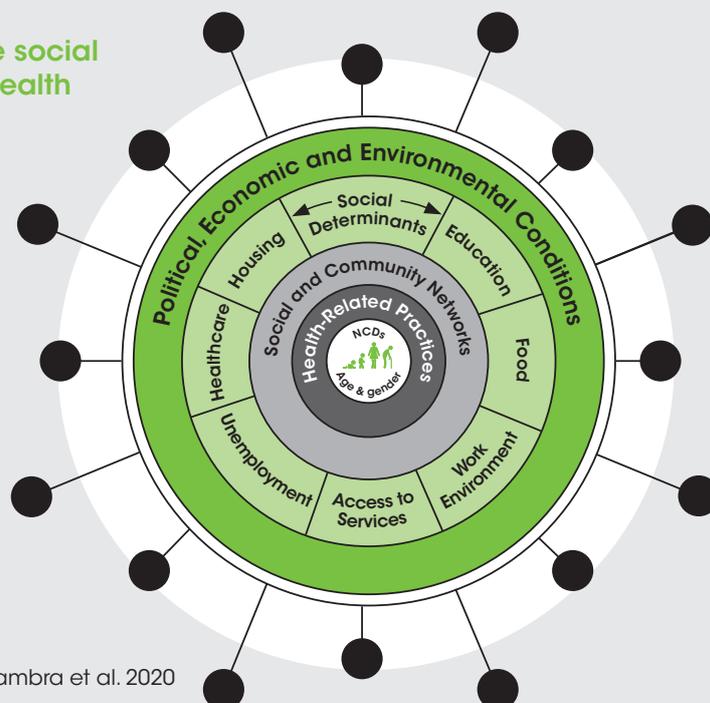
Darlington HNT achieved the following in relation to NHS England’s overall aims:

1. The development and inclusion of HNT design principles in the Darlington Local Plan which were successfully piloted with Keepmoat in a housing development of 81 new homes.
2. A cultural shift among GP practices to begin working at scale and in more integrated ways with wider health and social care partners through Primary Care Networks. Additionally, successful delivery of e-consulting across the area. A survey of 174 patients showed 78 per cent reporting they were accessing more suitable services saving an estimated 985 GP appointments (in 2019) and reducing incidences of non-attendance.
3. Learning and good practice was spread within the area as masterplans for two wards incorporated the Darlington HNT design principles. Moreover, the digital health work was able to influence change at the regional level through partnership with the Great North Care Record (McGowan et al. 2019a).

### Challenges

Partnership working across the whole health and social care sector requires strategic leadership and resources to facilitate collaborative networks. Large-scale programmes such as HNT require longer timescales to ameliorate implementation challenges. In Darlington there were several barriers external to the programme that caused delays to implementation. A phased approach to funding created uncertainty that the programme would continue beyond year one which affected wider stakeholder buy-in. Moreover, the HNT programme differed from other large initiatives, such as Vanguard, <sup>1</sup> where staff were employed to focus on the programme and had a high degree of control over implementation. The HNT programme was implemented into an existing, constantly moving, system without any protection from outside elements. Factors such as organisational restructuring, clinical contractual obligations, loss of key stakeholders, Brexit, and austerity all affected the implementation of the programme in Darlington.

### COVID-19 and the social determinants of health



Source: adapted from Bambra et al. 2020

<sup>1</sup> Vanguard are pilot sites selected to lead on the development of new care models which could act as a blueprints for the NHS. See <https://www.england.nhs.uk/new-care-models/>

## Case study

### Designing safer communities: 20mph speed limits

The majority of pedestrian and cyclist injuries and casualties occur in built up areas (ROSPA 2017). There is a pedestrian fatality risk of 1.5 per cent at 20 mph versus 8 per cent at 30 mph (ROSPA 2017). The National Institute for Care and Excellence (2017) and the World Health Organisation recommend 20mph where people and motor vehicles mix (World Health Organisation 2013). More deprived areas have high traffic volume and higher pedestrian and cyclist injuries and casualties (Cairns et al. 2015). In December 1990, the Department of Transport set out guidelines for the introduction of 20mph speed limits. Many local authorities across the country have since introduced 20mph limits on some residential roads (ROSPA 2017). 20mph limits are areas where the speed limit has been reduced to 20mph (including variable and part time 20 mph limits e.g. outside schools during drop-off and pickup times), but there are no physical measures such as road humps to reduce vehicle speeds within the area. 20mph speed limit repeater signs are used (The Royal Society for the Prevention of Accidents 2017).

The aims of 20mph limits are varied and include: to increase physical activity (cycling and walking); reduce air pollution; and reduce pedestrian and cyclist injuries and fatalities (including amongst children).

The first 20mph limit in the UK was in Tinsley, Sheffield. They have since been used by most local authorities. Evidence from Portsmouth, for example, shows that injuries fell from 163.7 casualties per year over the three years before the introduction of 20mph limits to an average of 129.4 casualties per year in the two years after: a 21 per cent reduction (Department for Transport 2010). Further evidence shows that air pollution levels reduce (Turley 2013) and that a 1mph reduction in speed on an urban road reduces casualties by 6 per cent (Mackie 1998). An evidence review of the effects of 20mph limits on health inequalities indicated that they are effective in reducing accidents, injuries and traffic volumes (Cairns et al. 2015). There is also evidence that 20mph limits are potentially cost effective (Cairns et al. 2015) and are popular with local communities. Surveys show that over 70 per cent of local residents support 20mph limits and that their popularity increases after their introduction (Atkins et al. 2018). Targeting the introduction of 20mph limits in LBNs could reduce accidents and injuries in these communities as well as reducing air pollution levels and associated risks to respiratory health.

## Why community power is important for health and wellbeing

“The community wanted free, safe and trusted spaces, that people can drop into and find help for the problems that they are facing.”

**Kate Whitmarsh**, Development Officer, Ewanrigg Local Trust, giving evidence to the APPG.

Given the well-established relationship between place, the people who live there and their health and wellbeing (Bambra et al. 2019), and that some aspects of place are beneficial for health, while others can be negative, the complex relationship between health and place is of great importance when examining health inequalities in LBNs.

Vital to the relationship between health and place is the role of communities – the extent of community power and engagement, and the sense of belonging and control, all of which can be protective for health, especially in more disadvantaged areas. Communities are key to local health systems and thus are a key player in reducing place-based health inequalities (Public Health England 2015).

## Community factors and health

“Health is absolutely socially determined. You can't have good public health, without having the public right in the middle of it.”

**Christina Gray**, Director for Communities and Public Health, Bristol City Council, giving evidence to the APPG.

Communities play an important role in health. A growing body of research links area perception; place-based stigma; social comparison and community control to health outcomes. These factors are shaped by the social infrastructure of a place – the places to meet; the community groups and organisations that bring people together; and the connectivity to other places, both physical (i.e. public transport) and digital (i.e. broadband speeds). A strong social infrastructure underpins social capital, the community's sense of cohesion, agency and control, and positive health outcomes.

## Area perception

“We want to start a mental health support group... we are trying our very best, but without access to social infrastructure in terms of buildings and facilities, it's very, very hard.”

**Participant at the APPG evidence session.**

There is a link between mental wellbeing and the way local residents perceive the area in which they live. Research has found that for those living in LBNs, there are numerous factors which contribute to residents feeling negatively towards their neighbourhood including a sustained fear of crime, limited opportunities for social participation and lack of green space (Bond et al. 2012). These negative associations were also reported in areas with poor neighbourhood quality and a lack of amenities and services, characteristics which are commonly found in LBNs due to a lack of sustained investment. Thus, the poor quality of services and infrastructure often seen in such areas can contribute to local residents feeling neglected, with lower perceptions of self-worth (Halliday et al. 2021).

## Place based stigma

“The real X factor in this is if we can understand from the moment we are born – from the moment anybody is born, whoever they are, wherever they are – they need to matter, and it matters to them that they matter.”

**Christina Gray**, Director for Communities and Public Health, Bristol City Council, giving evidence to the APPG.

The lack of sustained investment often seen in LBNs can result in the neighbourhood being associated with crime and poor environmental conditions (Halliday et al. 2021). These negative reputations are often extended to the local residents, contributing to place-based stigma across the country. This stigma and the experience of being ‘looked down on’ by others can be internalised by residents. The impact on confidence and self-esteem has the power to limit numerous life chances such as those provided by education and employment, further exacerbating inequalities (Garthwaite and Bambra 2018). In addition, place-based stigma experienced by LBNs has been found to damage the mental wellbeing of residents. Those who feel their neighbourhood has tainted their reputation are more likely to experience psychosocial distress, anxiety and depression, as well as feelings of anger and shame.

## Community control

“We need to make it easier for people to improve their own and their community’s health. Investment needs to be given to the communities themselves... to develop choice, influence and responsibilities.”

**Sharon Barnes**, Chair, Ewanrigg Local Trust, giving evidence to the APPG.

Community control can be understood as a set of processes which allows communities to develop the capabilities required to exercise collective control over decisions which impact their life (Powell et al. 2020). The level of control we have over our life circumstances has been found to be a significant determinant of health (Popay et al. 2020; Townsend et al. 2020). Research has found that living in an area with high levels of disadvantage can reduce this sense of control and instead produce feelings of powerlessness and collective threat within the local community (Whitehead et al. 2016). Such feelings can contribute to local residents experiencing stress, which if sustained over a long period of time can damage health and wellbeing (McGowan et al. 2021). In addition, chronic stress has been found to manifest as anxiety, depression or anger, further impacting the mental wellbeing of individuals.

However, there is growing interest in community empowerment initiatives that provide opportunities for communities to act collectively on issues that affect where they live. Community initiatives which empower local residents of disadvantaged areas allow individuals to make changes to unhealthy environments or attract resources to the area that can make it a better place to live (Whitehead et al. 2016; McGowan et al. 2019b). Providing communities with the opportunity to participate in initiatives which impact their life directly addresses the feelings of powerlessness often experienced by those living in LBNs (Whitehead et al. 2016). This engagement contributes to increased feelings of control, autonomy and empowerment, all of which can improve perceptions of self-worth (Baba et al. 2017).

Research has found that perceived community engagement can also increase self-confidence, self-esteem as well as both physical and psychological health in local residents, demonstrating the significance of community power (Attree et al. 2011). In contrast, individuals who lack control or involvement in projects aiming to improve local health outcomes have reported both feelings of frustration and mistrust (Bambra et al. 2017). This can leave communities feeling disenfranchised and could potentially make future relationships with external partners harder to establish – undermining health initiatives.

The importance of community power to local residents and the impact this can have on health and wellbeing suggest a clear need for neighbourhood-based initiatives – that are co-produced and delivered with communities – to tackle place-based health inequalities in LBNs. It is important to note that although community control is vital for improving health and wellbeing, it has also been found to produce some negative feelings for individuals and communities who fear they will not be supported throughout the process (Attree et al. 2011). This highlights the need for consistent and long-term support for communities who are engaged in any neighbourhood-based initiatives.

## Case study

### Community empowerment: Neighbourhood Resilience Programme

Despite the responsibility of national government for tackling health inequalities across the country, the role of community resilience and how this can be strengthened to help residents improve the conditions in which they live has received increased attention (Neighbourhood Resilience Programme 2021).

The Neighbourhood Resilience Programme (NRP) is led by the Collaboration for Leadership in Applied Health Research and Care in the Northwest Coast of England (CLAHRC NWC) and is funded by CLAHRC NWC partners and the National Institute for Health Research. The NRP operated from 2016 to 2019 across England focusing on a range of challenges in each area. The aim of the NRP was to shift local power dynamics to give residents greater control over decisions which impact their life. The programme collected local knowledge and evidence from research to identify what matters most to people and what needs to change. The programme aimed to improve and redesign existing structures and services as opposed to injecting additional funding.

One of the neighbourhoods targeted by the NRP was Moss Bay and Salterbeck, located in Allerdale, West Cumbria. The area is isolated from the rest of Cumbria due to expensive and restricted transport links. This, alongside the closure of the area's steel works many years prior, resulted in a long-term unemployment crisis for local residents. A group called 'Solway Views' was formed, consisting of local residents, local government officers and third sector organisations. Community consultations revealed that the lack of employment opportunities was a primary concern for residents of all ages and thus this became the focus for the NRP group. The 'Allerdale Work and Skills Group' was established by the local authority, aiming to improve employment prospects for the local people. This was a key achievement for the NRP as the group was set up as a direct response to its local enquiry work.

**The hope is diminishing  
with every job I apply for...  
and I'm trying really hard,  
but it's getting me down..**

**Participant in Neighbourhood  
Resilience Programme**

## Community-led initiatives and health inequalities

“It's very important that for public health interventions to work they do have the buy in of local communities and are not just something that are imposed upon those local communities.”

**Clare Bambra**, Professor of Public Health, Newcastle University, giving evidence to the APPG

Over the past four decades, there has been a shift towards the development of neighbourhood-based approaches to tackle the many challenges faced by communities in LBNs (McGowan et al. 2021). They have been adopted with the ambition to improve the health of local residents by tackling social, economic and environmental issues through targeted support. One example of these place-based programmes is the community-led Big Local initiative, a £200 million project aiming to improve some of England's most disadvantaged areas over a 10-to-15-year period. These are areas characterised by economic deprivation and a lack of social infrastructure. Big Local has at its heart a vision of resilient, dynamic, asset-rich communities making their own decisions on what is best for their area. It puts local residents at the centre by giving them complete control over how the funds are spent as well as offering continued support and guidance through Local Trust.

## Case studies

### Big Local partnerships and community-led health improvements

**Established in 2012, Big Local is an area-based initiative which has provided 150 of England's most deprived neighbourhoods with £1 million each over 10 to 15 years to help improve the area (Local Trust 2021). This unique long-term initiative gives the chosen neighbourhoods freedom to spend the fund in any way they see fit, allowing residents to target the most prominent issues facing their community, with Local Trust providing training, support and advice to the communities involved. Here, we review three case studies of Big Local resident-led partnerships which are being supported by Local Trust. Because this initiative is still taking place, evaluation of outcomes is limited.**

## Ewanrigg

Ewanrigg is a residential suburb in the town of Maryport, Cumbria, located in the Northwest of England. The Ewanrigg Local Trust (ELT) is a voluntary organisation made up of local residents who are working to ensure the Big Local fund creates lasting change and ensure the Big Local fund is spent in the best way.

ELT took a layered approach to community development and responded to extensive engagement by investing in: improving outdoor spaces, shows, trips and events, a community piggy bank, health and employment support and communication platforms, as well as supporting people to get involved in the things that matter in their community. 'What matters to you, and what are you willing to do about it?' became a guiding question early on, leading to the emergence of two priorities (Ewanrigg Local Trust 2013).

Improving mental health was seen as the biggest cross-cutting community issue for residents, leading to nationally award-winning initiatives such as the WE WILL youth mental health campaign and HUG A MUG, a free signposting service helping people to find the right support launched in conjunction with Maryport Health Services (Ewanrigg Local Trust 2021b). Throughout the COVID-19 pandemic, the service continued to offer support over the phone to those who needed it. Initial evaluations of the first three years show that 75 per cent of visits were for mental health reasons, followed by 12 per cent for finance. The vast majority of those attending the service were self-referrals. HUG A MUG has helped to establish a sense of community and support for those in the local area which can play a vital role in improving health and wellbeing.

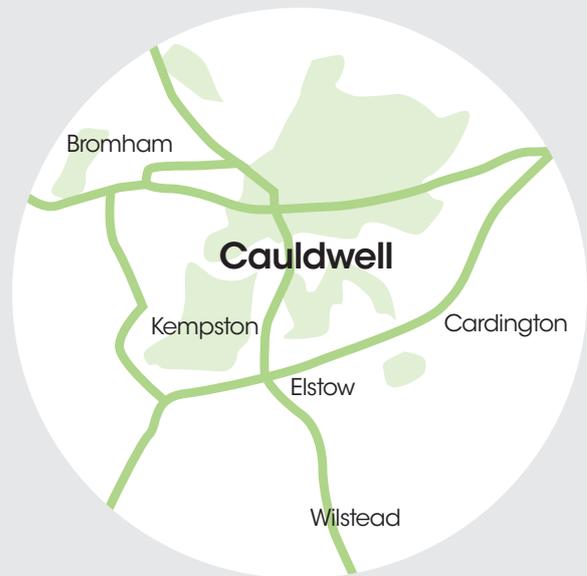
A community piggy bank was set up which allowed individuals or groups to apply for grants of up to £1500 to spend on opportunities that would have a direct benefit on the residents of Ewanrigg (Ewanrigg Local Trust 2021a). Such schemes allow residents to regain a sense of control over their life by having the opportunity to respond directly to the needs of the neighbourhood, providing support to a wide range of community needs. The grants have helped set up exercise classes, a community choir, a weekly bereavement group, support school trips and establish local businesses.

ELT's second priority is to improve communication and dialogue in the community, leading to initiatives such as 8000 quarterly copies of Maryport Matters delivered free to letterboxes, a publication celebrating the area, communicating support and opportunities, and nurturing community participation.

ELT consider the following factors vital to improving health and wellbeing equality

- 1) The need for long term community investment, 'think 20-30 years';
- 2) The valued contribution that young people make, when authentically involved in strategic decision making about their community... 'Help us to be the solution, not the problem' is the principle that WE WILL champion;
- 3) You can't have community power without community governance. ELT believe that to avoid 'doing to' communities, programmes must be designed, led and governed by the very people most affected by inequality... the experts in their own community. The community needs to be elevated to be the key player.

[www.ewanrigg.com](http://www.ewanrigg.com)



## Kingsbrook and Cauldwell

Located in the town of Bedford, the areas of Kingsbrook and Cauldwell were selected as one of the Big Local 150 neighbourhoods. Through community consultation, six priorities were established: proud community; training employment and welfare; a safer community; a happy and active community; a caring community; and investing in children and young people (Kingsbrook & Cauldwell Big Local no date).

One key outcome from the Big Local fund was the establishment of a community health champion called Simon in a local GP surgery. The health champion's role is to signpost, connect and accompany patients to life-changing services and opportunities that exist locally (Local Trust 2017). The role fills a gap by helping patients address issues such as a poor support network or inactive lifestyle, which can contribute to poor health and wellbeing. Simon has also established support groups, one of which was for diabetes which benefited 65 people. A recent evaluation of 10 case studies found that the support provided by this health champion role has saved

approximately £39,667 in health and social care costs. After one year, the role was so successful that the Big Local agreed to extend the trial by seven months and the GP surgery has since decided to fund the role themselves. Local health services and patients can benefit from roles based in the community which target some of the common determinants of health.

"I was referred to the community health champion by my Cognitive Behavioural Therapist. He sat down with me whilst I filled out forms I had been putting off doing for ages because of my anxiety. After working through them together he told me about a group called 'Men in Sheds' where men get together to work on DIY projects. I was a bit anxious about going so the health champion met me at the group to introduce me, I feel more confident and I have my paper work in order now.

Mr A, 49 years old."

## Devonshire West

Devonshire West is located in the heart of Eastbourne in East Sussex. Community consultations helped identify numerous key priorities for the area including community events for children, young people and the elderly; multi-cultural activities and engagement; improving the environment; and social investment to address financial inclusion (Devonshire West Big Local 2020).

Similar to the community piggy bank seen in Ewanrigg, grant programmes were established to give local residents the opportunity to spend the funds on matters most important to them. A key achievement of these grants was the creation of new community groups which continue to champion and support local issues. One example of this is Community Stuff, a group formed by two members of the original Devonshire West Big Local partnership. A primary area of work for this group is alleviating food poverty. Community Stuff

designed 'Time to Cook', an interactive course aiming to teach basic cookery skills, including how to use leftovers, meal planning, shopping tips and how to follow a recipe (Community Stuff 2021). At the end of each session, the group can enjoy their meal together, working to establish, build and strengthen the social networks which are key determinants of health and wellbeing. The resources to teach this course are available for those who want to deliver these sessions in their own area.

In 2019, the group published a short recipe book 'Beyond the Foodbank' to help those using foodbanks make the most of their tinned and packaged ingredients as well as providing information on nutrition. Fundraising efforts by Community Stuff mean this book is now freely available in many foodbanks across the United Kingdom. Over 3000 copies of the book have been sold to other Big Local areas, demonstrating shared learning between Big Local areas on similar challenges.



## Social capital and social infrastructure

“What is very important... is linking vertical social capital, and that is about voice and influence and being heard in the public realm – and influencing the decision makers and the powers that be at every level, and that might be in your very local community in a community forum, or the local authority level in the civic realm, and nationally.”

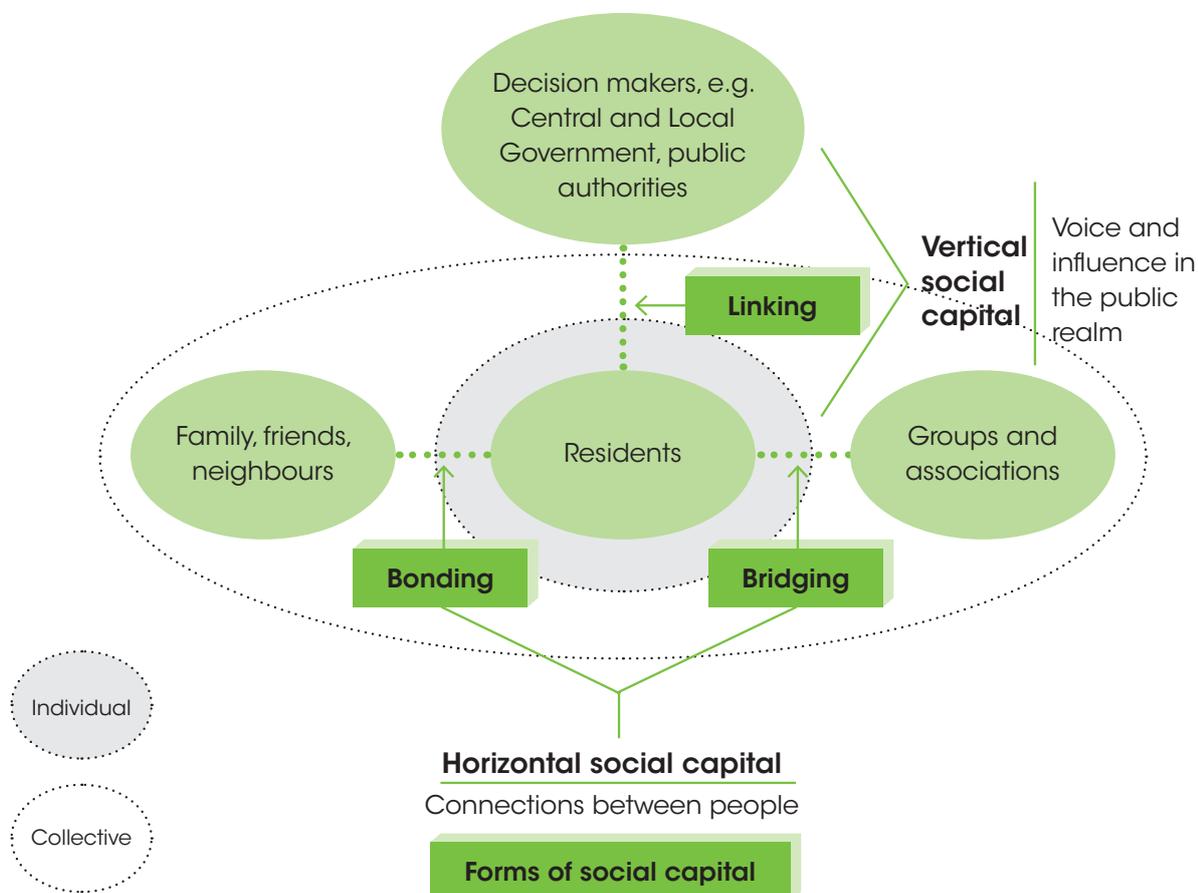
**Christina Gray**, Director for Communities and Public Health, Bristol City Council, giving evidence to the APPG.

The community engagement in local initiatives discussed at the APPG’s evidence session and featured in this report has the

potential to improve and develop social capital within communities. Social capital refers to the links which connect people both within and between communities (Marmot et al. 2010). It is strengthened by and in turn strengthens social infrastructure in a mutually reinforcing relationship.

The level and quality of these community networks are key influences for both individual and collective physical health as well as mental health (Public Health England 2015). A well-established social network is vital to community life and has been found to improve mental wellbeing. This is because social networks can offer protection and support in response to the multiple stressors experienced by those living in LBNs. The Marmot Review (2010) reported that in England, there are higher levels of severe lack of social support in areas considered ‘left behind’.

### The importance of social capital



Neighbourhood-based initiatives which make conscious efforts to include the local community are an example of how social networks can be created, strengthened and maintained through investment in social infrastructure. Initiatives which encourage community participation have been found to improve both social cohesion and social capital within communities (Milton et al. 2011). In addition, these initiatives increase opportunities for social interaction and networking within neighbourhoods which can act as a source of empowerment for both individuals and the collective community (Baba et al. 2017). As a result, community engagement has the power to improve social capital and cohesion within local areas which can improve mental wellbeing through reduced feelings of disempowerment and isolation.

There is evidence which indicates how initiatives with high levels of community engagement, involvement and control can be more successful than those that are externally organised and delivered – especially when trying to engage particularly marginalised groups such as ethnic minority communities (Milton et al. 2011). This indicates the key role of internal social networks in engaging various groups within a community to improve the health for all residents. It also demonstrates the level of mistrust which may exist between communities and external and governmental bodies, further supporting the need for local insight and community participation to strengthen the relationship with communities.

## Local relevance

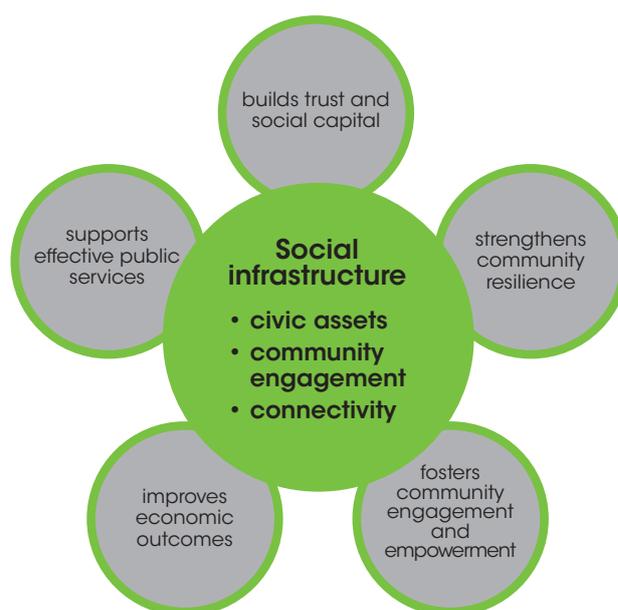
‘This is a community filled with experts, experts in how to cope, how to be resilient and how to manage and, most importantly, experts in what works and what doesn't.’

**Kate Whitmarsh**, Development Officer, Ewanrigg Local Trust, giving evidence to the APPG.

Community power and engagement are vital if neighbourhood-based initiatives are to be successful and maintained over the longer term. Increased community engagement allows for a deeper understanding of the local context, key issues and barriers faced by individuals, which has the potential to increase the quality of local services (Milton et al. 2011). The use of local lay knowledge tailors initiatives to the needs of each area, in turn increasing a project’s acceptability within the community (Garthwaite and Bamba 2017).

A positively perceived project is more likely to be sustained over the longer term, as it addresses the issues highlighted by local residents (Popay et al. 2020). Because of the clear benefits outlined here, community power is now integral to many local, national and global initiatives to improve health and social outcomes (Townsend et al. 2020). Integrating communities into neighbourhood-based initiatives could increase their effectiveness and community empowerment can improve numerous aspects of mental health and wellbeing, including improved self-worth, greater sense of control and social cohesion.

## The importance of social infrastructure to local communities



Source: All-Party Parliamentary Group for 'left behind' neighbourhoods ( 2021)

## Case study

### The use of community assets and health impacts: Salford

Community assets are promoted as a way of reducing loneliness, increasing health and well-being, and reducing demand for formal health care services. These community assets include community centres, libraries, markets and pubs and are defined as "...the collective resources which individuals and communities have at their disposal, which protect against negative health outcomes and promote health status" (McLean 2011). A large National Institute for Health Research (NIHR) study was commissioned in Salford to investigate, among other things, the impact of integrated care and community assets (Bower et al. 2018). Researchers from the University of Manchester collected bespoke data on the health and well-being of a representative cohort of people aged over 65 years and followed these people over an 18-month period.

The overarching aim of the community asset schemes in Salford was to create a more inclusive society with more civic engagement and community participation, facilitated by shared ownership and use of community assets. By encouraging community asset participation, the schemes specifically aimed to reduce loneliness, improve health and well-being and reduce utilisation of formal health and care services.

There is a strong association between the use of community assets and health (Munford et al. 2017). Individuals who make use of community assets have higher health-related quality of life than those who do not, even after accounting for potential confounding factors. They also use fewer health and care services. Using National Institute for Health and Care Excellence (NICE) thresholds, the societal net-benefit associated with community asset use was £763 per participant per year (95 per cent CI: £478 to £1048).

Further, there were additional benefits associated with *starting* to use community assets (Munford et al. 2020a). Compared to people who never use them, those who initially do not participate but then go on to start using community assets have increased health-related quality of life and use fewer health and care services after 12-months, resulting in an additional societal net-benefit of £734 per participant per year (95 per cent CI: £66 to £1402).

As well as increased health-related quality of life, those who start to use community assets also benefit from increased quality of life in all domains including physical, psychological, social, and environmental qualities of life (Munford et al. 2020b). Munford et al. (2020a, 2020b) additionally show that people who stop using community assets experience reductions in quality of life and health-related quality of life. These reductions were independent of other factors and can be directly attributed to stopping use.

It is also important to keep people engaged and continuing to use community assets once they decide to do so, as there are reductions in health and well-being associated with stopping attending and using community assets. National and local government should continue to promote community assets and encourage individuals to participate actively in them.

## The Community Wealth Fund

The Community Wealth Fund would be an independent endowment, designed and distributed to provide support and funding to rebuild and reinvigorate social infrastructure in 'left behind' neighbourhoods. The funding would be governed by the following principles:

- long-term, patient funding (10-15 years)
- investment directly into 'left behind' neighbourhoods
- community-led decision making
- appropriate support provided to build community confidence and capacity.

These principles are based on the learning from previous government and charitable funding initiatives. Research from the University of Cambridge (Local Trust, 2019) analysed the effects of government funding schemes over the past forty years. It found that the key ingredients to success included long-term funding of at least 10 years, community involvement embedded at every stage of design and delivery, and support and guidance throughout to ensure the best outcomes for residents. These key elements are also supported in a recent report by Onward (Tanner, W., Krasniqi, F., & Blagden, J., 2021) on what works in neighbourhood regeneration.

The Big Local programme, designed along these principles, provides compelling evidence of their importance to securing good outcomes. Operating in 150 neighbourhoods across England, it shows that, with appropriate support, residents themselves can develop and deliver the activities, services and facilities needed to improve their areas. Polling conducted by Suration (2021) for Local Trust demonstrates that the residents of 'left behind' areas have an appetite to engage to improve their neighbourhoods, with 59% saying they want a greater say over how money is being spent locally.

The proposal for a Community Wealth Fund, capitalised from the next wave of dormant assets, is backed by the APPG for 'left behind' neighbourhoods, and the Community Wealth Fund Alliance, a coalition of over 460 organisations from the public, private and social sectors. It would place power and resources in the hands of communities to meet and respond to local challenges.

# Part II

## The data on health and wellbeing in 'left behind' neighbourhoods

### A health check: the state of health and wellbeing in 'left behind' neighbourhoods

“Almost all indicators of health and wellbeing including mental health are worse in left behind areas and COVID, unfortunately, is another example of this.”

Professor Clare Bambra, Professor of Public Health, Newcastle University, giving evidence to the APPG.

There are vast differences in health between LBNs and the rest of England and COVID-19 has exacerbated this situation. There are also differences in health between LBNs and other deprived neighbourhoods, with LBNs typically having lower levels of health. Looking at the differences pre-COVID-19 and then how the pandemic has affected health reveals some startling figures.

#### Health in LBNs pre-COVID-19

In this subsection, we present various measures of health in LBNs and compare them to the English national average as well as to other deprived areas. When compared to the national average, health is worse in LBNs for all outcomes considered. When compared to other deprived areas, health is typically worse in LBNs, but not universally so.

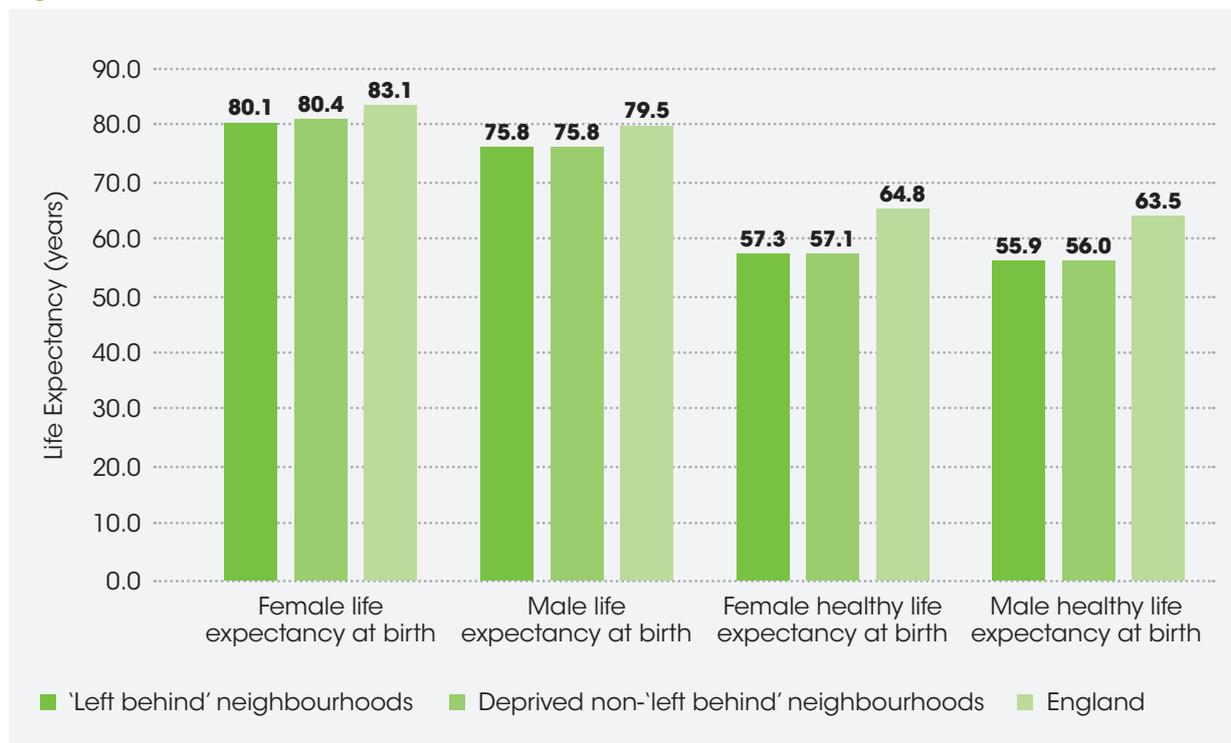
#### Life expectancy

Figure 1 shows life expectancy at birth and healthy life expectancy at birth for males and females.<sup>2</sup> It presents estimates of life expectancy in years for LBNs, deprived non-LBNs, and the English average. Figure 2 presents the difference between LBNs and the English average, where negative values indicate that people living in LBNs can expect to live fewer years.

For female life expectancy, there is a three-year gap between LBNs and the English average (80.1 years vs. 83.1 years). For males, the gap is even bigger; a male baby born in an LBN can expect to live 75.8 years, on average, compared to 79.5 years for a baby born elsewhere – a gap of 3.7-years. 223 of the 225 LBNs have lower female life expectancy than the national average. Similarly, 223 of the 225 LBNs have lower male life expectancy than the national average. LBNs and deprived non-LBNs have similar life expectancies for males and females, both considerably smaller than the national average.

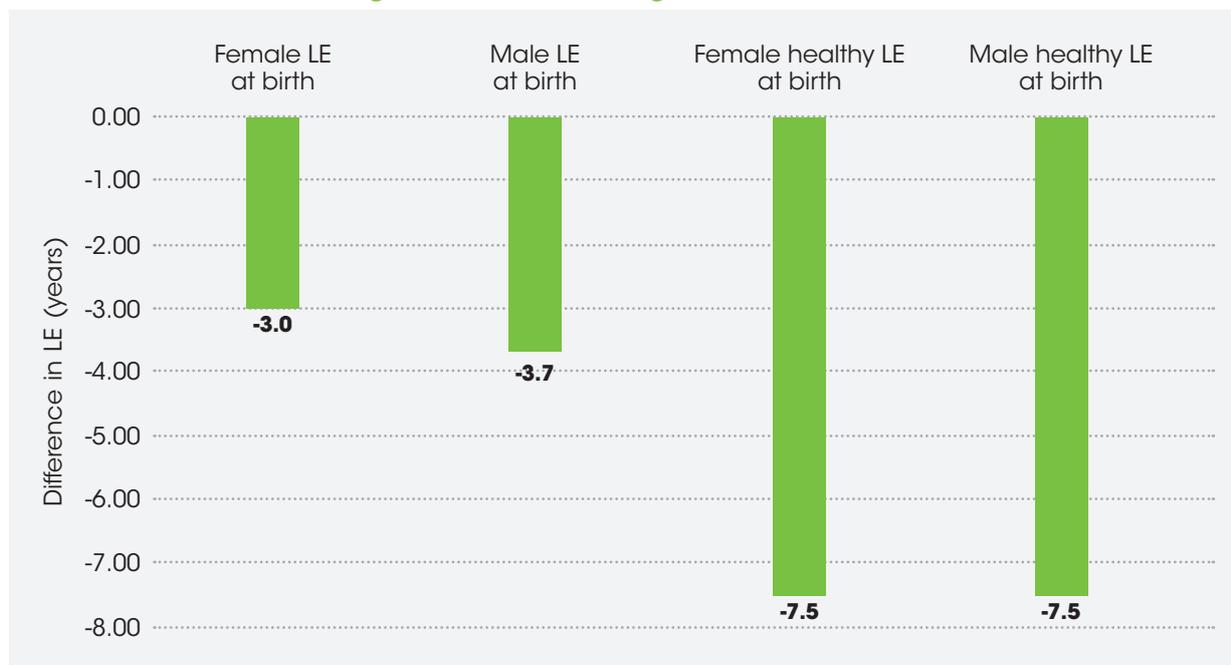
<sup>2</sup> See Technical Appendix for a definition of life expectancy and healthy life expectancy.

**Figure 1: Life expectancy, in years, for males and females in 2013-2017**



Source: Oxford Consultants for Social Inclusion (2021)

**Figure 2: Differences in life expectancy, in years, for males and females, between LBNs and the English national average in 2013-2017**

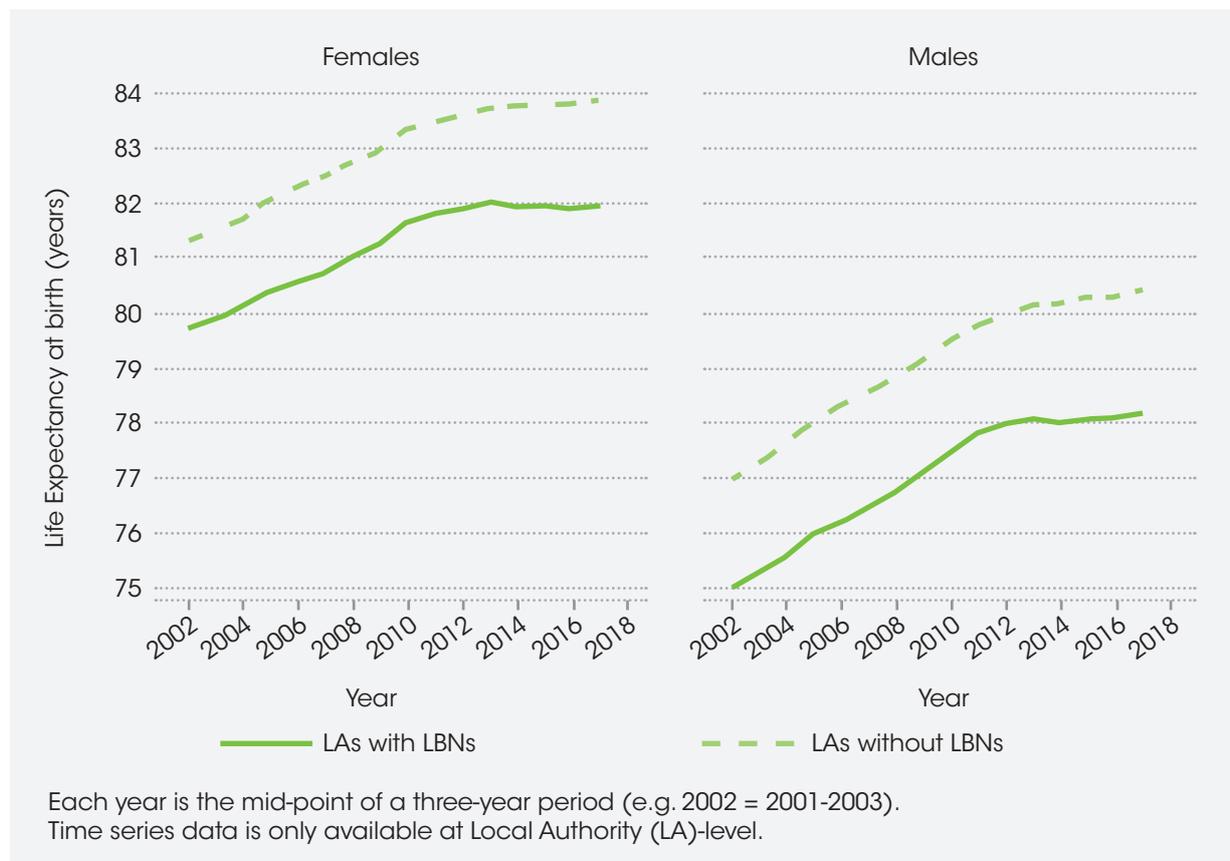


Source: Oxford Consultants for Social Inclusion (2021)

When considering healthy life expectancy, the gaps are even larger. For both females and males, there is a gap of 7.5 years. A female born in an LBN can expect to have 57.3 healthy years on average, compared to 64.8 healthy years nationally. A male born in an LBN can expect to have 55.9 healthy years on average, compared to 63.5 healthy years nationally. All 225 LBNs have lower healthy life expectancy than the national average for females and males. LBNs and other deprived areas have similar healthy life expectancies for males and females, both considerably smaller than the national average.

Figure 3 presents trends over time.<sup>3</sup> In the period 2001/2003, there was a gap of 1.6 years for female life expectancy (79.7 years vs. 81.3 years). By 2016/2018, this gap had increased to 2 years (81.9 years to 83.9 years). For males, in 2001/03 there was gap of 2 years (75.0 years vs. 77.0 years) which increased to 2.3 years (78.1 vs. 80.4 years) in 2016/18. Between 2001/03 and 2010/12, the gap remained roughly constant but began to increase afterwards. Life expectancy in both LBN and other deprived areas stalled, but the slow-down was felt more in LBNs. Concerningly, in 2013/14 there were reductions in life expectancy in LBNs for both females and males, which is very uncommon if not unprecedented.

**Figure 3: Life expectancy, in years, for males and females over time; 2001/03 to 2017/19**



Source: Office for National Statistics 2019b

<sup>3</sup> See Technical Appendix for information on how LBNs are identified in aggregate data.

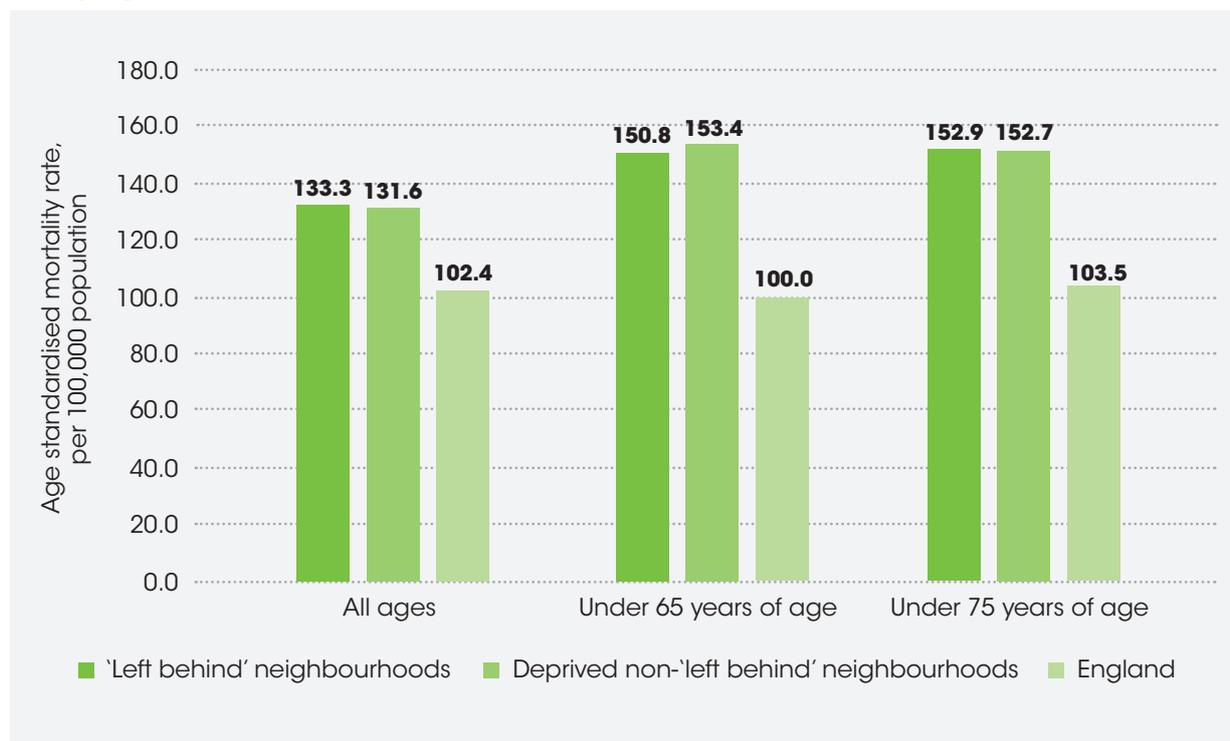
## Mortality rates

Age standardised mortality rates<sup>4</sup> are consistently considerably higher in LBNs than they are in the rest of England. For example, the all-cause mortality rate in LBNs is 133.2 per 100,000 compared to the national average of 102.4 per 100,000. This indicates that an additional 30.8 people per 100,000 died in LBNs than did so nationally. The mortality rates are higher in LBNs than in other deprived areas (133.2 compared to 131.6 per 100,000). The gaps are even larger when we consider the all-cause mortality rates for under 65s; the LBNs under 65 mortality rate is 50.8 per 100,000 higher than the national average (150.8 vs. 100.0). However, LBNs have a lower mortality rate among the under 65s than

other deprived areas (150.8 compared to 153.4 per 100,000). The all-cause mortality rate amongst the under 75s in LBNs is 49.4 per 100,000 higher than the national (152.9 vs. 103.5). It is very similar to the all-cause mortality rate among the under 75s in other deprived areas.

222 out of 225 LBNs have higher than average all-cause mortality rates. The highest all-cause mortality rate was 226.7 per 100,000 in St. Andrew's in Kingston-upon-Hull, more than double the national average. The all-cause mortality rates in Stockton Town Centre (221.8 per 100,000) and Bloomfield (221.5 per 100,000) were also more than double the national average.

**Figure 4: Age standardised all-cause mortality rates per 100,000, by age group in 2013-2017**



Source: Oxford Consultants for Social Inclusion (2021)

<sup>4</sup> See Technical Appendix for a definition of age standardised mortality rates.

Table 1 presents mortality rates for some common causes of death, and by age group where appropriate. Again, LBNs consistently have much higher mortality rates than the rest of England. The mortality rates in LBNs and other deprived areas are quite similar, on average. However, mortality rates from respiratory diseases are much higher in LBNs than in other deprived areas (155.0 compared to 146.8 per 100,000). This could in part explain why there has been higher COVID-19 mortality in LBNs (see later) than in other deprived areas.

**Table 1: Age standardised mortality rates per 100,000, by age group and condition, in 2013-2017**

Indicator	LBNs	Other deprived areas	England
Deaths (all causes)	133.2	131.6	102.4
Deaths under 65, all causes	150.8	153.4	100.0
Deaths under 75, all causes	152.9	152.7	103.5
Deaths all ages, coronary heart disease (CHD)	138.6	142.5	104.6
Deaths under 75, coronary heart disease (CHD)	179.9	192.3	100.0
Deaths all ages, circulatory disease	127.5	130.6	103.0
Deaths under 75, circulatory disease	157.8	165.9	106.1
Deaths under 75, all cancers	139.2	132.9	102.4
Deaths all ages, respiratory disease	155.0	146.8	104.8
Deaths all ages, stroke	118.7	121.4	101.0

Source: Oxford Consultants for Social Inclusion (2021)

## General self-reported health

In LBNs, 74.6 per cent of people report their health as being good (33.3 per cent) or very good (41.3 per cent).<sup>5</sup> In the rest of England, 81.4 per cent of people report their health as being good (34.2 per cent) or very good (47.2 per cent). There is therefore a 6.8 percentage point difference between LBNs and the rest of England. In other deprived areas, 76.6 per cent of people report their health as being good (34.0 per cent) or very good (42.6 per cent). There is therefore a 2.0 percentage point difference between LBNs and other deprived areas.

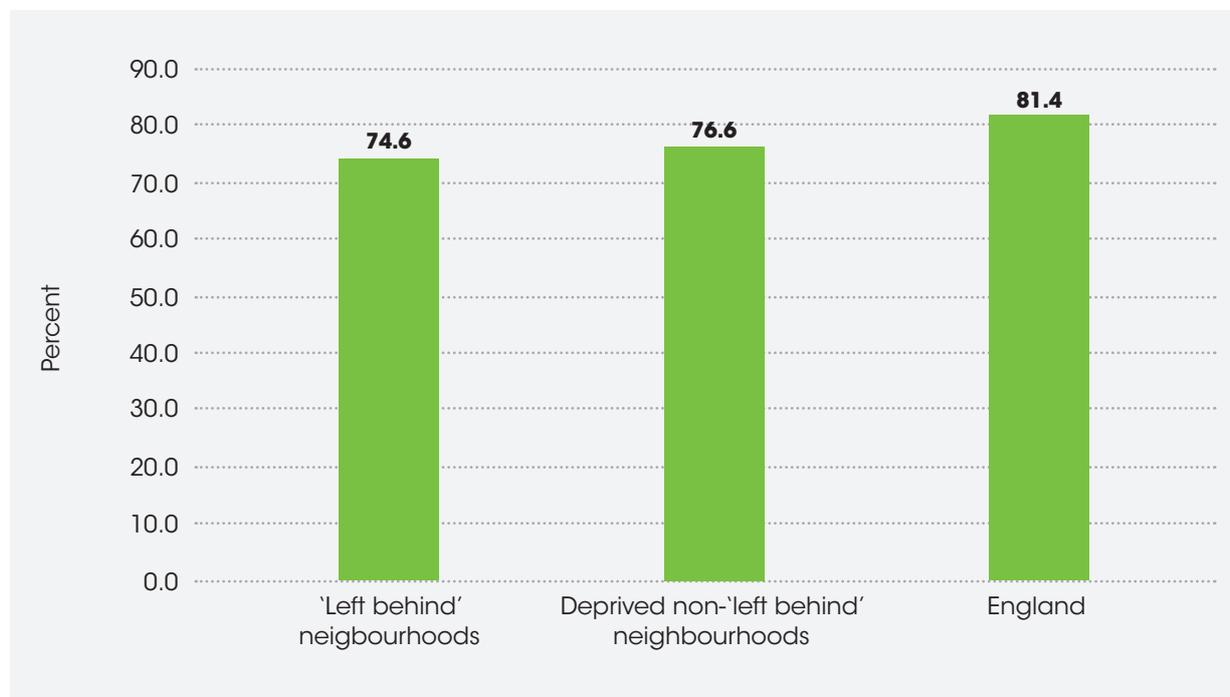
Likewise, in LBNs, 9.1 per cent of people report their health as being bad (7.0 per cent) or very bad (2.1 per cent).<sup>6</sup> In the rest of England, 5.5 per cent of people report their health as being bad (4.3 per cent) or very bad (1.2 per cent). There is therefore a 3.6 percentage point difference

between LBNs and the rest of England. In other deprived areas, 8.1 per cent of people report their health as being bad (6.2 per cent) or very bad (1.6 per cent). There is therefore a 1.0 percentage point difference between LBNs and other deprived areas.

It is clear that, on average, people in LBNs are much more likely to report their health as being in the worst categories and much less likely to report their health as being in the best categories when compared to the national average. LBNs also have fewer people in good or very good health and more people in bad or very bad health than other deprived areas.

223 out of 225 LBNs have higher levels of 'bad' or 'very bad' health than the average across England. People living in Golf Green (in Tendring) are around three times more likely to report their health is bad or very bad (16.2 per cent)

**Figure 5: The percentage of people who report their health as being 'good' or 'very good'**

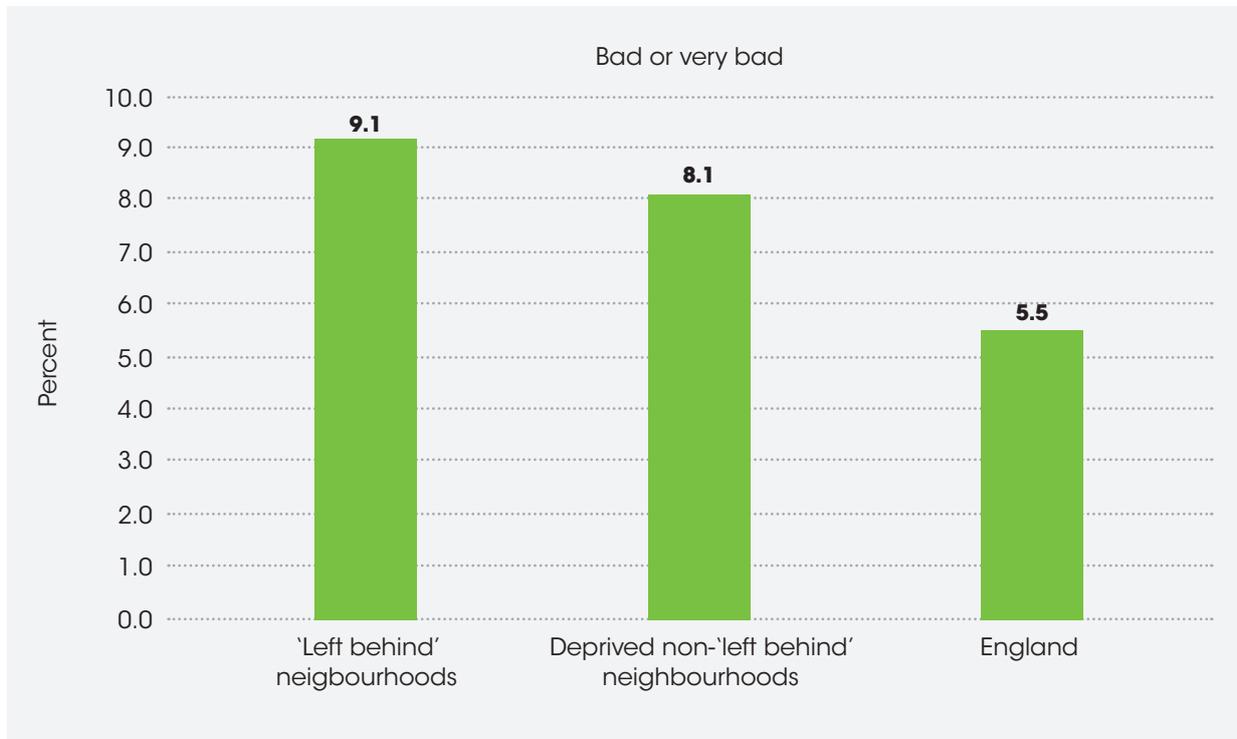


Source: Office for National Statistics 2011

<sup>5</sup> See Technical Appendix for a definition of how these variables are defined.

<sup>6</sup> See Technical Appendix for a definition of how these variables are defined.

**Figure 6: The percentage of people who report their health as being 'bad or 'very bad**



Source: Office for National Statistics 2011

## Prevalence of specific health conditions

Table 2 shows the percentage of people residing in LBNs, deprived non-LBNs, as well as the English national average, who experience a number of health conditions.<sup>7</sup>

LBNs have a higher-than-average prevalence among 15 of the 21 conditions reported, highlighted in red in the table. Other deprived areas have the highest prevalence of two conditions, and the remaining four are actually less prevalent in LBNs and other deprived areas than the national average.

**Table 2: Percentage of people who experience health conditions, in 2013-2017**

Prevalence ( per cent) of key health condition	LBNs	Other deprived areas	England
High Blood Pressure	14.93	13.57	13.99
Obesity	12.94	11.94	9.79
Depression	11.98	11.20	9.87
Diabetes	7.86	7.92	6.78
Asthma	6.31	6.06	5.92
Chronic Kidney Disease	4.66	4.16	4.14
Coronary Heart Disease	3.72	3.25	3.15
COPD	2.97	2.41	1.92
Cancer	2.56	2.23	2.75
Stroke and Transient Ischaemic Attack	1.93	1.69	1.78
Atrial Fibrillation	1.85	1.61	1.93
Cardiovascular Disease	1.21	1.16	1.14
Serious Mental Illness	1.05	1.14	0.93
Epilepsy	1.03	0.94	0.80
Heart Failure	0.95	0.89	0.84
Rheumatoid Arthritis	0.83	0.75	0.75
Peripheral Arterial Disease	0.81	0.69	0.59
Dementia	0.73	0.64	0.77
Learning Disabilities	0.65	0.62	0.49
Osteoporosis	0.54	0.56	0.60
Palliative Care	0.45	0.39	0.39

Source: Oxford Consultants for Social Inclusion (2021)

<sup>7</sup> See Technical Appendix for a definition of how these variables are defined.

## Limiting long-term illness and disability in LBNs

Here we report both self-reported measures of disability and administrative data on people receiving benefits to support their social care needs or barriers to employment caused by their primary disabling condition.

20.1 per cent of individuals aged 16-64 years living in LBNs reported having a limiting long-term illness,<sup>8</sup> compared to 12.7 per cent nationally; an increase of 7.4 percentage points or an additional 7.4 people per 100. In other deprived areas, the corresponding figure is 18.3 per cent, indicating more people in LBNs have a limiting long-term illness than in other deprived areas.

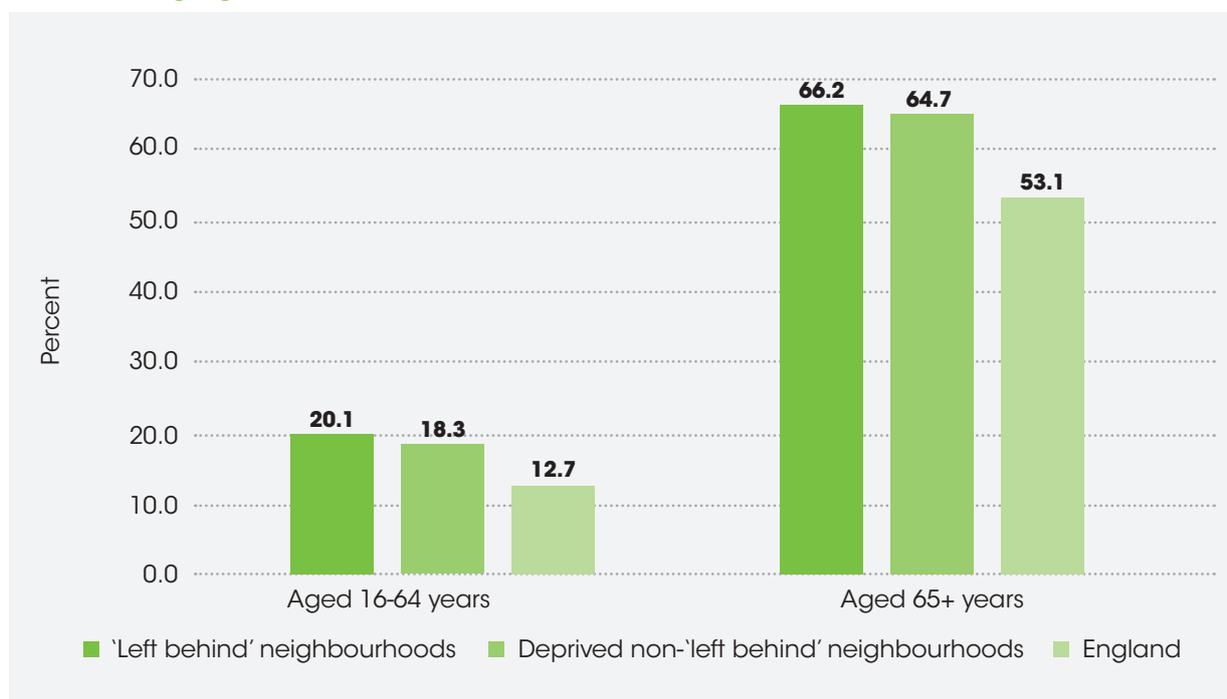
Among the older age group, 66.2 per cent of over 65s living in LBNs reported having a

limiting long-term illness, compared to 53.1 per cent nationally; an increase of 13.1 percentage points. The corresponding figure in other deprived areas is 64.7 per cent, again indicating that limiting long-term illnesses are more common in LBNs than they are in other deprived areas.

A similar pattern is observed among people aged 16-24 (see OCSI Appendix), where 7.1 per cent of those aged 16-24 years in LBNs have a limiting long-term illness compared to 4.9 per cent nationally and 6.3 per cent in other deprived areas.

All 225 LBNs have a higher percentage of working age people living with a limiting long-term illness than the English national average. Golf Green in Tendring (33.0 per cent) and Horden in County Durham (29.9 per cent) have the two highest rates among LBNs.

**Figure 7: The percentage of people who report having a limiting long-term illness, by age group**



Source: Office for National Statistics 2011

<sup>8</sup> See Technical Appendix for a definition of how this variable is defined.

A higher percentage of people living within LBNs claim disability and sickness related benefits when compared to the national average. Table 3 presents these percentages for LBNs, the national average, and other deprived areas across a range of benefits. A more detailed definition of each is contained within the OCSI Appendix.

There are considerably higher claimant rates within LBNs than the national average across all health-related benefits. There are also higher claimant rates in LBNs than in other deprived areas for five out of the six benefits considered.

The Personal Independence Payment (PIP) claimant rate in LBNs is approximately double the national average (11.9 per cent compared to 6.0 per cent) and around two percentage points higher in LBNs compared to deprived non-LBNs (11.9 per cent compared to 10.0 per cent). PIP helps with some of the extra costs caused by long-term disability, ill-health or terminal ill-health and began to replace Disability Living Allowance (DLA) as the main disability benefit for working age people from April 2013.

The proportion of people claiming Universal Credit with no work requirements in LBNs is also double the average across England (4.7 per cent compared to 2.2 per cent). The corresponding figure in other deprived areas is 4.1 per cent, lower than in LBNs. This benefit is payable to people who are not expected to work due to health or caring responsibilities which prevent the claimant from working or preparing for work. Similarly, the proportion of households receiving Universal Credit where at least one member of the household is identified as having a limited capacity to work due to poor mental or physical health conditions is also more than double the national average (3.5 per cent in LBNs compared to 1.6 per cent nationally). The corresponding figure in other deprived areas is 3.3 per cent, lower than in LBNs.

Nearly twice the proportion of people in LBNs are out of work due to sickness than the England average (13.4 per cent compared to 6.7 per cent nationally; the sum of the first two rows in Table 3). This is as high as 23.7 per cent in Bloomfield (Blackpool) and 23.5 per cent in Golf Green (Tendring).

**Table 3: Percentage of people claiming disability and sickness related benefits**

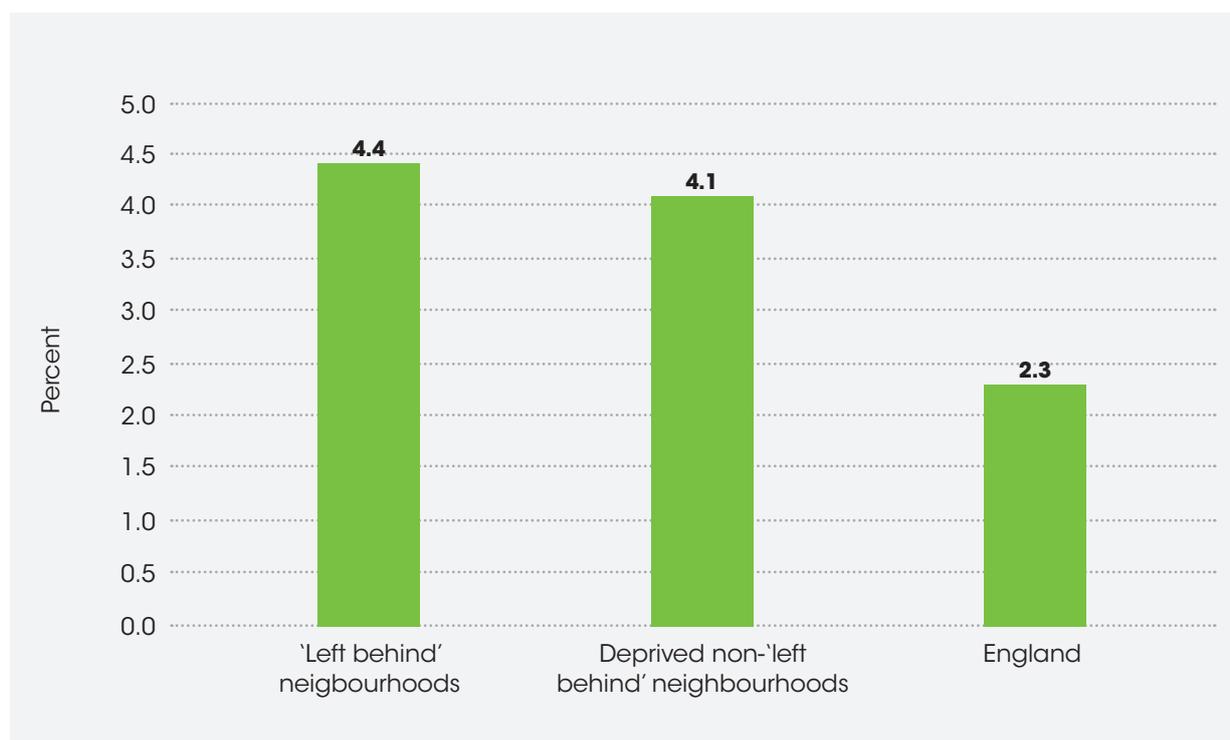
Area name	LBNs	Other deprived areas	England
Incapacity Benefit/Employment and Support Allowance (May-2020)	8.7	7.8	4.5
Universal Credit claimants: No work requirements (May-2020)	4.7	4.1	2.2
Households on Universal Credit – Limited Capacity for Work Entitlement (Aug-2020)	3.5	3.3	1.6
Disability benefit (DLA) (May-2020)	3.5	3.0	2.1
Personal Independence Payment (PIP) (July-2020)	11.9	10.0	6.0
Older people social care benefit (Attendance Allowance) (May-2020)	15.9	16.1	12.5

Source: Oxford Consultants for Social Inclusion (2021)

## Mental health in LBNs

LBNs have almost double the percentage of people claiming incapacity benefits due to mental health related conditions than England as a whole (4.4 per cent vs. 2.3 per cent; Figure 7). The corresponding figure in other deprived areas is 4.1 per cent, lower than in LBNs. 218 out of 225 LBNs have higher levels of people receiving out of work benefits for mental health reasons than the national average (2.3 per cent) – including Oak Tree in Mansfield where one-in-ten people are claiming mental health-related incapacity benefits.

**Figure 7: The percentage of people who claim incapacity benefit due to mental health related conditions**



Source: Oxford Consultants for Social Inclusion (2021)

## Risk factors in LBNs

Here, we outline a number of 'risk factors' associated with ill-health and show that they are more common in LBNs when compared to the English national average.

When considering health promoting activities, Figure 8 shows that in LBNs, 19.2 per cent of the population engaged in healthy eating (defined as those who regularly consume five or more portions of fruit and vegetables a day), much lower than the 28.7 per cent observed nationally and lower than the percent in other deprived areas (22.1 per cent).

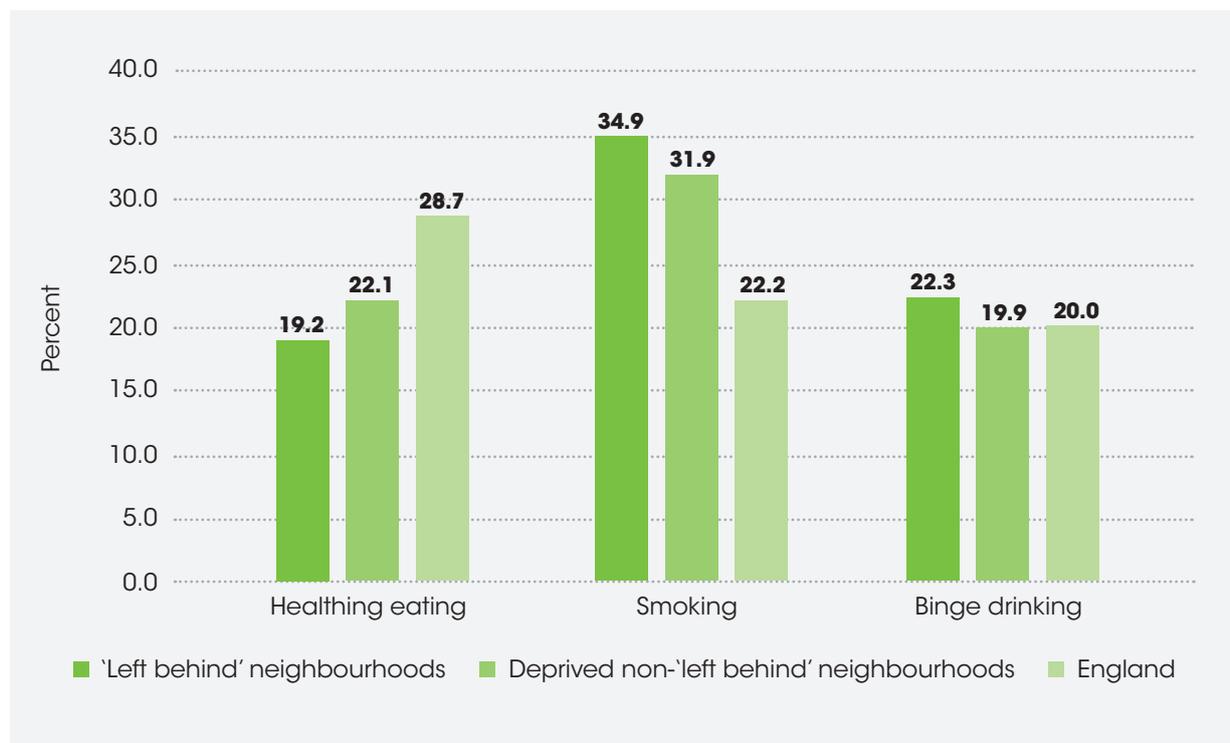
Individuals living in LBNs are additionally more likely to engage in activities that can harm health, such as smoking and binge drinking. Over a third (34.9 per cent) of

people who live in LBNs smoke, compared to 22.2 per cent nationally and 31.9 per cent in other deprived areas. Additionally, 22.3 per cent of people who live in LBNs binge drink, compared to 20 per cent nationally and 19.9 per cent in other deprived areas.<sup>9</sup>

222 out of 225 LBNs have a higher rate of smoking than the national average, with the figure as high as 50.7 per cent in Berwick Hills & Pallister (Middlesbrough). 148 out of 225 LBNs have a higher rate of binge drinking than the national average, with the figure as high as 34.5 per cent in Charlestown (Manchester).

Only two out of 225 LBNs have a higher than national average engagement in healthy eating. The rate is as low as 12.3 per cent in Grangetown (Middlesbrough).

**Figure 8: The percentage of people who engage in healthy and unhealthy behaviours**



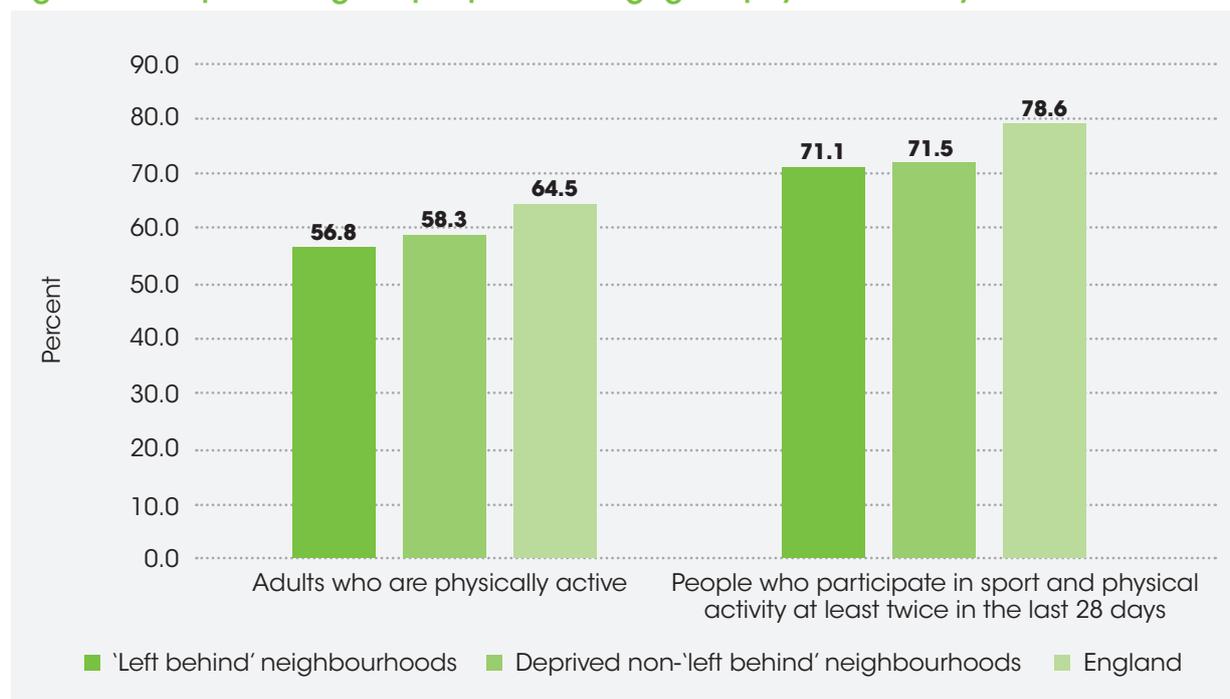
Source: Oxford Consultants for Social Inclusion (2021)

<sup>9</sup> See Technical Appendix for a definition of how these variables are defined.

Figure 9 shows individuals living in LBNs are much less likely to be physically active (56.8 per cent compared to 64.5 per cent nationally and 58.3 per cent in other deprived areas), participate in sport and physical activity at least twice in a 28-day

period (71.1 per cent compared to 78.6 per cent nationally and 71.5 per cent in other deprived areas). Detailed definition on how these variables are constructed is available in the OCSI appendix.

**Figure 9: The percentage of people who engage in physical activity**



Source: Oxford Consultants for Social Inclusion (2021)

Consequently, LBNs have higher levels of obesity than the national average and usually higher than in other deprived areas (Table 4). Among adults, 28.6 per cent of LBN residents are obese, compared to 24.1

per cent nationally and 26.8 per cent in other deprived areas. Children – both in reception and year 6 – are more likely to be obese in LBNs than they are nationally.

**Table 4: Percentage of people who are obese or overweight, by age groupings**

Weight indicator	LBNs	Other deprived areas	England
Obese adults	28.6	26.8	24.1
Overweight or obese children in reception year	26.2	25.5	22.1
Overweight or obese children in year 6	39.5	39.7	33.6
Obese children in reception year	12.2	12.1	9.6
Obese children in year 6	25.1	25.5	20.0

Source: Oxford Consultants for Social Inclusion (2021)

## Emergency hospital admissions in LBNs

Approximately 35 per cent of all admissions in the NHS in England are classified as emergency admissions, costing approximately £11 billion a year. Admitting a patient to hospital as an emergency case is costly and frequently preventable, yet the number of emergency admissions to hospital has been rising for some time. From a public health point of view, emergency admissions data gives an indication of wider determinants of poor health, linked to areas such as housing and transport. High levels of emergency admissions may also be due to high levels of injury within a population or poor management of chronic conditions within primary care.

Table 5 explores the prevalence of emergency admissions to hospital for

key health conditions, expressed as Standardised Admission Ratios (SARs)<sup>10</sup>.

People living in LBNs have much higher SARs for all conditions than the national average, and more than double for COPD. Other deprived areas have slightly higher SARs than LBNs for coronary heart disease, myocardial infarction, and stroke.

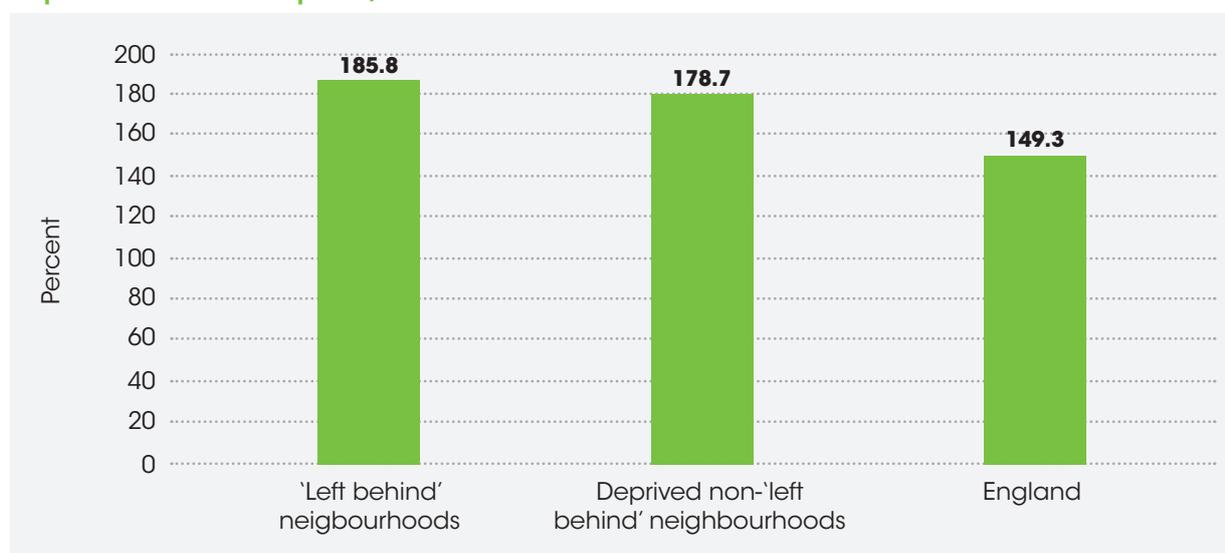
Similarly, children under five years of age living in LBNs are more likely to have an emergency hospital admission compared to the national average (Figure 10). The rate in LBNs is 185.8 per 1,000, much higher than 149.3 per 1,000 nationally and higher than the rate in other deprived areas (178.7 per 1,000). A similar picture is true across all age groups considered; under five years of age, under 15 years of age, and 15 to 24 years of age (see OCSI data dive).

**Table 5: Standardised Admission Ratios (SARs) for various conditions**

Emergency hospital admissions (SAR)	LBNs	Other deprived areas	England
Coronary heart disease	138.5	150.8	104.1
Chronic Obstructive Pulmonary Disease (COPD)	216.2	203.3	110.0
Hip fracture in 65+	122.0	114.9	100.4
Myocardial Infarction	137.9	144.1	103.4
Stroke	125.9	127.5	103.0

Source: Oxford Consultants for Social Inclusion (2021)

**Figure 10: Emergency hospital admissions for children aged under five years of age, expressed as a rate per 1,000**



Source: Oxford Consultants for Social Inclusion (2021)

## Differential health effects of COVID-19

Here, we explore the impact of COVID-19 on mortality rates. We start by describing the vulnerability to COVID, by considering the index developed by the Red Cross.<sup>11</sup> The index aimed to capture some of the likely impacts of the pandemic by bringing together data on clinical vulnerability, demographic vulnerability, social vulnerability and health inequalities to identify neighbourhoods 'at risk' from the effects of COVID-19.

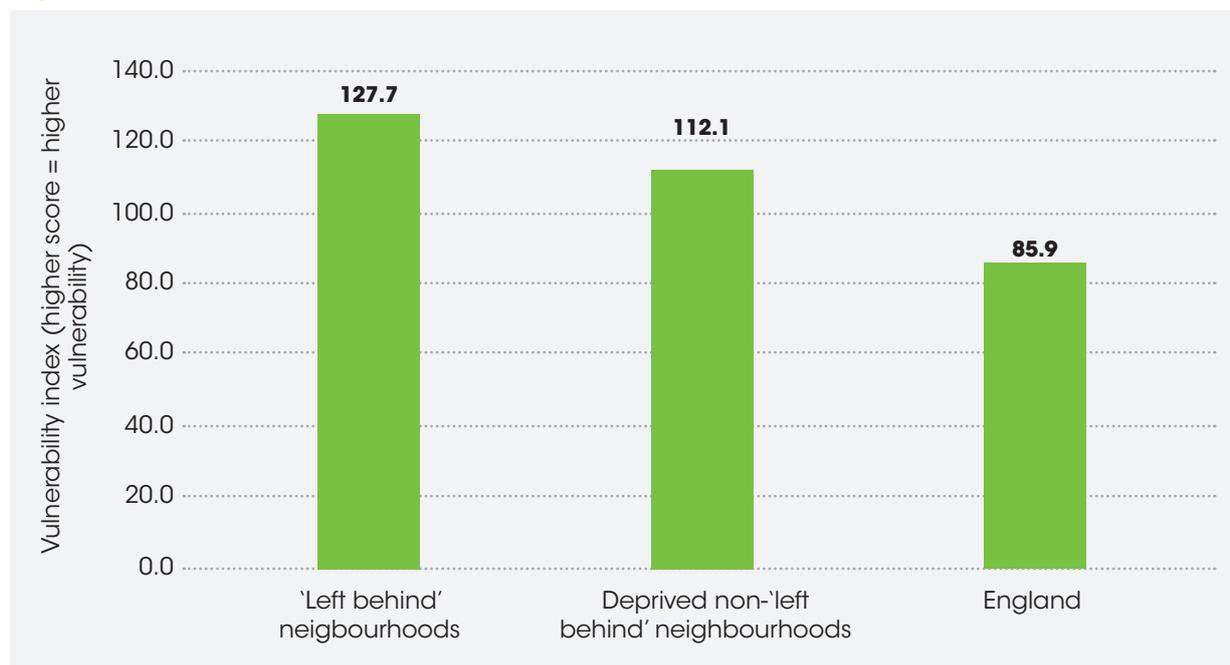
### Vulnerability

Figure 11 compares the COVID-19 vulnerability between LBNs and England as a whole. The data presented is a score,

with higher scores indicating an area has higher levels of vulnerability. The average vulnerability in LBNs was 127.7, considerably higher than the English average of 85.9 and higher than the average score of 112.1 in other deprived areas. 199 out of 225 LBNs have vulnerability scores above the English average, and some LBNs had scores well in excess of 200. Some notable patterns include:

- Six of the 10 most vulnerable LBNs are located in Tendring.
- Nine of the top 10 are located in coastal areas.
- Six of the 20 most vulnerable LBNs are located in County Durham.
- Nine of the 20 most vulnerable LBNs are located in the North East.

**Figure 11: The COVID-19 vulnerability index**



Source: Oxford Consultants for Social Inclusion (2021)

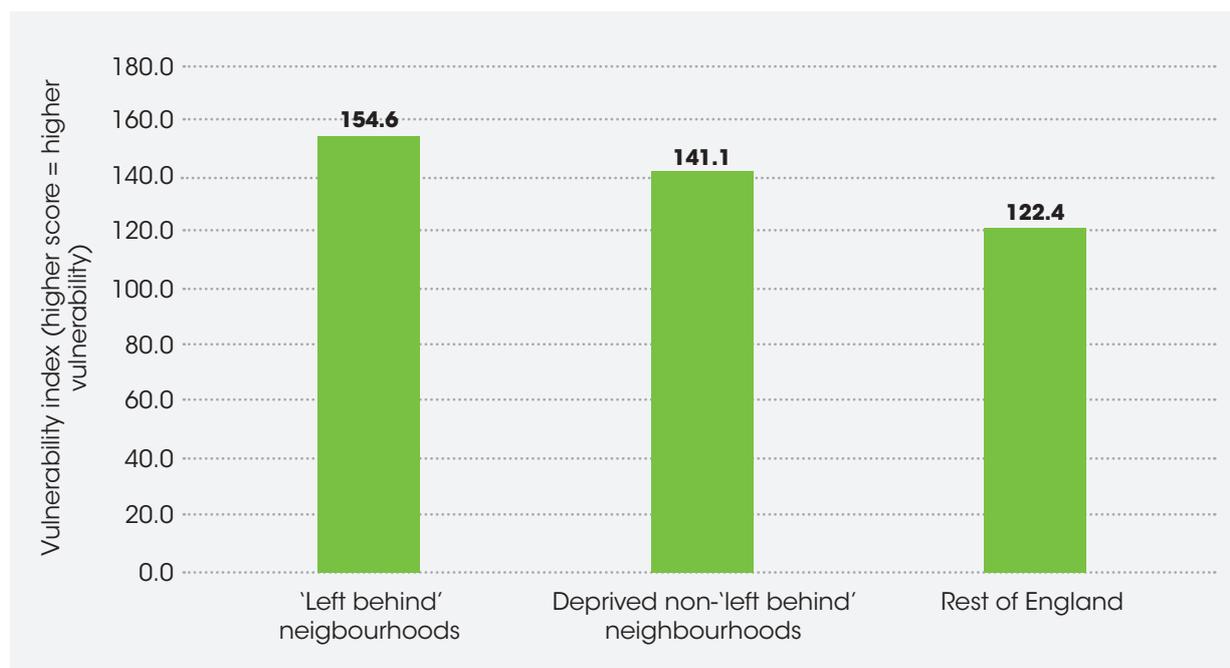
<sup>11</sup> A detailed description of this indicator is presented in the accompanying OCSI data dive.

## Mortality

Between March and December 2020, the COVID-19 mortality rate (per 100,000 population) was considerably higher than the national average (Figure 12). In LBNs, the average COVID-19 mortality rate was 154.6 per 100,000, higher than the rate in other deprived areas (141.8 per 100,000) and considerably higher than the English national rate (122.4). This figure includes deaths in all settings including hospitals, care homes and the community based on place of residence and is a crude death rate (number of deaths per 100,000 population). COVID-19 had to have been recorded on the death certificate.

In the thirteen-month period from March 2020 to March 2021, the average number of people to die in LBNs is considerably higher than the average number of people to die in similarly sized areas nationally (Figure 13). There were, on average, 161.5 deaths due to all causes in LBNs, compared to 154.4 in other deprived areas and 120.1 in the rest of England. LBNs had more deaths attributable to COVID-19 compared to other deprived areas (31.1 compared to 29.2) and compared to the rest of the country (21.3). Additionally, LBNs had higher mortality due to other causes (130.4) compared to other deprived areas (125.2) and the rest of the country (99.5).<sup>12</sup>

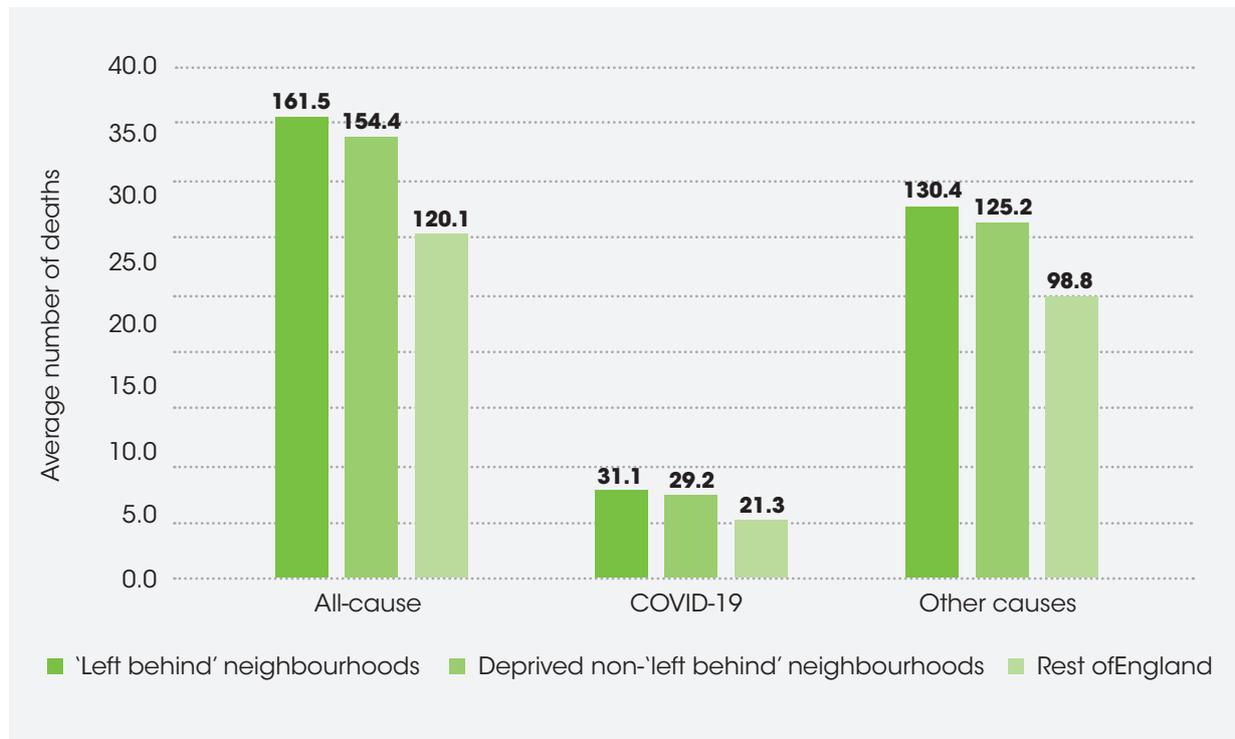
**Figure 12: COVID-19 mortality rates, per 100,000, between March and December 2020**



Source: Oxford Consultants for Social Inclusion (2021)

<sup>12</sup> Note that these figures have not been standardised, and so may reflect unequal populations. However, given that the populations of wards are quite similar, this concern may be reduced. Note also that this data was reported at Middle Layer Super Output Area (MSOA) level and mapped to wards using ONS mapping algorithms. The ONS does not report mortality at ward level. There are 7,201 MSOAs in England and Wales, with an average population of around 8,300.

**Figure 13: Average deaths, by cause of death, between March 2020 and March 2021**



Source: Office for National Statistics (2021)

### Mental health

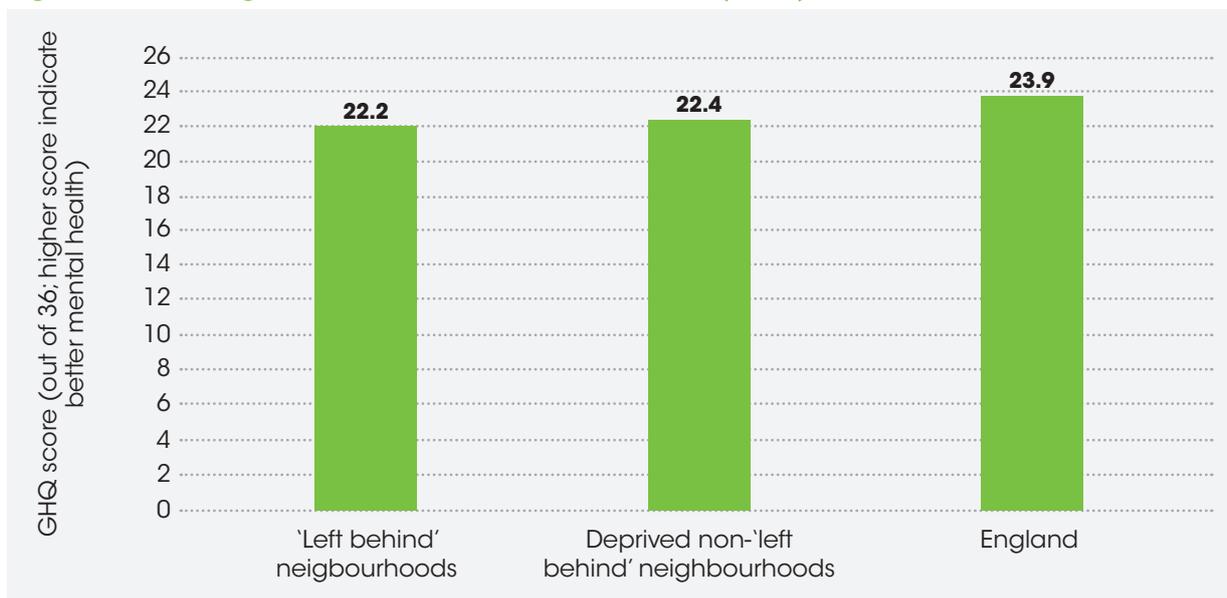
We start by reporting average General Health Questionnaire (GHQ) scores, where higher scores relate to better levels of mental health.<sup>13</sup> During the first wave of the pandemic (April to May 2020), the average GHQ score in LBNs was 22.2, much lower than the average score in the rest of

England (23.9) (see Figure 14). The score in other deprived areas was 22.4.

Figure 3.15 shows that LBNs also experienced a larger drop, on average, in mental health than the rest of England (a reduction of 1.5 in LBNs compared to a reduction of 1.1 in the rest of England and a reduction of 1.3 in other deprived areas).

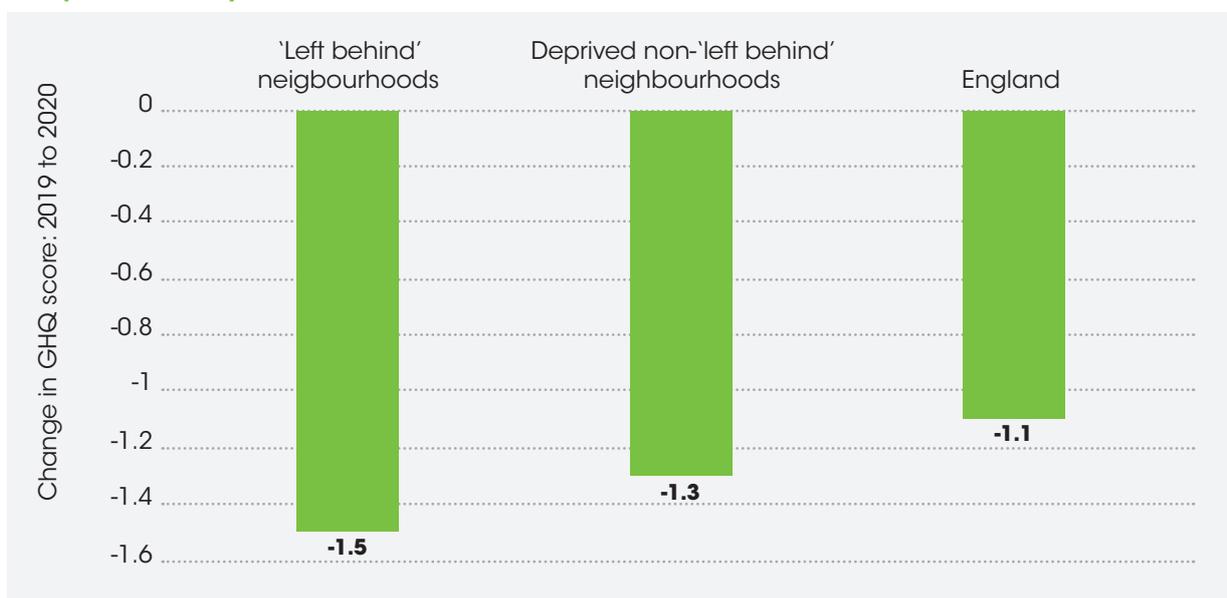
<sup>13</sup> See Technical Appendix for a definition of GHQ as well as underlying source of data.

**Figure 14: Average General Health Questionnaire (GHQ) scores in April and May 2020**



Source: Understanding Society 2021

**Figure 15: Average change in General Health Questionnaire (GHQ) scores: 2019 to April and May 2020**



Source: Understanding Society 2021

From the data we can conclude that the health of 'left behind' neighbourhoods is considerably worse than in the rest of England. This was true before the start of the COVID-19 pandemic and has been

exacerbated since March 2020. The inequalities in health that exist between LBNs and the rest of England have been growing over time, not narrowing.

# The impact of health inequalities in 'left behind' neighbourhoods

**There are persistent inequalities in health outcomes between 'left behind' neighbourhoods (LBNs), other deprived areas, and the rest of England. Health is consistently lower in LBNs than in the rest of the country and usually worse than in other deprived areas.**

There are other additional inequalities with respect to economic outcomes. If health inequalities could be eradicated – such that the health of people living in local authorities that contain LBNs was brought up to the national average – at least an additional £29.8bn per year could be added to national productivity. If the health of people living in local authorities that contain LBNs could be brought up to the level of people living in local authorities that contain deprived but not 'left behind' neighbourhoods, at least an additional £2.5bn per year could be added to national productivity.

The methods used in this section follow closely those used in a report examining the interconnectedness of health and economic inequalities viewed through a North/South lens (Bambra, Munford, Brown et al. 2018).

## **Economic outcomes in LBNs pre-COVID-19**

In this subsection, we present various measures of economic performance in local authorities that contain LBNs and compare them to the English national average. In all cases, local authorities that contain LBNs perform worse.

Economic outcomes are not reported at small geographical units, and hence we use data reported at Local Authority District (LAD) level.<sup>14</sup>

82 LADs contain at least one LBN. 69 LADs contain at least one other deprived area. The remaining 157 LADs do not contain either an LBN or another deprived area. The list of LADs that contain at least one LBN are reported in Appendix C, along with the number of LBNs in it.<sup>15</sup>

<sup>14</sup> See Appendix D for information on how we do this.

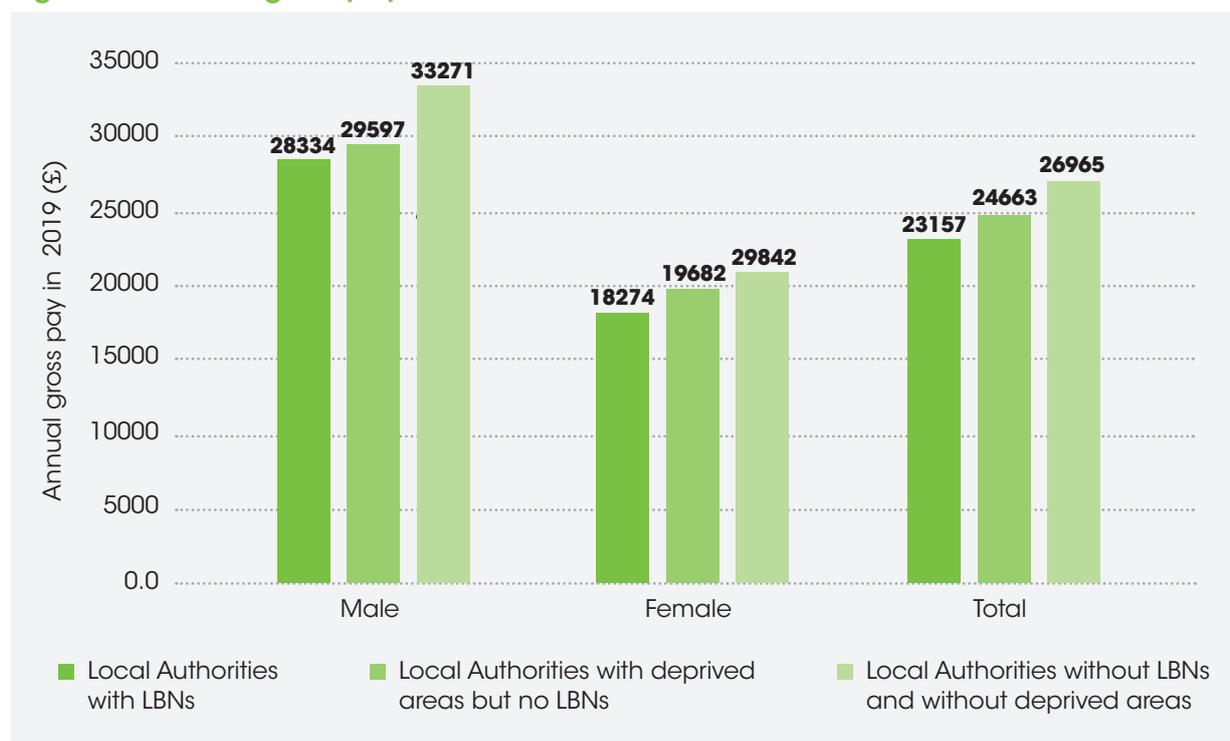
<sup>15</sup> Considering outcomes at the LAD-level, rather than at ward-level, may dilute some of the inequalities presented here. In this respect, they can be thought of as lower bounds – or minimum differences – to the differences between LBNs and the rest of England. The reason for this is that a LAD will contain a mix of LBNs and non-LBNs, and the non-LBNs will improve the LAD-wide average. However, in the absence of ward-level data on economic outcomes, we are limited to this approach.

## Median wages in 2019

We first present information on median wages in 2019. We chose 2019 as this was the last full year pre-COVID-19. Figure 16 presents the median pay for individuals who live in LADs that contain LBNs as well as the corresponding figure for LADs that contained other deprived areas and the rest of England. Figures are reported for males, females, and pooled to account for the differences in labour supply and salaries. In LADs that contained LBNs, the average median salary in 2019 was £23,157. This was £3,808 less than in LADs that contained neither LBNs nor other deprived

areas (£26,965) and £1,506 less than in LADs that contained other deprived areas (£24,663). For males, those living in LADs that contain LBNs earned £4,883 less than in LADs that contained neither LBNs nor other deprived areas (£28,334 compared to £33,271) and £1,263 less than males living in LADs that contained deprived non-LBNs. For females, those living in LADs that contain LBNs earned £2,568 less than in LADs that contained neither LBNs nor other deprived areas (£18,274 compared to £20,842) and £1,408 less than females living in LADs that contained other deprived areas.

Figure 16: Annual gross pay in 2019



Source: NOMIS (2019a)

Note: the data is available at Local Authority District (LAD) level only. We therefore defined 'left behind' areas as LADs that contain at least one LBN.

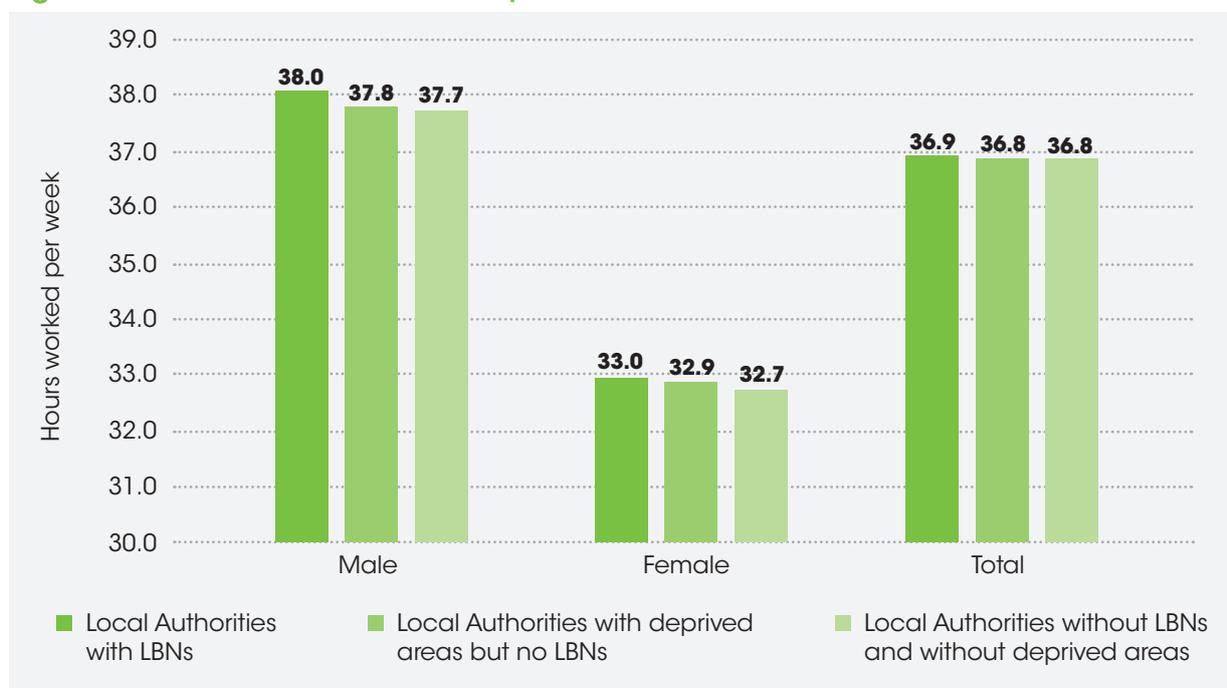
## Median hours worked in 2019

The gap in earnings reported above cannot be explained by people in LBNs working fewer hours. Figure 17 shows the average median hours worked per week in LADs that contained LBNs and for the rest of England. Individuals living in LADs that contained LBNs worked more hours, on average, than the people living in LADs that contained neither LBNs nor other deprived areas as well as more hours than people who live in LADs that contained other deprived areas. Males living in LADs than contained LBNs worked 38.0 hours a week, compared to 37.7 hours in LADs that contained neither LBNs nor other deprived areas and 37.8 hours in LADs that contained other deprived areas. Similarly, females living in LADs that contained LBNs worked 33.0 hours a week, compared to 32.7 hours in LADs that contained neither LBNs nor other deprived areas and 32.9 hours in LADs that contained other deprived areas.

While these differences are small, they do exist; thus, the number of hours worked cannot explain the difference in salary.

These results – people working longer hours in local authority areas with LBNs but getting less pay – coupled with the fact that unemployment rates tend to be higher in LBNs, appear to be somewhat of a juxtaposition. However, this is not an uncommon finding in the literature. We know that when unemployment rates are higher, there is a threat – or at least a perceived threat – that employees cannot ask for more flexibility over their working conditions, including hours worked, as there is a large supply of potential replacement workers in the pool of unemployed people. Morrell et al. (1998) note that “Those who are fortunate enough to have paid work are working more intensively for longer hours”. In a recent paper, Kolasa et al. (2021) show that similar trends are observed in many European countries too; higher unemployment rates are associated with longer working hours.

**Figure 17: Number of hours worked per week in 2019**



Source: NOMIS (2019a)

Note: the data is available at Local Authority District (LAD) level only. We therefore defined ‘left behind’ areas as LADs that contain at least one LBN.

## Occupational classifications

The evidence in Figure 18 shows that, on average, individuals living in LADs that contained LBNs are more likely to work in manual-type professionals, whereas individuals living in LADs that contained neither LBNs nor other deprived areas

are more likely to work in managerial and professional occupations. Individuals living in LADs that contained LBNs are also more likely to work in manual jobs, and less likely to work in managerial jobs, on average, than people living in LADs that contained other deprived areas.

**Figure 18: The percentage of people who work in each of the nine broad job classifications, based on standard occupational classification (SOC) codes**



Source: Labour NOMIS (2019b).

Note: the data is available at Local Authority District (LAD) level only. We therefore defined 'left behind' areas as LADs that contain at least one LBN. Code labels: 1. Managers, directors and senior officials; 2. Professional occupations; 3. Associate professional and technical occupations; 4. Administrative and secretarial occupations; 5. Skilled trades occupations; 6. Caring, leisure and other service occupations; 7. Sales and customer service occupations; 8. Process plant and machine operatives; 9. Elementary occupations.

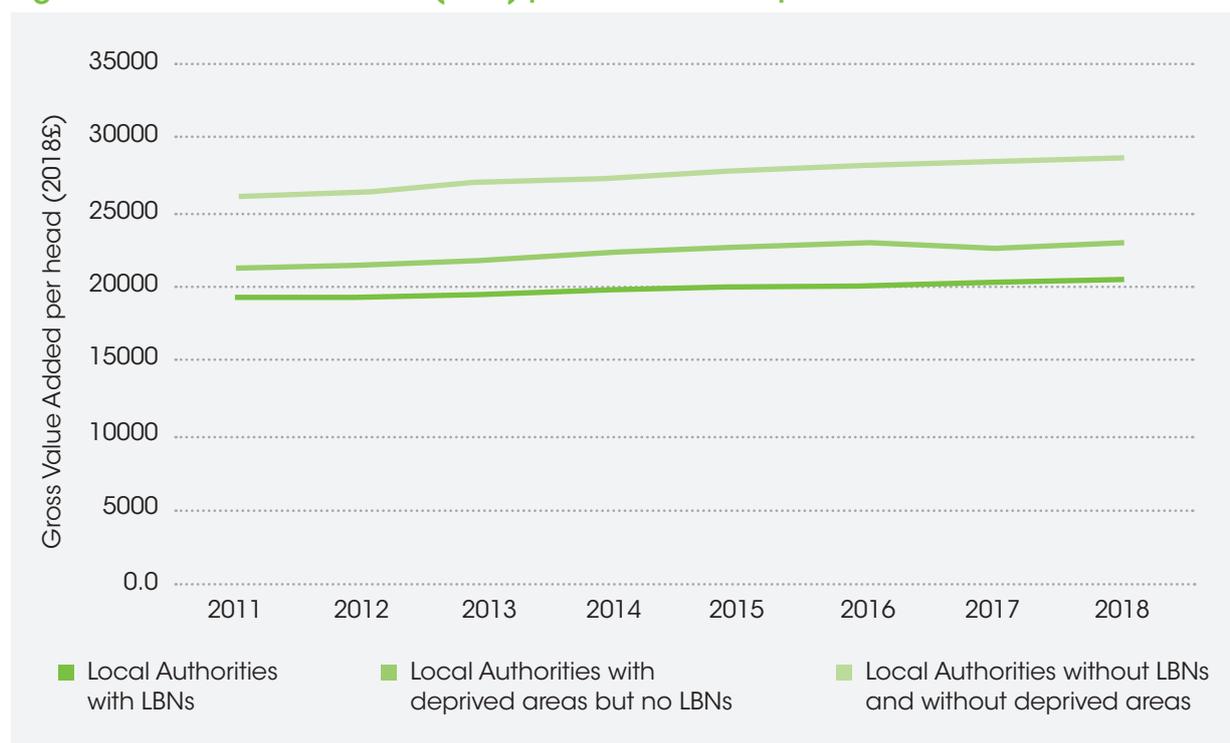
## Gross Value Added

Gross Value Added (GVA) is a measure of sub-national productivity. It can be thought of as a localised version of Gross Domestic Product (GDP). It is designed to allow cross-area comparisons. Here, we used the balanced version of GVA which comprises both income and production approaches to create a single value of economic activity within an area (Office for National Statistics 2018).

Figure 19 shows trends in GVA from 2011 to 2018. To adjust for inflation, all prices are expressed in 2018 pounds using the retail price index (RPI). GVA was consistently lower in LADs that contained LBNs when compared with LADs that contained neither

LBNs nor other deprived areas and also with LADs that contained other deprived areas. There has been a steady increase in GVA in this period for both LADs that contained LBNs and the rest of England. However, the rate of growth was slower in LADs that contained LBNs than in LADs that did not contain LBNs (Figure 20). In LADs that contained LBNs, GVA grew by 6.1 per cent, compared to 9.6 per cent in LADs that contained neither LBNs nor other deprived areas and 7.4 per cent in LADs that contained other deprived areas. The net result is that GVA in LADs that contained LBNs is falling even further behind the rest of England, exacerbating existing inequalities in economic outcomes.

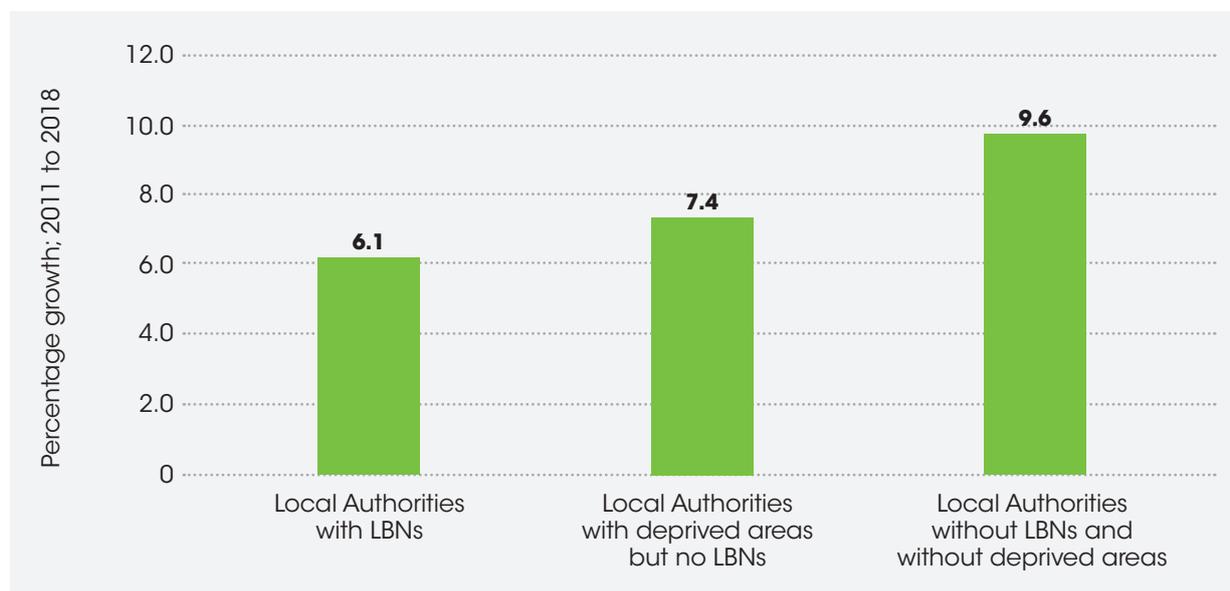
**Figure 19: Gross Value Added (GVA) per head in 2018 prices; 2011 to 2018**



Source: Office for National Statistics (2019a)

Note: the data is available at Local Authority District (LAD) level only. We therefore defined 'left behind' neighbourhoods as LADs that contain at least one LBN.

**Figure 20: Percentage growth in Gross Value Added (GVA) per head in 2018 prices; 2011 to 2018**



Source: Office for National Statistics (2019a).

Note: the data is available at Local Authority District (LAD) level only. We therefore defined 'left behind' areas as LADs that contain at least one LBN.

In 2018, the gap in GVA between LADs that contained LBNs and LADs that contained other deprived areas was £2,400 per person (£20,400 compared to £22,800). The gap when compared to the rest of England was £8,256 per person (£20,400 compared to £28,656) (Table 6).

**Table 6: Gross Value Added (GVA) per head and populations**

	GVA per head (£)	Total population
Local Authorities with LBNs	20,400	15,025,480
Local Authorities with deprived areas but no LBNs	22,800	13,943,640
Local Authorities without LBNs and without deprived areas	28,656	24,812,780

Source Office for National Statistics (2019a).

Note: the data is available at Local Authority District (LAD) level only. We therefore defined 'left behind' areas as LADs that contain at least one LBN.

Total population is the count of all people living in LADs either with or without LBNs

Given this gap in GVA per head of £2,400, and a population of 15,025,480 living in LADs that contained LBNs, this equates to a total loss of productivity of £36.1 billion per year (£2,400 x 15,025,480) when comparing LADs that contain LBNs to LADs that contained other deprived areas. The loss of productivity is even larger when we compare to the rest of England (LADs that contain neither LBNs nor other deprived areas). Given a gap in per-person productivity of £8,256 and a population of 15,025,480, the loss of productivity is £124.1bn per year.<sup>16</sup>

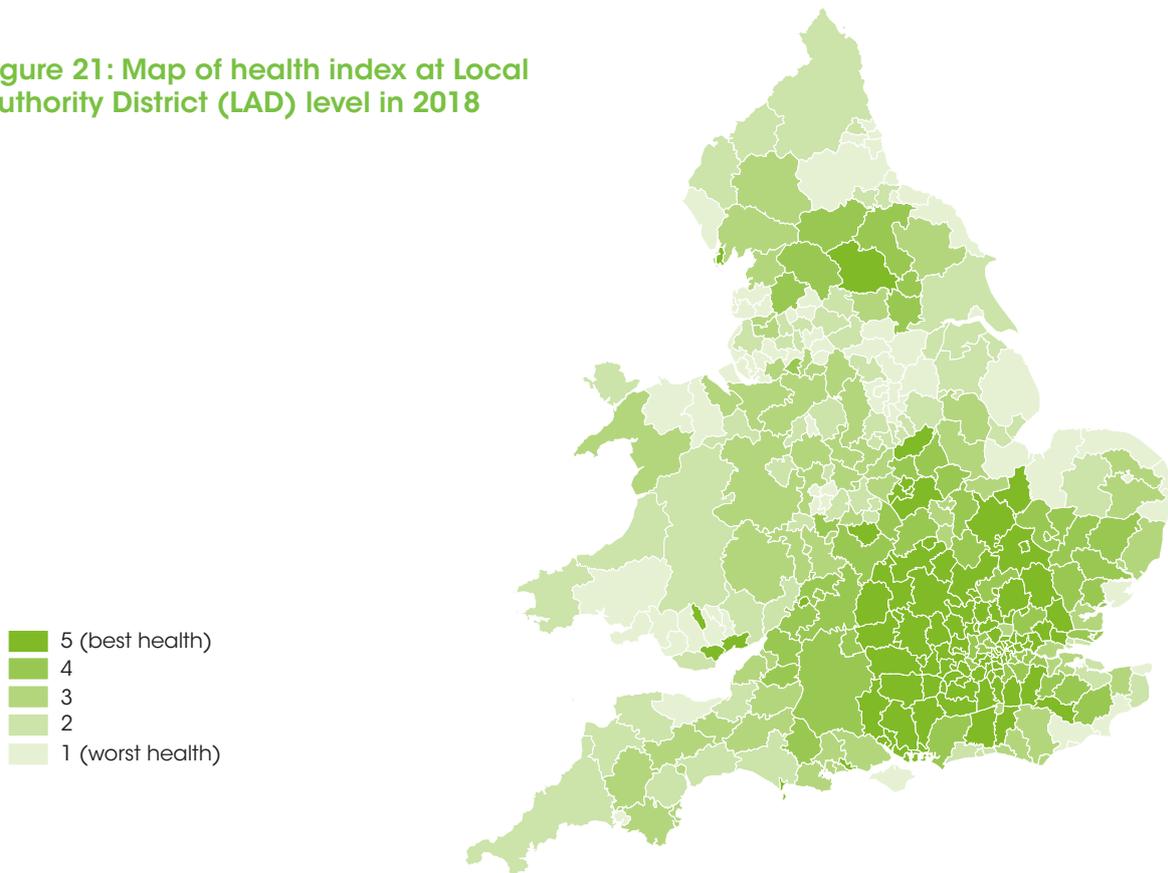
### The relationship between health inequalities and economic inequalities in LBNs

Here we examine if there is an association between inequalities in health and inequalities in economic outcomes.<sup>17</sup>

We start by combining information on various health outcomes together to create one index of health. We do this to avoid using multiple outcomes that are strongly associated with each other.

A map of this health index is presented in Figure 21. Darker areas correspond to better levels of the health index. Health in LADs that contain LBNs is typically in the worst or second worst quintile (the lightly shaded areas).<sup>18</sup>

**Figure 21: Map of health index at Local Authority District (LAD) level in 2018**



<sup>16</sup> However, as stressed above, this figure includes all parts of LADs that contain LBNs, not just LBNs themselves. This is likely to affect the 'true' gap in productivity between LBNs and the rest of England and the LAD-average will contain an unweighted average of LBNs and non-LBNs. So, the gap in productivity will be under-estimated. However, the population estimates will be over-estimated as they are based on whole LAD populations and not just on people living in LBNs.

<sup>17</sup> Due to data availability, we cannot directly assert causality here. Instead we describe important associations.

<sup>18</sup> Again, as data is only available at LAD level, we likely mask important variations within LADs. For example, LADs that contain LBNs are also likely to contain neighbourhoods that have high levels of health. However, on average we observe that LADs that do contain LBNs typically have lower values of average health.

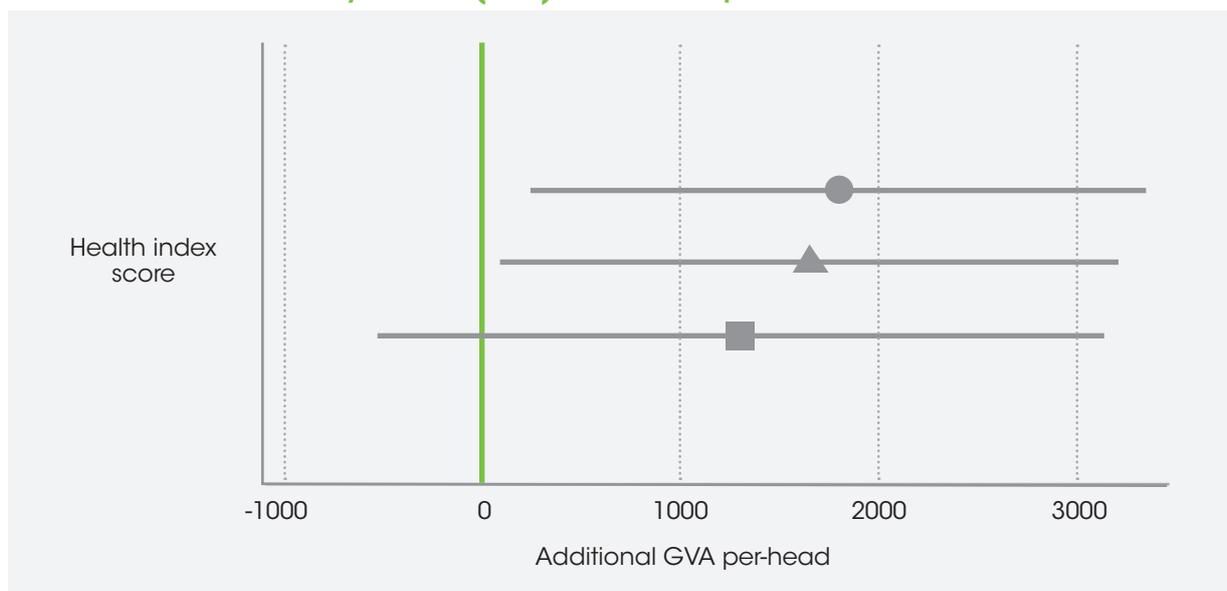
Similar to the approach in the Northern Health Science Alliance (NHSA) report (Bambra, Munford, Brown et al., 2018) we then regressed our health index on GVA to see if there was a statistical association between the two.<sup>19</sup> We repeated this analysis for the three types of LADs we consider (those with and without LBNs and other deprived areas) to see if the relationships were different. The main effects from the models are reported graphically in Figure 22.

In both LADs that contain LBNs and LADs that contain other deprived areas, there is a positive and statistically significant association between health and GVA per head.<sup>20</sup> In LADs that do not contain LBNs

nor other deprived areas (i.e. the rest of England), there is a positive association between health and GVA per head, but this is smaller in magnitude and not statistically significant.<sup>21</sup>

Therefore, there are larger potential gains to GVA by improving health in LADs that do contain LBNs compared to both LADs that contain other deprived areas and the rest of England, highlighting the potential increases in UK productivity that could be achieved by improving the health of LBNs. Improving the health of LADs that contain other deprived areas would also have a larger effect than in the rest of England, but smaller than in LADs that contain LBNs.

**Figure 22: The relationship between changes in health and changes in Gross Value Added at Local Authority District (LAD) level in the period 2011 to 2018**



**Note:** The circle represents the coefficient in the regression when we consider LADs with LBNs. The triangle represents the coefficient in the regression when we consider LADs with other deprived areas. The square represents the coefficient in the regression when we consider LADs with neither LBNs nor other deprived areas. The horizontal lines are at 95 per cent confidence intervals. The regression models additionally account for a range of covariates, described above.

<sup>19</sup> We applied fixed-effects linear regression models to account for unobserved factors that are constant within a LAD over time. Additionally we added year fixed-effects to account for macroeconomic fluctuations over the period, and controlled for the age structure of the population within an LAD in a given year, the (natural logarithm of the) total population size, the percentage of people who have no qualifications, and the wages to unemployment benefit ratio. Using fixed-effects models, with these additional control variables, allows us to estimate the direct effect of *changes in health on changes in GVA*. Failing to account for fixed-effects could lead to spurious correlations. As stated above, we cannot assert causality, but the use of fixed-effects in part mitigates against the notion of spurious correlation.

<sup>20</sup> A one standard deviation increase in the health index would increase GVA per head by £1,780 in LADs that contain LBNs ( $p=0.024$ ; 95 per cent CI: 242.0 to 3357.9). Full regression output is contained within Table A4.2 in the appendix.

<sup>21</sup> A one standard deviation increase in the health index would increase GVA per head by £1,304 in the rest of England, but this relationship is not statistically significant as the 95 per cent confidence interval includes zero ( $p=0.163$ ; 95 per cent CI: -531.7 to 3139.8). Full regression output is contained within Table A4.2 in the appendix.

We can go further and deconstruct the gap in GVA into explained and unexplained components (see Bambra, Munford, Brown et al. (2018) for further details).

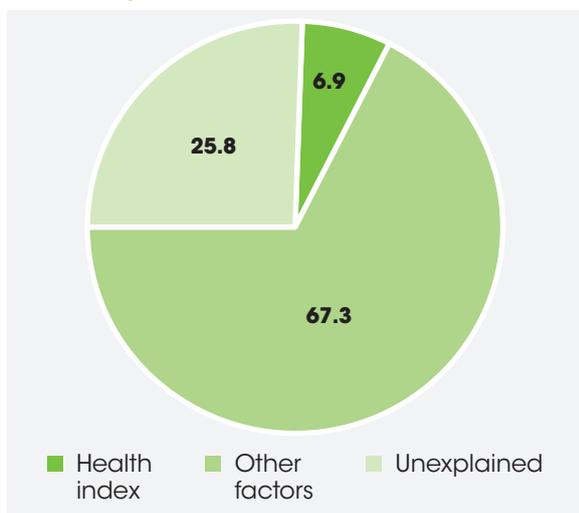
When we do this, we observe that 7 per cent of the gap in GVA between LADs that contain LBNs and LADs that contain other deprived areas can be explained by worse health (Figure 23). 24 per cent of the gap in GVA between LADs that contain LBNs and LADs that contain neither LBNs nor other deprived areas can be explained by worse health (Figure 24).

If we were to completely eradicate the gap in health between LADs with LBNs and those with other deprived areas, this could generate an additional £2.5 billion (0.07 x £36.1bn) in increased productivity per year.

If we could completely eradicate the gap in health between LADs that contain LBNs and those LADs that contain neither LBNs nor other deprived areas, we could generate an additional £29.8bn per year (0.024 x £124.1bn).<sup>22</sup>

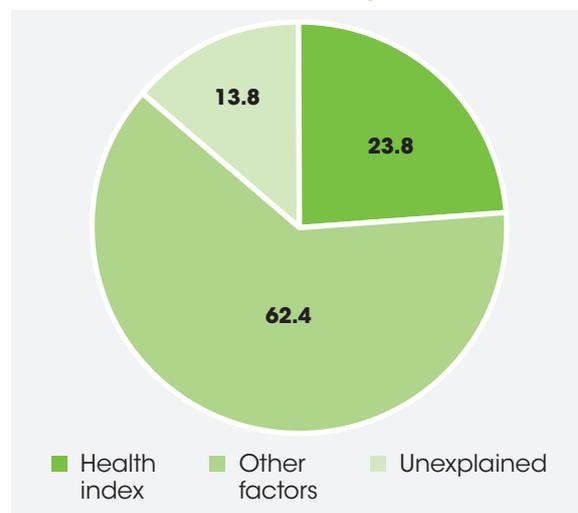
Education and skills are also affected by health, and hence there are likely to be indirect effects on GVA that could be brought about by improving the health of LADs that contain LBNs. For example, improved health leads to better educational opportunities, which lead to better productivity. Hence, there are also indirect effects to be considered, although these indirect effects are not possible to quantify in this model.

**Figure 23: The effects of health and other factors in explaining the productivity gap (GVA per head) between LADs that contain LBNs and LADs that contain other deprived areas**



*Other factors include education-levels, age structure, population size, a measure of the wages to unemployment benefit ratio, and year and LAD fixed-effects. Unexplained factors are things not included in the statistical models. The size of the segment represents the percentage of the variability of GVA explained/unexplained.*

**Figure 24: The effects of health and other factors in explaining the productivity gap (GVA per head) between LADs that contain LBNs and LADs that contain neither LBNs nor other deprived areas**



*Other factors include education-levels, age structure, population size, a measure of the wages to unemployment benefit ratio, and year and LAD fixed-effects. Unexplained factors are things not included in the statistical models. The size of the segment represents the percentage of the variability of GVA explained/unexplained.*

<sup>22</sup> However, as noted above, this may be an overestimate as it is based at the LAD-level and is based on all LADs that include LBNs vs. all LADs that do not contain LBNs. If we were to focus only on LBNs (i.e. at the ward-level) – and not the wider LADs in which they are situated – the increased GVA is likely to be smaller. This is due to the fact that whilst the gap in GVA between LBNs and non-LBNs is likely to be larger, the population estimate which is used to multiply by will be smaller (i.e. the population of LBNs is smaller than the population of LADs that contain LBNs). However, as we cannot obtain estimates of GVA at ward-level, we are limited to this approach.

However, it is important to bear in mind that these relationships are associations, and we cannot directly assert causality. The use of area-level fixed-effects to examine within area changes somewhat mitigates against the possibility of spurious correlations. It is also worth noting that these relationships are at the LAD-level, and so we miss variation within LADs. For example, County Durham is the LAD with the highest number of LBNs. However, there

are still neighbourhoods within County Durham that are both healthier and more economically prosperous than the LBNs within County Durham.

More granular level economic data, preferably available at neighbourhood/ward level would be required to assess if these results were stronger when we directly compare LBNs to other deprived areas and the rest of the country.

## Summary of the analysis

Economic outcomes in local authorities that contain LBNs are worse than they are in the rest of the country. This is particularly true for wages and economic productivity. These worse economic outcomes can be linked to poorer health in local authorities that contain LBNs. Similar to widening health inequalities, the gap between economic outcomes in local authorities that contain LBNs and the rest of the country has been growing over time.

The main findings of this section are:

- Wages are lower in local authorities that contain LBNs than they are in other deprived areas in the rest of the country. The average salary in local authorities that contain LBNs was £23,157 in 2019, £1,506 less than in local authorities that contain other deprived areas and £3,808 less than in the rest of England. Males and females living in local authorities that contain LBNs earned less than their counterparts living in local authorities that contain other deprived areas and considerably less than males and females living in the rest of England.
- However, both males and females living in local authorities that contain LBNs worked more hours per week than individuals living in the rest of England.
- This juxtaposition between lower wages and more hours worked can be explained by the type of jobs people living in local authorities that contain LBNs do. They are much less likely to be employed in managerial, professional, or associate professional jobs and are much more likely to be employed in caring, sales, and plant and machine operator jobs.
- Also, the fact that unemployment rates are higher in LBNs is consistent with people working longer hours as there is a fear that working reduced hours may lead to unemployment as there is a larger supply of unemployed people waiting to take their jobs.
- The net-result is that economic productivity is lower in local authorities that contain LBNs. In 2018, the average Gross Value Added in local authorities that contain LBNs was £20,400 per person. This was £1,400 per person lower than in local authorities that contain other deprived areas and £8,256 per person lower than in the rest of England.

- Applying population estimates, this per-person 'gap' is equivalent to £36.1bn when compared to other deprived areas and £124.1bn when compared to the rest of England.
- 7 per cent of the gap in productivity between local authorities that contain LBNs and local authorities that contain other deprived areas is directly attributable to worse health in LBNs. If this gap were to be removed, this would generate an additional £2.5bn per year.
- 36 per cent of the gap in productivity between local authorities that contain LBNs and areas that are not deprived and not LBNs is directly attributable to worse health in LBNs. If this gap were to be removed, this would generate an additional £29.8bn per year.
- Improving health could lead to higher economic returns in local authorities that contain LBNs than in the rest of the country.

# Part III

## Conclusion and policy recommendations

### Conclusion

**'Left behind' neighbourhoods suffer the greatest health inequalities in England and these inequalities are getting worse.**

Previous public health initiatives which have led to reductions in health inequalities have been discontinued, and the absence of a strategic approach to this policy area has seen outcomes in the most deprived and 'left behind' areas of the country worsen further.

Recent commitments from Government to tackle health inequality and level up areas experiencing a multitude of worse outcomes are welcomed, and must form the heart of the country's public health and levelling up strategy.

This is not just of benefit to those areas identified as 'left behind' and the people that live there. Productivity in areas that contain LBNs is trailing the rest of the country and falling even further behind. This isn't explained by people in these areas working fewer hours. In fact, our research shows people in local authority areas with 'left behind' neighbourhoods work on average more hours than those in wealthier areas. Yet the gap in productivity between those local authority areas with LBNs and the rest of the country is £124.1bn per year. Health accounts for 36 per cent of that difference.

If the health of local authority areas with LBNs were brought up to the same level of health as those in the rest of the country an extra £29.8bn would be put in the local economy.

When it comes to health in these areas, a local approach is needed to achieve sustained improvements to outcomes over the long term. The economic, social and physical environment all play important roles in improving population health. The economic environment includes poverty and unemployment rates, wages, and the type of work available in a locality.

The social aspects of a place are also important to health. They include services provided publicly and privately such as childcare, transport, food availability, access to a doctor or hospital, housing, work and education.

Community also matters when it comes to health; areas with high levels of social cohesion and social capital have better mortality rates, general health, mental health and health behaviours. Negative impacts can come from the stigma or reputation of an area and the physical environment – how close an area is to waste facilities, brownfield or pollution, while green space has positive effects.

Social capital, neighbourhood perception and the physical environment are improved by investment in social infrastructure in 'left behind' neighbourhoods: the places to meet, the local associations and community support organisations, and the connectivity to other places.

In all cases, health is worse in 'left behind' neighbourhoods than in the rest of England. The most disadvantaged in England are being left further behind and unless action is taken, any notion of levelling up is a remote prospect in these areas.

In 'left behind' neighbourhoods, there are many examples of the will and ambition within communities to make their lives better, and healthier. There is excellent practice where community-led projects, adopted and endorsed by those they are meant to help, have made a real difference to communities.

Where interventions have worked best, they intelligently and actively engage with local communities instead of imposing schemes on them. Community buy-in, in addition to genuine opportunities for residents to shape outcomes, is essential in delivering lasting change. Short-termism can cut off successful interventions before they have had the opportunity to work.

**There is a need for community power in place-based initiatives with community engagement positively impacting the health and wellbeing of local residents. The involvement of local people in decision-making and resource allocation is likely to enhance innovation, and improve the effectiveness and acceptability of community initiatives, increasing the potential of securing longer-term health improvements.**

What is clear is that unless these areas receive significant funding proportionate to local need and projects are developed and delivered together with the communities which they are intended to help, they will fail in tackling increasing health inequality in 'left behind' neighbourhoods.

Health is wealth, both economic and social, and the circumstances which drive the most unequal levels of health in England must be addressed if the country is to level up and achieve its full potential.

## Policy recommendations

1. The government's national 'levelling up' strategy must include a strand on reducing spatial health disparities through targeting multiple neighbourhood, community and healthcare factors, with the new Office for Health Improvement and Disparities an opportunity to catalyse action for population health.
2. Long-term ring-fenced funding is needed to ensure more effective delivery of resources on the ground, and for targeted health inequalities programmes (drawing on initiatives such as Healthy New Towns), with a hyper-local focus that prioritises those 'left behind' areas with the worse health outcomes and which have been most affected by COVID.
3. Consistent and long-term (eg. 10-15 years) financial support is needed to build local social infrastructure in those 'left behind' communities that lack the community capacity, civic assets and social capital to support and benefit from preventative and neighbourhood based health initiatives. This is key to improving local outcomes, and could be achieved through mechanisms such as the Community Wealth Fund, which would give local residents the means to develop those services and facilities that best meet their needs.
4. Community public health budgets should be safeguarded so that action to relieve acute NHS backlogs does not undermine efforts to tackle the root causes of ill-health and boost health resilience in deprived and 'left behind' communities.
5. 'Left behind' neighbourhoods should be prioritised by government and local authorities for investment in new Family Hubs to help improve wellbeing and local life chances. Existing services should be redesigned to respond to the specific challenges within a local area and local health initiatives prioritised that increase the level of control local people have over their life circumstances, from community piggy bank and community health champions initiatives to more structured forms of community governance and decision-making.

# Appendix A

## Definitions of terminology used

**Life expectancy** is used as a measure of the health outcomes of a specific population. Life expectancy at birth is defined as how long, on average, a new-born baby can expect to live, if current death rates do not change. Longer life expectancy is associated with a number of factors, including higher standards of living, improved lifestyle and better education, and greater access to health services. We also report information on 'healthy life expectancy', defined as the average number of years that an individual might expect to live in "good" health in their lifetime.

Granular data at ward level – the level at which LBNs are defined – is not produced frequently. The most recent available data is from the period 2013-2017 .

**To plot trends over time**, we match LBNs to Local Authority Districts (LADs) and examine trends over time based on whether or not an LAD contains an LBN. This will mask some variation, as LADs that contain LBNs will also contain many wards that are not 'left behind'. For a detailed list of which LADs contain LBNs, please see the Appendix to Chapter 4.

**Age standardised mortality rates** are constructed to allow between area comparisons in the number of deaths. They account for the unequal spread of ageing between areas and accordingly adjust for this. For example, two areas which had 100 deaths may well have different age standardised mortality rates due to different sized populations and different age structures.

Information from the 2011 Census provides very rich information on how **individuals self-perceive their own health**. Census records provide the only 'whole population' surveys of self-reported health. Individuals are asked "How is your health in general?" and can respond "Very good", "Good", "Fair", "Bad", or "Very bad". Whilst this may seem a crude measure of health, it has been shown to be strongly associated with more objective measures of health. Additionally, it accounts for an individual's own perceptions and feelings about their health.

Here, we focus on the percentage of people within areas who rate their health as (i) either 'very good' or 'good' and (ii) either 'bad' or 'very bad'.

Data on the **prevalence of specific health conditions** are based on administrative data collected by GPs' records. Data are computed as the number of people registered to a GP practice who are diagnosed with the condition, divided by the total list-size (population served) of the GP practice. Data are mapped to ward level using weighted averages of populations.

In the 2011 Census, all individuals were asked: "Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months?" They could reply "Yes, limited a lot", "Yes, limited a little", or "No". An individual was coded as having a limiting long-term illness if they answered either "Yes, limited a lot" or "Yes, limited a little".

<sup>23</sup> <http://www.localhealth.org.uk/>

**Binge drinking** is defined as those who consume at least twice the daily recommended amount of alcohol in a single drinking session.

**Standardised Admission Ratios (SARs)** are defined as the number of observed admissions divided by the adjusted expected admissions for an area with the same age profile. That is, the level of such admissions at a local level compared to those expected given the age structure of the local populations. A ratio of 100 indicates an area has an admission rate consistent with the national average, less than 100 indicates that the admission rate is lower than expected and higher than 100 indicates that the admission rate is higher than expected taking into account the age and gender profile of the area.

To assess the impact of COVID-19 on mental health, we use data from the UK Household Longitudinal Study (UKHLS),<sup>24</sup> which is a nationally representative sample of households living in the UK. UKHLS started collecting information on individuals and households in 2009 and has followed the same people annually. During the COVID-19 pandemic, a subsample was contacted monthly and people were asked questions on various aspects of their lives. These included questions relating to their mental health; specifically questions from the **General Health Questionnaire (GHQ)**. Households can be geo-coded to their LSOA<sup>25</sup> and hence to their ward, so we can identify individuals living within LBNs.

<sup>24</sup> <https://www.understandingsociety.ac.uk/>

<sup>25</sup> Lower Layer Super Output Areas (LSOAs) are a geographic hierarchy designed to improve the reporting of small area statistics in England and Wales. There are 4,753 lower layer super output areas LSOAs in England and Wales, with an average population of around 1,500 people. They are typically made up of four to six Output Areas (OAs), the smallest level of administrative geography. LSOAs are typically the most granular level that data is available at.

# Appendix B

## National Health Inequalities Strategy 2000-2010 outcomes

The government's national health inequalities strategy 2000-2010 set key targets: to reduce the life expectancy and infant mortality gaps between the 20 per cent most deprived local authorities (so-called Spearhead areas) and the English average by 10 per cent.

Reductions in health inequalities were broadly achieved by 2010 (Robinson et al. 2019b). The gap in male life expectancy was 1.2 years smaller and the gap in female life expectancy was 0.6 years smaller than it would have been if the trends in inequalities before the strategy had continued (Barr et al. 2017). Similarly, the gap in infant mortality rates between the most deprived local authorities and the rest of England narrowed by 12 infant deaths per 100,000 births per year from 2000-2010 (Robinson et al. 2019b).

Between 2001 and 2011, the gap in mortality amenable to health care between the most deprived and least deprived local authorities fell by 35 deaths per 100,000 for men and 16 deaths per 100,000 for women.<sup>26</sup> Each additional £10 million of resources allocated to deprived areas was associated with a reduction in four male deaths per 100,000 and two female deaths per 100,000 (Barr et al. 2014).

# Appendix C

## List of Local Authority Districts that contain LBNs

We dichotomise LADs into three categories:

- (1) LADs that contain LBNs
- (2) LADs that contain deprived areas but no LBNs, and
- (3) LADs that contain neither LBNs nor deprived non-LBNs.

There were 326 LADs in England as of the 2011 Census, and this value has fluctuated with boundary changes since. As of April 2021, there are 309 LADs in England. As is usual, we exclude the City of London and the Isles of Scilly as these areas are both atypical with respect to labour market outcomes.

LAD name	Number of LBNs
County Durham	16
Birmingham	9
Halton	8
Kingston upon Hull, City of	8
Sunderland	8
Tendring	8
Knowsley	7
Northumberland	6
Stockton-on-Tees	6
Stoke-on-Trent	6
Doncaster	5
Middlesbrough	5
Thanet	5
Wakefield	5
Barnsley	4
Basildon	4
Hartlepool	4
Liverpool	4
Manchester	4
Rochdale	4
South Tyneside	4
Bolton	3
Coventry	3

LAD name	Number of LBNs
Fenland	3
Great Yarmouth	3
Newcastle upon Tyne	3
Redcar and Cleveland	3
Rotherham	3
Sandwell	3
Wigan	3
Wirral	3
Allerdale	2
Burnley	2
Chesterfield	2
Havant	2
Mansfield	2
Northampton	2
Nottingham	2
Rossendale	2
Solihull	2
Swale	2
Tameside	2
Walsall	2
Wolverhampton	2
Worcester	2
Ashfield	1

LAD name	Number of LBNs
Barking and Dagenham	1
Barrow-in-Furness	1
Blackpool	1
Bolsover	1
Boston	1
Bournemouth	1
Bradford	1
Bristol, City of	1
Cheshire East	1
Copeland	1
Corby	1
Croydon	1
Dover	1
Gateshead	1
Gosport	1
High Peak	1
Kettering	1
Leeds	1
Maidstone	1
North West Leicestershire	1
Nuneaton and Bedworth	1
Pendle	1
Portsmouth	1
Rother	1
Salford	1
Sefton	1
Sheffield	1
Shepway	1
Southampton	1
St. Helens	1
Telford and Wrekin	1
Warrington	1
Wellingborough	1
West Lancashire	1
West Lindsey	1
Weymouth and Portland	1

# Appendix D

## The relationship between changes in health and changes in Gross Value Added at Local Authority District (LAD) level in the period 2011 to 2018; full regression output

	LADs with LBNs				LADs without LBNs			
	Coeff.	p-value	[95 per cent Conf. Interval]		Coeff.	p-value	[95 per cent Conf. Interval]	
<b>Health index</b>	<b>1799.933</b>	<b>0.024</b>	<b>242.0107</b>	<b>3357.856</b>	1304.041	0.163	-531.671	3139.753
Proportion of population aged 16-19 years	-264418	0.064	-544487	15650.63	-290919	0.037	-564354	-17484.5
Proportion of population aged 20-24 years	310256.1	0.003	112290.4	508221.8	264692.7	0.007	72991.8	456393.6
Proportion of population aged 25-34 years	-12506.2	0.797	-109240	84227.32	71633.66	0.097	-13139.7	156407
Proportion of population aged 35-49 years	68411.01	0.107	-15115.5	151937.5	-2901.31	0.934	-71476.6	65674
Proportion of population aged 50-64 years	44958.47	0.466	-77388.7	167305.7	56590.79	0.436	-86215.8	199397.4
per cent of population with no qualifications	-55.1907	0.722	-363.909	253.5275	-92.4997	0.693	-553.836	368.8365
per cent of population with NVQ-level qualifications	-64.1051	0.47	-240.099	111.8892	109.7235	0.177	-49.7723	269.2193
Wages: unemployment benefit ratio	-150003	0.012	-265993	-34013.6	-217973	<0.001	-320829	-115117
Total population size (logged)	0.000546	0.866	-0.00587	0.006957	-0.0188	0.01	-0.03299	-0.0046
Year fixed-effects?	Yes				Yes			

The outcome is GVA per head, in 2018 prices

The models estimates are linear fixed-effects regressions. Fixed-effects, at LAD-level, account for unobserved differences between LADs. Fixed-effects models also allow investigation of how changes in independent variables (e.g. health) affect changes in the outcome (e.g. GVA per head).

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Left  
Behind  
Neighbourhoods

Local Trust



OCSI

