

The Quality of Life Framework

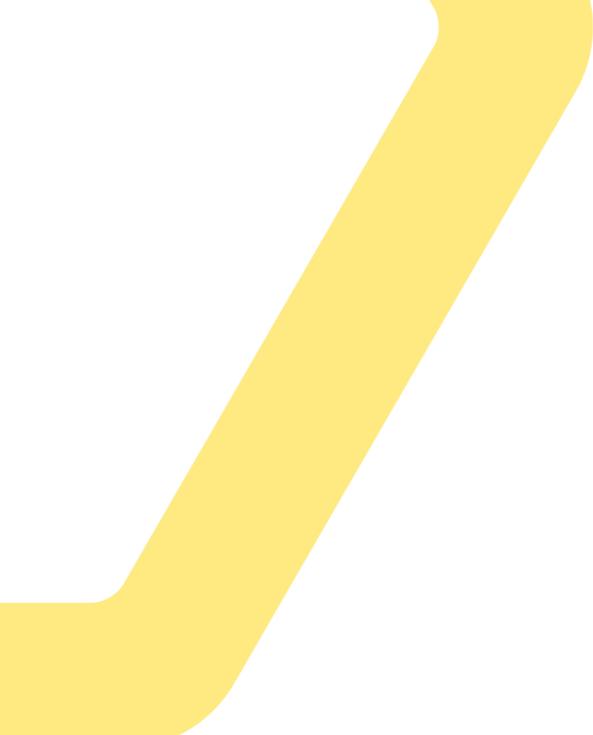


Evidence Review



**QUALITY
OF LIFE**
FOUNDATION

Hassell



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Foreword

There is a housing crisis in the UK, the many different aspects of which affect people’s health and wellbeing in profound ways.

- Housing insecurity is on the rise. Wages are failing to keep up with soaring house prices and rents, and less affordability in housing is compounded by the cost of living crisis.
- Many new homes are of poor quality and are being built in the wrong place. Such developments are unsustainable and exacerbate tensions within local communities.
- There is a chronic and long-standing need for more social housing.
- Health inequalities have widened, with those living in areas of high deprivation experiencing worse health outcomes and lower life expectancies compared to those living in more affluent areas.
- The climate emergency has shone a harsh light on our ageing housing stock and on the need to ensure that every home and neighbourhood is created and cared for with people and the planet in mind.
- And COVID-19 has underscored just how important our homes and local communities are, demonstrating how much place matters to our health, wellbeing and ability to live a good life.

Yet, the evidence also shows that there are clear social, environmental and financial benefits of taking an approach to our housing system that focuses on people’s health and wellbeing.

- People who have a greater sense of control have a higher life satisfaction.
- Nature-based solutions can improve air quality and reduce health costs.
- Access to green spaces could save us billions of pounds per year.
- Most English adults agree that better quality buildings and public spaces improve people’s quality of life.
- Investment in the National Cycle Network could bring about a three-fold benefit to the economy by 2040.
- A greater sense of community boosts productivity.

The Quality of Life Foundation holds a vision of a housing system that improves people’s quality of life over the long term. We aim to achieve this by making health and wellbeing central to the way we create and care for our homes and communities. We gather robust evidence, grounded in research and people’s lived experience, to weave greater accountability into the housing system and to encourage long-term models of development.

To support our understanding of these issues, we have reviewed the evidence underpinning the themes in the framework post-COVID-19 to ensure that the framework is robust and up-to-date.

This document is the result. It is part of an ongoing process of reviewing and refreshing the Quality of Life Framework so that it is a fit-for-purpose tool to improve our homes and neighbourhoods – and, in turn, our health and wellbeing – over the long term. Next, we will be publishing recommendations on how to change the housing system so that it works for everyone.



Control



A greater sense of control over our lives and local environment is associated with healthier behaviours, greater psychological wellbeing and increased social connectedness. To achieve this, we need to feel safe in all aspects of life and stable in our homes, jobs and living situation. We need to feel that we can influence our own circumstances and have a say over issues that affect us. And with rapidly rising UK house prices and rents compounded by rising inflation and the cost-of-living crisis, we need secure, affordable housing.

Action points To give people greater influence over decisions made in their area, we want to see a code of conduct for community consultation and policy initiatives to shift power and Levelling Up funding to a local level. To make neighbourhoods safer, we support measures to compel Equality Impact Assessments to ensure places are safe and accessible for women, girls and disabled people. And to ensure we provide housing to those who need it most, we back Crisis' call for the Government to allocate more funding to the provision of more affordable homes in England; for homeless people in Scotland to have access to secure, decent, affordable rented housing; and for the Welsh government to continue to grow investment in social rented housing.

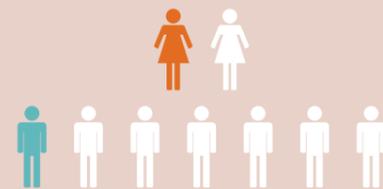
Giving local people greater control

- 71%** say they have **no or not much control** over important decisions affecting their neighbourhood and local community.
- 47%** want local people **to have more of a say** over what happens in their local area.
- 63%** say levelling up means **giving local people more power** over the decisions, services, and spaces that shape the places they live in.

Survey of UK adults. Power to Change & The Cares Family, 2021



Gendered experiences of safety



1 in 2 women and 1 in 7 men feel unsafe when walking alone after dark in a **quiet street close to home**.



4 out of 5 women and 2 out of 5 men feel unsafe walking alone after dark in a **park or other open space**.

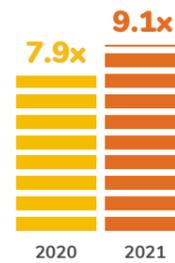
40%

of those who reported feeling unsafe after dark had **altered their behaviour** as a result in the previous month.

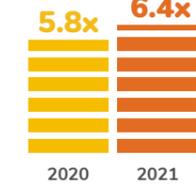
Office for National Statistics, 2021

The increasing cost of housing

From 2020 to 2021, house prices grew faster than earnings in **91% of local authorities in England and Wales**.



In **England** in 2021, full-time employees could typically expect to spend around 9.1 times their workplace-based annual earnings on buying a home, up from 7.9 times in 2020.



In **Wales** in 2021, full-time employees could typically expect to spend around 6.4 times their workplace-based annual earnings on buying a home, up from 5.8 times in 2020.

Office for National Statistics, 2022

Those who have experienced housing difficulties in the past are more likely to have lower levels of personal well-being, be less trusting of others and be lonely.



EU-SILC & Office for National Statistics, 2020

Housing difficulties 1 in 10

Almost 1 in 10 (9%) adults living in private households have experienced some form of housing difficulty.*

A breakdown in relationships or family problems or both is the main reason for almost half of all cases of housing difficulties.

Financial problems or insufficient income (16%), end of rental contracts (8%), and unemployment (5%) were named as other causes.

*Households on the Royal Mail's Postcode Address File, which are not communal establishments or businesses. Housing difficulty is defined as a period of time without housing security.

EU-SILC & Office for National Statistics, 2020 Office for National Statistics, 2020



1.3 million people, including 500,000 children, could fall into absolute poverty next year

These risks are exacerbated by the scale and distribution of the cost of living squeeze, coupled with the lack of support for low-income families.

Resolution Foundation, 2022

Feeling in control ✓

Benefits of having a greater sense of control:

- ✓ increased physical activity,
- ✓ reduced sleep problems,
- ✓ higher life satisfaction,
- ✓ higher optimism,
- ✓ higher purpose,
- ✓ lower rates of depression & hopelessness,
- ✓ decreased loneliness, and
- ✓ increased contact with friends.

Hong et al., 2021

Health



The places where we live and spend most of our time greatly affect our physical and mental health and wellbeing, which in turn impact our quality of life – as well as the health of the environment. In the UK, stark inequalities in life expectancies between neighbourhoods highlight just how much place matters, with strong evidence showing that the poorer the area, the poorer the long-term health outcomes.

In 2020, 16% of all homes failed to meet the Decent Homes Standard, and the cost of treating those affected by poor housing is significantly weighing down our health system and negatively impacting society at large. Additionally, the costs of inactivity and unhealthy lifestyle choices are compounded by poor quality public spaces, a lack of public services and high levels of air pollution. But even with this knowledge, too many new homes and neighbourhoods are still being planned and built without consideration for the health impacts on people and planet.

Action points To rebuild after COVID-19 and deliver the Levelling Up agenda, we need to create more healthy, affordable and energy-efficient homes of a higher quality, for example with the implementation of a Healthy Homes Act. We also need to ensure that people can readily access daily services like health care, schools, jobs and grocery shops via green, clean streets, which are all essential to be able to make healthy lifestyle choices. This includes, for example, designing 20-minute neighbourhoods to enable people to access key services by walking, cycling and public transport. And we need urgent action to achieve WHO air quality targets by 2030 – not 2040, as the Government intends.



“Vulnerable groups, including those on a low income, children, young people, those who are overweight or obese, and those of certain ethnicities, are less likely to achieve a healthy and balanced diet.”

Public Health England, 2017

A fair chance of being active

Across the UK population **1 in 3 men & 1 in 2 women** are not active enough for good health. People tend to get less active with age.

People with disabilities or long-term conditions are twice as likely not to be active enough for good health.

Office for Health Improvement & Disparities, 2022



1 in 6 deaths in the UK are associated with inactivity



The estimated annual cost to the UK from inactivity is £7.4 billion

Physical activity has significant benefits for both physical and mental health. It can help prevent and manage over 20 chronic conditions and diseases, including some cancers, heart disease, type 2 diabetes and depression.

Office for Health Improvement & Disparities, 2022

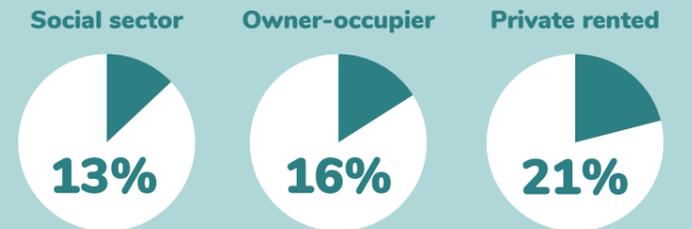
The number of households in England with someone aged 90 years and over living alone is projected to more than double between 2016 and 2041



Office for National Statistics, 2018

Taking stock

In 2020, 4 million homes (16%) in England failed to meet the Decent Homes Standard



Percentage of non-decent homes in England by housing sector.

Department for Levelling Up, Housing & Communities, 2021

The postcode lottery

Healthy life expectancy at birth for males living in the most and least deprived areas



Healthy life expectancy at birth for females living in the most and least deprived areas



Office for National Statistics, 2021

The cost of poor housing

£1.4bn

The estimated cost to the NHS per year to treat people affected by poor housing in England.

£18.6 bn

The estimated annual cost to society of leaving people living in poor housing in England.

Nicol et al., 2015 & Roys et al., 2016

The air we breathe



28,000-36,000 deaths a year are attributed to long-term exposure to air pollution, making it the biggest environmental threat to health in the UK

Public Health England, 2019

Impacting the health of the environment

90%

of homes in England use fossil fuels, predominantly for heating, cooking and hot water

Department for Business, Energy & Industrial Strategy (2020)

Nature-based solutions

In 2017, urban green and blue spaces in Great Britain removed **27,900 tonnes** of 5 key air pollutants.

The avoided health costs were estimated at **£162.6 million**, with 70% of the avoided costs due to the positive effects of urban woodland.



Office for National Statistics, 2019

Nature



Connections with nature and access to biodiverse green and blue spaces are central to our sense of health and wellbeing. Most people intrinsically recognise the benefits of spending time in natural environments, seeking to live in green neighbourhoods and near amenities such as parks, beaches, and woodlands. Across the country, the COVID-19 pandemic created a heightened awareness of outdoor qualities, with many believing that visiting local green spaces has become even more important.

But there are significant disparities in access to nature, meaning that black people, older people and people with lower incomes are less likely to benefit from the natural environment. The lack of access to quality green and blue space for these groups is a social injustice that must be addressed as part of the Levelling Up agenda.

Action points The concurrent challenges of the climate crisis and rising energy costs underscore the need for more environmentally sustainable, energy-efficient homes that are healthier for both people and the planet. By decarbonising our existing housing stock and ensuring that all new homes built from 2025 produce at least 75% less carbon emissions than under current regulations, we may safeguard a healthy natural environment and biodiversity for future generations. And because we know that increasing access to nature tends to bring proportionally higher benefits to disadvantaged communities, it's important to prioritise nature for everyone in order to improve our health and wellbeing and protect our planet.

Biodiversity loss



Since 1970, more species have shown strong or moderate decreases in abundance than increases, and more species have decreased in distribution than increased.

State of Nature, 2019

Self-regulating climate



A review of urban heat island studies reported the cooling effect of parks was 0.8 C, extending up to 1.25 km beyond the park. While urban forests were reported to be on average 1.6 C cooler than similar areas without tree cover.

Knight et al., 2021

Happy in nature



82% say that 'being in nature makes me very happy.'



94% say that 'I felt spending time outdoors was good for my physical health.'



92% say that 'I felt spending time outdoors was good for my mental health.'

Natural England, 2021

Pandemic lessons

42%

of British people believe visiting local green and natural spaces has become even more important to their wellbeing since the pandemic began.

1 in 8

people don't believe that their local green space is of a high enough standard to want to spend time in.

Chapman et al., 2021

Adults who spend 2 hours of recreational activity per week in greenspace are more likely to have better self-reported health and wellbeing than those who do not.

Public Health England, 2020

Getting outside



More than two thirds of people in the UK think they spend too much time inside between October and March.



Almost 4 in 5 people who feel they don't go outside enough say they regret it.

Forestry England, 2019

Local parks are proportionally more valuable to lower socio-economic groups and to Black, Asian, and minority ethnic communities.

"The value of parks and green spaces more than doubles for lower socio-economic groups when income weighting is accounted for, increasing from £2.00 (unweighted) to £4.32 (welfare weighted)."



Jump X Simetrica, 2018

£2.1 billion

could be saved in health costs every year if everyone in England had good access to green spaces and increased physical activity in those spaces.

Public Health England, 2020

80% of the buildings that will exist in the UK in 2050 have already been built

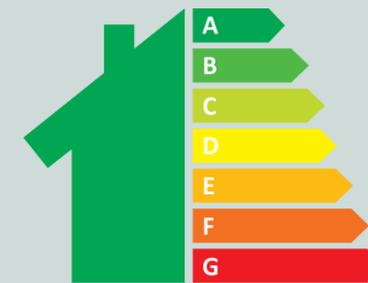


UK Green Building Council (n.d.)

The social housing sector is more energy-efficient than the private sector

66% of dwellings in the social housing sector are in EER bands A to C.

42% of dwellings in the private rented sector and owner occupied sector are in EER bands A to C.



Department for Levelling Up, Housing & Communities, 2021

The carbon footprint of housing



25% How much buildings and infrastructure contribute to UK's GHG emissions (excluding vehicle emissions)

UK Green Building Council (n.d.)

90% Respondents who said it's quite or very important for the UK to make a full transition to greener heating systems.

Department for Business, Energy & Industrial Strategy, 2020

Wonder



Lively, interesting, and distinctive places can instil a sense of wonder and creativity that's attractive to residents and visitors alike. Arts and culture have a key role to play in this. In addition to having the ability to strengthen community pride, the arts and culture sector also builds new skills and confidence with local people, which in turn generate significant health rewards.

Play is a key enabler of both cultural expression and wellbeing, starting at the playground and building into old age. But across the UK, most leisure time is spent consuming mass media, and men take more leisure time than women overall.

And most of the population agree that better quality buildings and public spaces play an important role in improving people's quality of life. But it's critical that our local authorities are equipped with the skills and knowledge to create such distinct, well-designed places.

Action points To create a greater sense of wonder in the places where people live, we need to invest in accessible and affordable facilities for culture and play. This needs to be at a local level in both the physical and social infrastructure so people have equal opportunities for engaging in active, social and creative pursuits. The use of design codes can be positive in improving the identity of a place, but they must factor in more than just the size of buildings and their aesthetics if they are to create neighbourhoods that are good for people's long-term health and wellbeing.

Contributions to the UK economy

Creative industries
£115.9 billion

Cultural industries
£34.6 billion

Organised sport and events
£17.0 billion

Department for Digital, Culture, Media & Sport, 2021

The wellbeing benefits of engaging with art are worth £1,290* per person per year.



*Adjusted and rounded from 2014 to 2022 values
Fujiwara et al., 2014

UK City of Culture

More than **£172 million** were invested in Coventry UK City of Culture 2021.

Funds went to music concerts, public art displays, children's play areas, and public transport improvements.

Leeds is the City of Culture for 2023 and Bradford will be 2025.



Department for Digital, Culture, Media & Sport, 2022

76% of English local authorities lack access to any advice on architecture

41% of English local authorities do not employ any urban designers, and 61% have no landscape architects.

Carmona et al., 2017



Regional access to leisure, cultural spaces, and places of worship

London has the best access to areas for leisure, cultural spaces and places of worship. After London,

Northern Ireland has the most access to areas for leisure and also the most listed buildings;

the South East has the most museums, art galleries, music halls and theatres;

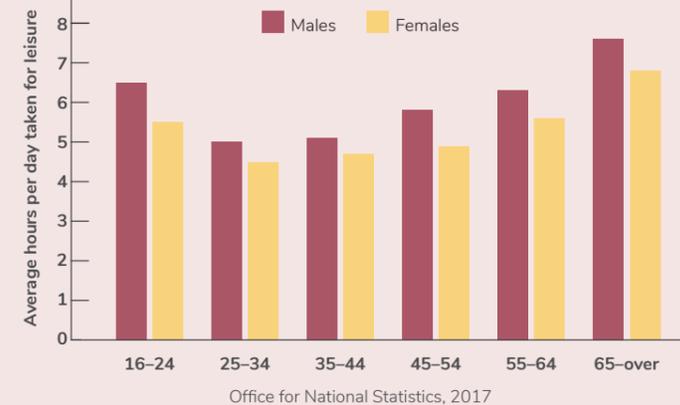
and Eastern England has the most places of worship.

Scotland and Wales have the lowest access to culture, heritage, and leisure facilities overall.



COOP, 2021

Across all age groups, men take more time for leisure per day than women



Office for National Statistics, 2017

Most English adults agree that better quality buildings and public spaces improve people's quality of life.

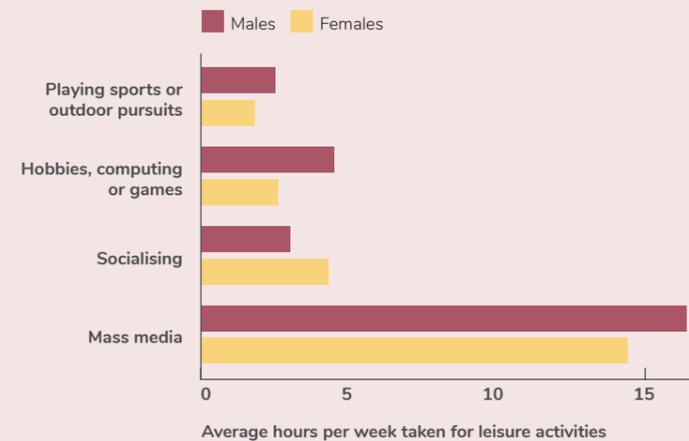
84%

3 in 4 English adults agree that the quality of the built environment makes a difference to the way they feel.



YouGov, 2018

Men spend more time playing sports, practising hobbies, and consuming mass media, while women spend more time socialising



Office for National Statistics, 2017

99.3% of people in England live less than a mile from a listed heritage asset.

Historic England, 2019.

Value of placemaking

25%

Additional early investment in place-making can boost land values by up to 25%.

Savills Worlds Research UK Development, 2016

Movement



Places that support our health and wellbeing need to prioritise people and sustainable travel modes. In addition to being entirely free, walking is good for the heart and mind and comes at no cost to the environment. Where cars are dominant, children can't run and play freely, people are less likely to feel safe walking, running, cycling or socialising, and there's more traffic-related air and noise pollution. Places that are designed around vehicular traffic are literally life-threatening, especially to pedestrians of colour from a deprived area.

Decades of car-centric policy and planning have created an ingrained dependency on cars across our communities. Many rural parts of the country are now only accessible by private vehicle. Such places put lower income households under significant pressure, especially as fuel prices increase.

Action points We need better public transport facilities to enable access to essential services and social, economic and educational opportunities. The creation of Great British Railways and the increasing number of buses being brought back under public ownership across England are promising steps for the UK's public transport network. Together with active travel, public transport networks are key to improving our health, cleaning the air we breathe, and reducing carbon emissions from transport. We need greater investment in these forms of movement, which also come with significant long-term economic returns. The creation of Active Travel England is a step in the right direction.



In 2020, women in England on average made 28% more walking trips than men.

Department for Transport, 2021 (1)

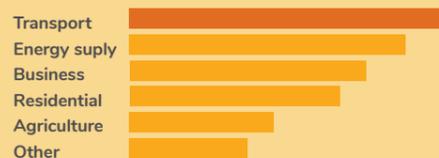
£10 billion

The annual cost of urban road noise in England has been estimated in the range of £7 billion to £10 billion. This amount is of a similar magnitude to the social cost of road accidents (£9bn).

Department for Environment, Food & Rural Affairs, 2014



Transport is the UK's largest single source of GHG emissions



24% of net greenhouse gas emissions in the UK were attributed to the transport sector in 2020.¹

Cars contribute **55%** to domestic transport emissions.²

1. Department for Business, Energy & Industrial Strategy, 2022
2. Department for Transport, 2021 (3)

1 in 4 road deaths

In 2020, pedestrians comprised 24% of all UK road fatalities.¹



3X at risk

People from an ethnic minority and a deprived area, are three times more likely to be killed or injured walking on Britain's roads than a white person from a non-deprived area.²

1. Department for Transport, 2021 (2)
2. Agilysis, 2021

We travel three times as far on average annually than we did 70 years ago.



10x increase in travel by car

The average annual distance travelled by car has increased ten-fold since 1952.



3x decrease in travel by bus

The average annual distance travelled by bus has decreased from 1,900km to 600km per person.

Mihaylova, 2021

Rural transport deserts

Across the north east and south west of England, **56% of small rural towns have become transport deserts** or are at risk of becoming one.¹

For just £2.7 billion annually, the government could deliver **a bus to every village, every hour across England** from 6am to midnight, 7 days per week.²

1. Campaign for Better Transport, 2020
2. Hinchliff et al., 2021



The wellbeing costs of a long commute



An additional **20 minutes** of commuting per day has the same negative effect on job satisfaction as receiving a **19% pay cut**.

Chatterjee, 2017



Walking to school?

Since 2002, the proportion of primary school aged children walking to school has declined, while there's been an increase in children being driven to school.

Sustrans, Living Streets & Arup, 2022

The economic value of cycle networks



In 2019, an estimated **764.8 million trips**

on the National Cycle Network provided a...

£2.1 billion

boost to the UK economy in health, congestion and environmental benefits, and...

£1.7 billion

in benefits to local businesses due to people using the network for leisure and tourism.

ROI

Sustrans has estimated that an investment of £2.8 billion into the National Cycle Network could benefit the economy by up to £7.6 billion per year by 2040.

Sustrans, 2022

Community



Places and facilities where people can meet, connect and cultivate relationships are vital to creating strong communities with a high sense of belonging and identity. Without decent social infrastructure, people are more likely to become isolated and lonely, which has serious impacts on health and mortality. Plus, isolated communities cost the economy billions every year in estimated productivity losses. Access to meaningful work and training, in a reliable local economy, is another pillar of community wellbeing and life satisfaction. But communities across the UK increasingly lack places for people to come together in social and professional pursuits. The closure of community facilities, coupled with disappearing local services and jobs, have undermined vital social and economic infrastructure.

Action points We need infrastructure projects and large-scale regeneration, but the reality is that local authorities are competing for limited Levelling Up funds, with a focus on big-money capital infrastructure projects. If we are serious about levelling up, we need to find ways to invest in small-scale community projects that make such a difference at a local level, particularly much-needed social infrastructure: local services, opportunities for people to learn, develop and apply new skills, as well as places for people to get together. The Community Wealth Fund is one way of doing this.



Diverse neighbourhoods

A London-based study found that **ethnic diversity is positively related to perceived social cohesion**.

The positive effect of diversity on social cohesion is greater for young people than in older age groups.

Sturgis, et al., 2014

1 in 4 people in England feel lonely always or some of the time.

Younger people (aged 16-24) are more likely to say they feel lonely often/always than every other age group.

Those living in the most **deprived areas** are more likely to feel lonely often/always than those living in the least deprived areas.



Department for Digital, Culture, Media & Sport, 2021 (1)

Our lifestyle choices

"I would prefer to live in an apartment with easy access to social, cultural, and commercial destinations, over living in a house with limited access to social, cultural, and commercial destinations."

31% agree 47% disagree



Andersen et al., 2021

65%

of people in England feel that they belong to their immediate neighbourhood



Department for Digital, Culture, Media & Sport, 2021 (2)

£32 billion

The annual cost to society of disconnected communities in the UK is about £32 billion.

If everyone who is not currently engaged became involved with community activities, the estimated productivity boost would be worth **£18 billion**.

Centre for Economics and Business Research, 2017

"In more than 40 local authorities, jobs in sectors that may be acutely affected by the climate transition make up more than 30% of all employment."

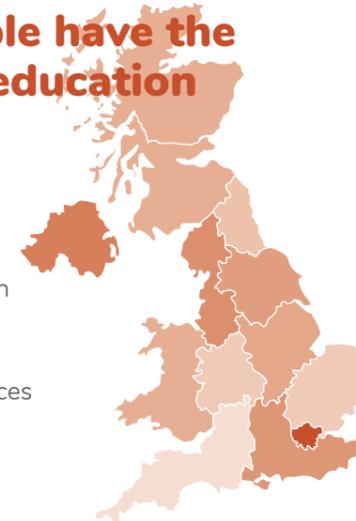
Powell et al., 2019

Where do people have the best access to education and learning?

People in **London** have the **best access to schools, libraries and adult education services**, followed by Northern Ireland and the North West.

The **South West** has the **poorest access** to these services overall, followed by the West Midlands and Eastern region.

COOP, 2021



Returns on investment

£1 million

invested in community-led social infrastructure in a 'left behind' area could generate approximately...

£1.2 million

of fiscal benefits, and...

£2 million

in social and economic benefits over a 10-year period.

Frontier Economics, 2021

Prioritising shared spaces & social infrastructure



of the British public agreed that having **more shared spaces for local people** from different backgrounds and generations to meet and mix would strengthen community ties in their area.



of the British public believes that **investing in social infrastructure** should be as much a priority for the government as investing in physical infrastructure such as new dual carriageways.

Power to Change & The Cares Family, 2021

New skills



90% of the current workforce may need to be reskilled by 2030.

Richardson, 2020

There are more than **6,300 community-owned assets** in the country, contributing nearly **£220 million** to the economy every year.

Archer, 2019

What do we say are the best things about knowing our neighbours?

- peaceful living
- peace of mind
- someone to talk to
- family support
- back-up supplies



31% say that they know their neighbours better today than they did prior to the pandemic. Only **5%** say they know their neighbours less well. **60%** have experienced no change.²

1. Centre for Economics & Business Research, 2017
2. Power to Change & The Cares Family, 2021

References

CONTROL

European Union Statistics on Income and Living Conditions (EU-SILC) as referenced by the Office for National Statistics (2020) Past experiences of housing difficulties in the UK: 2018.

J. Hong et al. (2021) The positive influence of sense of control on physical, behavioral, and psychosocial health in older adults: An outcome-wide approach. *Prev Med.* 149. DOI: 10.1016/j.ypmed.2021.106612.

Office for National Statistics (2021) Perceptions of personal safety and experiences of harassment, Great Britain: 2 to 27 June.

Office for National Statistics (2022) Housing Affordability in England and Wales: 2021.

Power to Change & The Cares Family (2021) Building our social infrastructure: Why levelling up means creating a more socially connected Britain.

Resolution Foundation (2022) Lack of support for low-income families will see 1.3 million people pushed into absolute poverty next year.

HEALTH

Department for Business, Energy & Industrial Strategy (2020) Energy white paper: Powering our net zero future. Referencing BEIS analysis.

Department for Levelling Up, Housing & Communities (2021) English Housing Survey: Headline Report, 2020-21.

Nicol S, Roys M, Garrett H. (2015). The cost of poor housing to the NHS. BRE Trust. Watford. As referenced by BRE Group (2021) The cost of poor housing in England 2021 Briefing paper.

Office for Health Improvement & Disparities (2022) Physical activity: applying All Our Health.

Office for National Statistics (2018) Household projections for England – household type projections: 2016-based. Indication of the future number of households in England and its regions and local authorities.

Office for National Statistics (2019) UK natural capital: urban accounts.

Office for National Statistics (2021) Health state life expectancies by national deprivation deciles, England: 2017 to 2019.

Public Health England (2017) Spatial Planning for Health: An evidence resource for planning and designing healthier places.

Public Health England (2019) Review of interventions to improve outdoor air quality and public health.

Roys M, Nicol S, Garrett H and Margolis S (2016), The full cost of poor housing, BRE FB 81. Bracknell. As referenced by BRE Group (2021) The cost of poor housing in England 2021 Briefing paper.

NATURE

Chapman and J. Phagoora (2021) Escaping green deprivation. New Economics Foundation. Analysis of Natural England's People and Nature Survey.

Forestry England (2019) Spending time in forests is crucial for both people and planet. Referencing YouGov Omnibus Research – Forestry Commission September 2019.

Jump X Simetrica (2018) Revaluing Parks and Green Spaces: Measuring their economic and wellbeing value to individuals. Fields in Trust.

T. Knight et al. (2021) How effective is 'greening' of urban areas in reducing human exposure to ground-level ozone concentrations, UV exposure and the 'urban heat island effect'? An updated systematic review. *Environmental Evidence* 10.

Natural England (2021) The People and Nature Survey for England, April 2020-March 2021. Infographic poster.

State of Nature (2019) Report 2019.

Public Health England (2020) Improving access to greenspace: A new review for 2020. Referencing Natural England Technical Information Note TIN055 (2009) An estimate of the economic and health value and cost effectiveness of the expanded WHI scheme 2009.

UKGBC (n.d.) Climate change. Retrieved from <https://www.ukgbc.org/climate-change-2/> on 08 April 2022.

Department for Levelling Up, Housing & Communities (2021) English Housing Survey: Headline Report, 2020-21.

Department for Business, Energy & Industrial Strategy (2020) Transforming Heat - Public Attitudes Research. A survey of the GB public on the transition to a low-carbon heating future.

WONDER

COOP (2021) The Community Wellbeing Index: 2021 Data Refresh.

Department for Digital, Culture, Media & Sport (2021) DCMS Economic Estimates 2019 (provisional): Gross Value Added.

Department for Digital, Culture, Media & Sport (2022) UK City of Culture 2025 shortlist revealed. GOV.UK.

References

M. Carmona & V. Giordano (2017) Design skills in English local authorities. Place Alliance & Urban Design Group.

Office for National Statistics (2017) Leisure time in the UK: 2015. Referencing Harmonised European Time Use Survey, 2015.

Savills Worlds Research UK Development (2016) Spotlight Development: The Value of Placemaking. Savills.

YouGov (2018) Quality of Places. Conducted by YouGov on behalf of Historic England.

Historic England (2019) Heritage and Society 2019.

D. Fujiwara et al. (2014) Quantifying and valuing the wellbeing impacts of culture and sport. Department for Culture, Media & Sport.

MOVEMENT

Agilysis (2021) Road traffic injury risk in ethnic minority populations. Living Streets.

Campaign for Better Transport (2020) Transport deserts: the absence of transport choice in England's small towns. The countryside charity.

Department for Business, Energy & Industrial Strategy (2022) 2020 UK Greenhouse Gas Emissions, Final Figures.

Department for Environment, Food & Rural Affairs (2014) Noise pollution: economic analysis.

Department for Transport (2021 (1)) Official Statistics: Walking and cycling statistics, England: 2020.

Department for Transport (2021 (2)) Reported road casualties Great Britain: road user risk, 2020 data.

Department for Transport (2021 (3)) Transport and environment statistics: Autumn 2021.

Government Office for Science (2019) Inequalities in Mobility and Access in the UK Transport System.

Hinchliff C and Taylor I (2021) Every village, every hour: a comprehensive bus network for rural England. Report for CPRE based on research and modelling by Transport for Quality of Life.

K. Chatterjee (2017) The Commuting and Wellbeing Study: Understanding the Impact of Commuting on People's Lives. UWE Bristol, UK.

National Travel Survey data 2002-2019, table NTS0614 As referenced by Sustrans, Living Streets and Arup (2022) Walking for everyone: Making walking and wheeling more inclusive.

N. Mihaylova (2021) How transport offers a route to better health. The Health Foundation.

Sustrans (2022) Paths for Everyone: 3 Years On. 2018-2021 Progress Update.

COMMUNITY

Centre for Economics and Business Research (2017) The cost of disconnected communities: executive summary. The Eden Project.

C.S. Andersen et al. (2021) Close to Home: Exploring 15-minute urban living in Ireland. Irish Institutional Property & Hassell. Fieldwork by YouGov.

COOP (2021) The Community Wellbeing Index: 2021 Data Refresh.

D. Powell et al. (2019) Trust in transition: climate breakdown and high carbon workers. New Economics Foundation.

Department for Digital, Culture, Media & Sport (2021 (1)) Neighbourhood and Community - Community Life Survey 2020/21.

Department for Digital, Culture, Media & Sport (2021 (2)) Wellbeing and Loneliness - Community Life Survey 2020/21.

E. Richardson (2020) Learning for Life: Funding a world-class adult education system. CBI.

Patrick Sturgis, Ian Brunton-Smith, Jouni Kuha & Jonathan Jackson (2014) Ethnic diversity, segregation and the social cohesion of neighbourhoods in London, *Ethnic and Racial Studies*, 37:8, 1286-1309, D. Note: The study's results have accounted for economic deprivation.

T. Archer et al. (2019) Our assets, our future: the economics, outcomes and sustainability of assets in community ownership. Research Institute Report No. 21. The Power to Change Trust.

Power to Change & The Cares Family (2021) Building our social infrastructure: Why levelling up means creating a more socially connected Britain.

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