

Healthy Place Shaping Indicators Built Environment

Joint Strategic Needs Assessment 2023

Oxfordshire



JSNA

Contents

This pack provides data and links for local indicators related to Healthy Place Shaping in Oxfordshire under the heading of **Built Environment**.

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 - Housing quality and condition
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- Communities with 20 mph speed limit

Further Healthy Place Shaping reports and data can be found on [Oxfordshire Insight](#).



Air pollution (NOx)

Projects should aim to not only stay below UK Air Quality targets, but actively support reductions and community exposure through healthy urban design.

- Oxfordshire has 13 designated Air Quality Management Areas where air quality objectives are not being met.
- The latest (2020) modelled air pollution data from DEFRA highlights urban centres and roads in Oxfordshire with the highest annual average levels of nitrogen oxides.
- The sites with the highest readings for Nitrogen Dioxide (NO₂) in Cherwell, Oxford and West Oxfordshire have each seen a slight increase since 2020. The sites with the highest readings of NO₂ in South Oxfordshire and Vale of White Horse have seen a decrease in readings.

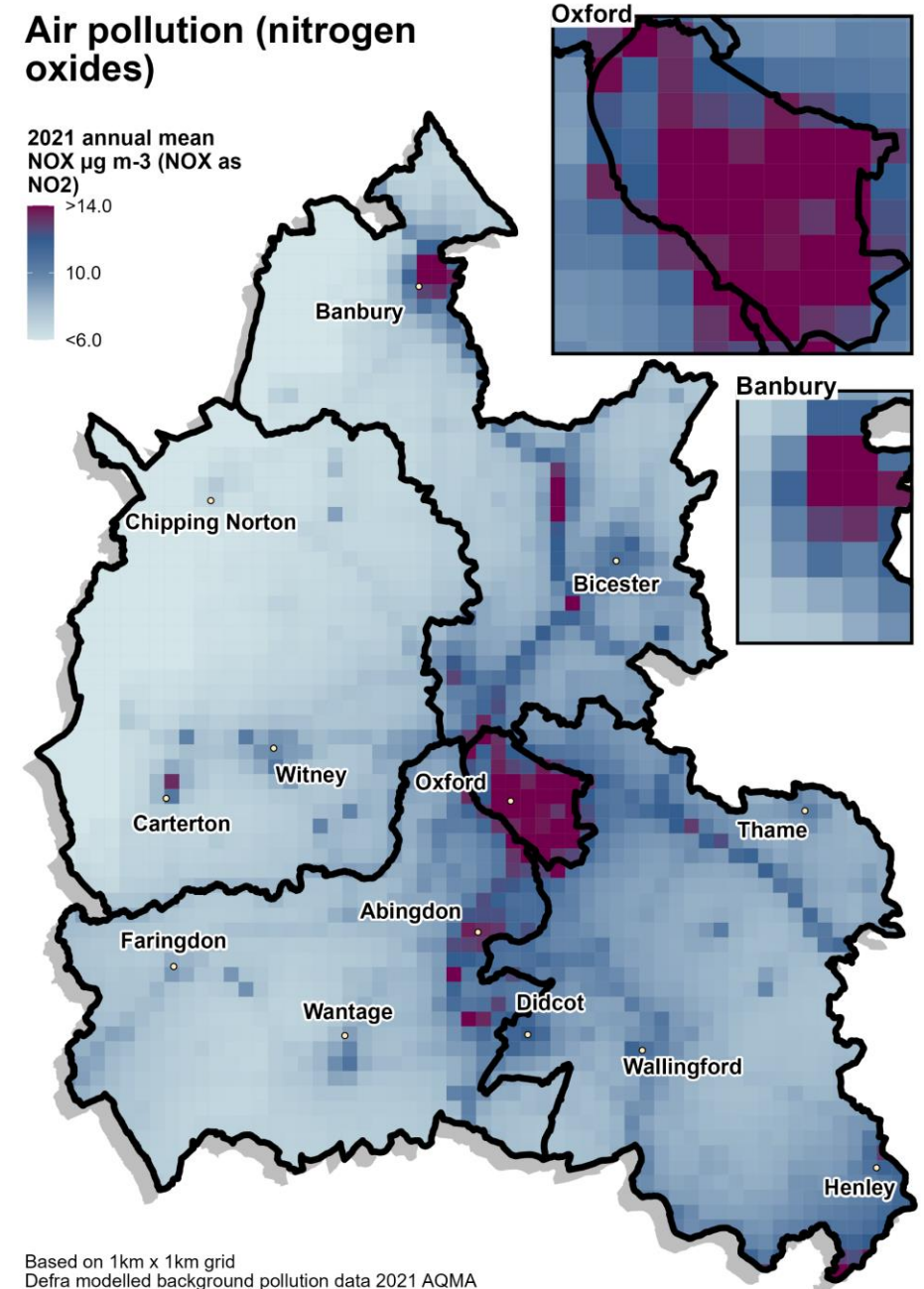
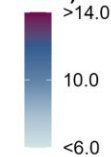
Nitrogen dioxide and nitric oxide are referred to together as oxides of nitrogen (NOx).

[Modelled background pollution data - Defra, UK](#)
[Oxfordshire AirQuality \(air-quality.info\)](#)

Air quality reports: [Cherwell](#) [Oxford City](#) [South Oxfordshire](#)
[Vale of White Horse](#) [West Oxfordshire](#)

Air pollution (nitrogen oxides)

2021 annual mean
NOx µg m⁻³ (NOx as
NO₂)



Based on 1km x 1km grid
Defra modelled background pollution data 2021 AQMA



Air pollution (particulates)

World Health Organisations (WHO) guidelines state that PM2.5, fine particulate matter of 2.5 micrometres or less in diameter, is the most dangerous pollutant because it can penetrate the lung barrier and enter the blood system, causing cardiovascular and respiratory disease and cancers. It affects more people than other pollutants and has health impacts even at very low concentrations. The updated WHO target is for annual average concentrations of PM2.5 not exceeding 5 µg/m³.

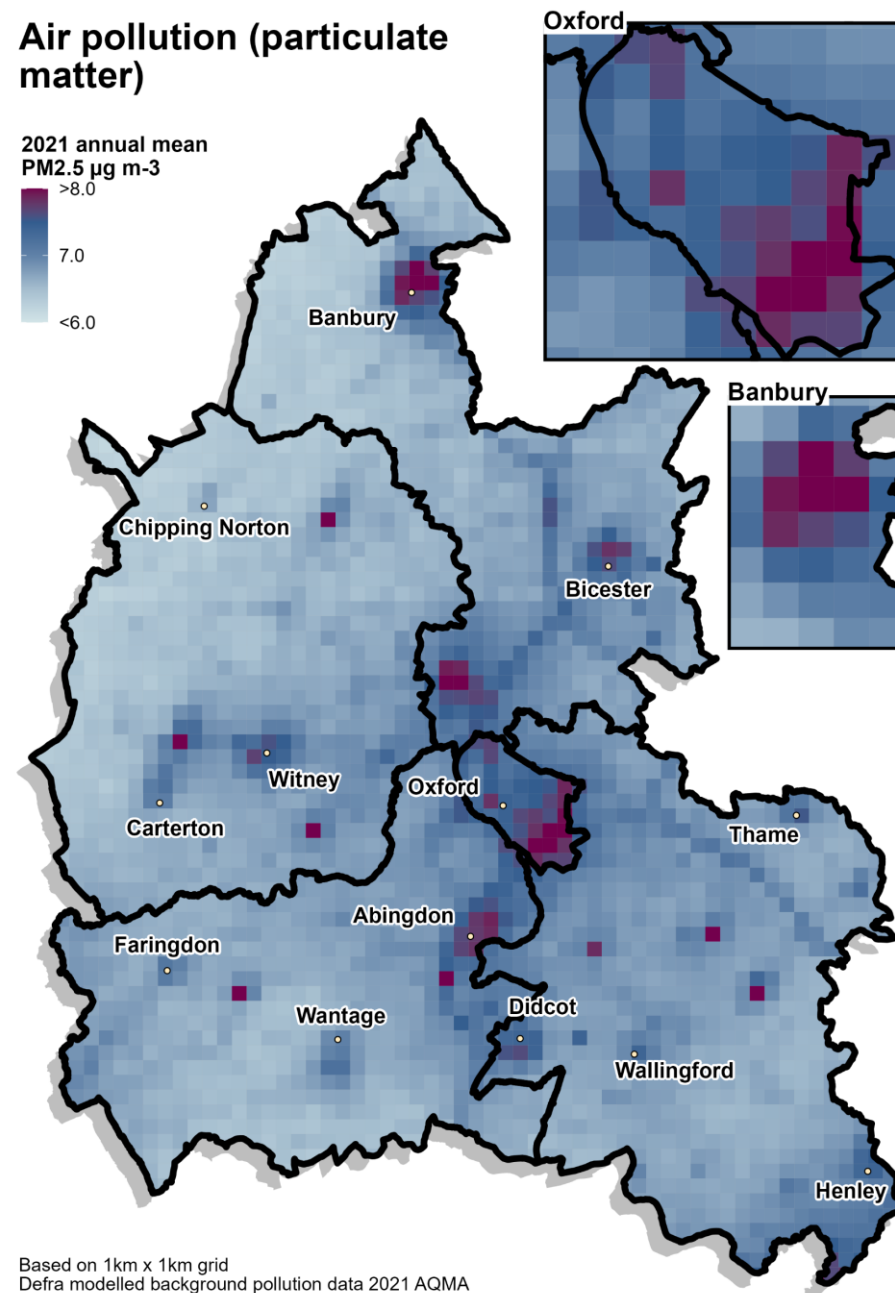
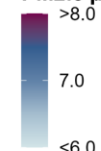
The current UK target is to achieve annual average concentrations of PM2.5 of 10 µg/m³ by 2040. Around half of UK concentrations of PM comes from anthropogenic sources in the UK such as domestic wood burning and tyre and brake wear from vehicles.

- As of 2021, the fraction of mortality attributable to particulate air pollution value for Oxfordshire was 5.5%, slightly above the South East average (5.4%) and similar to the England average (5.5%).

Based on 1km x 1km grid
Defra modelled background pollution data 2021 AQMA
Mapping by Oxfordshire County Council using modelled data from
[Modelled background pollution data - Defra, UK](#)
[Oxfordshire AirQuality \(air-quality.info\)](#)

Air pollution (particulate matter)

2021 annual mean
PM2.5 µg m⁻³



Based on 1km x 1km grid
Defra modelled background pollution data 2021 AQMA

Housing affordability

- The impacts of housing affordability on health can be viewed in two ways ¹ :
 - Direct - causing issues with mental and physical wellbeing (e.g. stress and anxiety).
 - Indirect - causing a reduction in disposable income that might otherwise be used to promote a healthy lifestyle (e.g. food quality and exercise).
- Research on housing affordability and health:
 - A 2010 study in the U.S., of 10,004 residents of Philadelphia compared health outcomes of resident self reported to be living in unaffordable or affordable housing². They found:
 - People living in unaffordable housing had increased chances of poor self-rated health; hypertension; arthritis; cost-related healthcare nonadherence and cost-related prescription nonadherence.
 - Renting rather than owning a home heightened the association between unaffordable housing and self-rated health.
 - A 2017 research partnership between Shelter and ComRes³, of 20 GPs and 3,500 English Adults, found:
 - Where housing was seen as the sole cause of mental health conditions, the most commonly cited conditions were anxiety and depression.
 - 1 in 5 English adults (21%) said a housing issue had negatively impacted upon their mental health in the last 5 years.
 - Housing affordability was the most frequently referenced issue by those who saw housing pressures having had a negative impact upon their mental health.

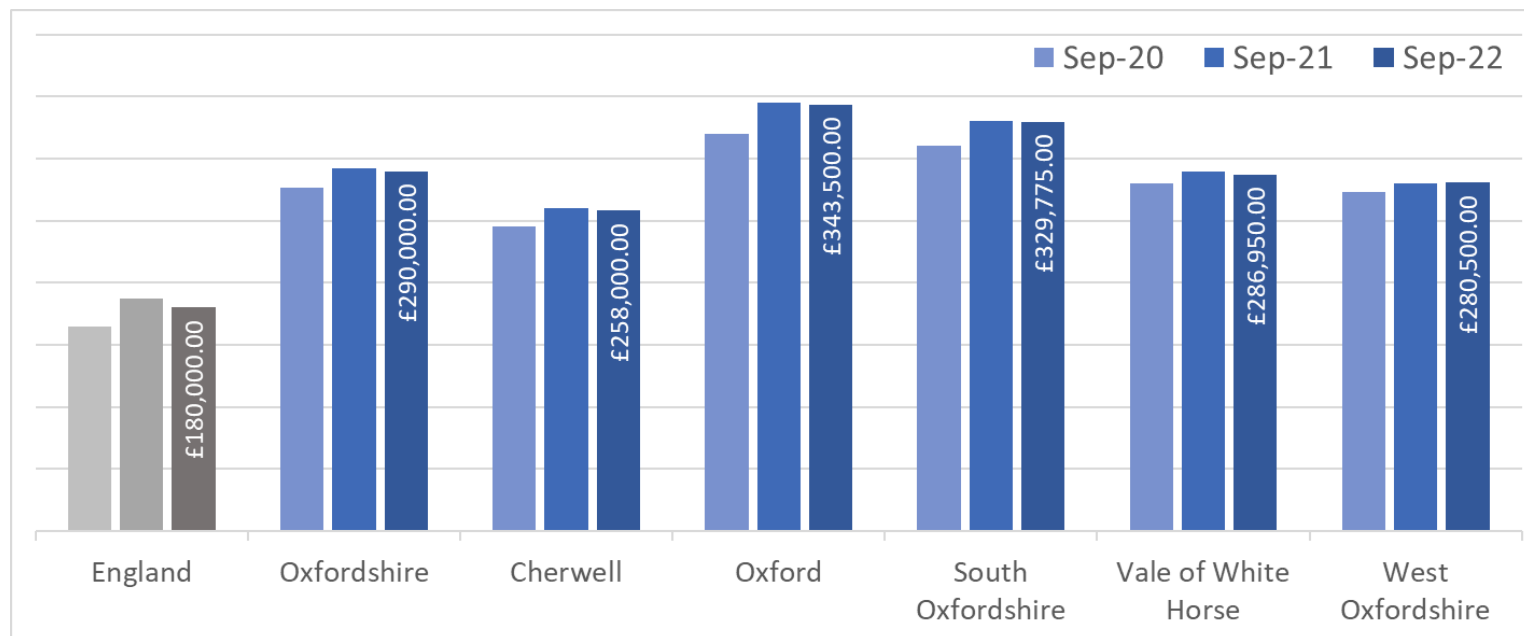
[1] [Better housing is crucial for our health and the COVID-19 recovery - The Health Foundation](#)

[2] [Housing affordability and health among homeowners and renters - PubMed \(nih.gov\)](#)

[3] [Research: The impact of housing problems on mental health - Shelter England](#)

House prices in Oxfordshire

- At the end of September 2022, the average house price for Oxfordshire was £474,3091.
- The lower quartile house price in Oxfordshire was £290,000, this was 61% higher than England (£180,000). From September 2021 to September 2022, Oxfordshire saw a 0.7% decrease in lower quartile house prices.
- Across Oxfordshire's five local authorities between September 2021 and September 2022, house prices declined in four districts. In West Oxfordshire, house prices increased by £502.50.



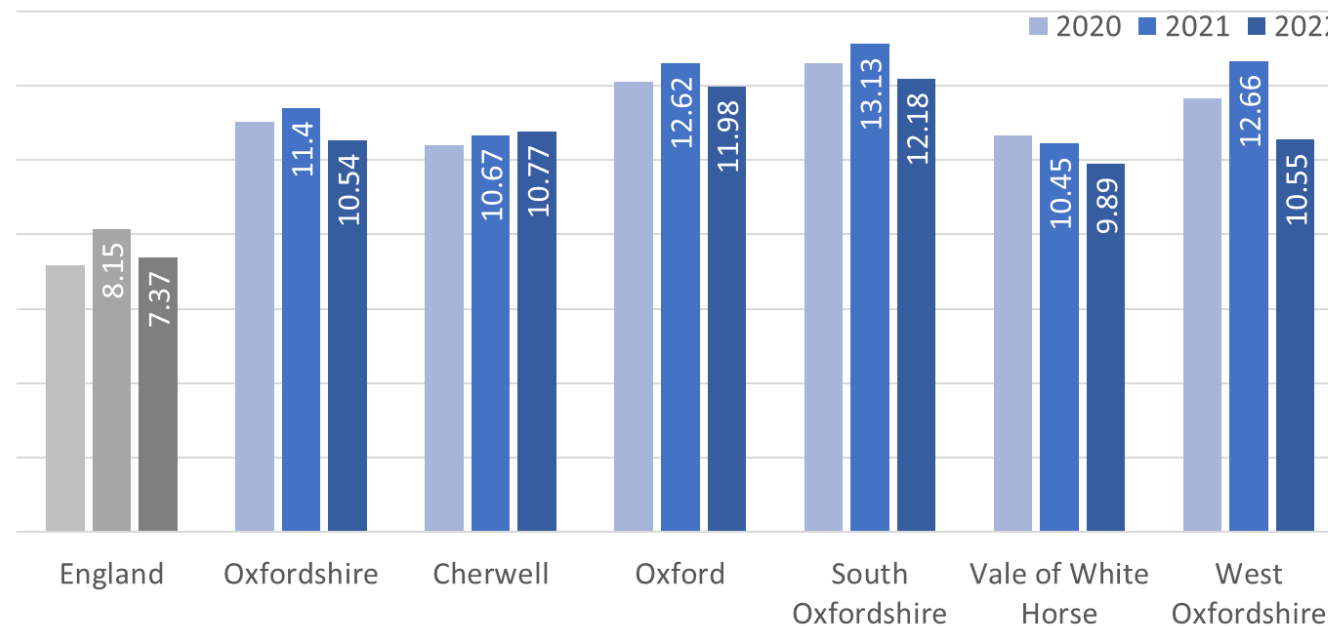
[1] [Mean house prices for administrative geographies \(existing dwellings\): HPSSA dataset 14 - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk)

[2] [Lower quartile house prices for administrative geographies: HPSSA dataset 15 - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk)

Note that the lowest level this data is available to is Local Authority District level

Housing affordability - workplace-based earnings

- The ratio of the cheapest market housing and lowest earnings (lower quartile) in 2022 shows that housing was much less affordable in Oxfordshire (10.54) than England (7.37).
- Between 2019 and 2022 the lower quartile affordability ratio decreased in all districts other than Oxford City - which meant that cheaper housing became more affordable for low income workers in four out of five districts.
- The largest increase in affordability was in West Oxfordshire. Affordability improved by 12% over the four year period.

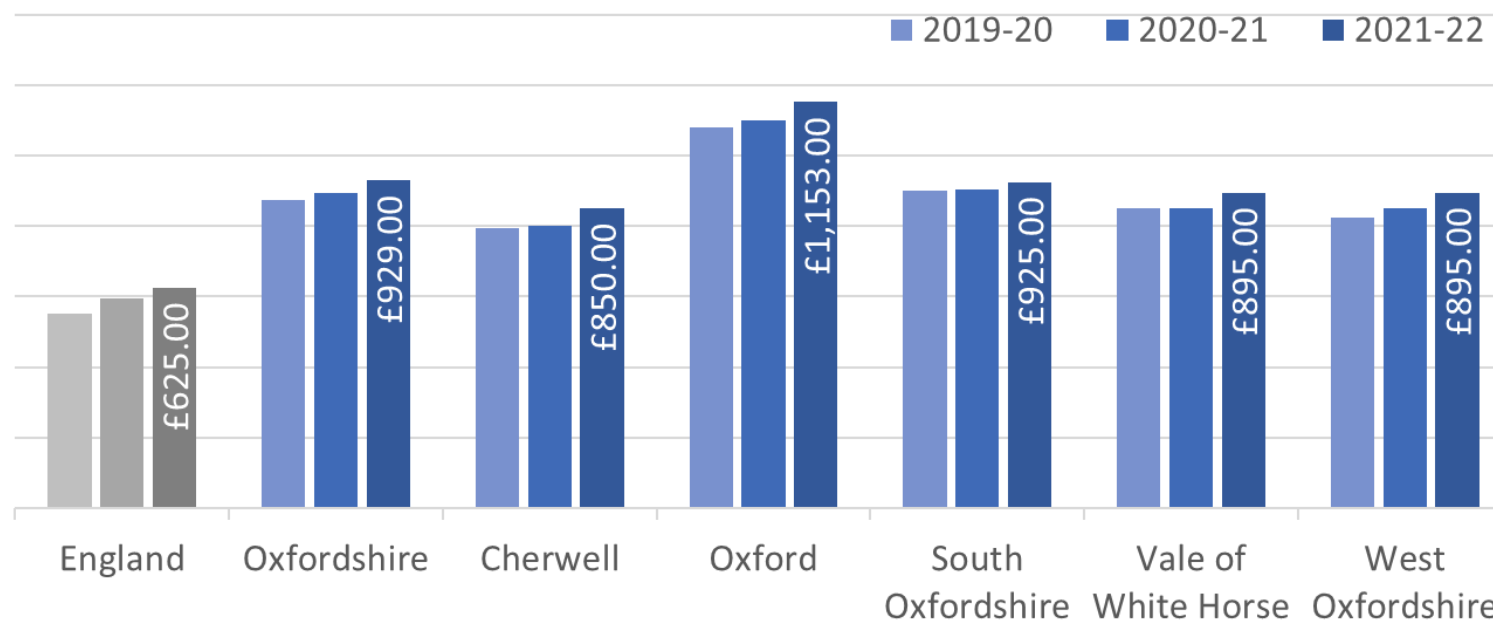


[1] [House price to workplace-based earnings ratio - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk)

Note that the lowest level this data is available to is Local Authority District level

Cost of renting

- Between October 2021 and September 2022, the average lower quartile private rent for a 2 bedroom property in Oxfordshire was £929 p/m, this was 49% higher than England (£625).
- In the four year period from October 2019 to September 2022, the average lower quartile private rent across Oxfordshire's districts have all increased. The highest percentage increase was in Vale of White Horse from £825 to £895 (8%).



[1] [Private rental market summary statistics in England - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk)
 Note that the lowest level this data is available to is Local Authority District level

Affordable Housing

- The lack of affordable housing can also fragment family and social networks, such that the elderly may have less support (increasing their reliance on social care), and young families may lack support (increasing pressure on children's services). As a result particular attention should be given to providing housing for key workers.
- In addition, given the increasing ageing population, consideration should be given to intergenerational homes as well as using housing design to promote independent living.



Housing quality and condition

- This relates to the physical characteristics of homes, such as damp¹.
 - Studies have linked damp to a number of health problems, including respiratory issues, physical pain, and headaches, particularly affecting children.
- Research on housing quality and health:
 - A study from 2018, investigated tenant healthcare utilisation associated with upgrading 8,558 council houses to a national quality standard². They found:
 - Residents aged 60 years and over living in homes when improvements were made were associated with up to 39% fewer admissions compared with those living in homes that were not upgraded².
 - Reduced admissions were associated with electrical systems, windows and doors, wall insulation, and garden paths².
 - A major New Zealand study from 2020, using linked datasets for over 200,000 homes, found that a national home insulation intervention was associated with reduced hospital admissions³. They found:
 - Excess winter mortality and morbidity are often greater in countries with relatively mild climates than in countries with colder climates³.
 - This paradox has been linked to poorer thermal efficiency of housing in temperate countries leading to colder indoor temperatures and creating an environment more susceptible to damp and mould³.

[1] [Better housing is crucial for our health and the COVID-19 recovery - The Health Foundation](#)

[2] [Emergency hospital admissions associated with a non-randomised housing intervention meeting national housing quality standards: a longitudinal data linkage study | Journal of Epidemiology & Community Health \(bmj.com\)](#)

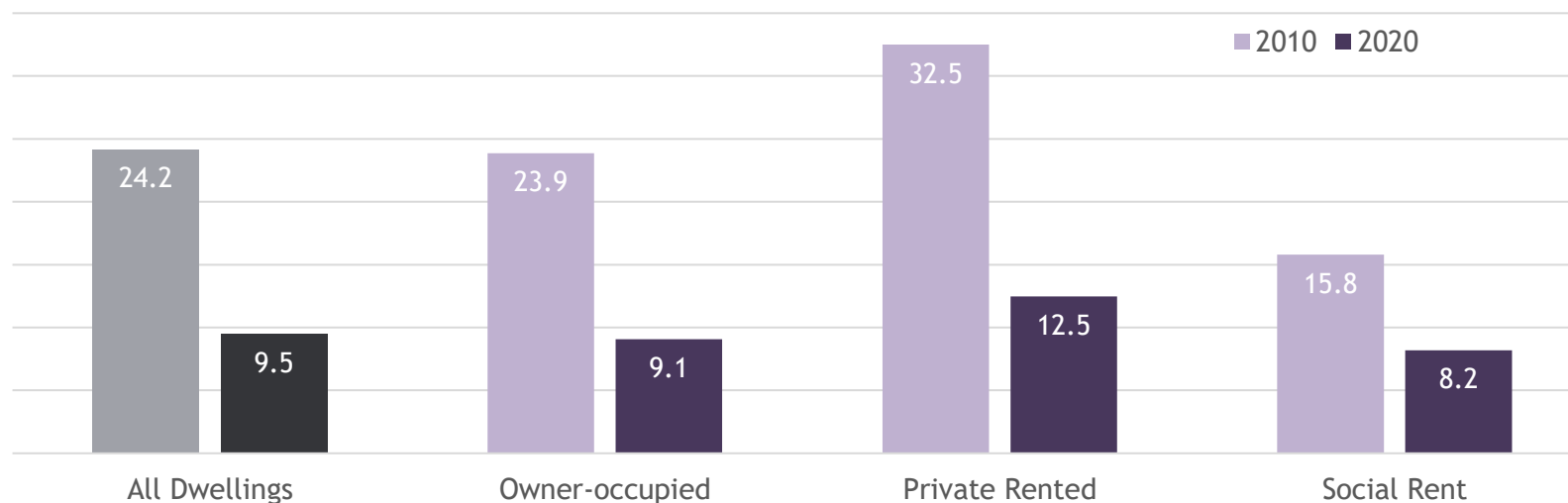
[3] [Association between home insulation and hospital admission rates: retrospective cohort study using linked data from a national intervention programme | The BMJ](#)



House quality and condition - non-decent homes in the South East

- Between 2010 and 2020, the number of non-decent homes in the South East Region reduced from 834,000 to 363,000.
- The percentage of non-decent homes remains highest in private rented sector at 12.5%.
- Social Rent tenures remain the lowest percentage of non-decent homes at 8.2%.
- In Oxfordshire, these percentages would equate to around: 18,000 non-decent owner occupied dwellings; 7,400 non-decent private rented dwellings; 3,600 non-decent social rent dwellings.

Non-Decent Homes (%), by Tenure (2010 - 2020), South East Region¹

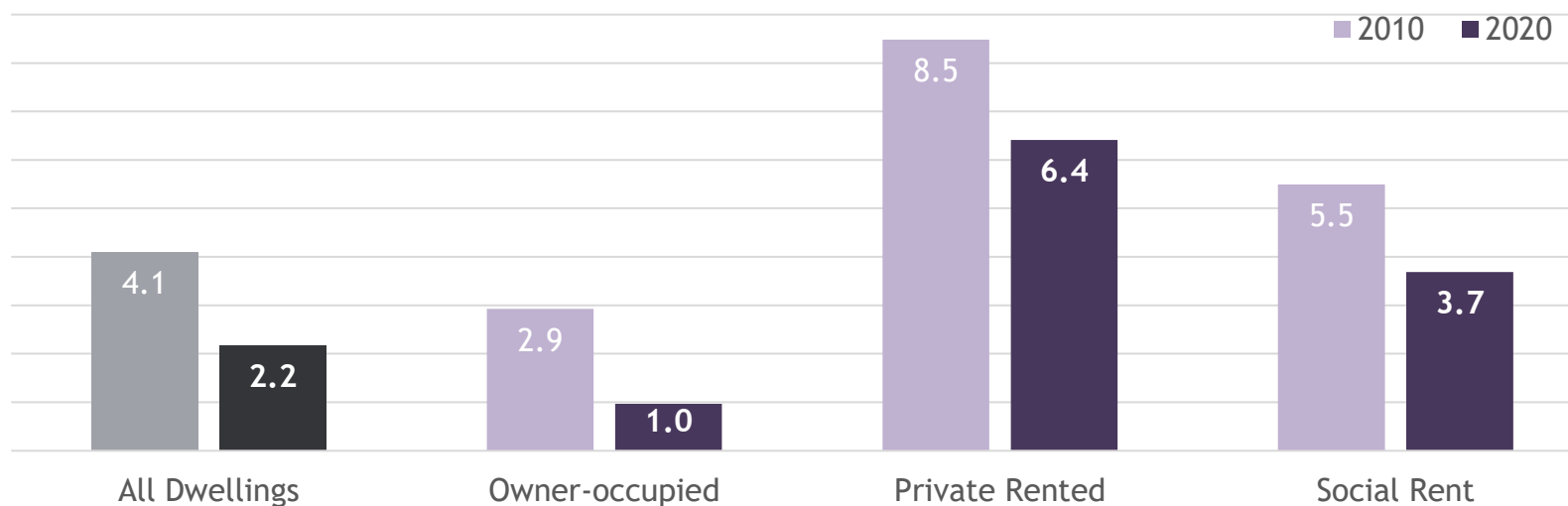


[1] [English Housing Survey, 2020 to 2021: housing quality and condition - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/english-housing-survey-2020-to-2021-housing-quality-and-condition)
 Note that the lowest level this data is available to is Regional level

House quality and condition - homes with damp problems in the South East

- According to the English Housing Survey, damp problems in the South East decreased across all tenure types. Owner-occupied dwellings had the greatest decrease in damp problems.
- Damp problems remains highest in private rented dwellings at 6.4%.
- In Oxfordshire, these percentages would equate to damp problems in around: 2,000 owner-occupied dwellings; 3,800 private rented dwellings and 1,600 social rent dwellings.

Damp Problems (%), by Tenure (2010 - 2020), South East Region¹



[1] [English Housing Survey, 2020 to 2021: housing quality and condition - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/english-housing-survey-2020-to-2021-housing-quality-and-condition)
Note that the lowest level this data is available to is Regional level

House quality and condition - EPC (Energy Performance Certificate)

- An Energy Performance Certificate (EPC) indicates the energy efficiency of a building. It is based on data about a building's energy features (for example, the building materials used and the heating systems and insulation).
- The EPC records how energy efficient a property is as a building, using an A to G rating scale where A is the most efficient and G is the least efficient.
- There is a strong relationship between energy efficiency and housing quality, and most homes with poor energy efficiency do not meet the Decent Homes Standard¹.

[1] [English Housing Survey, 2020 to 2021: housing quality and condition - GOV.UK \(www.gov.uk\)](https://www.gov.uk)



Local Cycling and Walking Infrastructure plans (LCWIPs)

- LCWIPs are a strategic approach to identifying cycling and walking improvements at the local level. They enable a long-term approach to developing local cycling and walking networks over the next ten years and form a vital part of the Government's strategy to increase the number of trips made on foot or by cycle.
- In Oxfordshire, LCWIPs have been developed and approved for the following locations:
 - Oxford
 - Abingdon
 - Bicester
 - Witney
 - Kidlington
- Currently the development of LCWIPs are ongoing in the following locations:
 - Banbury
 - Woodstock
 - Didcot
 - Charlbury
 - Chipping Norton

[Active travel - Oxfordshire County Council](#)

Communities with 20 mph speed limit

- As part of Oxfordshire County Council's commitment to 'Vision Zero' (the elimination of deaths and serious injuries from road traffic collisions) communities in Oxfordshire are able to request the introduction of 20mph areas as a replacement for 30 mph areas.
- The benefits of 20 mph zones include:
 - **Safer roads** - Research by the UK Transport Research Laboratory has shown that every 1mph reduction in average urban speeds can result in a six percent fall in the number of casualties.
 - **Congestion** - Research shows that slower speeds encourage a smoother driving style with less stopping and starting which helps traffic to flow.
 - **Air pollution** - Driving at 20 mph causes some vehicular emissions to rise slightly (mainly Heavy Goods Vehicles) and some (car) to fall. Reduced acceleration and braking will help to reduce fuel consumption and the associated particulate emissions from items such as tyres and brakes.
- The programme has currently delivered 20 mph zones to 29% (89) of all parishes in Oxfordshire and is expected to cover 80% all of communities in Oxfordshire once the project is complete.
- The introduction of 20 mph in pilot areas has already reduced speeds by up to 4mph.

[The 20 mph scheme - Oxfordshire County Council](#)

Finding out more/further resources

- To find out more information about the concept of Healthy Place Shaping:
 - [Oxfordshire County Council - Healthy Place Shaping](#)
 - [Related news](#)
- More information and data on many of these topics is available from:
 - [Public health profiles - OHID \(phe.org.uk\)](#)
 - [Office for National Statistics](#)
 - [Sport England, Active Lives Survey](#)
- The [2023 Director of Public Health Annual report](#) has a focus on healthy weight, healthy communities and healthy lives.
- Explore obesity and related data with our [Health Weight Story maps](#).
- Relevant reports:
 - [Active travel survey report - travel and transport sounding board \(Oxfordshire County Council\)](#)
 - [National Housing Federation - Dementia: Finding housing solutions](#)
 - [Housing LIN - Providing an alternative pathway - The value of integrating housing, care and support](#)
 - PHE Working together to promote active travel. A briefing for local authorities (2016)

