Derbyshire Private Sector Housing

Derby Stock Condition Report 2019

Acknowledgements

This series of reports and associated database provide long-awaited evidence of the state of private sector housing in our area, and a means to consider how we may effectively target and address issues associated with poor quality homes.

Foreword

As quoted within this report, 'a safe, settled home is the cornerstone on which individuals and families build a better quality of life, access services they need and gain greater independence. Good quality, well managed housing is essential to our health and wellbeing.'

Whilst the City Council has made great strides in: upscaling its housing development and acquisition programme to help meet affordable housing need; in working with partners to stimulate housing market growth; and in bidding for Homes England funding for large new build regeneration schemes; for example, we must also acknowledge that building new housing, alone, is not enough and that it will not address inadequacies within the existing private sector housing stock.

The last Private Sector Housing Stock Condition Survey in Derby took place in 2007 and since then there have not only been considerable changes in the use and condition of private sector housing; there has also been a huge, research backed, growth in awareness that poor, unsafe or unsuitable housing impacts detrimentally on our health and wellbeing. Older people, the very young, those with long term health conditions and other vulnerable people, in particular, spend a much greater proportion of their time at home and are, therefore, more susceptible to the health impacts arising from the positive and negative aspects of their home environment.

Our housing stock is aging and will only continue to deteriorate without timely intervention and investment. Our population, too, is aging as we live for longer; and we have different housing needs as we grow older. National Health and Social Care sectors are struggling with demand and need us to be living independently in our own homes for longer; something most of us too would hope to achieve. And when financial challenges impact on the most vulnerable, and on wider society too, the cost of our homes and investment in them can be hugely challenging, if not prohibitive.

Whilst its findings pose us many challenges in these tough financial times, this private sector housing condition report will prove invaluable to us in updating and enhancing our understanding of conditions within the private sector stock which, in turn, will help to inform and focus our future years' strategic approach to improvement of this oft neglected sector; a critical housing resource providing homes to the majority, including some of our most vulnerable residents.

We have taken huge strides over recent years, with our: Healthy Housing Hub having been named national 'Home Improvement Agency of the Year' in 2019; recent launch of our new Older Persons Housing Strategy; Home First team recognised in the prestigious Health Service Journal awards for helping to keep people out of hospital; for example, all indicating that we are taking positive steps in the right direction.

We engage with local private sector landlords through our Landlord Forum and with landlord associations, including the National Landlords Association, East Midlands Property Owners, Progressive Property Network and the Peartree and Normanton and Landlord Association. And, in partnership with the University of Derby, our DASH (Decent And Safe Homes) Services operate an accredited private landlord scheme for landlords of student properties.

However, we are also committed to a strong and proportionate approach to statutory enforcement where circumstances require it. Our Compulsory Purchase programme ensures return to use of long term empty homes when all voluntary alternatives have failed. And, our Housing Standards Team are now achieving more successful prosecutions than ever before and serving civil penalties against rogue landlords who fail to ensure that safety standards are met within their rented accommodation: sending them a clear message that they either need to change their ways and comply with safety standards or move their business elsewhere.

But more must clearly be done and, importantly, must continue to be done over a long and sustained period if we hope to see the desired improvements. As a Council we have a legal and moral duty to understand the condition of private sector housing in our area, and to develop strategies to address areas of concern.

Unfortunately, Government funded grant aid for property repair or area regeneration schemes is no longer available. Financial pressures on local authorities have severely constrained available resource for private sector enforcement or incentivised improvement activity. But we must be inventive, focussed and develop strategies to deliver solutions where most needed and to best effect.

I have just launched public consultation on our over-arching Housing Strategy for the coming 10 years, which will incorporate a dynamic action plan approach, into which the findings of this report will feed over that period; and 2020 will also see public consultation commence on our Private Sector Housing Renewal Policy. I hope you will contribute to those consultation processes.

Councillor Roy Webb.
Portfolio Cabinet Member for Adults Health and Housing. 01/2020.

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Executive Summary

A safe, settled home is the cornerstone on which individuals and families build a better quality of life, access services they need and gain greater independence[1].

Local Authorities have a legal duty under the 2004 housing act to keep the conditions of homes in their areas under review with a view to identifying any action that may need to be taken[2]. The last Housing Stock Condition Survey in Derby was conducted in 2007, since this time there have been considerable changes in the use and condition of private sector housing.

There is growing evidence of the costs of poor housing to the NHS with estimates put forward by the Building Research Establishment in 2015 suggesting that the cost of HHSRS hazards in the homes cost the NHS £1.4billion per year[4]. Public Health England estimated in 2019 that unaddressed hazards for falls in the home cost the NHS £435million annually[44].

Derby City Council have developed a desktop survey approach to identify and asses the condition of private sector housing in Derby. Address level modelling has been undertaken to estimate the likelihood of each private sector dwelling in the city to be non decent and the likelihood of each dwelling to posses a Housing Health and Safety Rating System (HHSRS) category 1 hazard has been calculated.

Derby Housing Stock Condition Survey Key Findings

Type and Tenure of Homes in Derby

110,000 homes

57.1% Owner Occupied

22.4% Private Rented

20.5% Social Rented

15.6% Flats and Apartments

26.1% Terraced

35.7% Semi-detached

21.7% Detached

Age of Homes in Derby

16.8% Pre -1918

21.0% 1919 - 1944

33.8% 1945 - 1980

27.1% post 1981

Cost to Improve Homes

The median cost per property to bring it up to meet the decent homes standard is

£2,566

The total cost to bring every private sector home in Derby up to the decent homes standard would be

£48 million

Living in a Non Decent Home

Approx. 1 in 5 families living in the private sector in Derby are living in a non decent home

18,700

Homes in Derby do not meet the decent homes standard.

Cold and Damp Homes

3,300

Approximately 3,300 private sector homes in derby have a HHSRS category 1 hazard for cold and or damp.

| Increased risk of respiratory diseases, including Asthma and Chronic Obstructive Pulmonary Disease (COPD) | Negative impact on circulatory disease which can lead to increased risk of heart attack and stroke. | Living in a cold home can have a significant impact on mental health. People may also become socially isolated | Children living in cold homes are more susceptible to respiratory conditions and are more likely to have poor mental health. |

Trips and Falls in the Home

10,200

Approximately 10,200 private sector homes in derby have a HHSRS category 1 hazard for falls in the home

NHS Unaddressed falls in the home are estimated to cost the NHS £435 million annually.

Older people are most vulnerable to accidents in the home. 30% of people age 65+ and 50% of people aged 80+ fall at least ones per year.

Everyday 45 children are admitted to hospital following a fall. Children are most at risk from falls between level for example a fall from a window or balcony.

Decent Homes 2019

Private Rent		Owner Occupied
8.9	% of homes not meeting the decent homes standard for thermal comfort. Approximately 5,000 (5.8%) homes in Derby fail the decent homes standard for thermal comfort.	4.6
2.9	% of homes not meeting the decent homes standard for modern facilities. Approximately 1,800 (2.2%) homes in Derby fail the decent homes standard for modern facilities	1.9
6.9	% of homes not meeting the decent homes standard for disrepair. Approximately 4,000 (4.7%) homes in Derby fail the decent homes standard for disrepair	3.8
15.0	% of homes not meeting the decent homes standard for HHSRS category 1 hazard. Approximately 12,500 (14.2%) homes in Derby fail the decent homes standard for HHSRS category 1 hazard	14.0

Introduction

The importance of safe and decent homes

A safe, settled home is the cornerstone on which individuals and families build a better quality of life, access services they need and gain greater independence.[1]

Local Authorities have a legal duty to understand the condition of private sector housing in their area, and to develop strategies to address areas of concern.

The Housing Act 2004[2] states that 'a local authority must keep the housing conditions in their area under review with a view to identifying any action that may need to be taken by them'. The last private sector housing stock condition survey in Derby was completed in 2007. Since this time there have been many changes in the condition and use of private sector housing stock.

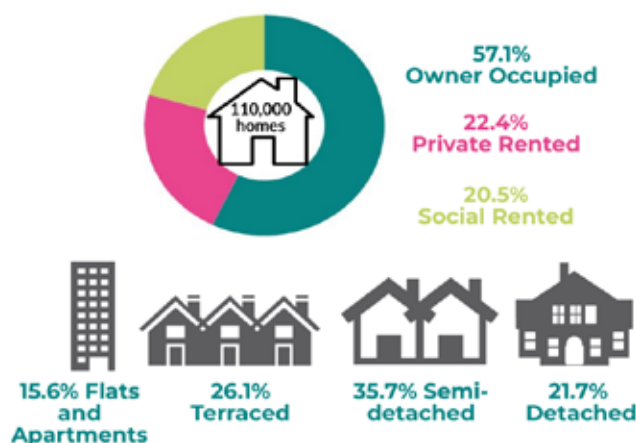Good quality, well managed housing is essential to health and wellbeing. It enhances the quality of life of adults and the life chances of children, not only providing shelter but promoting stability and a sense of identity. It has recently been suggested that the wider determinants of health, such as employment opportunities, housing quality and availability, social cohesion and access to good quality education, may have a greater effect on health in localities than National Health Service (NHS) spending[3].

Poor housing conditions such as damp, cold, overcrowding and pollutants have all been shown to have an impact on physical illnesses such as eczema, asthma, heart disease and respiratory health in both adults and children. Physical features of the home can lead to injuries such as falls, trips, burns, scalds and electrocutions. Poor housing can also have an impact on mental health, often due to living in poor conditions but also due to the insecurity of living in poor housing with threats such as entry by intruders and the need to move more frequently.

There is growing evidence of the costs of poor housing to the NHS. In particular in 2015 the

Building Research Establishment (BRE) estimated that HHSRS (Housing Health and Safety Rating System) Category 1 Hazards cost the NHS £1.4 billion per year in first year of treatment costs[4]. Furthermore the Kings Fund (2014) estimates that every £1 spent on improving homes saves the NHS £70 over 10 years[5].

In 2018 an, All Party Parliamentary Group (APPG) white paper "Building our Future: Laying the Foundations for Healthy Homes and Buildings", suggested that the true cost of poor housing lies in human misery and lives lost[6]. The impact of poor housing is perhaps more apparent during different times of the year. The 2017 – 2018 winter saw 50,100 excess winter deaths in England and Wales, the highest number recorded since winter 1975-1976[7]. Excess Winter Deaths caused by respiratory diseases accounted for 34.7% of all Excess Winter Deaths[7]. It has been estimated that during the 2017 - 2018 winter 9,700 winter deaths nationally were attributable to the avoidable circumstance of living in a cold home[15].

Derby City Council has developed a desktop modelling approach to identify the condition of private sector homes. Good quality data on the condition of housing stock can help to quantify the needs plus the costs and benefits of housing interventions.

The desktop model intends to:
- identify non-decent homes
- identify homes with a category 1 hazard
- provide an estimate of the cost to make decent
- estimate the number of homes falling into each of the EPC (Energy Performance Certificate) Energy Bands
- estimate the number of homes in fuel poverty
- assess a range of health data.

What Constitutes Poor Housing?

The Decent Homes Standard is the current statutory minimum standard for housing and applies to all social housing, however it is widely recognised that there is a need for all homes to also meet this standard.

The Decent Homes Standard states that a home must:

• be free from any hazard that poses a serious threat to your health or safety
• be in a reasonable state of repair
• have reasonably modern facilities
• have efficient heating and insulation to provide a reasonable level of thermal comfort.

The 10-year Decent Homes Programme to 2010 was successful in tackling many problems of housing conditions in the social rented sector but similar progress has not been made in the owner-occupied and private rented sectors.

The problems associated with poor housing are widely known, however the Housing Crisis is more often than not focused on housing shortage, insufficient land supply and 'planning constraints' than on addressing the inequalities in the existing housing stock.

The 2016 Good Housing: Better Health paper[8] puts forward the case for a more balanced approach to housing policy and sets out the case for increasing focus on the quality and use made of the current housing stock. Building new housing will not address the inadequacies in the existing housing stock.

Overall the proportion of non-decent homes nationally stood at 19% of the total housing stock. The levels of non-decency vary with tenure, 13% of dwellings in the social rented sector failed to meet the Decent Homes Standard compared to 25% of private rented homes and 19% of owner occupied homes[9].

Building new housing will not address the inadequacies in the existing housing stock[8].

Policy Overview

The findings of this report will inform many of the Council's Housing and Health strategies including, Derby City's Housing Strategy and, the Health and Wellbeing Strategy. It will also support the development of Joined Up Care Derbyshire the local Sustainability and Transform Partnership.

Housing Act 2004

The Housing Act 2004[2] requires all local authorities to keep the housing conditions in their area under review with a view to identifying any action that may need to be taken. The requirements of the Act are wide ranging and covers:
- dwellings that fail to meet the minimum standards for housing.
- houses in Multiple Occupation (HMO's).
- the need for provision of assistance with housing renewal.
- the need to assist with adaptation of dwellings for disabled persons.

The Housing Act introduced a system for assessing housing conditions and enforcing housing standards. This assessment identified the existence of category 1 hazards assessed within the HHSRS (Housing Health and Safety Rating System).

Housing Strategies

The National Housing Strategy, 'Laying the Foundations, a Housing Strategy for England' was published in 2011[11] and sets out a package of measures addressing the need for an increase in the supply of housing, social housing reform, the private rented sector, empty homes and the quality of design for housing.

Derby City Council's Housing Strategy 2015-2019 identified 4 key priorities for housing in the City:

1. Best use of Stock: Getting the most out of the homes that already exist.

2. Housing Quality and Standards: well designed, well-managed decent homes

3.Vulnerable People: providing suitable accommodation for vulnerable groups, linked where necessary to specialist support.

4. Housing Development and Regeneration: supplying a range of new housing that meets the needs and contributes to urban renewal.

Private Sector Housing Policy

Private sector housing (owner occupied and private rented) represents the largest form of tenure nationally. This is also true for Derby where there are areas of the city characterised by high concentrations of poor housing which is occupied by economically deprived, socially excluded and highly vulnerable people (Private Sector Housing Renewal Policy 2015 – 2020).

The Private Sector Housing Renewal Policy[12] sets out the structure of assistance, grants, loans, works and initiatives that the council will undertake to promote the improvements to the quality and choice of housing within the private sector.

The Homes (Fitness for Human Habitation) Act 2018[13] came into force on 20th March 2019 and requires that any property let by a landlord private or social is fit for human habitation when a tenancy is granted and remains so for the duration of the tenancy.

Climate Change Policy

The UK is committed under the 2008 Climate Change Act[14] to an 80% reduction in emissions by 2050.   Derby City's Climate Change Strategy published in 2015 identifies the need to reduce domestic carbon emissions, which currently account for 30% of city wide emissions in order to meet the national 80% reduction target.

Energy Company Obligation (ECO) and Green Deal

The Energy Company Obligation (ECO) scheme was introduced in 2013 with the aim to reduce carbon emissions and tackle fuel poverty. Energy efficiency measures such as insulation and new boilers are installed through energy suppliers and paid for by a levy on consumer bills.

The Green Deal was a scheme introduced in 2013 to help home owners and landlords improve the energy efficiency of their homes by installing a range of energy improvement measures. These were then paid for though the savings made on energy bills.

Health

Sustainability and Transformation Partnerships (STP) were introduced in England following publication of an NHS Five Year Forward View in 2014. The STP brings together leaders from within the NHS, local authorities and the voluntary and community sector to jointly plan and develop proposals to improve health and care. Joined Up Care Derbyshire (JUCD) is the local partnership for care across Derbyshire.

The King's Find published a report in 2018[15] (Housing and Health: Opportunities for Sustainability and Transformation Partnerships)

which highlights the need for STP's and emerging Integrated Care Systems (ICS's) to work more closely with local partners including the local housing sector. The report emphasised that although this is happening in some areas it is not at the scale and depth needed.

It is widely recognised that a well housed population helps to reduce and delay the demand for NHS services and allows patients to go home when they are clinically fit to do so. However STPs and ICSs need to take advantage of the contribution housing can make to the health and wellbeing of local populations across the life course.

Joint Strategic Needs Assessment (JSNA)

Derby City Council's Joint Strategic Needs Assessment (JSNA) assesses the health needs of the local population in order to improve the physical and mental health and well-being of individuals and communities. It is produced and implemented by Derby City Council and NHS Derby and Derbyshire Clinical Commissioning Group (CCG) through the Health and Wellbeing Boards.

Derby City Council's JSNA recognises the importance of housing to health and wellbeing, stating that Housing is a key determinant of health, with poor quality housing being intrinsically linked with poor health. Poor housing conditions continue to cause preventable deaths, illness and accidents; they contribute to health inequalities, impact on life expectancy and their overall quality of life. People are able to enjoy a better home environment, enhanced quality of life, improved health and general well-being when they are warm, safe and secure in their own home.

Methodology

A 4 step methodology has been utilised to model the private sector housing stock conditions in the local area. Address level modelling has been used to estimate the likelihood of each dwelling to be decent / non decent and the likelihood of each dwelling to have a HHSRS category 1 hazard. The modelling for this analysis refers only to private sector homes. All social homes have been removed from the analysis.

Stage 1. Creation of a property characteristics database.

A number of local and national data sources have been utilised in the creation of a complete address level property database. The availability of local administrative data allows an accurate picture to be compiled of the characteristics of individual properties within the local area. This local administrative data has been supplemented with nationally available data sets where local data is unavailable. The use of multiple data sets allows the probable characteristics to be identified with a higher degree of accuracy allowing for natural errors within the data sources, by triangulating property characteristics across several data sources.

Information Sharing Agreements were drafted and signed off where necessary before work was carried out.

All data has been through an address matching process with the aim to match each piece of address data to the correct address in the LLPG (Local Land and Property Gazetteer) allowing the UPRN (Unique Property Reference Number) to be assigned to each address. This allows data from different sources to be combined using the UPRN into a single property database.

Any unmatched addresses have been investigated and where possible these have been manually matched to a UPRN. In some instances unmatched properties are the result of inaccurate data in the datasets and as such have not been included in the analysis.

This property level database has been referenced through this report as 2019 Derby stock condition property level database.

Results of Address Matching

Dataset	Total Addresses	Matched	Unmatched	Matched %
Experian Mosaic (Derby)	109,848	109,367	481	99.5
Council Tax	110,344	110,261	82	99.9
EPC Derby	56,891	56,619	272	99.5
Housing Benefit	40,230	39,948	282	99.
Price Paid (to end Feb 2019)	55,285	54,922	364	99.3
National Register of Social Housing	25,514	23,128	386	90.1
HIMO Register	226	226		100
Housing Standards Complaints (duplicates for multiple Complaints)	1,791	1,788	3	99.9
My Deposits	783	762	20	97.4
Tenancy Deposit Solutions	6,336	6,297	39	99.5
Deposit Protection Service	6,684	6,621	63	99.1
Derby Homes managed properties	14,041	14,027	14	99.9
Right to Buy	2,750	2,626	124	95.4

All data extracted January - April 2019 unless otherwise stated.

Stage 2. Analysis of the English Housing Survey (2015 - 2017)

The 2015 - 2017 English Housing Survey has been used to identify the propensity for different property types, ages and tenures to be decent or non-decent and the likelihood of these properties to have a HHSRS category 1 hazard.

Stage 3. Application of propensities identified in stage 2 to the local property characteristics database created in stage 1

The propensities for different types, ages and tenures of homes to be decent or non-decent and their likelihood of possessing a HHSRS category 1 hazard have been applied at an individual property level to the local property level database created in stage 1. This gives each individual home a likelihood to be decent or non-decent and the likelihood of each home to possess a HHSRS category 1 hazard

Stage 4. Analysis of health related data

Hospital Episode Statistics (HES) is the national repository of admissions to hospital, A & E attendances and outpatient appointments at NHS hospitals in England. When combined with data and intelligence surrounding housing it offers insight into areas where there is a correlation between poor housing and poor health. For example areas of poor housing in terms of thermal comfort, excess cold and damp can be examined in conjunction with HES data surrounding respiratory problems which are known to be exacerbated by living in cold damp homes.

The English Housing Survey

The English Housing Survey is a continuous national survey commissioned by the Ministry of Housing, Communities and Local Government (MHCLG). It collects information about people's housing circumstances and the condition and energy efficiency of housing in England. The survey has 2 components, a household interview and a physical inspection of properties.

Each year around 13,300 households take park in the face to face household interview and around 6,000 of the participating households also take part in the physical survey. The physical surveys are carried out by a qualified surveyor and involve a visual inspection of the property. Physical surveys are also carried out on around 200 vacant properties.

Each year a sample of addresses are drawn at random from a list of private addresses held by the Royal Mail covering all housing tenures.

The 2015 - 2017 English Housing Survey has been used for the modelling of the Derbyshire Housing Stock Condition Survey. Special License Access was granted for this project and allowed access to the derived variables within the English Housing Survey and also the raw data collected as part of the main English Housing Survey. The 2015-2017 data was the most up to date data available at the commencement of the project however a further update has now been released, which could form part of future modelling of local housing conditions.

The Local Housing Picture

Types of Homes in Derby

What does the local picture of homes in Derby look like?

Derby City is made up of 17 electoral wards which are further broken down into 151 Lower Super Output Areas (LSOA) each of which contain approximately 500 – 1,000 households

Derby City Wards and LSOAs

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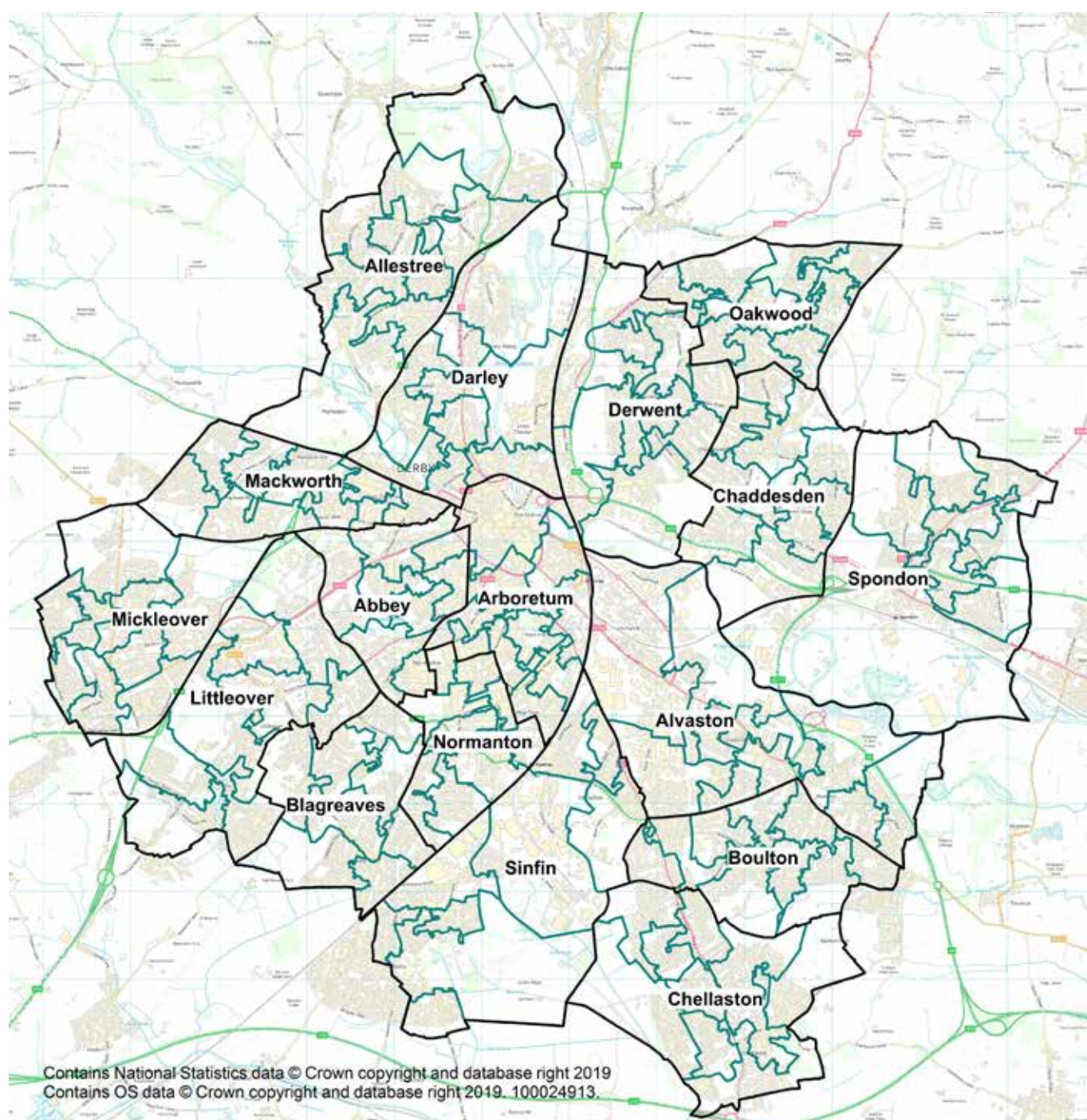
There are a total of 110,261[16] properties in Derby as of February 2019. The majority of these 97.9% are currently occupied, and the remaining 2.1% of properties are vacant. Of the 2,269 vacant dwellings, 49.1% have been vacant for less than 6 months, 1,245 dwellings have been vacant for over 6 months and have been identified as long-term empty.

Derby is comprised primarily of houses and bungalows (82.4%) with the remainder made up of flats and apartments (15.6%) and other property types (1.0%). Derby has fewer flats and apartments than the England average whilst having a greater proportion of both semi-detached and detached properties[17].

The distribution of property types throughout the city varies from ward to ward. As might be expected, flats and apartments tend to be located centrally in the city with the greatest proportions located in the wards of Arboretum (45.7%), Abbey (32.3%) and Darley (35.8%).

Areas with the greatest proportions of detached dwellings are the wards towards the outer edge of the city; Allestree (58.5%), Oakwood (45.7%), Mickleover (37.4%), Littleover (48.7%) and Chellaston (42.3%).

Semi-detached properties are located throughout the city, with the highest concentrations in the wards of Boulton (61.0%), Sinfin (47.6%), Mackworth (44.1%), Spondon (49.4%) and Chaddesden (53.6%).

Wards surrounding the city centre, Normanton (52.3%), Abbey (40.4%) and Arboretum (44.0%) a have the largest concentrations of terraced homes.

Proportion of Homes by Type and Ward

Ward	Flat	Terraced	Semi - Detached	Detached	Other	Total
Abbey	32.3%	40.4%	16.7%	8.1%	2.5%	7,121
Allestree	6.4%	4.3%	30.7%	58.5%	0.1%	6,257
Alvaston	17.9%	31.6%	36.7%	10.1%	3.6%	7,981
Arboretum	45.7%	44.0%	6.2%	2.2%	1.8%	8,437
Blagreaves	4.2%	9.6%	53.4%	32.7%	0.1%	5,246
Boulton	7.2%	19.6%	61.0%	12.0%	0.2%	6,038
Chaddesden	8.8%	16.7%	53.6%	20.7%	0.2%	5,827
Chellaston	11.9%	21.8%	22.9%	42.3%	1.1%	6,679
Darley	35.8%	34.4%	13.6%	14.0%	2.2%	7,066
Derwent	9.0%	29.2%	54.5%	7.1%	0.2%	6,197
Littleover	10.7%	11.0%	29.3%	48.7%	0.3%	5,607
Mackworth	14.6%	31.9%	44.1%	8.9%	0.5%	6,896
Mickleover	6.7%	13.3%	42.4%	37.4%	0.2%	6,579
Normanton	12.7%	52.3%	30.0%	3.5%	1.5%	6,687
Oakwood	1.7%	17.0%	35.5%	45.7%	0.1%	5,755
Sinfin	11.1%	31.9%	47.6%	9.1%	0.2%	6,088
Spondon	8.0%	15.4%	49.4%	26.6%	0.5%	5,800
Total	15.6%	26.1%	35.7%	21.7%	1.0%	110,261

Source : 2019 Derby stock condition property level database

Proportion of Flats and Apartments
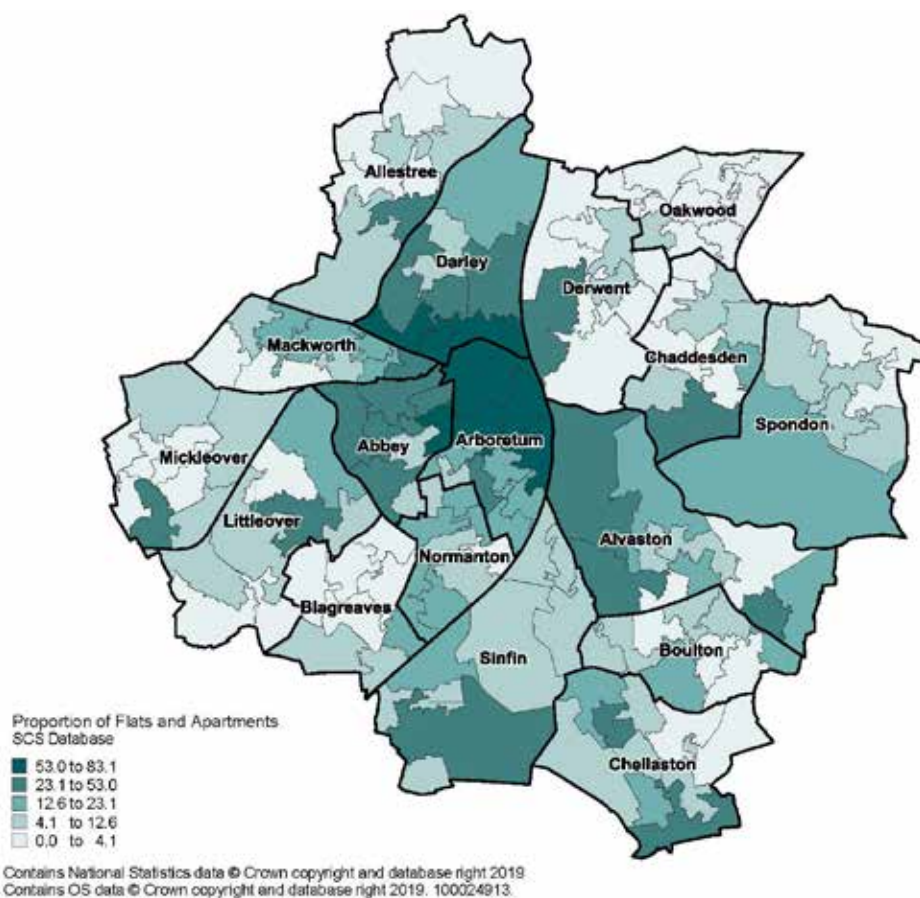
Proportion of Terraced Homes

Proportion of Semi-detached Homes

Proportion of Semi-detached Homes
SCS Database

- 59.7 to 88.1
- 42.5 to 59.7
- 27.3 to 42.5
- 11.9 to 27.3
- 0.4 to 11.9

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Proportion of Detached Homes

Proportion of Detached Homes
SCS Database

- 51.9 to 86.8
- 30.6 to 51.9
- 14.6 to 30.6
- 5.4 to 14.6
- 0.0 to 5.4

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Build Period of Homes in Derby

The build period of a property is a key determinant of its likelihood to be decent. Nationally older properties are more likely to be non-decent than newer homes.

Data surrounding the build period of properties from different datasets, including, Land Registry, EPC, and Experian has been triangulated to produce a probable build period for each address. This allows detailed analysis surrounding the age of propertied to be carried out.

As might be expected, there is a relationship between the age of homes in Derby and their proximity to the city centre. Older homes built pre-1918 are concentrated in the more central wards of Arboretum (48.6%) Normanton (48.1%) and Abbey (36.9%).

The wards surrounding the city centre contain the greatest proportions of post-war properties built between 1945 and 1980 including Mickleover (65.0%) Allestree (64.5%), and Spondon (59.5%).

Newer homes, built since 1981 can be found towards the outer edge of the city in the wards of Oakwood (79.3%), Chellaston (56.2%) and Littleover (45.9%).

Darley, Abbey and Arboretum wards have a relatively high concentration of newer properties. Considering their central location these homes are likely to be purpose built and converted flats and apartments

Proportion of Homes by Age and Ward

Ward	Pre 1918	1919 - 1944	1945 - 1980	1981 - 2002	Post 2002	Unknown	Total
Abbey	36.9%	24.2%	7.8%	11.8%	16.3%	3.0%	7,121
Allestree	1.6%	14.2%	64.5%	10.1%	9.2%	0.4%	6,257
Alvaston	19.3%	29.4%	20.9%	15.9%	13.5%	1.0%	7,981
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Normanton	48.1%	29.2%	11.2%	4.5%	5.1%	1.8%	6,687
Oakwood	0.1%	3.9%	16.3%	77.3%	2.0%	0.3%	5,755
Sinfin	13.3%	21.9%	43.5%	16.5%	3.9%	0.9%	6,088
Spondon	4.7%	14.7%	59.5%	11.2%	9.3%	0.6%	5,800
Total	**16.8%**	**21.0%**	**33.8%**	**17.3%**	**9.8%**	**1.4%**	**110,261**

Source : 2019 Derby stock condition property level database

Proportion of Homes Built Before 1918

Proportion of pre-1918 homes
Stock Condition Database

- 52.6 to 82.0
- 32.6 to 52.6
- 14.2 to 32.6
- 2.8 to 14.2
- 0.0 to 2.8

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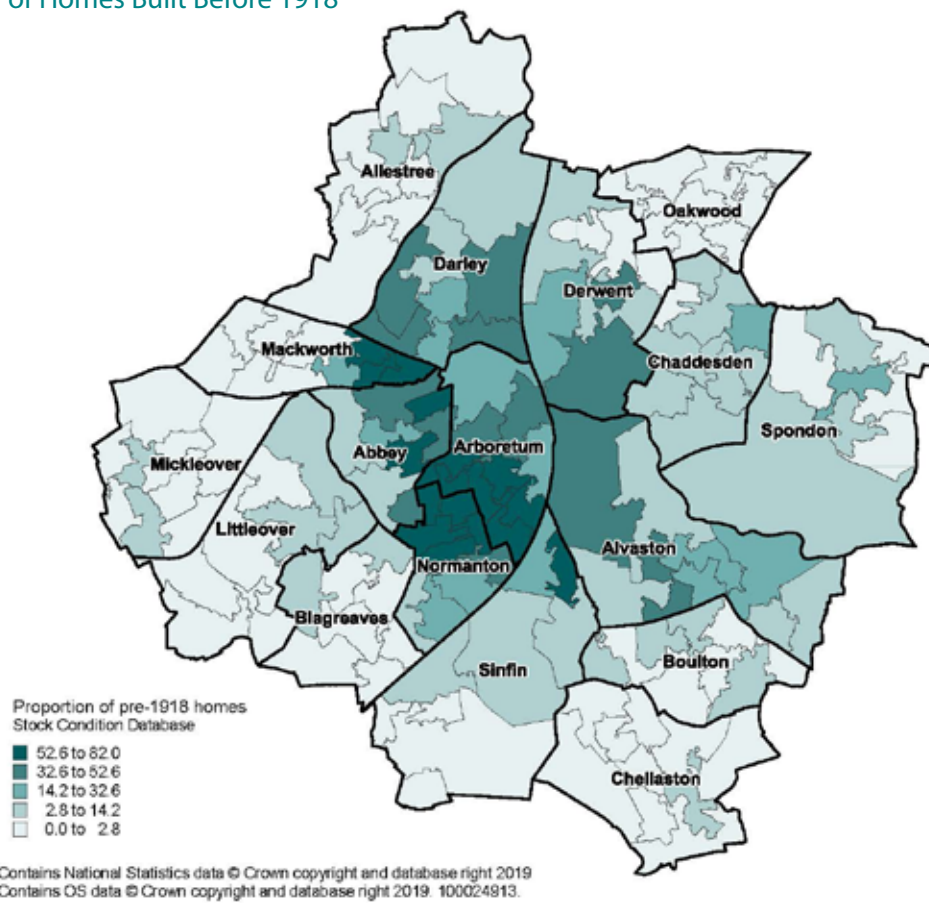
Proportion of Homes Built Between 1919 and 1944

Proportion of Homes Built 1919 - 1944
SCS Database

- 47.5 to 73.8
- 25.0 to 47.5
- 12.5 to 25.0
- 4.7 to 12.5
- 0.0 to 4.7

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Proportion of Homes Built Between 1945 and 1980

Proportion of Homes Built After 2002
SCS Database

- 26.8 to 74.4
- 12.8 to 26.8
- 5.4 to 12.8
- 2.0 to 5.4
- 0 to 2.0

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Proportion of Homes Built Between 1981 and 2002

Proportion of Homes Built 1981 - 2002
SCS Database

- 47.7 to 97.6
- 18.8 to 47.7
- 9.3 to 18.8
- 3.8 to 9.3
- 0.0 to 3.8

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Proportion of Homes Built After 2002

Proportion of Homes Built After 2002
SCS Database

■ 26.8 to 74.4
■ 12.8 to 26.8
■ 5.4 to 12.8
□ 2.0 to 5.4
□ 0.0 to 2.0

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The pattern of home building seen in Derby is reflective of the national picture. Homes built before 1918 can be found throughout the centre of most towns and cities in England. The well off middle classes lived in villas, designed as status symbols with separate quarters for servants.   For lower classes with only a modest income, less prestigious terraced homes were constructed, taking the form of the well known two-up two-down, often built in rows back to back.   These homes were built without electricity and in some cases lacked sanitation. These homes still remain today, however the addition of modern facilities make them affordable 'starter homes' and popular buy to let properties.

The 'between the wars' period 1919 - 1939 saw housing take on a growing political significance, with a large scale council house building programme. During this period, local authorities across England built over one million homes for rent. For working families the affordability of mortgages lead to an increase in home ownership.   Homes built during this period were generally cottage style suburban semi-detached homes. Land was cheap, allowing housing to be built at lower densities with gardens and tree lined avenues.

Following the end of World War 2 there was a national housing shortage. Prefabrication was adopted on a massive scale as a way of supplying new urgently needed homes. The introduction of the 1949 Housing Act enabled local authorities to provide housing for professionals and manual workers. The introduction of the Town and Country Planning Act in 1947 was a response to the uncontrolled expansion of the suburbs. The act established the planning principals that still apply today.

The 1980's saw improved average incomes for most people and economic success lead to rapid house price inflation. In 1990, the inflation bubble burst leaving many in negative equity. The Right to Buy scheme introduced in the 1980 Housing Act led to 1.9 million council homes being sold between 1980 and 1990. This period saw a rapid improvement in the safety of homes with the introduction of the NHBC (National House Building Council) Standards in 1992.

By the turn of the century affordable homes and the need to ensure that homes met strict sustainability guidelines became a central political challenge. The Decent Homes Standard was introduced to ensure that homes were safe and decent to live in.

Tenure of Homes in Derby

The tenure of a property plays a key role in the analysis of it's propensity to be non-decent. Data was obtained from the Tenancy Deposit Scheme providers which provides address details of every property against which a tenancy deposit has been secured. This was analysed in conjunction with data from Housing Benefits where a tenant had made a claim for housing benefit and with known social rented properties. The combination of this analysis allowed for a final probable tenure to be calculated.

Overall, 57.1% of homes in Derby are owner occupied, 22.4% are privately rented and 20.5% of homes are social rented.

The proportions of owner occupation, private rent and social rent vary across the city from ward to ward. The wards around the perimeter of the city have the greatest proportions of owner occupation. Allestree ward has the highest level of owner occupation (84.5%) followed by Mickleover (80.6%).

The proportion of private rented homes similarly varies across the city. The highest levels of private rented homes are seen across the more central wards of Arboretum (41.3%), Abbey (39.9%) and Normanton (32.9%).

It should be noted that a property can change from owner occupation to private rent and vice versa relatively easily. Therefore, the tenure breakdown figures contained in this report should be used as an estimate of the tenure split as of February 2019 rather than absolute figures.

Tenure of Homes in Derby

Ward	Owner Occupied	Private Rent	Social	Total
Allestree	84.5%	11.6%	3.9%	6,257
Mickleover	80.6%	13.5%	5.9%	6,579
Spondon	72.7%	13.8%	13.4%	5,800
Oakwood	72.7%	19.0%	8.3%	5,755
Littleover	72.4%	16.8%	10.8%	5,607
Blagreaves	71.1%	15.6%	13.4%	5,246
Chaddesden	67.9%	12.9%	19.2%	5,827
Chellaston	67.2%	14.4%	18.5%	6,679
Boulton	60.2%	13.7%	26.0%	6,038
Derwent	50.0%	17.1%	32.9%	6,197
Mackworth	48.8%	26.0%	25.2%	6,896
Alvaston	46.0%	28.7%	25.3%	7,981
Darley	45.1%	30.3%	24.6%	7,066
Normanton	44.7%	32.9%	22.4%	6,687
Sinfin	42.8%	18.5%	38.7%	6,088
Abbey	37.0%	39.9%	23.1%	7,121
Arboretum	29.8%	41.3%	28.9%	8,437
Grand Total	**57.1%**	**22.4%**	**20.5%**	**110,261**

Source : 2019 Derby stock condition property level database

Proportion of Owner Occupied Homes

Proportion of Owner Occupied Homes
Stock Condition Database 2019

- ■ 78.0 to 93.9
- ■ 65.0 to 78.0
- ■ 52.6 to 65.0
- □ 38.8 to 52.6
- □ 13.5 to 38.8

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Proportion of Private Rented Homes

Proportion of Private Rented Homes
Stock Condition Database 2019

- ■ 35.9 to 62.9
- ■ 23.4 to 35.8
- ■ 15.7 to 23.3
- □ 11.5 to 15.6
- □ 0.1 to 11.4

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Type and Age of Homes in Derby.

There are variations in the property types and ages between the tenure groups across the city.

Owner occupied properties tend to be biased towards semi-detached (41.8%) and detached (34.0%) homes. Only 3.7% of owner occupiers in Derby live in a flat or apartment, this contrasts with 25.7% of private renters who live in flats and apartments in the city.

Private rented homes are biased towards terraced (39.6%) and semi-detached (23.6%) homes. Fewer than 1 in 10 private rented homes are detached.

Private rented homes are often much older than owner occupied homes. 28.6% of private rented homes were built before 1918 compared to just 11.9% of owner occupied homes built before 1918.

The largest proportion of owner occupied homes were constructed between 1954 - 1980 (36.8%) and 1981 - 2002 (18.7%).

These findings for Derby mirror the national patterns of tenure and property type identified by the English Housing Survey 2016 - 17[18], in which privately rented properties are predominantly older terraced homes and flats contrasting with owner occupied properties which tend to be newer semi-detached and detached homes.

42.8% of all private rented properties in the city were constructed before 1944 compared to just 35.0% of owner occupied homes. Interestingly, 18.2% of private rented properties were built post 2002, compared to just 8.3% of owner occupied dwellings.

> **Owner occupied homes tend to be newer semi-detached and detached homes whereas private rented homes tend to be older terraced homes, flats and apartments**

Age and Type of Home by Tenure

	Owner Occupied		Private Rented		Social Rented	
	Number	%	Number	%	Number	%
Property Type						
Flat	2,350	3.7%	6,358	25.7%	8,480	37.6%
Terrace	12,463	19.8%	9,806	39.6%	6,473	28.7%
Semi-detached	26,334	41.8%	5,846	23.6%	7,144	31.6%
Detached	21,387	34.0%	2,204	8.9%	316	1.4%
Other	395	0.6%	537	2.2%	168	0.7%
Property Age						
Pre 1918	7,511	11.9%	7,080	28.6%	3,899	17.3%
1919 - 1944	14,551	23.1%	3,517	14.2%	5,110	22.6%
1945 - 1980	23,157	36.8%	4,691	19.0%	9,378	41.5%
1981 - 2002	11,783	18.7%	4,286	17.3%	2,969	13.1%
Post 2002	5,245	8.3%	4,502	18.2%	1,080	4.8%
Unknown	682	1.1%	675	2.7%	145	0.6%
Total	62,929		24,751		22,581	

Source : 2019 Derby stock condition property level database

The National Picture

What is happening to private sector housing nationally?

Decline in the proportion of non-decent private sector homes from 34.4% in 2008 to 20.1% in 2017

Since the English Housing Survey (EHS) came into being in 2008 the proportion of dwellings failing to meet the decent homes standard has steadily decreased across all tenures. In 2008, 34.4% of private sector homes failed to meet the decent homes standard, but this has since reduced to 20.1% of private sector homes in 2017[18].

This steady decline has been seen in both owner occupied and private rented homes. Overall, proportions of owner occupied homes failing to meet the decent homes standard has decreased from a high of 32.3% in 2008 to 19.7% in 2016.

Private rented properties have followed a similar trend with the proportions not meeting the decent homes standard decreasing from 44.0% in 2008 to 26.8% in 2016. Despite this decrease, nationally 1 in 5 households in the private sector are living in a non-decent home.

Further analysis into the decrease in the proportion of dwellings failing the decent home standard reveals that the largest decline is in the proportion of dwellings failing the decent homes standard for thermal comfort, which has declined amongst all private sector properties from 13.7% in 2008 to a low of 6.2% in 2015.   This decrease could, in part, be due to both the Green Deal and Energy Company Obligation (ECO) schemes which were established to encourage home owners and landlords to improve the energy efficiency of their properties by installing double glazing, energy efficient boilers and improved insulation.

1 in 5 households in the private sector nationally are living in a non-decent home.

The Proportion of Non Decent Private Sector Homes Nationally
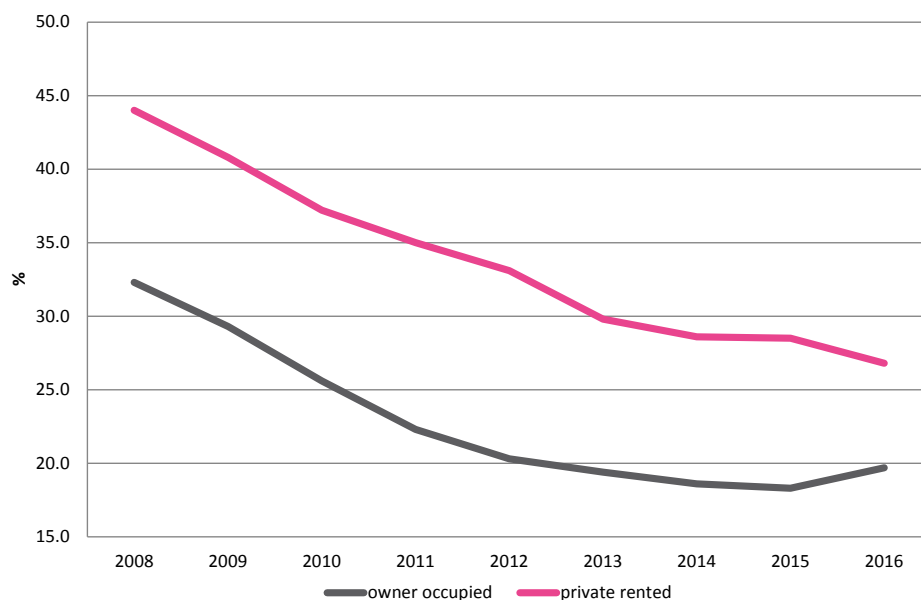
Decent Homes

How many private sector homes do not meet the decent homes standard?

1 in 5 families living in the private sector in Derby are living in a home that does not meet the decent homes standard.

The Decent Homes Standard is the current standard for social housing which was updated in 2006 to reflect the Housing Health and Safety Rating System (HHSRS)[19] and states that for a dwelling to be considered decent it must

- be free from any hazard that poses a serious risk to health and safety
- be in a reasonable state of repair
- have reasonably modern facilities
- provide a reasonable degree of thermal comfort.

The English Housing Survey 2015-2017 has been analysed looking at the propensity of each type of property to be decent taking into account individual property characteristics (age, type and tenure) together with the IMD quintile for each property. This analysis produced a propensity score for each individual address, identifying the likelihood of the home to be non-decent. The analysis looks at each of the 4 criteria under which a home can fail to meet the Decent Homes Standard. An overall decency score has also been calculated using the English Housing Survey variable overall standard (26 hazard) model.

In Derby the number of private sector homes not meeting the Decent Homes Standard is estimated to be approximately 18,700 (21.4% of all private sector homes). This is in line with the national figure of 21.6% and the figure for the East Midlands (19.4%).

The 2007 Derby Housing Stock Condition Survey identified approximately 27,200 homes (33.5%) as non-decent. This was in line with the national proportion of non-decent homes

in 2007. However there has been a sharp decline nationally in the proportion of homes not meeting the Decent Homes Standard over the previous decade. The rate of non decency nationally now stands at 21.6% for private sector homes.

The distribution of non-decent homes throughout the city, as might be expected is not uniform, instead being more concentrated in the wards of Normanton (32.0%), Abbey (26.0%) Arboretum (25.7%) Darley (25.5%) and Sinfin (25.4%).

The most likely reason for a homes in Derby to fail the Decent Homes Standard is for possessing a HHSRS Category 1 Hazard (14.3%).
Compared to national and regional figures Derby has a greater proportion of private sector homes failing the Decent Homes criteria modern facilities, disrepair and HHSRS Category 1 hazards than both the East Midlands and England as a whole.

Derby has slightly fewer homes failing the Decent Homes Standard thermal comfort than England but a greater proportion than the East Midlands.

18,700 (1 in 5) private sector homes in Derby do not meet the Decent Home Standard.

Proportion of Non-Decent Homes

Ward	Total Private sector dwellings	Total non-decent dwellings	Proportion of non-decent dwellings
Normanton	5,190	1,660	32.0%
Arboretum	6,000	1,542	25.7%
Abbey	5,477	1,426	26.0%
Alvaston	5,959	1,381	23.2%
Darley	5,330	1,359	25.5%
Chaddesden	4,711	1,156	24.5%
Mackworth	5,160	1,109	21.5%
Blagreaves	4,544	1,035	22.8%
Allestree	6,014	1,013	16.8%
Spondon	5,022	991	19.7%
Boulton	4,466	959	21.5%
Sinfin	3,732	949	25.4%
Mickleover	6,191	925	14.9%
Derwent	4,161	890	21.4%
Littleover	5,001	837	16.7%
Chellaston	5,446	794	14.6%
Oakwood	5,276	700	13.3%
Total Derby	**87,680**	**18,726**	**21.4%**
East Midlands	**-**	**-**	**19.4%**
England	**19 million**	**3.9 million**	**21.6%**

Source : 2019 Derby stock condition property level database and EHS 2016

Proportion of Homes failing Each of the Decent Homes Criteria

Legend: Derby, East Midlands, England

Thermal Comfort: Derby 5.8%, East Midlands 3.8%, England 6.5%
Modern Facilities: Derby 2.2%, East Midlands 1.8%, England 2.1%
Disrepair: Derby 4.7%, East Midlands 3.4%, England 3.9%
HHSRS Category 1 Hazards: Derby 14.3%, East Midlands 13.8%, England 12.2%
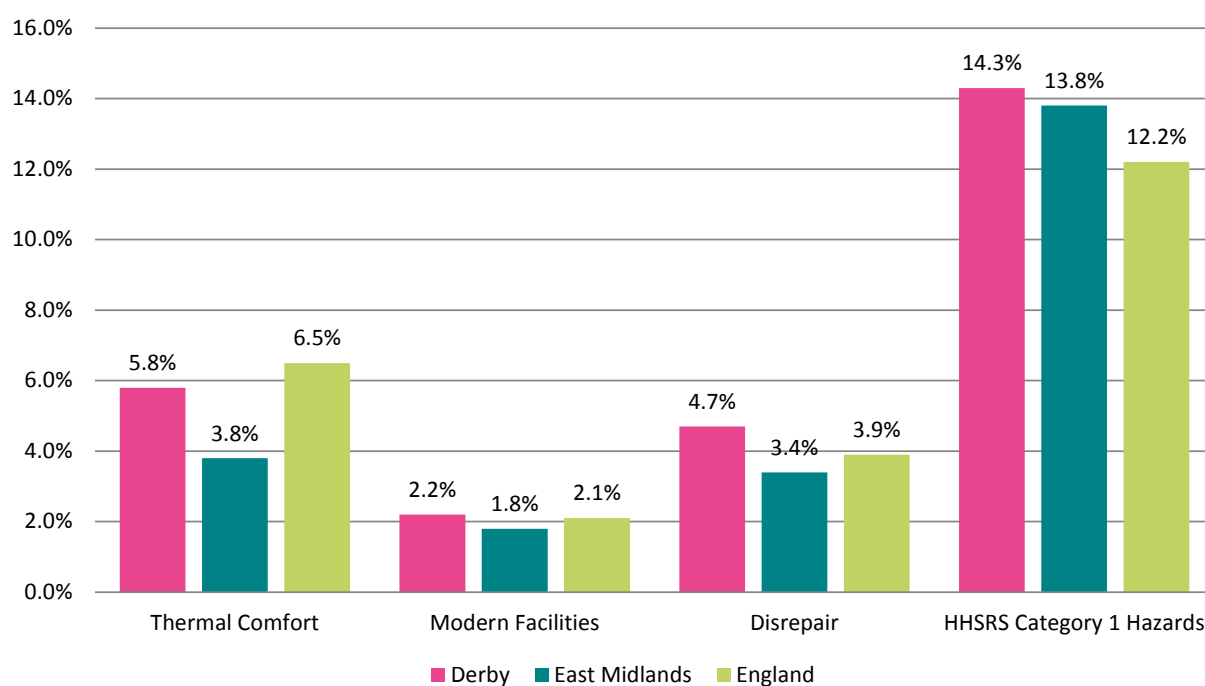
Proportion of Non-Decent Private Sector Homes

Proportion of Non-Decent Homes
Stock Condition Survey

- 29.2 to 36.9
- 24.1 to 29.2
- 19.8 to 24.1
- 13.9 to 19.8
- 3.6 to 13.9

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Tenure of Non-Decent Homes

The tenure breakdown of non-decent homes within the city shows that there are more private rented homes that are failing to meet the decent homes standard (24.2%) compared to the proportion of owner occupied homes (20.3%).

This pattern of non-decent homes mirrors the national picture where levels of non-decency are greater in the private rented sector (26.8%) than owner occupied (19.7%)[20].

There are some similarities between the geographical distribution of decent and non decent homes in the both the owner occupied and private rented sectors. Normanton has the greatest proportion of non-decent homes in both the owner occupied (32.4%) and private rented (31.4%) sectors.

The wards of Abbey and Arboretum are the

areas of the city with the greatest percentage of non-decent owner occupied homes where as Blagreaves and Allestree have the greatest percentage of non-decent private rented properties.

As might be expected, a greater proportion of older properties do not meet the Decent Homes Standard. 30.8% of homes built pre 1918 in Derby are non decent, 31.1% of homes built between 1919 and 1945 are classed as non decent compared to 11.6% of homes built between 1981 and 2002 and 1.8% of homes built since 2002.

> **24.2% of homes in the private rented sector fail the Decent Homes Standard.**

Tenure of Non-Decent Private Sector Homes

Owner Occupied · Private Rent
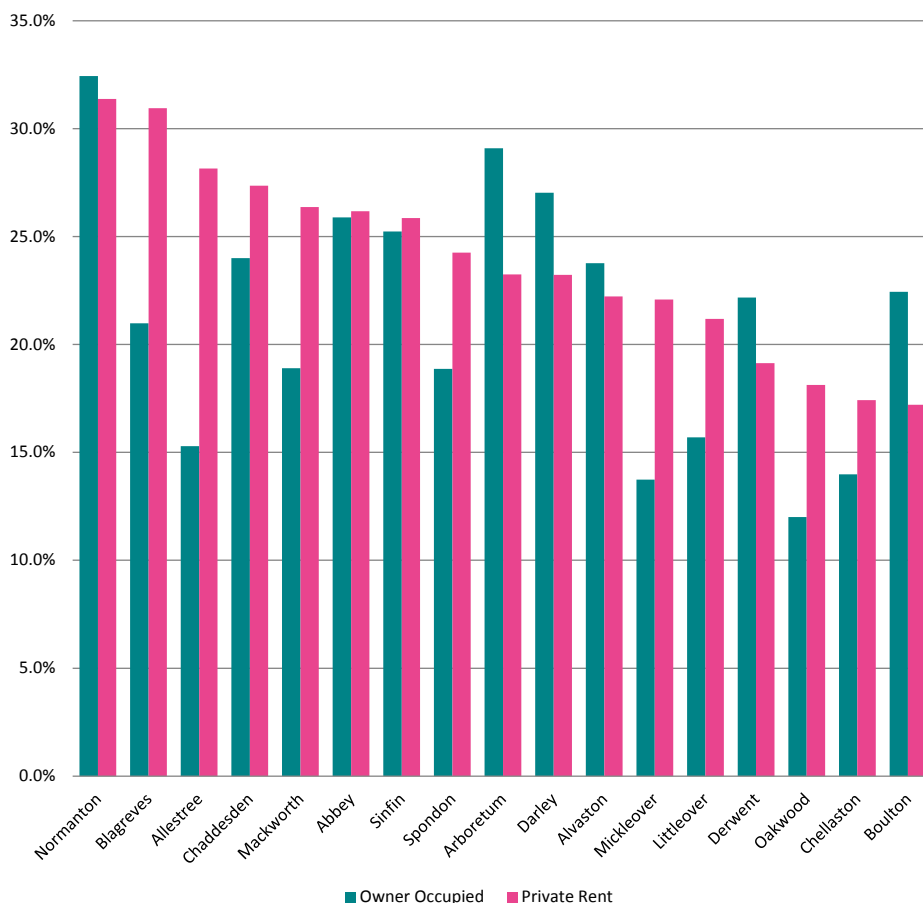
Proportion of Non-Decent Homes by Tenure and Ward

Ward	Owner Occupied		Private Rented		Total Non-Decent	
	Count	%	Count	%	Count	%
Normanton	970	32.4%	690	31.4%	1,660	32.0%
Abbey	683	25.9%	743	26.2%	1,426	26.0%
Arboretum	732	29.1%	810	23.2%	1,542	25.7%
Darley	861	27.0%	498	23.2%	1,359	25.5%
Sinfin	657	25.2%	292	25.9%	949	25.4%
Chaddesden	950	24.0%	206	27.4%	1,156	24.5%
Alvaston	873	23.8%	508	22.2%	1,381	23.2%
Blagreves	782	21.0%	253	31.0%	1,035	22.8%
Mackworth	636	18.9%	474	26.4%	1,109	21.5%
Boulton	816	22.4%	143	17.2%	959	21.5%
Derwent	687	22.2%	203	19.1%	890	21.4%
Spondon	796	18.9%	195	24.3%	991	19.7%
Allestree	808	15.3%	204	28.2%	1,013	16.8%
Littleover	637	15.7%	200	21.2%	837	16.7%
Mickleover	728	13.7%	197	22.1%	925	14.9%
Chellaston	627	14.0%	167	17.4%	794	14.6%
Oakwood	503	12.0%	198	18.1%	700	13.3%
Total	12,747	20.3%	5,979	24.2%	18,726	21.4%

Source : 2019 Derby stock condition property level database

Proportion of Non-Decent Homes by Age of Home
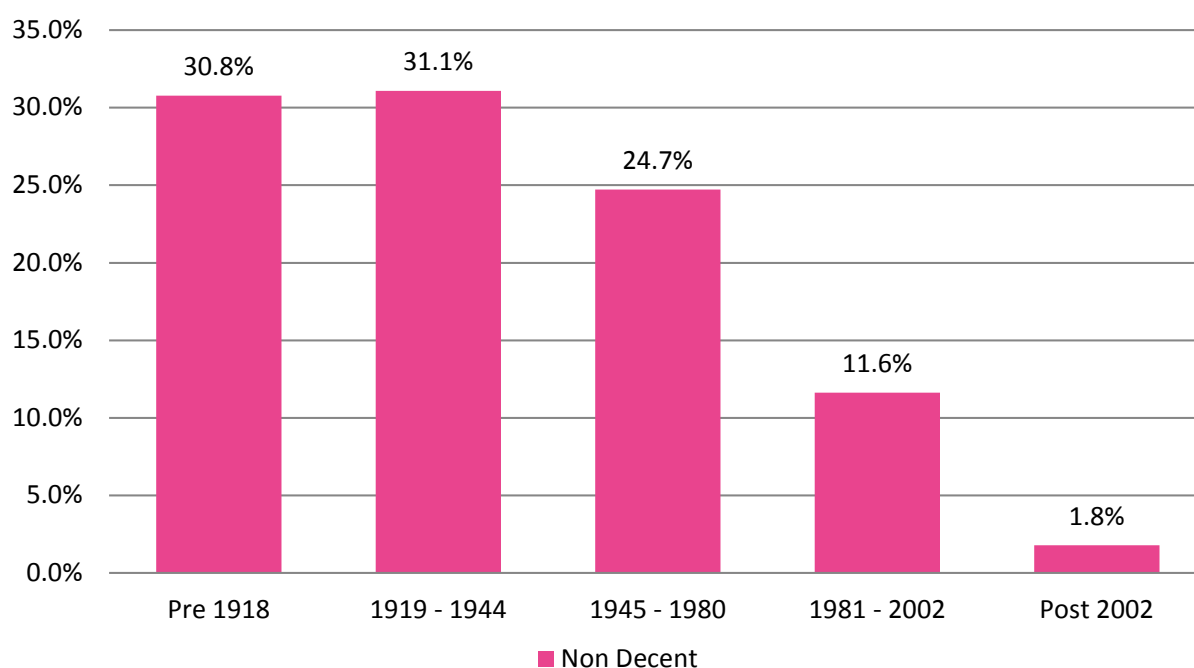
Proportion of Non-Decent Owner Occupied Homes

Proportion of Non-Decent Owner Occupied Homes
2016-2017 English Housing Survey
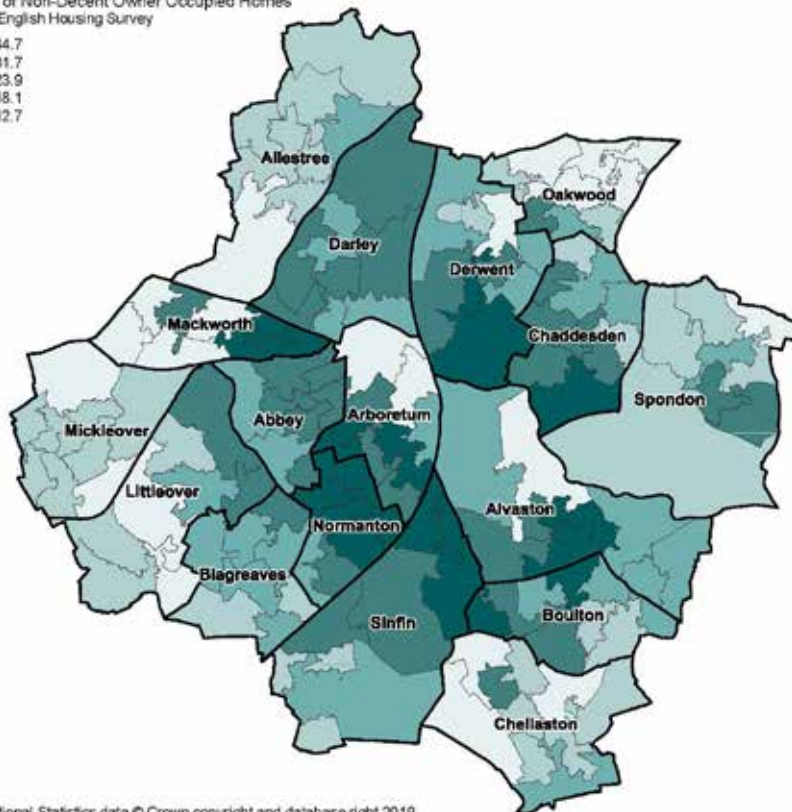
- 31.7 to 44.7
- 23.9 to 31.7
- 18.1 to 23.9
- 12.7 to 18.1
- 2.9 to 12.7

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Proportion of Non-Decent Private Rented Homes

Proportion of Non Decent Private Rented Homes
2016 - 2017 English Housing Survey
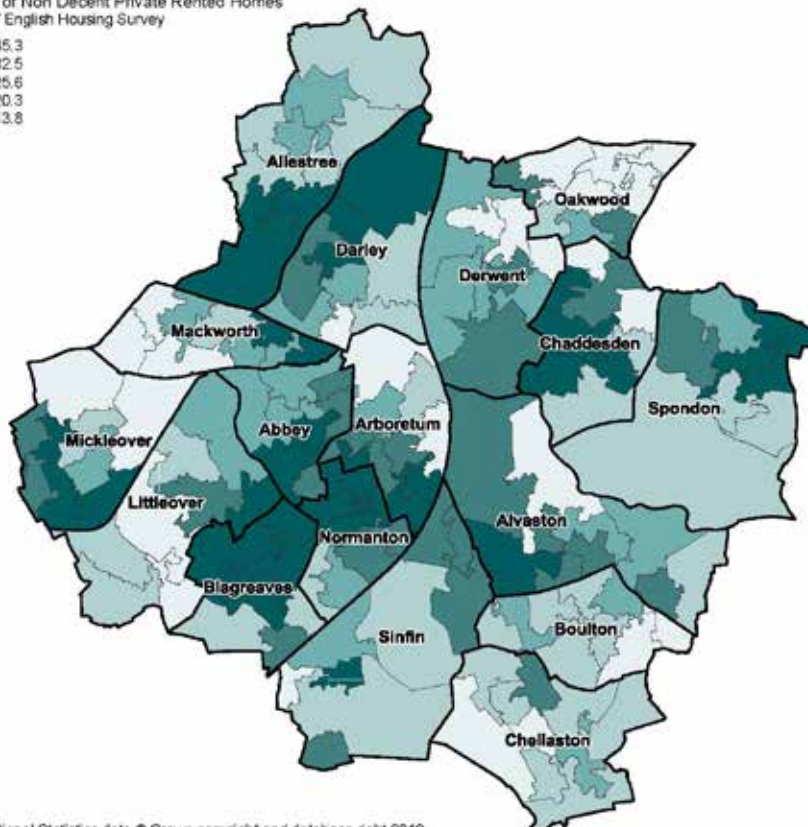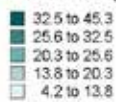
- 32.5 to 45.3
- 25.6 to 32.5
- 20.3 to 25.6
- 13.8 to 20.3
- 4.2 to 13.8

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Thermal Comfort

How many homes fail the Decent Homes Criteria thermal comfort?

Approximately 5,000 homes in Derby fail the Decent Homes Standard for thermal comfort..

The Decent Homes Standard requires a home to have both efficient heating and effective insulation. Homes can fail the Decent Homes Standard by not providing a reasonable degree of thermal comfort.

In Derby approximately 5,000 private sector homes fail the Decent Homes Standard on thermal comfort. A greater proportion of private rented homes do not meet the required standard for thermal comfort (8.9%) than owner occupied homes (4.6%).

Overall, the greatest proportion of private sector homes failing the Decent Homes Standard for thermal comfort are Darley (8.7%), Abbey (6.7%), Mackworth (5.7%) and Alvaston (5.7%).

The proportions of private sector homes failing the Decent Homes Standard for thermal comfort is greatest in homes constructed between 1981 and 2002 (8.7%).

Proportion of Homes Failing the Decent Homes Criteria Thermal Comfort

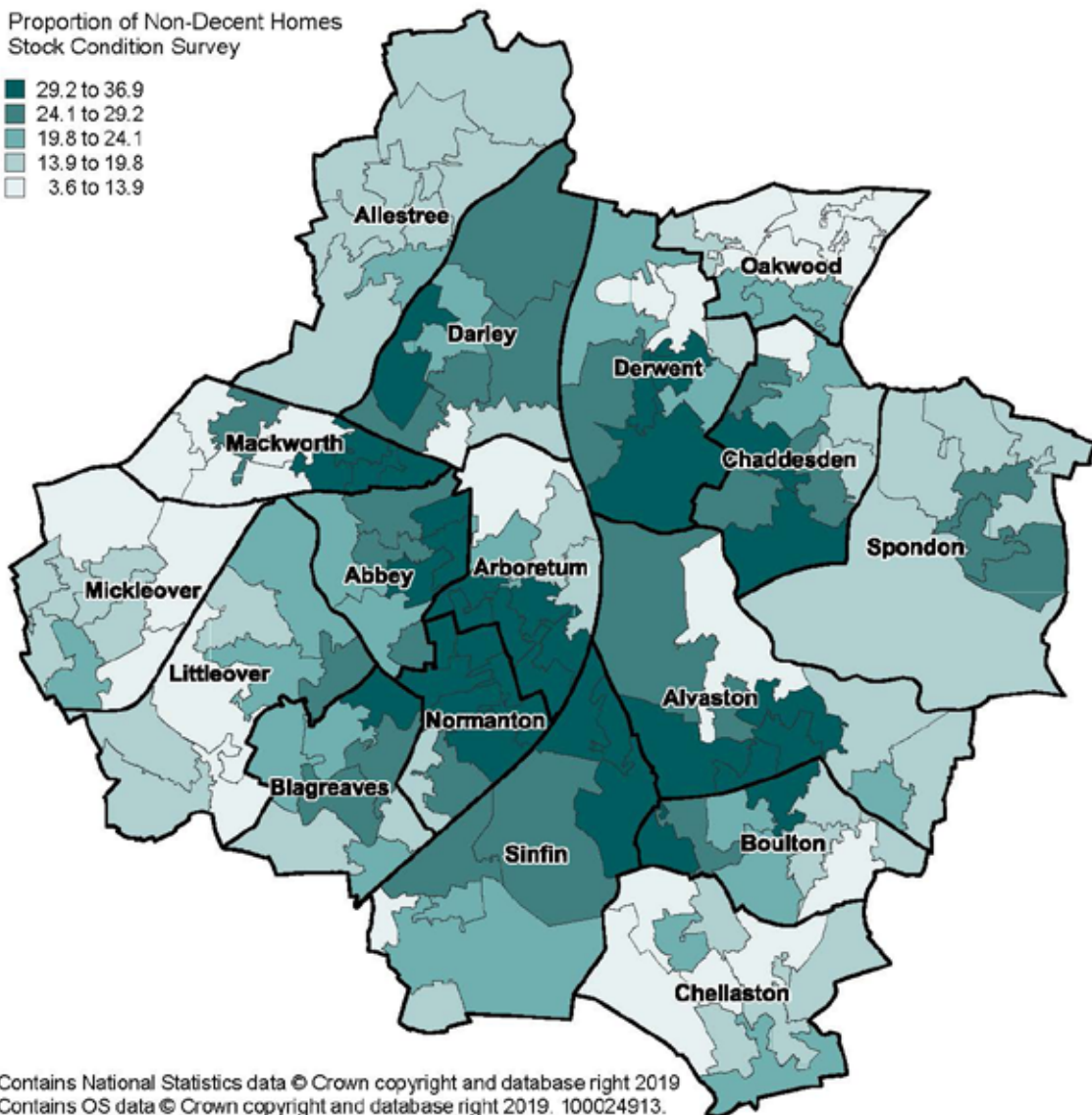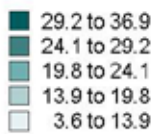| Ward	Owner Occupied		Private Rented		Total Non-Decent	
	Count	%	Count	%	Count	%
Allestree	112	2.1%	153	21.1%	265	4.8%
Mickleover	174	3.3%	130	14.5%	304	5.1%
Blagreves	222	6.0%	104	12.8%	327	5.5%
Oakwood	241	5.8%	132	12.1%	373	6.2%
Mackworth	140	4.2%	199	11.1%	339	7.5%
Spondon	193	4.6%	84	10.5%	277	6.2%
Darley	266	8.4%	212	9.9%	478	10.1%
Chellaston	201	4.5%	94	9.8%	294	5.4%
Abbey	150	5.7%	254	9.0%	405	7.6%
Littleover	177	4.3%	79	8.3%	255	6.1%
Alvaston	166	4.5%	177	7.7%	344	6.9%
Chaddesden	241	6.1%	58	7.7%	298	5.8%
Arboretum	119	4.7%	242	6.9%	361	5.8%
Normanton	107	3.6%	127	5.8%	234	4.5%
Sinfin	128	4.9%	60	5.3%	188	3.6%
Derwent	116	3.8%	56	5.3%	172	4.6%
Boulton	130	3.6%	40	4.8%	170	3.4%
Total	2,883	4.6%	2,200	8.9%	5,083	5.8%

Source : 2019 Derby stock condition property level database

Proportion of Homes Failing the Decent Homes Criteria Thermal Comfort by age of Home
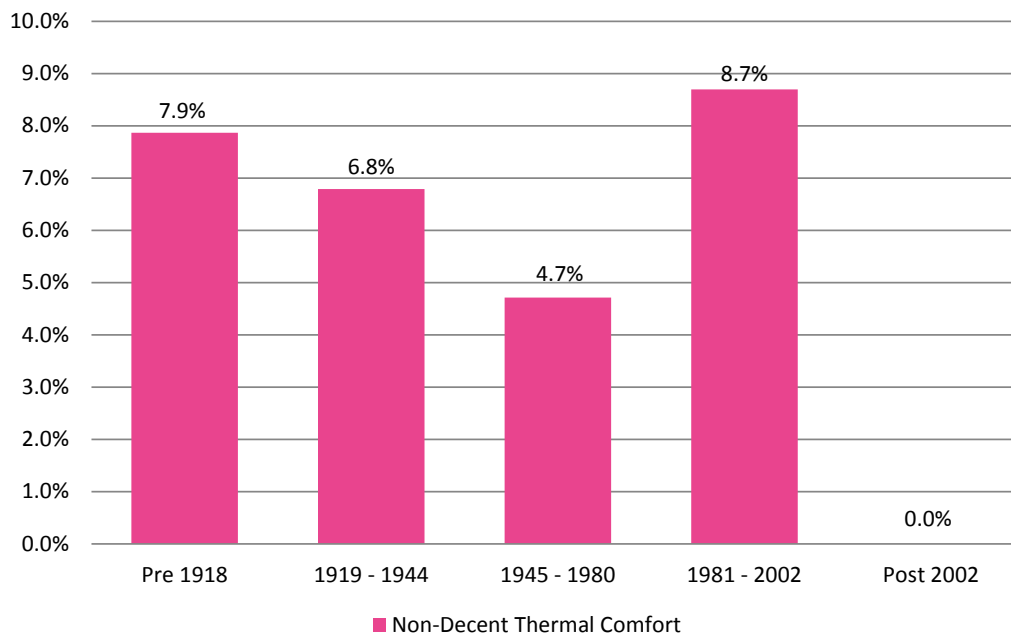
Non-Decent Thermal Comfort

Proportion of Homes Failing the Decent Homes Criteria Thermal Comfort

Decent Homes Thermal Comfort
Stock Condition Database

- 9.2 to 17.8
- 6.2 to 9.2
- 4.2 to 6.2
- 2.7 to 4.2
- 0.0 to 2.7

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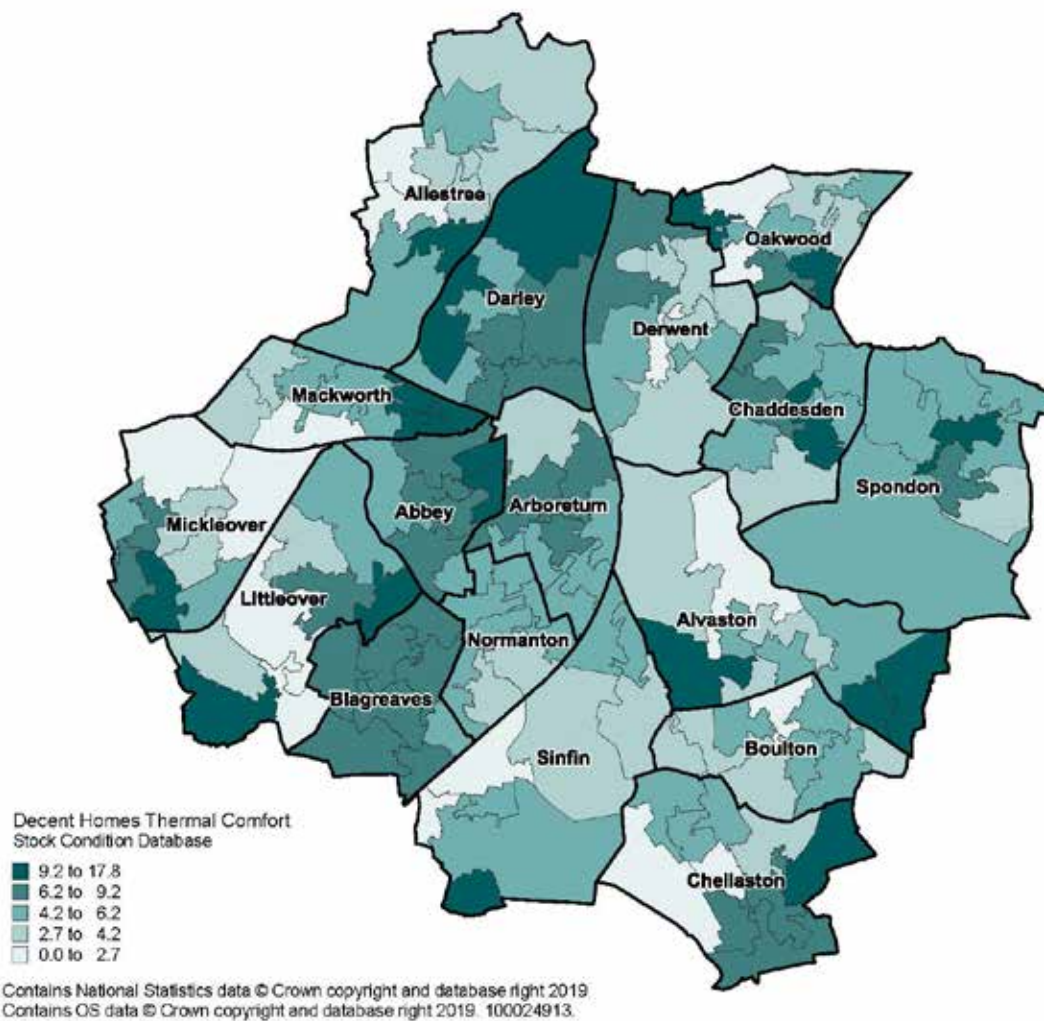
Modern Facilities

How many homes fail the Decent Homes Criteria modern facilities?

Approximately 1,800 homes in Derby fail the Decent Homes   Standard for modern facilities.

The Decent Homes Standard requires a home to have reasonably modern facilities and services which includes relatively modern kitchen and bathrooms.

There are approximately 1,893 private sector homes in Derby that fail the Decent Homes Standard for reasonably modern facilities.

The wards of Normanton (5.3%) Arboretum (4.6%) and Alvaston (3.2%) have the greatest proportion of private sector homes not meeting the Decent Homes Standard for reasonably modern facilities.

Older homes are more likely to lack modern facilities, 4.8% of homes built before 1918 and 4.5% of homes built between 1919 and 1944 fail the Decent Homes Standard for modern facilities compared to1.0% of homes built between 1945 and 1980 and 0.7% of homes built between 1981 and 2002.

Proportion of Homes Failing the Decent Homes Criteria Modern Facilities

Ward	Owner Occupied		Private Rented		Total Non-Decent	
	Count	%	Count	%	Count	%
Normanton	155	5.2%	116	5.3%	271	5.2%
Arboretum	172	6.9%	105	3.0%	278	4.6%
Alvaston	69	1.9%	122	5.3%	191	3.2%
Chaddesden	114	2.9%	21	2.8%	135	2.9%
Sinfin	55	2.1%	51	4.5%	105	2.8%
Darley	75	2.3%	41	1.9%	115	2.2%
Blagreaves	77	2.1%	18	2.3%	95	2.1%
Mackworth	36	1.1%	61	3.4%	97	1.9%
Abbey	48	1.8%	53	1.9%	101	1.8%
Derwent	53	1.7%	23	2.2%	76	1.8%
Littleover	68	1.7%	24	2.5%	91	1.8%
Spondon	62	1.5%	17	2.1%	78	1.6%
Boulton	44	1.2%	19	2.3%	63	1.4%
Oakwood	38	0.9%	16	1.5%	53	1.0%
Chellaston	41	0.9%	12	1.2%	53	1.0%
Allestree	43	0.8%	11	1.5%	54	0.9%
Mickleover	26	0.5%	9	1.0%	36	0.6%
Total	1,174	1.9%	719	2.9%	1,893	2.2%

Source : 2019 Derby stock condition property level database

Proportion of Homes Failing the Decent Homes Criteria Modern Facilities by age of Home
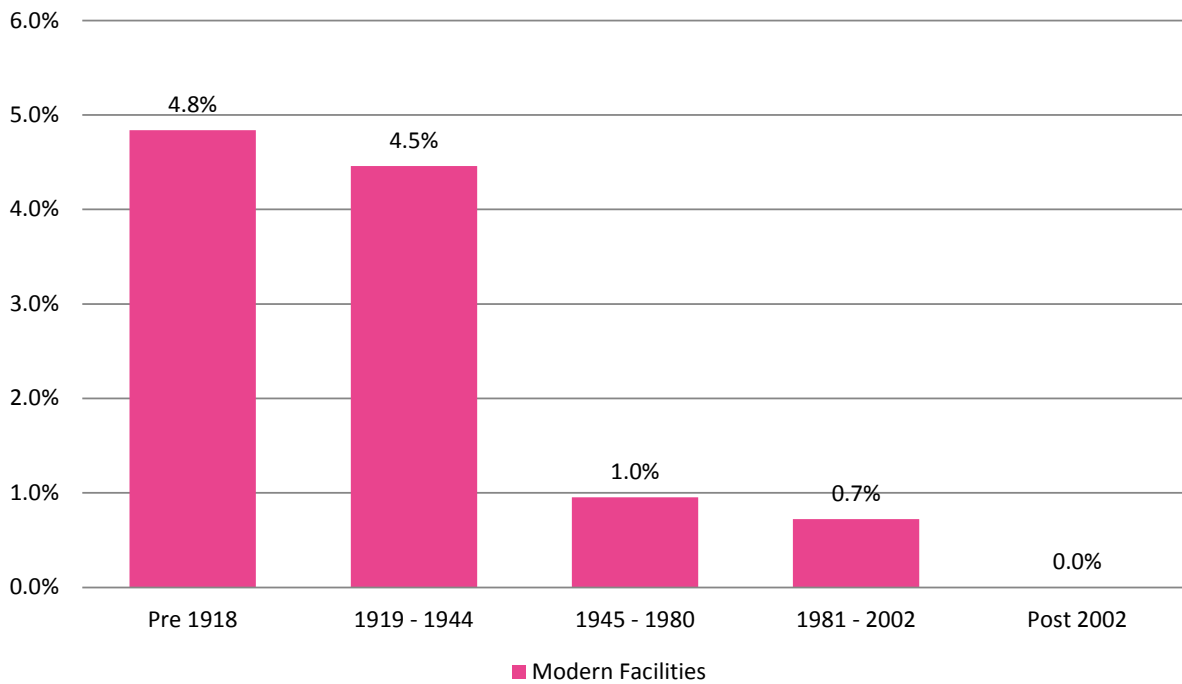
Bar chart values:
- Pre 1918: 4.8%
- 1919 - 1944: 4.5%
- 1945 - 1980: 1.0%
- 1981 - 2002: 0.7%
- Post 2002: 0.0%

Legend: ■ Modern Facilities

Proportion of Homes Failing the Decent Homes Criteria Modern Facilities

Decent Homes Modern Facilities
Stock Condition Database

- 4.5 to 12.8
- 2.4 to 4.5
- 1.4 to 2.4
- 0.7 to 1.4
- 0.0 to 0.7

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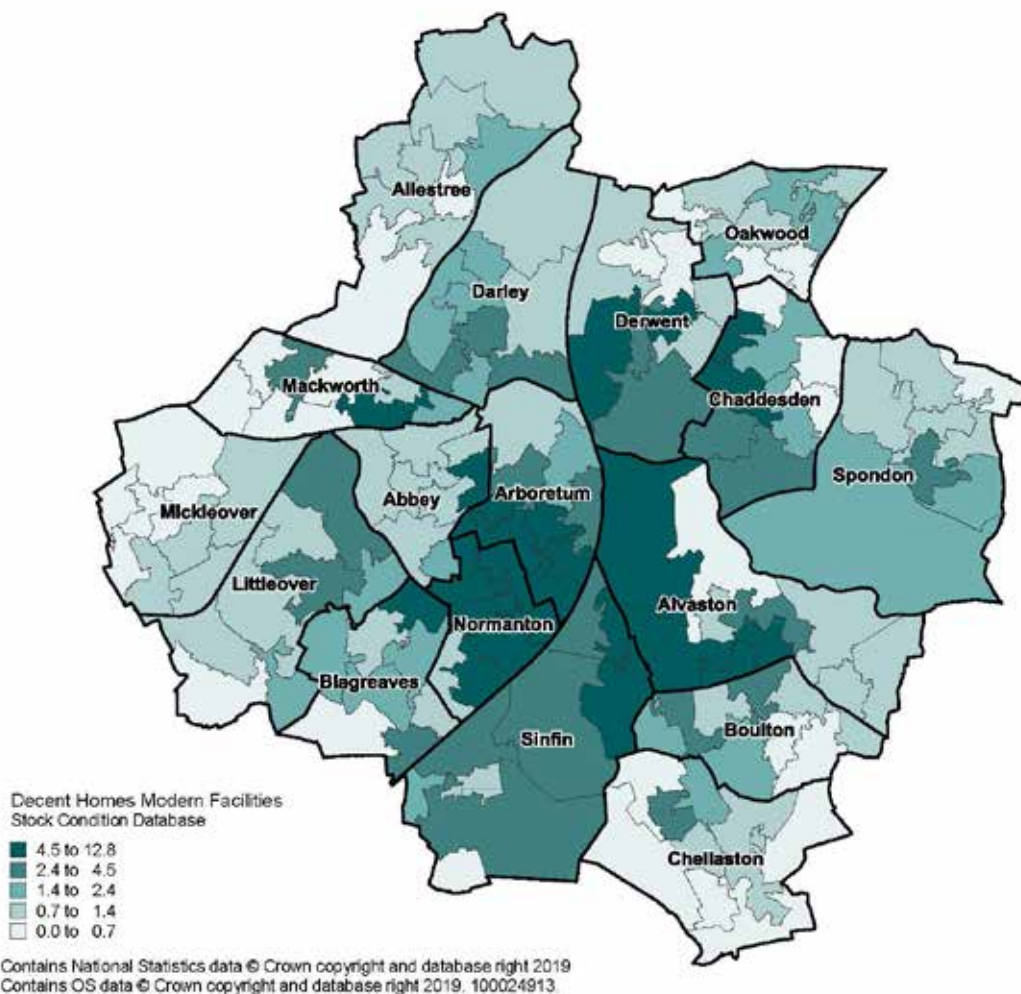
Disrepair

How many homes fail the Decent Homes Criteria reasonable state of repair?

Approximately 4,000 homes in Derby fail the Decent Homes Standard for reasonable state of repair.

The Decent Homes Standard requires a home to be in a reasonable state of repair. A home may fail this criteria if it has one or more key building components that are old, and because of their condition need replacing or major repair.

The greatest levels of disrepair can be found in the wards of Normanton (9.5%), Arboretum (8.5%), Chaddesden (6.9%) and Abbey (6.8%). The wards surrounding the edge of the city have the lowest levels of disrepair Mickleover

(2.4%), Chellaston (1.6%), and Oakwood (1.1%).

Levels of disrepair are greatest within private rented homes, 6.9% compared to 3.8% of owner occupied homes.

Older homes are more likely to fail the Decent Homes Standard repair component in Derby. In homes built before 1918 13.2% fail the Decent Homes Standard for repair compared in 0.4% of homes built after 1981.

Proportion of Homes Failing the Decent Homes Standard for Disrepair

Ward	Owner Occupied		Private Rented		Total Non-Decent	
	Count	%	Count	%	Count	%
Normanton	237	7.9%	253	11.5%	491	9.5%
Arboretum	204	8.1%	304	8.7%	508	8.5%
Chaddesden	222	5.6%	103	13.7%	325	6.9%
Abbey	167	6.3%	207	7.3%	374	6.8%
Darley	168	5.3%	127	5.9%	295	5.5%
Alvaston	149	4.0%	172	7.5%	321	5.4%
Blagreves	166	4.4%	66	8.1%	232	5.1%
Mackworth	137	4.1%	107	6.0%	244	4.7%
Derwent	143	4.6%	53	5.0%	196	4.7%
Sinfin	90	3.4%	78	6.9%	168	4.5%
Spondon	128	3.0%	48	5.9%	175	3.5%
Boulton	118	3.2%	35	4.2%	153	3.4%
Littleover	94	2.3%	73	7.8%	167	3.3%
Allestree	124	2.4%	25	3.5%	150	2.5%
Mickleover	115	2.2%	31	3.5%	146	2.4%
Chellaston	66	1.5%	22	2.3%	88	1.6%
Oakwood	48	1.1%	10	1.0%	58	1.1%
Grand Total	2,377	3.8%	1,715	6.9%	4,093	4.7%

Source : 2019 Derby stock condition property level database

Proportion of Homes Failing the Decent Homes Criteria Disrepair by Age of Home

■ Disrepair

Proportion of Homes Failing the Decent Homes Criteria Disrepair

Decent Homes Disrepair
Stock Condition Database

■ 8.6 to 14.2
■ 5.2 to 8.6
□ 3.0 to 5.2
□ 1.1 to 3.0
□ 0.0 to 1.1

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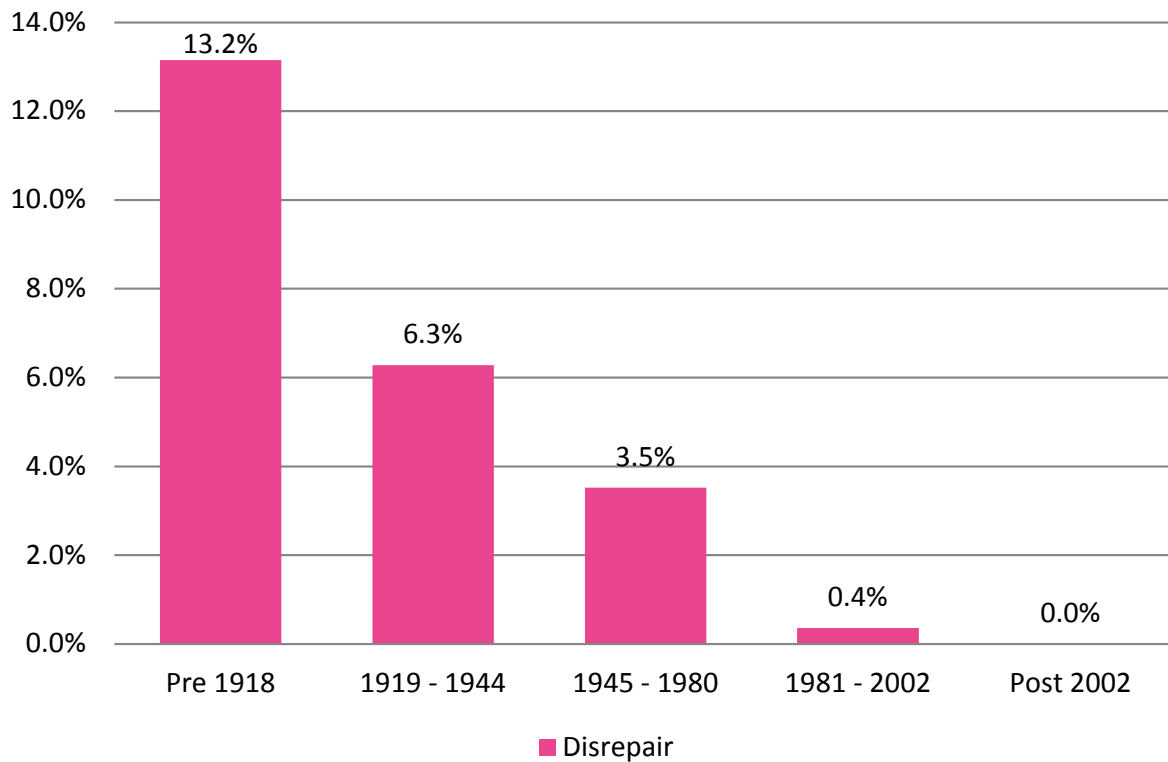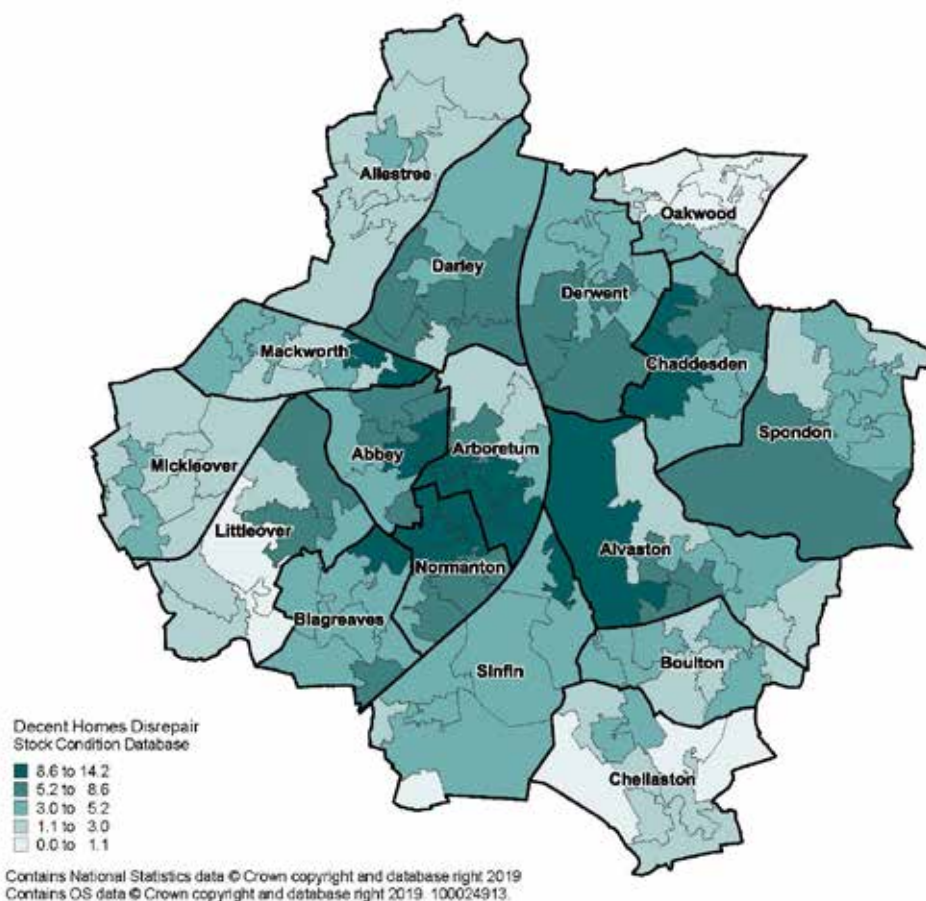
HHSRS Hazards

How many homes fail the Decent Homes Criteria of being free from HHSRS category 1 hazards?

Approximately 12,500 homes in Derby contain a HHSRS category 1 hazard.

The Housing Health and Safety Rating System[19] (HHSRS) was introduced under the Housing Act 2004. It is a risk based assessment tool which is used by housing and environmental officers to assess the risk (the likelihood and severity) of a hazard in residential housing to the health and safety of occupants or visitors. The HHSRS is tenure neutral; it can be used to assess hazards in private and social rented housing and also in owner occupied housing.

The HHSRS assesses 26 categories of hazard with each hazard being assigned a weighting which will determine whether the property is rated as having a category 1 hazard. A property is classified as having a category 1 hazard if it possesses a hazard falling within HHSRS band A , B or C and accruing hazard scores of 1,000 points or more.

Using the 2016 - 2017 English Housing Survey to model the likelihood of each type, age and tenure of property to possess a category 1 HHSRS hazard, it has been possible to estimate that around 12,500 (14.3%) private sector homes in Derby have at least one HHSRS category 1 hazard and therefore also fail to meet the Decent Homes Standard.

The English Housing Survey carries out a physical inspection of each property together with a household interview. This physical survey looks at each home and identifies those homes that fail the HHSRS for each of the 26 hazards.   These results have been used to model the propensity of each type of home in Derby to posses each of the HHSRS hazards

Derby has a greater proportion of private sector homes with a HHSRS category 1 hazard than both the East Midlands (13.8%) and England (12.2%).

Interestingly, Derby has a greater proportion of homes with a HHSRS hazard for falls on the stairs (7.6%) than both the East Midlands (6.8%) and England (5.8%). This may in part be due to the number of older homes in Derby with stairs that are steeper than more modern homes.

Derby has a comparable proportion of homes with a hazard for cold (3.2%) and damp & mould (0.6%) to both the East Midlands (3.4%) and England (4.0%) figures.

The types of hazard present in homes also varies by tenure. Private rented homes have a greater proportion of hazards for falls on the stairs (8.2%) and falls on the level (3.2%) than owner occupied homes.

Homes that are private rented are also more likely to suffer from damp and mould (1.5%) than homes that are owner occupied (0.3%).

HHSRS Category 1 Hazards in Derby

Hazards	Derby (Count)	Derby (%)	EHS East Midlands (%)	EHS England (%)
Number of private sector homes	87,860	79.6		
All Hazards	12,548	14.2	13.8	12.2
Cold Homes	2,764	3.2	3.4	4.0
Falls on Stairs	6,658	7.6	6.8	5.8
Falls on the level	2,041	2.3	2.5	2.2
Falls between levels	1,567	1.8	2.7	1.2
Damp and Mold	571	0.6	0.3	0.4
Entry by intruders	111	0.1	0.0	0.1
Risk of Fire	702	0.8	0.5	0.5
Hot Surfaces	415	0.5		0.3
Overcrowding	517	0.7	0.2	0.1
Lead	1,325	1.5		0.5
Falls associated with the bath	571	0.7		
Noise	53	0.1	0.1	
Collision and Entrapment	86	0.1		0.1
Excess Heat	76	0.1		
Sanitation	84	0.1		0.1
Food Safety	71	0.1		0.1
Carbon Monoxide	19	0.0		
Electrical Hazards	117	0.1		0.1
Structural Collapse	12	0.1		
Hygiene	158	0.2		0.1

Source: 2019 Derby Stock Condition Database and EHS 2015-2017.
Blank spaces represent areas where no hazards were identified

The greatest proportions of homes within the City failing the Decent Homes Criteria for HHSRS category 1 hazards are located in the wards of Normanton (22.3%), Arboretum (18.6%) Sinfin (18.0%) and Darley (17.3%).

They areas towards the edge of the City have the lowest proportions of homes with a HHSRS category 1 hazard, Chellaston (9.7%), Mickleover (9.2%) and Oakwood (7.8%).

The proportions of homes failing the Decent Homes Criteria HHSRS category 1 hazards are similar between owner occupied (14.0%) and private rented (15.0%) properties.

Older homes in Derby are more likely to posses a HHSRS category 1 hazard 28.2% of homes built before 1918 and 22.7% of homes built between 1919 and 1944 posses a HHSRS category 1 hazard compared to 7.0% of homes built 1981 - 2002 and 3.3% of homes built after 2002 .

Proportion of Homes Failing the Decent Homes Criteria HHSRS category 1 Hazards

Ward	Owner Occupied		Private Rented		Total Non-Decent	
	Count	%	Count	%	Count	%
Normanton	739	24.7%	420	19.1%	1,159	22.3%
Arboretum	506	20.1%	608	17.4%	1,114	18.6%
Sinfin	500	19.2%	172	15.2%	672	18.0%
Darley	600	18.8%	325	15.1%	925	17.3%
Abbey	449	17.0%	491	17.3%	940	17.2%
Alvaston	639	17.4%	330	14.4%	969	16.3%
Boulton	611	16.8%	75	9.0%	686	15.4%
Chaddesden	558	14.1%	156	20.8%	715	15.2%
Mackworth	447	13.3%	291	16.2%	738	14.3%
Derwent	473	15.3%	121	11.4%	594	14.3%
Blagreaves	462	12.4%	167	20.5%	629	13.8%
Spondon	561	13.3%	108	13.5%	669	13.3%
Allestree	611	11.6%	62	8.5%	673	11.2%
Littleover	432	10.6%	122	13.0%	554	11.1%
Chellaston	435	9.7%	94	9.7%	529	9.7%
Mickleover	492	9.3%	80	9.0%	573	9.2%
Oakwood	320	7.6%	91	8.3%	410	7.8%
Grand Total	8,836	14.0%	3,712	15.0%	12,548	14.3%

Source : 2019 Derby stock condition property level database

HHSRS Category 1 Hazards by Tenure
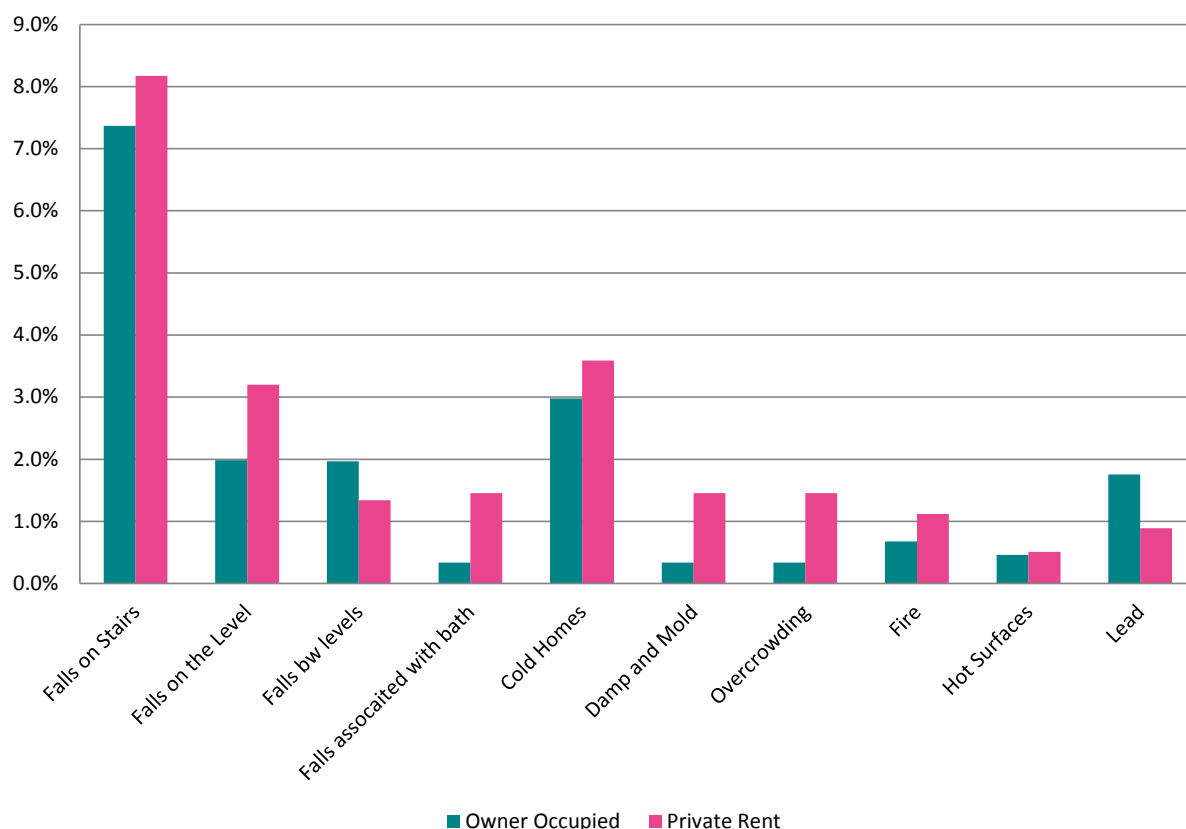
Proportion of Homes Failing the Decent Homes Criteria HHSRS Category 1 Hazards

Decent Homes HHSRS Category 1 Hazards
Stock Condition Database

- 21.9 to 30.8
- 17.1 to 21.9
- 12.2 to 17.1
- 8.0 to 12.2
- 2.5 to 8.0

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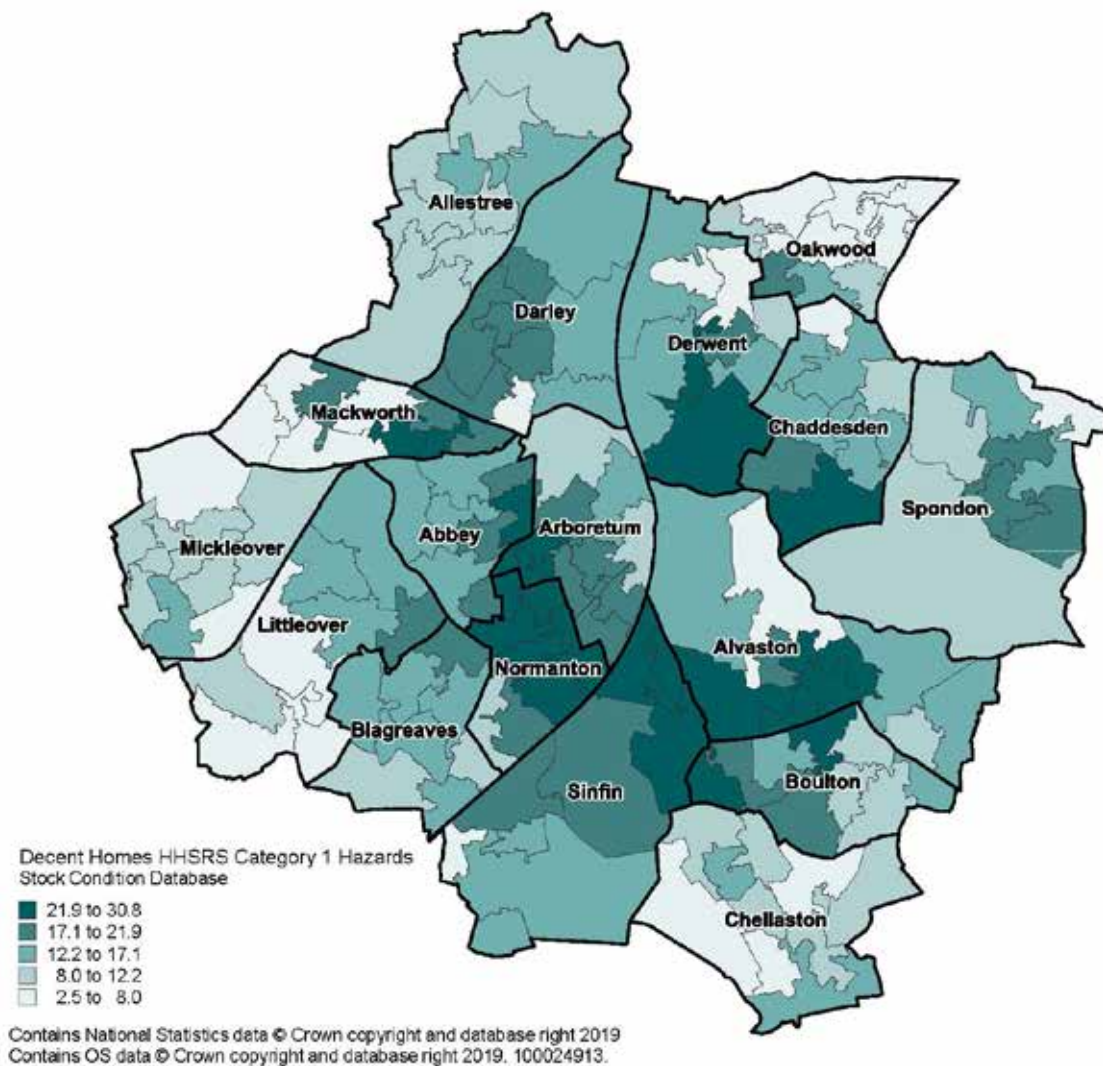
Cost to Make Decent

How much would it cost to make homes decent?

It is estimated that the median cost per home to make all current non-decent homes decent in Derby would be £2,566.

Analysis of the English Housing Survey allows the cost to make all non-decent homes decent to be estimated. The median cost to make decent each type and age of property has been estimated using the English Housing Survey figures for properties in the Government Office Regions most comparable to Derby. This cost has been applied to the database of private sector properties in Derby to give an approximate cost to make each property decent.

The results show that to bring every private sector property in Derby up to the Decent Homes Standard would cost £2,566 per property a total of £48,056,868.

The areas of the city with the highest levels of non-decent properties also have the greatest cost to make all properties decent; namely Normanton, Arboretum, Abbey and Darley wards.

The cost to make non-decent homes decent is the greatest in older properties. The total cost make decent all private sector homes built before1918 is estimated to be around £20 million with a further £20 million for homes built between 1919 and 1944. This compares to £8 million for all private sector homes built since 1945.

Cost to make Homes Decent

Ward	Owner Occupied	Private Rented	Total
Normanton	£2,808,043	£2,096,616	£4,904,659
Arboretum	£2,415,075	£2,438,864	£4,853,939
Abbey	£2,168,051	£2,507,533	£4,675,585
Darley	£3,097,123	£1,549,228	£4,646,351
Alvaston	£1,969,575	£1,502,666	£3,472,241
Chaddesden	£2,760,756	£637,672	£3,398,428
Mackworth	£1,533,264	£1,518,926	£3,052,190
Blagreaves	£2,022,001	£647,119	£2,669,120
Littleover	£1,915,154	£665,807	£2,580,961
Allestree	£2,048,545	£375,366	£2,423,911
Spondon	£1,679,856	£373,346	£2,053,203
Derwent	£1,524,533	£505,875	£2,030,408
Boulton	£1,641,843	£295,851	£1,937,694
Sinfin	£1,136,698	£606,347	£1,743,045
Chellaston	£1,140,070	£308,030	£1,448,100
Mickleover	£1,048,797	£231,990	£1,280,787
Oakwood	£608,480	£277,767	£886,247
Total	**£31,517,863**	**£16,539,005**	**£48,056,868**

Source : 2019 Derby stock condition property level database

Cost to Make Decent by Age of Home

£25,000,000

£20,187,154   £20,068,380

£20,000,000

£15,000,000

£10,000,000

£5,087,549

£5,000,000   £2,599,477

£213,572

£0

Pre 1918   1919 - 1944   1945 - 1980   1981 - 2002   Post 2002

■ Cost to make decent

Cost to Make Safe

How much would it cost to make with HHSRS category 1 hazard safe?

It is estimated that the median cost to make all private sector homes with a HHSRS category 1 hazard safe is £2,239.

Analysis of the English Housing Survey allows the cost to mitigate HHSRS category 1 hazards to be estimated. The median cost to make safe each type and age of property has been estimated using the English Housing Survey figures for properties in the Government Office Regions most comparable to Derby. This cost has been applied to the database of private sector properties in Derby to give an approximate cost to make each property decent.

The results show that to mitigate all HHSRS category 1 hazards in private sector homes in Derby would cost £28,099,933 or £2,239 per property.

The wards of Darley, Chaddesden, Abbey Arboretum and Normanton have the greatest costs to make safe with the Wards of Oakwood, Sinfin and Mickleover having the lowest costs.

The cost to mitigate all HHSRS category 1 hazards in a property is the greatest in older homes. The total cost to mitigate all HHSRS category 1 hazards in all private sector homes built before 1918 is estimated to be around £8.2 million with a further £13.2 million for homes built between 1919 and 1944. This compares to £6.5 million for all private sector homes built since 1945.
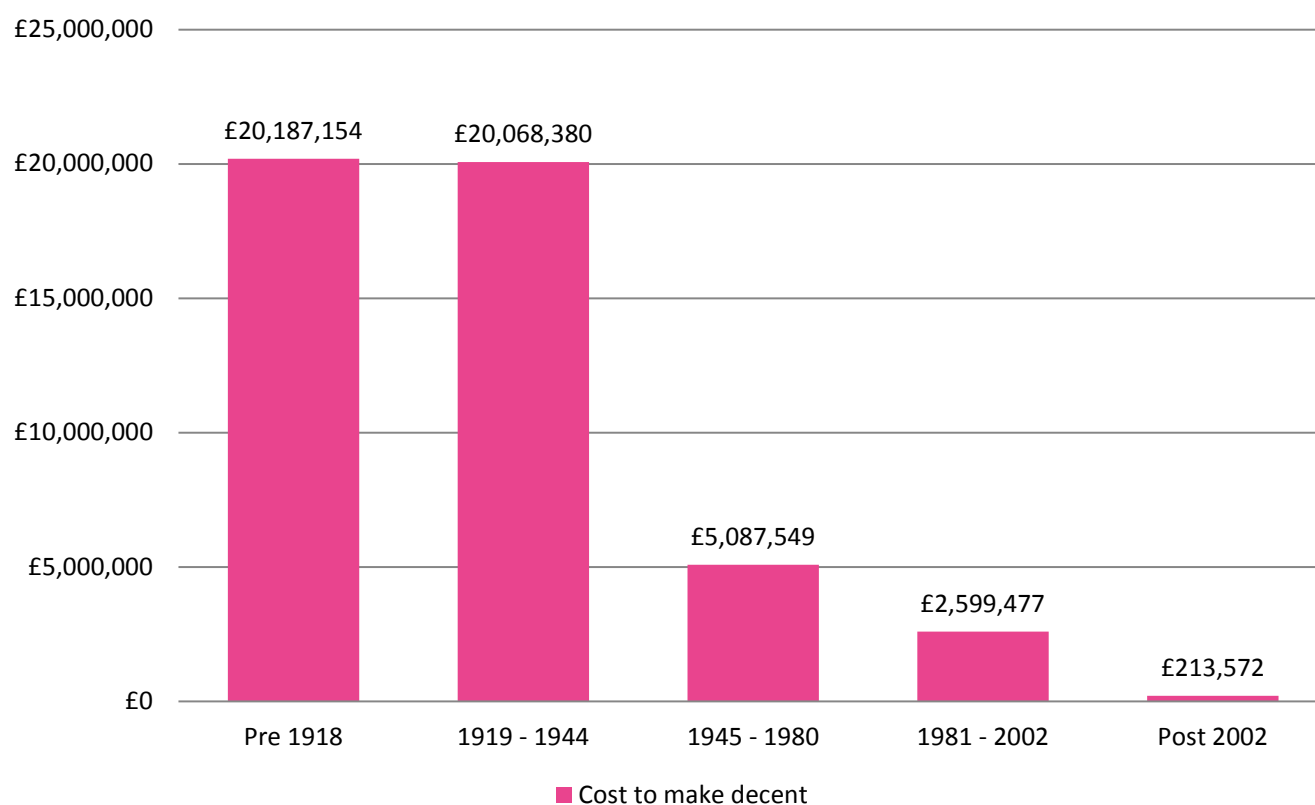
Cost to make Homes Safe

Ward	Owner Occupied	Private Rented	Total
Darley	£1,755,851	£734,960	£2,490,811
Chaddesden	£1,971,388	£444,603	£2,415,991
Abbey	£1,153,639	£1,095,753	£2,249,391
Arboretum	£1,130,687	£981,831	£2,112,518
Normanton	£1,360,892	£698,193	£2,059,085
Allestree	£1,618,501	£348,487	£1,966,988
Blagreaves	£1,463,005	£474,580	£1,937,585
Littleover	£1,383,233	£422,842	£1,806,075
Alvaston	£1,135,480	£622,908	£1,758,388
Mackworth	£838,543	£642,510	£1,481,053
Spondon	£1,229,163	£243,320	£1,472,482
Boulton	£1,118,746	£190,843	£1,309,589
Derwent	£956,110	£238,821	£1,194,931
Chellaston	£915,371	£258,642	£1,174,013
Mickleover	£810,201	£200,459	£1,010,660
Sinfin	£710,011	£300,208	£1,010,219
Oakwood	£502,213	£147,940	£650,153
Total	£20,053,033	£8,046,900	£28,099,933

Source : 2019 Derby stock condition property level database

Cost to Make Safe by Age of Home
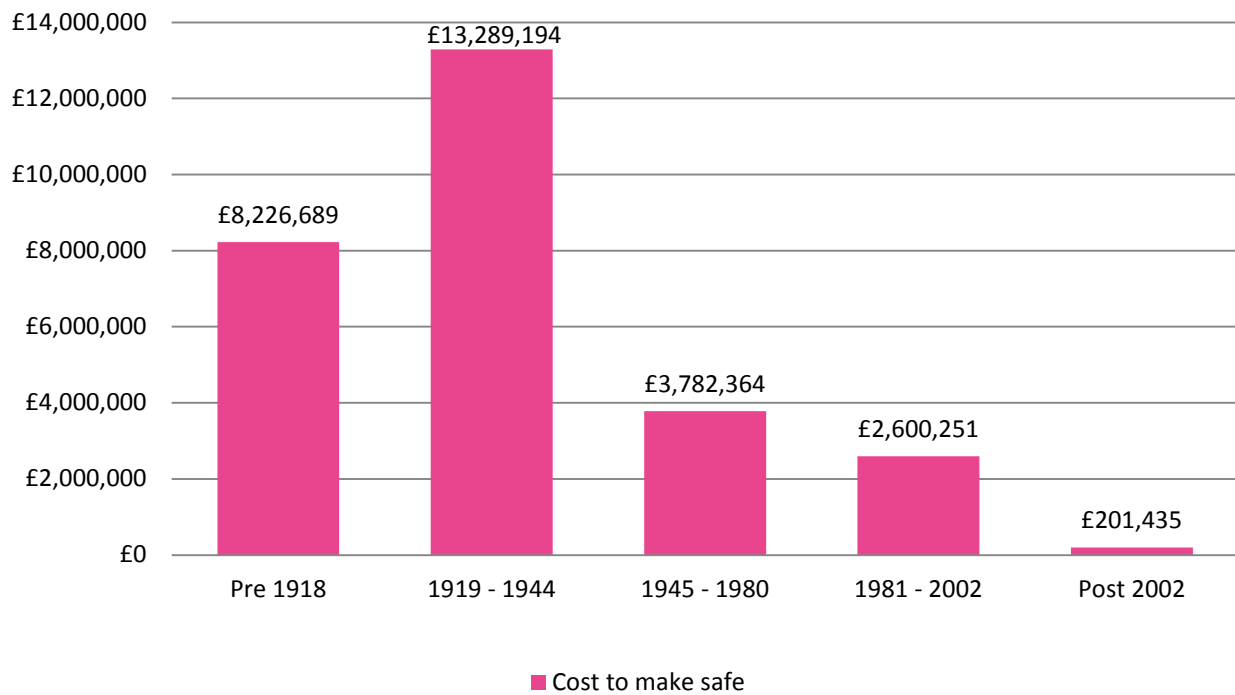
Housing and Health

How does housing affect health?

A home is more than a physical structure to provide shelter, it is where we grow and flourish

Housing and health is a complex relationship between many personal social and environmental conditions, the impacts of which can have positive or detrimental impact on health outcomes.   In Europe we spend an average of 90% of our time indoors and 65% of this time is spent at home[21]. Older and vulnerable people in particular spend a greater proportion of their time indoors at home and are therefore more susceptible to the health impact arising from the positive and negative aspects of their home environment.

Housing is important for many aspects of health and wellbeing, A house is more than a physical structure to provide shelter, they are homes where we bring up families, socialise and our own space where we can take refuge from the world around us. Shelter is one of the most basic of human physiological needs together with air, food, drink and warmth. Maslow suggested that individuals basic needs must be met before other personal needs can be met[22].

Housing quality and suitability are major determinants of health and wellbeing. There is a link between housing and many of the most prevalent long term health conditions whilst risk of falls, a major cause of injury and hospital admission amongst older people, is significantly affected by housing conditions.

Early Years and Children

Housing is particularly important for ensuring a healthy start in life.   Poor housing can have a significant detrimental impact on children's health and wellbeing.   Children living in poor housing are more susceptible to respiratory infections, at a greater risk of poor health and

more likely to have mental health problems. Poor housing can also threaten children's physical safety.

Growing up in poor housing has a lasting impact on children's life chances. Poor housing has been shown to have a negative impact on a child's educational attainment, due to more frequent absence and lack of suitable environment to study at home[23]. The impact of living in poor housing is known to have a negative impact on the mental health of young people.

Working age people

Living in poor quality housing has been shown to increase the risk of many long term health conditions among working age people. There is clear evidence linking cold and damp homes to respiratory illness, asthma and COPD (Chronic Obstructive Pulmonary Disease). Circulatory problems can also be affected by the cold which can, in turn, increase the risk of strokes and heart attacks.

People living in poor housing are also more likely to suffer from poor mental health. Living in poor housing can lead to social isolation among both adults and children[24].

Older people

Older people are especially susceptible to the effects of living in a cold home. This can have a significant impact on their health and wellbeing. Respiratory disease, asthma, COPD, heart disease and mental health problems can all be exacerbated by living in a cold and damp home.

Older people are particularly vulnerable to accidents in the home and the impact of these can be most severe in this age group. Falls have a significant cost to the NHS and bring with them loss of independence, pain, injury and mortality. The financial impacts on Adult Social Care Services for people who are living in unsuitable and unsafe housing is significant. Improving the housing conditions of older people can lead to significant savings.

Vulnerable Households

It has widely been recognised that social housing exists to provide stable and affordable homes to those in housing need. However, in recent times, the demand for social housing has outstripped supply meaning that people who most need security, affordability and protection have no alternative than to live in the private rented sector.

Vulnerable people are perhaps most susceptible to the impacts of living in unsuitable housing. Vulnerable households living in the private rented sector are most likely to fall victim to poor property management practices of some private sector landlords. Research by the University of York into the vulnerability of households in the private rented sector concluded that those already struggling have to struggle even harder living in the private rented sector[26].

The impact of living in a home with a HHSRS category 1 hazard for falls for someone with mobility, balance or sight problems is significant. The same also applies to homes with HHSRS category 1 hazards for excess cold for which older people, those with mobility problems or those with circulatory problems are most likely to suffer the health consequences.

The links between housing and public health[25]
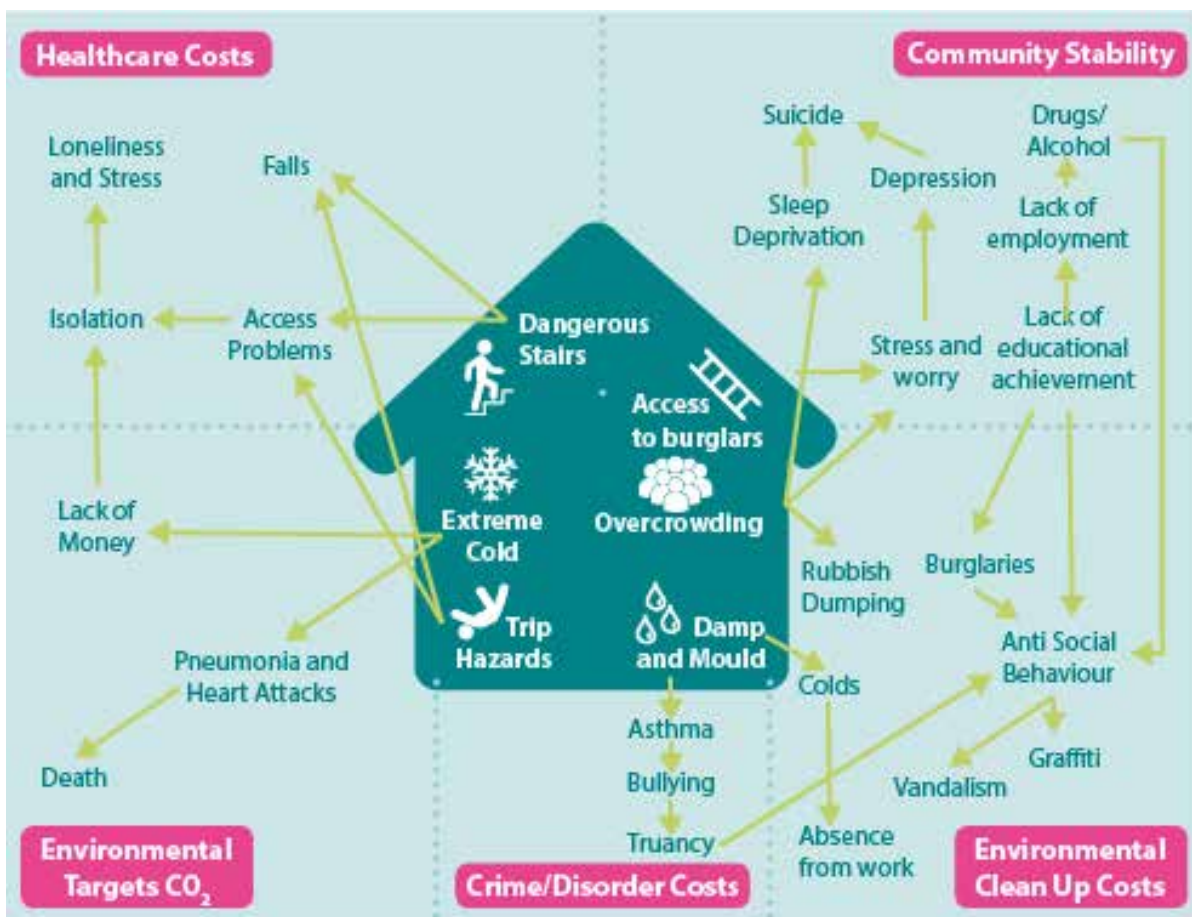
Cold and Damp Homes

How does living in a cold home impact health?

3,335 private sector homes in Derby have a hazard for excess cold or damp

There have been many studies linking cold and damp homes to poor health outcomes[27]. In Derby, approximately 3.2% of all private sector homes contain a HHSRS category 1 hazard for excess cold and 0.6% contain a hazard for damp and mould, in addition to this approximately 5,000 families in Derby live in a homes that does not meet the decent homes standard for thermal comfort.

There is clear evidence linking cold indoor air temperatures and respiratory problems including Asthma and Chronic Obstructive Pulmonary Disease (COPD). Cold indoor air temperatures can also lead to Coronary Heart Disease and Strokes[28,29].

The high prevalence of cold, damp and poorly energy efficient homes in the UK is considered one of the main reasons why the UK continues to have higher excess deaths over winter compared with other European countries[30]. It has been estimated that during the 2017 - 2018 winter, 9,700 winter deaths nationally were attributable to the avoidable circumstance of living in a cold home. This figure is around the same as the number of people who die from breast or prostate cancer each year[31].

Respiratory diseases remained the most prominent underlying cause of excess winter deaths with 84.9% more respiratory deaths in the winter months compared with the non-winter months in 2017 to 2018.[32]

In the winter of 2017 to 2018, there were 28.0% more winter deaths from circulatory diseases compared with non-winter months. Living in cold and or damp homes is known to significantly impact upon circulatory disease[33].

There is clear evidence linking home temperatures and mental heath. Studies have shown that an increase in room temperature has been associated with a reduced likelihood of experiencing depression and anxiety[34]

Living in a cold home is particularly detrimental for vulnerable households who typically spend the greatest proportion of their time in the home. This combined with their greater likelihood of reduced or immobility increases their vulnerability to the effects of living in a cold home.

A review of the impact of living in a cold home on children's health and wellbeing carried out by Shelter identified the impacts that living in poor housing can have on a child's physical and mental health. Children living in poor housing are more likely to have respiratory problems, they are also more likely to suffer with mental health problems. Cold homes have also been linked to poor education performance among children due to higher rates of sickness and absence from school[35].

How cold homes affect health...

Accidents

Increased risk of falls and accidents due to loss of strength and dexterity in the hands, and due to open or free-standing heating

Increased Respiratory Problems

Worsening asthma and COPD (Chronic Obstructive Pulmonary Disease)

Adverse Effects

Homes in fuel poverty have a choice between keeping warm and spending money on other essentials

Impact on Children

In many cold homes only one room is heated, which causes difficulties for children doing homework

Increased Social Isolation

People may become more socially isolated due to economising and reluctance to invite friends into a cold home

Increased Blood Pressure - Risk of Heart Attacks and Strokes

Blood pressure rises in older people with exposure to temperatures <12ºC

Worsening Arthritis

Symptoms of arthritis, particularly pain, become worse in cold

Impaired Mental Health

Cold housing is associated with increased mental health problems

Source: Adapted from Press.V, Fuel poverty+health: A guide for primary care organisations, and public health and primary care professionals, National Heart Forum, the Eaga Partnership Charitable Trust, the Faculty of Public Health Medicine, Help the Aged and the Met Office, 2003)

The English Housing Survey identifies the specific HHSRS category 1 hazards within each property surveyed.   Using this data, the likelihood of properties in Derby to contain a HHSRS category 1 hazard for cold or damp can be modelled.

The HHSRS category 1 hazards for excess cold and damp and mould have been combined in this analysis as many homes which have a hazard for cold also have a hazard for damp and mould and vice versa.   3.8% of private sector homes in Derby contain a HHSRS category 1 hazard for cold and or damp, this figure in line with the figure for England (3.7%) and the East Midlands (4.4%)

The proportion of private sector homes with a HHSRS category 1 hazard for cold and / or damp varies across the city.   The wards of Darley (6.3%), Chaddesden (6.0%) and Normanton (5.8%) have the greatest proportion of homes with a HHSRS category 1 hazard for cold and / or damp. Whereas the wards comprised primarily of newer homes towards the city boundary; Mickleover (1.7%) Oakwood (1.8%) and Boulton (2.3%) have

a lower proportion of homes with a HHSRS category 1 hazard for cold and or damp.

The figures for Derby show that older homes have a greater proportion of homes with a HHSRS category 1 hazard for cold and / or damp. 8.3% of private sector homes built before 1918 contain a HHSRS category 1 hazard for excess cold or damp compared to 2.1% of homes built between 1945 and 1981 and 1.5% of homes built between 1981 and 2002.

The proportion of private rented homes in Derby which have a HHSRS category 1 hazard for cold and / or damp is greater in the private rented sector overall (5.0%) compared to the owner occupied sector (3.3%).   However in some wards the difference between the proportions of private rented homes and owner occupied homes with a HHSRS category 1 hazard for excess cold and / or damp is significant.   10.5% of private rented homes in Chaddesden have a HHSRS category 1 hazard for damp and / or cold compared to 5.1% of owner occupied homes.   This pattern is replicated across most wards of the city.

Cold and or Damp Homes by Ward

Ward	Owner Occupied		Private Rented		Total Private Sector	
	Count	%	Count	%	Count	%
Abbey	87	3.3%	96	3.4%	183	3.3%
Allestree	179	3.4%	31	4.2%	209	3.5%
Alvaston	111	3.0%	128	5.6%	239	4.0%
Arboretum	147	5.8%	185	5.3%	332	5.5%
Blagreaves	124	3.3%	58	7.2%	183	4.0%
Boulton	85	2.3%	18	2.2%	103	2.3%
Chaddesden	204	5.1%	79	10.5%	283	6.0%
Chellaston	113	2.5%	31	3.2%	144	2.6%
Darley	205	6.4%	133	6.2%	338	6.3%
Derwent	104	3.4%	34	3.2%	138	3.3%
Littleover	139	3.4%	67	7.1%	206	4.1%
Mackworth	116	3.5%	90	5.0%	206	4.0%
Mickleover	75	1.4%	32	3.6%	108	1.7%
Normanton	148	4.9%	151	6.9%	299	5.8%
Oakwood	79	1.9%	14	1.3%	94	1.8%
Sinfin	65	2.5%	57	5.1%	122	3.3%
Spondon	104	2.5%	43	5.4%	148	2.9%
Total Damp and Cold	2,086	3.3%	1,249	5.0%	3,335	3.8%

Source : 2019 Derby stock condition property level database

Proportion of Cold and Damp Homes by Age of Home

Proportion of cold and damp homes

Proportion of Cold and Damp Homes by Ward

Proportion of Cold and Damp Homes
2016-2017 English Housing Survey

- 7.3 to 13.1
- 4.4 to 7.3
- 2.7 to 4.4
- 1.4 to 2.7
- 0.0 to 1.4

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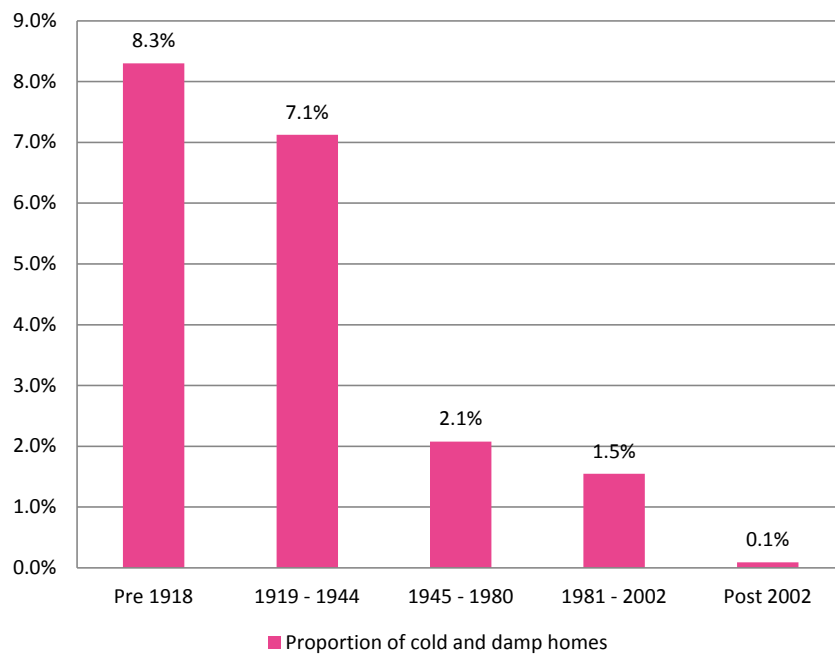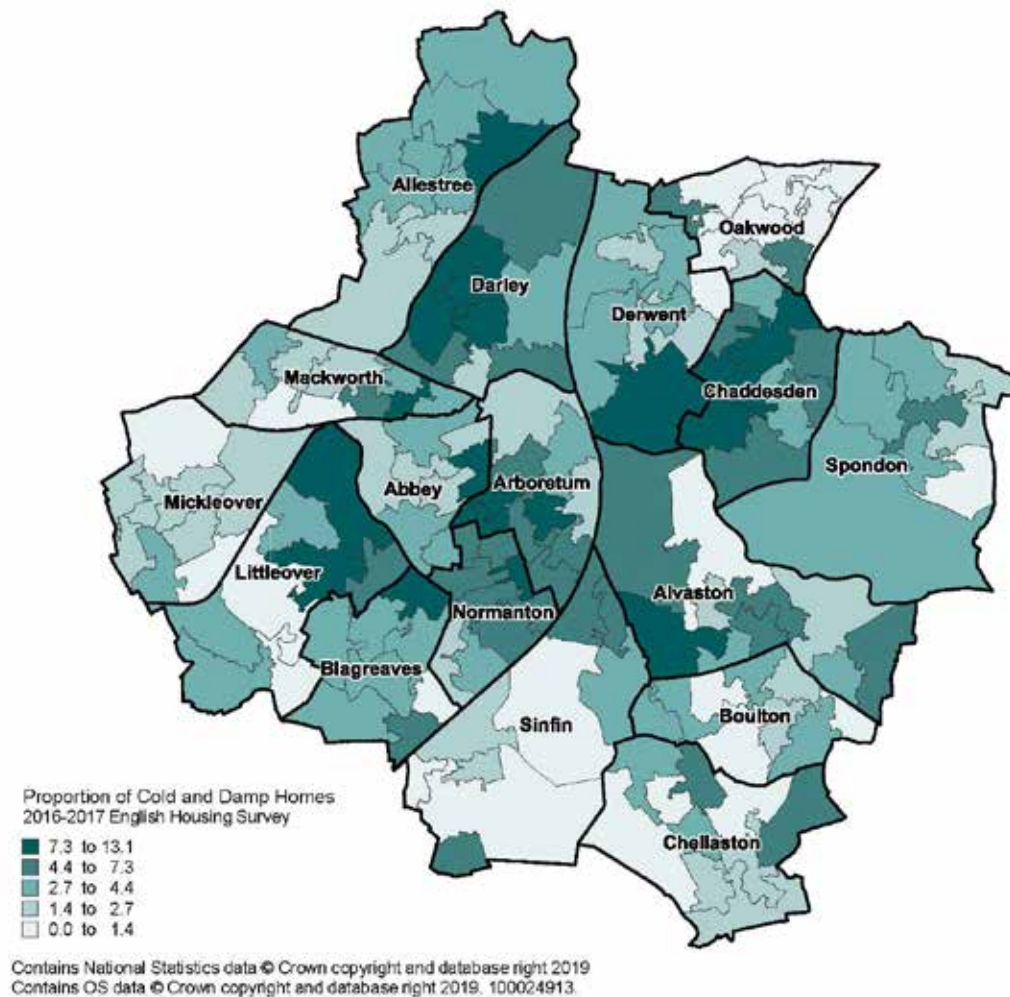
Analysis of Hospital Episode Statistics (HES), for conditions which are known to be affected by living in a cold or damp home, allows comparisons to be made between the areas of the city with higher proportions of housing with cold and damp hazards and those areas with higher rates of hospital admissions.

Derwent ward has the highest rate of emergency hospital admission for respiratory diseases (57.7 per 1,000 population). 3.3% of private sector homes in Derwent ward also have a hazard for cold and damp. Further investigation would be required to fully assess the impact of cold and damp homes on the health outcomes of those with respiratory disease.

It should be acknowledged that these figures represent emergency hospital admissions for respiratory disease and therefore represents the tip of the iceberg with regard to those diagnosed with a respiratory condition. The causes of respiratory disease are far broader than the condition of the home in which you live, although it is widely acknowledged that this is a significant factor. Further analysis of the proportions of people diagnosed with respiratory disease living in poor housing compared to levels of diagnosed cases in those not living in poor housing would add to our understanding of the true impact living in unsuitable housing has on the health of people living in Derby.

Emergency Hospital Admissions for Respiratory Diseases

Emergency Hospital Admissions
Respiratory Diseases

Hospital Episode Statistics 2015 - 2018
Rate per 1,000 population

- 64.6 to 106.1
- 45.9 to 64.6
- 33.6 to 45.9
- 26.5 to 33.6
- 10.4 to 26.5

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Emergency Hospital Admissions for Asthma

Emergency Hospital Admissions Asthma
Hospital Episode Statistics 2015 - 2018
Rate per 1,000 population

- 6.6 to 11.8
- 3.5 to 6.6
- 2.2 to 3.5
- 1.1 to 2.2
- 0.0 to 1.1

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Research has found that people with asthma were two to three times more likely to live in cold and damp households than non-asthmatics[36]. The evidence that living in a home with damp and mould can lead to respiratory infections, allergies and asthma is clear[37].

Sinfin ward is the area of the city with the highest rate of emergency hospital admissions due to asthma in Derby (5.28 per 1,000 population) followed by Arboretum (5.02 per 1,000 population). This compares to a low rate of 1.41 per 1,000 population in Allestree and 1.73 per 1,000 population in Darley.

Asthma has many causes, however cold and damp homes can be a contributing factor and can make the treatment of the condition more complicated. Further investigation into the proportion of people living in cold damp homes who are diagnosed with Asthma compared to those who are not living in cold and damp homes is needed to truly assess the impact that living in a cold and damp home has on the health of the population in Derby.

Children living in damp, mouldy homes are between one and a half and three times more prone to symptoms of asthma and other respiratory conditions than children in dry homes[34].

Children are especially vulnerable to the health impacts of living in cold and or damp homes. Reviews of the evidence in the UK and other countries have concluded that children living in damp, mouldy homes are between one and a half and three times more prone to symptoms of asthma and other respiratory conditions than children in dry homes. Such symptoms can lead to sleep loss, restrictions on children's daily activities, and absence from school, all of which have long-term implications for a child's personal and social development[36].

In Derby the areas of the city with the greatest proportion of emergency hospital admissions for childhood asthma also have the greatest proportions of cold and damp homes .

Arboretum has a rate of emergency hospital admission for childhood asthma of 6.98 per 1,000 population age 0-9, this area is also has the third greatest proportion of cold and or damp homes (5.5%) in Derby. This is also the picture in Normanton which has a rate of emergency hospital admissions for childhood asthma of 6.95 per 1,000 population age 0-9 and the second greatest proportion of cold and damp homes in Derby 5.8%

Emergency Hospital Admissions for Childhood Asthma.

Emergency Hospital Admissions
Childhood Asthma (age 0-9)
Hospital Episode Statistics 2015 -2018
Rate per 1,000 population age 0-9

- 15.6 to 38.0
- 8.4 to 15.6
- 5.1 to 8.4
- 2.2 to 5.1
- 0.0 to 2.2

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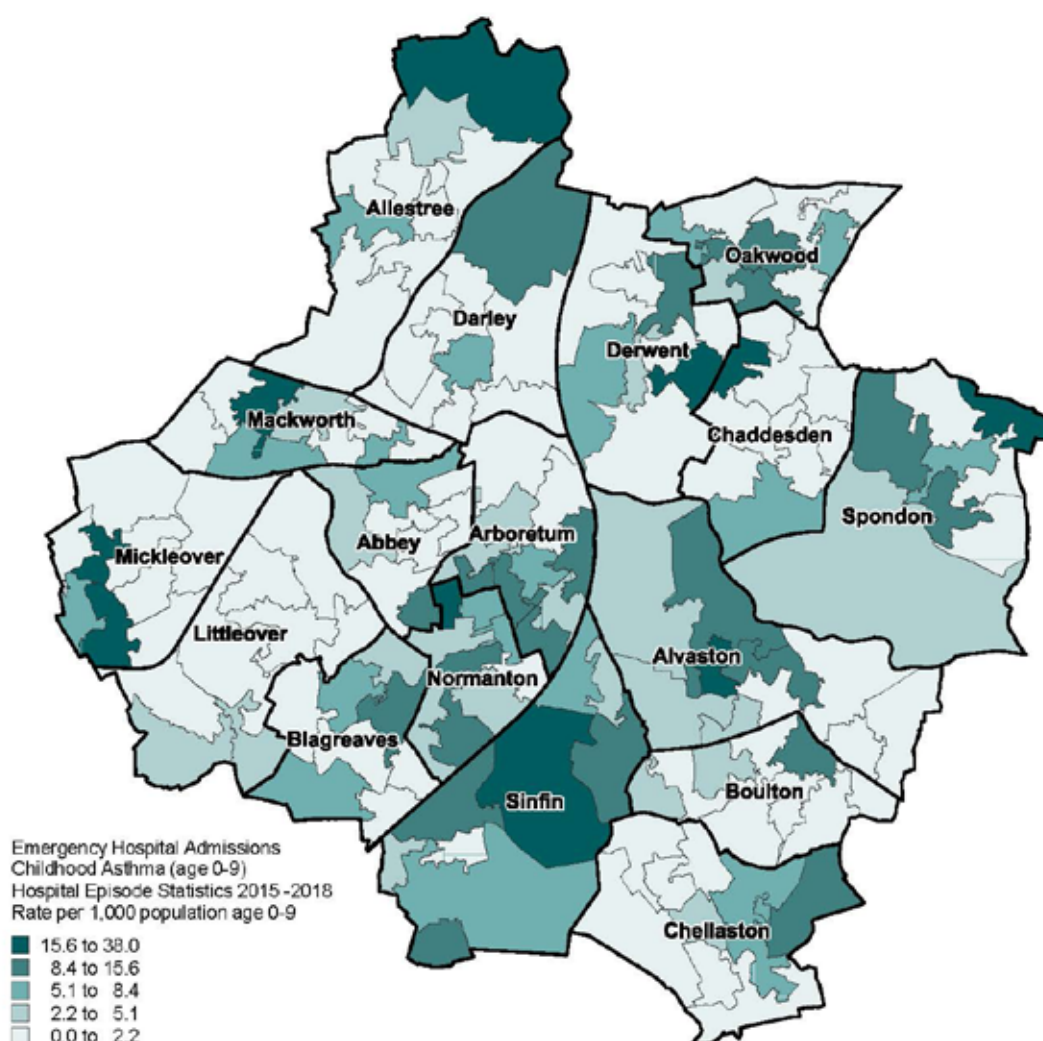
It is known that living in a cold home can have a negative impact on people who are susceptible to heart disease. The British Heart Foundation estimates that 650 excess winter deaths each week were caused nationally by heart and circulatory diseases, between December 2017 and March 2018.

The rate of emergency hospital admissions for Coronary Heart Disease are relatively evenly spread across the city, with the wards of Boulton (11.15 per 1,000 population), Mickleover (10.40 per 1,000 population) and Spondon (10.98 per 1,000 population) having the highest rates. These areas of the city have relatively high proportions of cold and or damp homes (Boulton 2.3%, Spondon 2.9%, Mickleover 1.7%).

Older people are more at risk of the effects of living in a cold home. The areas of the city with the highest rates of emergency hospital admissions for Coronary Heart Disease are also those areas of the city with some of the greatest proportions of older people and comparatively high proportions of cold and damp.

Emergency Hospital Admissions for Coronary Heart Disease

Emergency Hospital Admissions
Coronary Heart Disease
Hospital Episode Statistics 2015 - 2018
Rate per 1,000 population

- 13.9 to 21.4
- 10.2 to 13.9
- 7.6 to 10.2
- 5.8 to 7.6
- 0.5 to 5.8

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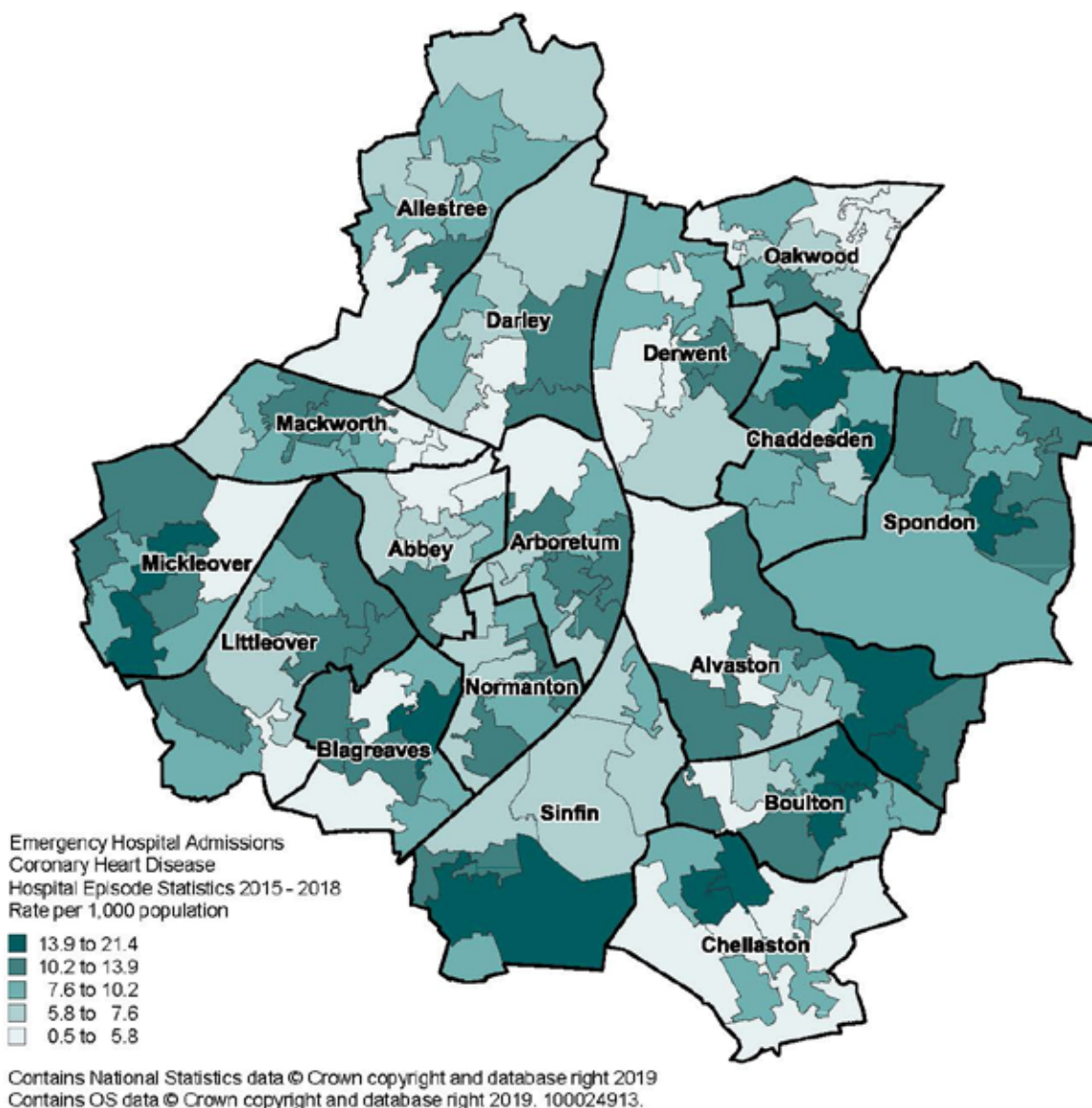
Mosaic Segmentation of Cold and Damp Homes

Mosaic Public Sector from Experian is a market segmentation tool for the geodemographic classification of households and populations into 15 distinct groups. The combination of the Mosaic group for each address in the property level Housing Stock Condition Database allows for the analysis of data surrounding HHSRS hazards by population segment.

The number of homes with a HHSRS category 1 hazard for excess cold can be broken down into Mosaic groups.

Analysis of Mosaic Groups allows for patterns to be identified between those groups with the greatest saturation of homes with HHSRS category 1hazards and self diagnosed medical conditions.

The Mosaic groups with the greatest proportion of cold homes are Group C- City Prosperity (10.2%), Group I - Urban Cohesion (4.4%) and, L - Transient Renters (4.1%). These are the Mosaic groups which also have the highest rates of self diagnosed respiratory conditions.

Mosaic Segmentation of Cold Homes in Derby

Mosaic Group	Cold Homes	%	Private Sector Homes	%	Proportion	Index
A Country Living		0.0%		0.0%		
B Prestige Positions	222	8.0%	5,785	6.8%	3.8%	118
C City Prosperity	9	0.3%	86	0.1%	10.2%	311
D Domestic Success	212	7.7%	6,670	7.9%	3.2%	97
E Suburban Stability	327	11.8%	10,145	12.0%	3.2%	99
F Senior Security	367	13.3%	10,459	12.3%	3.5%	108
G Rural Reality	0	0.0%	3	0.0%	1.5%	47
H Aspiring Homemakers	274	9.9%	10,536	12.4%	2.6%	80
I Urban Cohesion	228	8.3%	5,223	6.2%	4.4%	134
J Rental Hubs	203	7.4%	6,514	7.7%	3.1%	96
K Modest Traditions	224	8.1%	8,008	9.5%	2.8%	86
L Transient Renters	439	15.9%	10,814	12.8%	4.1%	124
M Family Basics	127	4.6%	6,145	7.3%	2.1%	63
N Vintage Value	93	3.4%	3,222	3.8%	2.9%	89
O Municipal Challenge	37	1.3%	1,095	1.3%	3.4%	104
Grand Total	2,763	100.0%	84,705	100.0%	3.3%	100

I - Urban Cohesion

Urban Cohesion are settled extended families and older people who live in multi-cultural city suburbs. Most have bought their own homes and have been settled in these neighbourhoods for many years, enjoying the sense of community they feel there.

Typical homes are Victorian terraced houses or pleasant semi-detached and terraced houses built between the wars. The majority of people are homeowners, many without the need for a mortgage.

L - Transient Renters

Transient Renters are single people who pay modest rents for low cost homes. Mainly younger people, they are highly transient, often living in a property for only a short length of time before moving on.

Properties are often older terraced properties, primarily rented from private landlords with a few social landlords. They include some of the lowest value houses of all. With tenants moving on quickly and paying low rents.

There is a disproportionate amount of damp homes in areas of the city where often poorer, less affluent populations live.

Urban Cohesion groups have the highest proportion of damp homes in the city (2.1%). This group typically live in older Victorian homes and many own them outright without a mortgage. The majority of homes in Derby with a HHSRS category 1 hazard for damp were built before 1918 (8.3%) .

Those families identified as Mosaic Group J - Rental Hubs, L- Transient Renters, O-Municipal

Challenge and M-Family Basics also have above average penetration of homes with a HHSRS category 1 hazard for damp. These are families that are generally living on a limited income living in low cost housing.

Further analysis of Mosaic data surrounding self reported conditions including Asthma, Bronchitis, and COPD suggests that it is these same mosaic groups living in housing with a HHSRS hazard for cold and damp also have the greatest levels of self reporting for these health conditions.

Mosaic Segmentation of Damp Homes in Derby

Mosaic Group	Damp Homes	%	Private Sector Homes	%	Proportion	Index
A Country Living		0.0%		0.0%		
B Prestige Positions	2	0.4%	5,785	6.8%	0.0%	6
C City Prosperity	0	0.1%	86	0.1%	0.4%	55
D Domestic Success	21	3.6%	6,670	7.9%	0.3%	46
E Suburban Stability	13	2.2%	10,145	12.0%	0.1%	19
F Senior Security	10	1.7%	10,459	12.3%	0.1%	14
G Rural Reality		0.0%	3	0.0%	0.0%	0
H Aspiring Homemakers	29	5.2%	10,536	12.4%	0.3%	41
I Urban Cohesion	108	18.9%	5,223	6.2%	2.1%	306
J Rental Hubs	97	17.0%	6,514	7.7%	1.5%	221
K Modest Traditions	33	5.8%	8,008	9.5%	0.4%	61
L Transient Renters	171	29.9%	10,814	12.8%	1.6%	234
M Family Basics	55	9.6%	6,145	7.3%	0.9%	132
N Vintage Value	21	3.7%	3,222	3.8%	0.7%	98
O Municipal Challenge	11	2.0%	1,095	1.3%	1.0%	154
Grand Total	571	100.0%	84,705	100.0%	0.7%	100

J - Rental Hubs

Rental Hubs contains predominantly young, single people in their 20s and 30s who live in urban locations and rent their homes from private landlords while in the early stages of their careers, or pursuing studies.

Homes are purpose-built developments of small flats or older terraces. Around half of Rental Hubs have been at their address for two years or less.

M- Family Basics

Family Basics are families with children who have limited budgets and can struggle to make ends meet. Their homes are low cost and are often found in areas with fewer employment options.

Homes are typically low value and may be located on estates or in pockets of low cost housing in the suburbs of large cities and towns. They are usually three bedroom terraced or semi-detached houses, often dating from between the wars or from the 1950s and 1960s.

Case Study

Mrs L is 103, partially blind and hard of hearing, suffering from dementia, peripheral vascular disease, hypothyroidism, arthritis, essential hypertension and has had a hip replacement. She has very poor mobility, but is able to walk with walking aids. The only source of heating in her was a gas fire in the living room and electric fan heaters. Mrs L struggled to turn the gas fire on/off as she could not bend down to use the controls; she could not switch on/off the electric fan heaters either. Upstairs had no heating and the house was always cold.

The Healthy Housing Hub installed an efficient gas central heating system which has provided warmth throughout the house.

Mrs L's son said: "Thank you very much. This is tremendous. The heating has made a vast difference to my Mum's health and well- being. And the house is warm; in the past the house had freezing rooms! It has made my Mum more mobile, she likes walking around the house now and it's made her smile."

Fuel Poverty

10.8% of households in Derby are in fuel poverty.

A greater proportion of homes in Derby are in Fuel poverty than the regional average of 9.3%.

The fuel poverty status of a household depends on the interaction of three key drivers: household incomes, household energy efficiency and fuel prices. In addition, a property's size, age and type of heating system are important in determining whether or not a household is fuel-poor. Older homes tend to be much less energy efficient than newly built homes. The relatively low standard of energy efficiency across older housing stock means that heating the home can be difficult and/or costly, particularly for those on low incomes.

The 2017 fuel poverty data highlights that one in ten households (10.9%) nationally are living in fuel poverty, this rises to 12.0% of vulnerable households, which, are defined as those containing children, the elderly and /or someone with a long-term illness or disability. The East Midlands has a lower proportion of households living in fuel poverty than the national average with 9.3% of households in fuel poverty.   In Derby 10.8% of households are living in fuel poverty[41].

Nationally those living in homes built before 1918 have a higher than average incidence of being in fuel poverty, in 2017 18.6% of those living in homes built before 1918 were classed as in fuel poverty compared to 4.1% of those living in homes built after 1990.

Fuel poverty is also highest in the private rented sector, where 19.4% of households are in fuel poverty compared to 8.0% of owner occupied households[41].

Fuel poverty can to lead to a lower temperature in a property than might otherwise be healthy.

Fuel poverty in England is measured using the Low Income High Cost (LIHC) indicator. Under the Low Income High Costs definition of fuel poverty, a household is deemed to be in fuel poverty if
- They have fuel costs that are above average (the national median level)
- Were they to spend that much they would be left with a residual income below the official poverty line.

Low Income High Costs Fuel Poverty Matrix
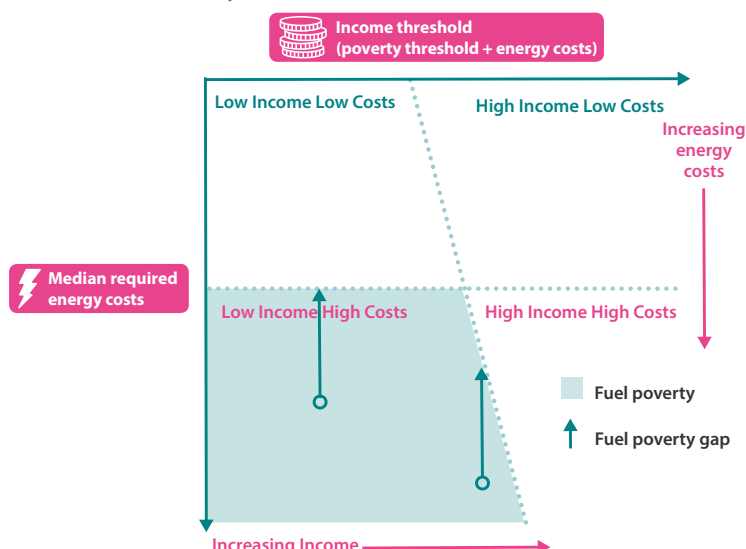
Fuel poor households include some households who may not traditionally be considered to be poor but are pushed into fuel poverty by their high energy requirements.

There were estimated to be 11,617 (10.8%) households in Derby classified as being in fuel poverty in 2017. This is above the figure for the East Midlands (9.3%) and England as a whole (10.9%).

The areas of the city with the highest proportions of households in fuel poverty are concentrated around the Wards of Normanton (20.6%), Arboretum (19.2%), Abbey (13.8%), Mackworth (13.4%%) and Sinfin 13.1%). These are among the areas of the city with the greatest proportion of cold and damp homes (Arboretum 5.5%, Sinfin 3.3%, Mackworth 4.0% and Abbey 3.3%).

Sinfin and Arboretum are also the areas of the city with the highest rates of emergency hospital admissions for asthma (Sinfin 5.28 per 1,000, Arboretum 5.02 per 1,000 population).

Proportion of Derby Households in Fuel Poverty

Proportion of Fuel Poor Homes
DEC Fuel Poverty Statistics 2017

- 19.5 to 28.6
- 12.8 to 19.5
- 9.2 to 12.8
- 6.3 to 9.2
- 3.2 to 6.3

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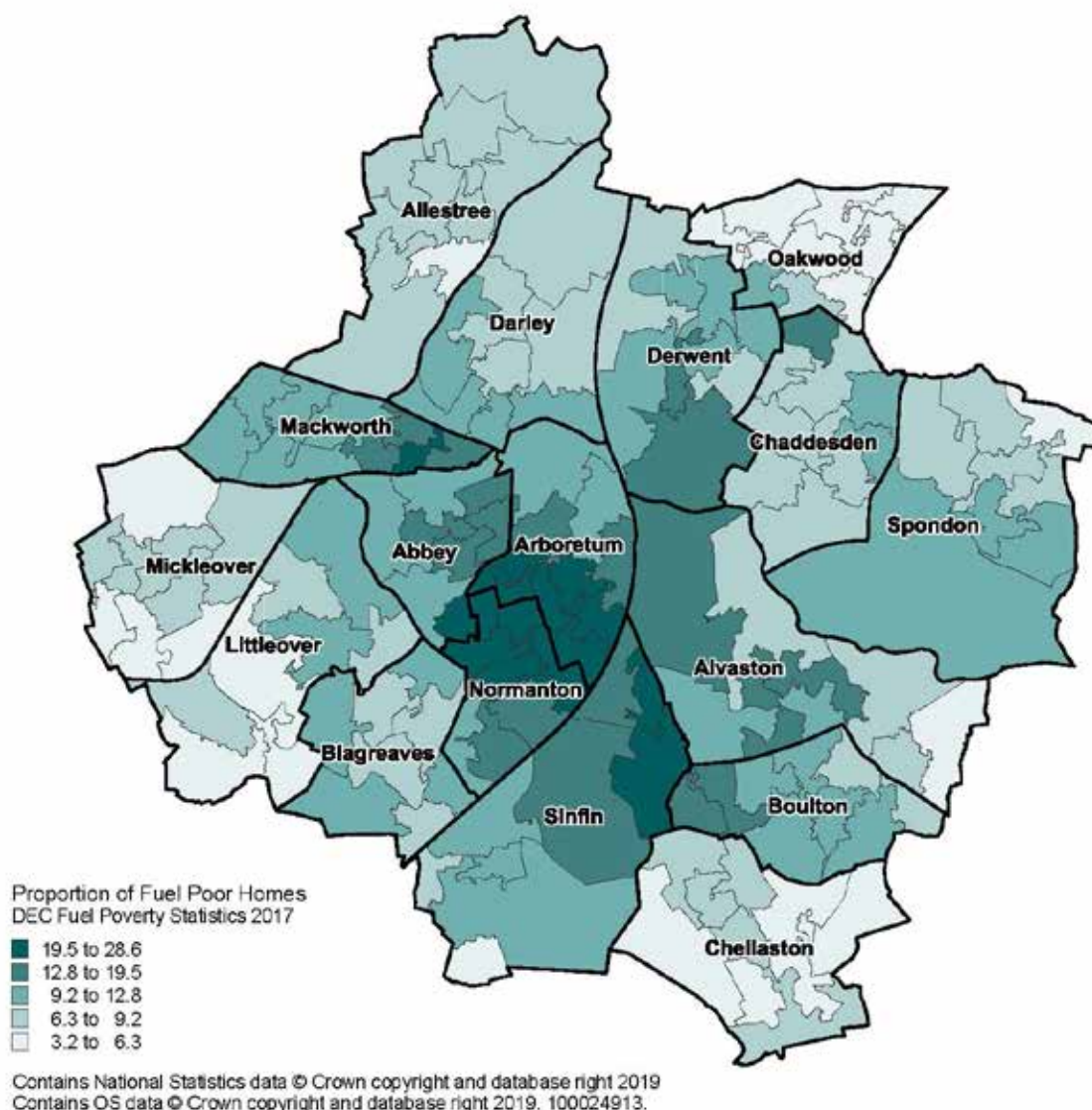
Fuel Poverty Case Study

An elderly couple had no heating and no hot water. The boiler broke down and the gas fire was not safe to use.

Both had high blood pressure, arthritis, diabetes and asthma. The husband has shrapnel in his head which collects fluid. He is not mobile, requires a hoist for all transfers and has limited sitting balance, both use wheelchairs.

Multiple Health Hazards:
- Excess cold did not improve their existing health conditions
- Personal hygiene difficult to maintain without hot water

We were able to:
- Install a new boiler
- Service existing gas fire and made it safe to use
- Achieve a better tariff for their utility bills reducing their monthly direct debit by £12.00

  and put them on the vulnerable register so they will never be cut off.

Derby City Healthy Housing Hub

Energy Performance

27.9% of private sector homes in Derby have an EPC rating below band E.

An Energy Performance Certificate (EPC) rating is a review of a homes energy efficiency and is rated from A to G with A representing the best performance.

The EPC for a property will provide a current and potential rating to give an indication of the rating the property could achieve if energy performance measures are carried out.   The average property in England has a EPC rating of D.

The 2018 Homes Fitness for Habitation Act[13] requires all landlords to ensure that properties let under a new tenancy have an EPC band of E or above to ensure a reasonable level of thermal comfort for tenants.

The government introduced a statutory fuel poverty target in 2014 to move as many as practicably possible homes to an EPC band C by 2030 with an interim target of band E by 2020.

27.9% of all homes in Derby have a EPC rating of E, F or G this compares to a 20.4% of all homes in England who have and EPC below band E

in 2017 34.1% of all fuel poor families nationally were living in a home with an EPC band of E, F or G[41].

> **27.9% of all homes in Derby have a EPC rating of E, F or G this compares to a 20.4% of all homes in England who have an EPC band E or below.**

EPC of Homes in Derby compared to England averages

	A	B	C	D	E	F	G
Derby All Homes	0.1%	6.2%	23.9%	41.9%	21.9%	5.1%	0.8%
England All Homes	0.0%	2.0%	32.4%	45.2%	15.8%	3.5%	1.1%
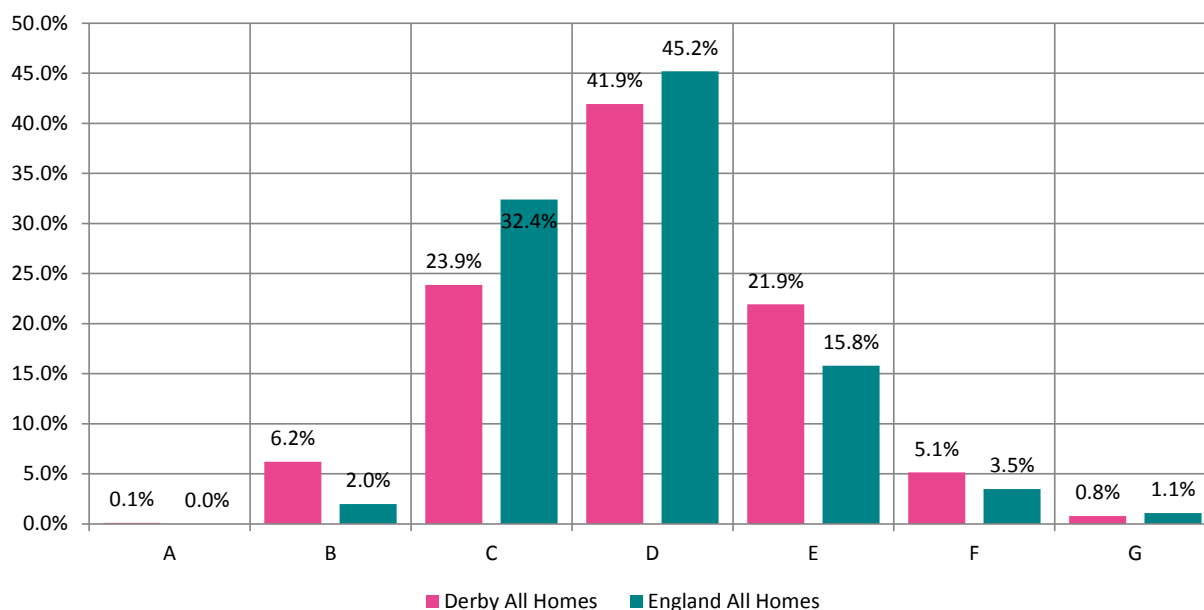
The proportions of homes with an EPC rating band E or below are greater among owner occupied (29.8%) homes compared to private rented (26.9%) homes.

The distribution of properties with an EPC below E is not even within the city. The central areas around Abbey, Normanton and the areas of Chaddesden and Derwent close to the city centre have the highest proportion of homes with EPC bands below E. These are also the areas of the City with the oldest homes.

These wards have comparatively high levels of cold and damp homes, Abbey (3.3%), Normanton (5.8%), Chaddesden (6.0%) and Derwent (3.3%). In addition to this, these areas also have among the highest rates of emergency hospital admissions for respiratory disease (Derwent 57.7 per 1,000 population), emergency hospital admissions for asthma (Arboretum 5.02 per 1,000 population) and emergency hospital admissions for childhood asthma (Normanton 6.95 per 1,000 population)

The wards towards the outer edge of the city with greater concentrations of new homes Oakwood, Chellaston, Littleover, Mickleover have the lowest proportion of properties with an EPC band E or below.

EPC Rating of Homes in Derby

Tenure	Owner Occupied		Private Rent		Total	
	Count	%	Count	%	Count	%
A	70	0.1	21	0.1	91	0.1
B	2,798	4.4	2,318	9.4	5,116	5.8
C	12,461	19.8	6,386	25.8	18,847	21.5
D	28,842	45.8	9,369	37.9	38,211	43.6
E	14,859	23.6	5,208	21.0	20,067	22.9
F	3,413	5.4	1,235	5.0	4,647	5.3
G	486	0.8	215	0.9	701	0.8
Below E	18,758	29.8	6,657	26.9	25,415	29.0

Case Study

81 years old Mr E, suffers from pneumonia, registered blind and hard of hearing. He could not be discharged from respite care because:
There was no heating, two existing gas fires had been condemned by a gas engineer, unhygienic conditions due to clutter and the presence of damp and mould.

Derby's Healthy Housing Hub worked closely whit social Services and Hospital OT staff and through the Stay Warm & Healthy Project we were able to:
- Install full Gas Central Heating
- Deep Clean the property and Remove all old furnishings
- Removed the 2 gas fires
- Install a key-safe and Care Link Equipment

Without the intervention there was a strong likelihood of cold related ill health, trip or fall accident, continued worsening of existing health conditions and further high cost to health and social care services.

Derby Private Sector Homes Below EPC Rating E

EPC Rating Equal to E, F or G
Modelled from EPC data for Derby

- 36.0 to 42.1
- 31.9 to 36.0
- 27.8 to 31.9
- 22.7 to 27.8
- 07.4 to 22.7

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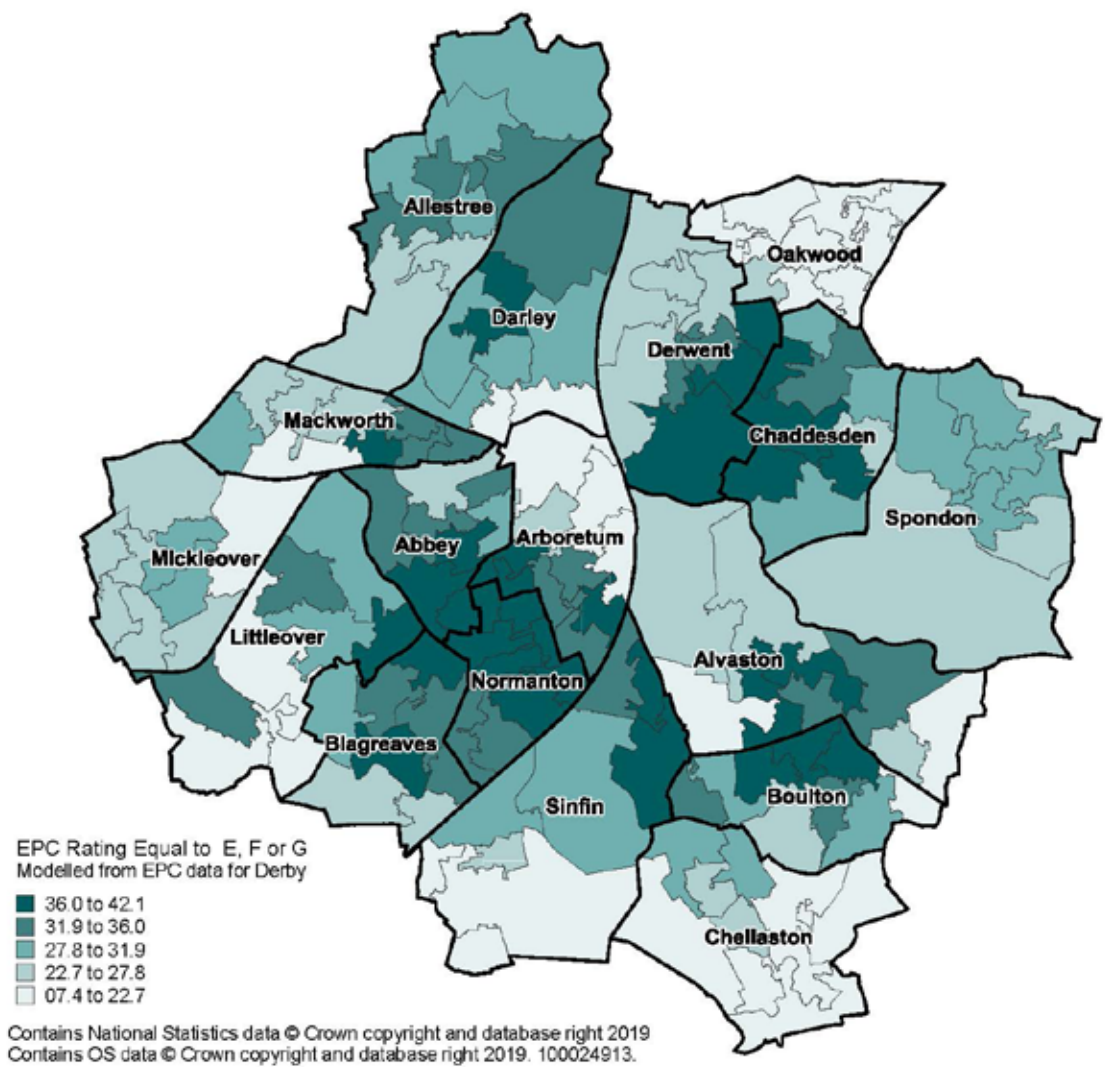
The link between homes with a HHSRS category 1 hazard for cold and damp is clear, with the areas of the city having the greatest proportion of cold and damp homes Darley (6.3%), Chaddesden (6.0%), Normanton (5.8%), and Arboretum (5.5%) also having some of the greatest proportion of homes that are fuel poor Darley (29.7%), Normanton (63.8%), Arboretum (43.3%).

Normanton ward has the greatest proportion of homes that are in fuel poverty (63.8%). It also has a comparatively high proportion of homes that have a HHSRS category 1 hazard for cold and or damp (5.8%). This ward is also among the wards of Derby with the highest rates of emergency hospital admissions for respiratory disease (48.46 per 1,000 population). Normanton also has the second highest rate of hospital admission for childhood asthma in Derby (6.95 per 1,000 population).

Chaddesden ward has the second highest proportion of homes in Derby with a HHSRS category 1 hazard for cold and or damp homes (6.0%). Whilst this ward as a relatively smaller proportion of homes that are fuel poor (6.5%) compared to other wards in the city, the impact on health is evident. Chaddesden has the third highest rate of emergency hospital admissions for asthma (3.89 per 1,000 population) and the fourth highest rate of emergency hospital admission for coronary heart disease in Derby (9.89 per 1,000 population).

Oakwood has the second lowest proportion of cold and or damp homes in Derby (1.8%) and the lowest rates of emergency hospital admission for respiratory conditions (25.47 per 1,000 population).

Summary of Cold and Damp Homes, Fuel Poverty and Health Conditions.

Ward	Number of Private Sector Homes	Propor-tion Fuel Poor	HHSRS Category 1 Hazard Cold and/ or Damp	Respirato-ry Disease *	Asthma *	Child-hood Asthma*	CHD *	Stroke *
Abbey	5,477	19.6%	3.3%	33.08	2.80	3.66	6.25	4.84
Allestree	6,014	0.6%	3.5%	26.33	1.41	3.55	7.99	6.88
Alvaston	5,959	24.1%	4.0%	44.71	3.17	5.57	9.50	3.81
Arboretum	6,000	43.3%	5.5%	38.43	5.02	6.98	9.21	3.10
Blagreaves	4,544	5.5%	4.0%	39.76	2.51	4.29	9.52	5.96
Boulton	4,466	14.8%	2.3%	49.71	3.52	1.85	11.15	6.96
Chaddesden	4,711	6.5%	6.0%	42.72	3.89	4.16	9.89	5.22
Chellaston	5,446	3.7%	2.6%	31.72	2.13	2.45	7.25	4.60
Darley	5,330	29.7%	6.3%	31.92	1.73	2.16	7.90	4.75
Derwent	4,161	23.2%	3.3%	57.70	3.19	4.00	7.48	5.15
Littleover	5,001	9.5%	4.1%	29.15	2.06	1.24	8.99	3.79
Mackworth	5,160	38.2%	4.0%	39.69	3.22	4.15	7.12	3.96
Mickleover	6,191	4.1%	1.7%	34.16	2.32	4.02	10.40	5.27
Normanton	5,190	63.8%	5.8%	48.46	3.52	6.95	8.60	3.94
Oakwood	5,276	7.6%	1.8%	25.47	2.27	3.84	5.16	4.23
Sinfin	3,732	31.0%	3.3%	42.83	5.28	7.83	8.89	3.98
Spondon	5,022	9.7%	2.9%	52.10	2.70	5.73	10.98	7.00
Total	**87,680**	**13.2%**	**3.8%**	**39.32**	**3.06**	**4.59**	**8.63**	**4.77**

- * Rate per 1,000 age standardised population

Falls In The Home

10,200 homes in Derby have a HHSRS category 1 hazard for falls.

Falls are estimated to cost the NHS more than £2.3 billion each year[43]. Older people are more vulnerable to accidents in the home. People aged 65 and older have the highest risk of falling, with 30% of people older than 65 and 50% of people older than 80 falling at least once a year[44]. Falls account for 40% of all ambulance call-outs to the homes of over 65's[43].

Public Health England (2019) estimates that unaddressed falls hazards in the home cost the NHS £435million annually[44]. NICE recommends that older people who receive

treatment in hospital following a fall should be offered a home hazard assessment and safety interventions and modification[42].

Falls contribute significantly to hip fractures in older people, many of which are preventable, and they have serious consequences for older people. Falls are the most common cause of injury related deaths in people over the age of 75[45].

In Derby, 1,029 people aged 65 and over received an emergency hospital admission due to a fall in 2017/18[46].

Proportion of Population over 65 by ward

Proportion of People Age 65+
ONS 2017 Mid Year Estimates

- 26.5 to 43.8
- 20.0 to 26.5
- 14.4 to 20.0
- 9.5 to 14.4
- 4.0 to 9.5

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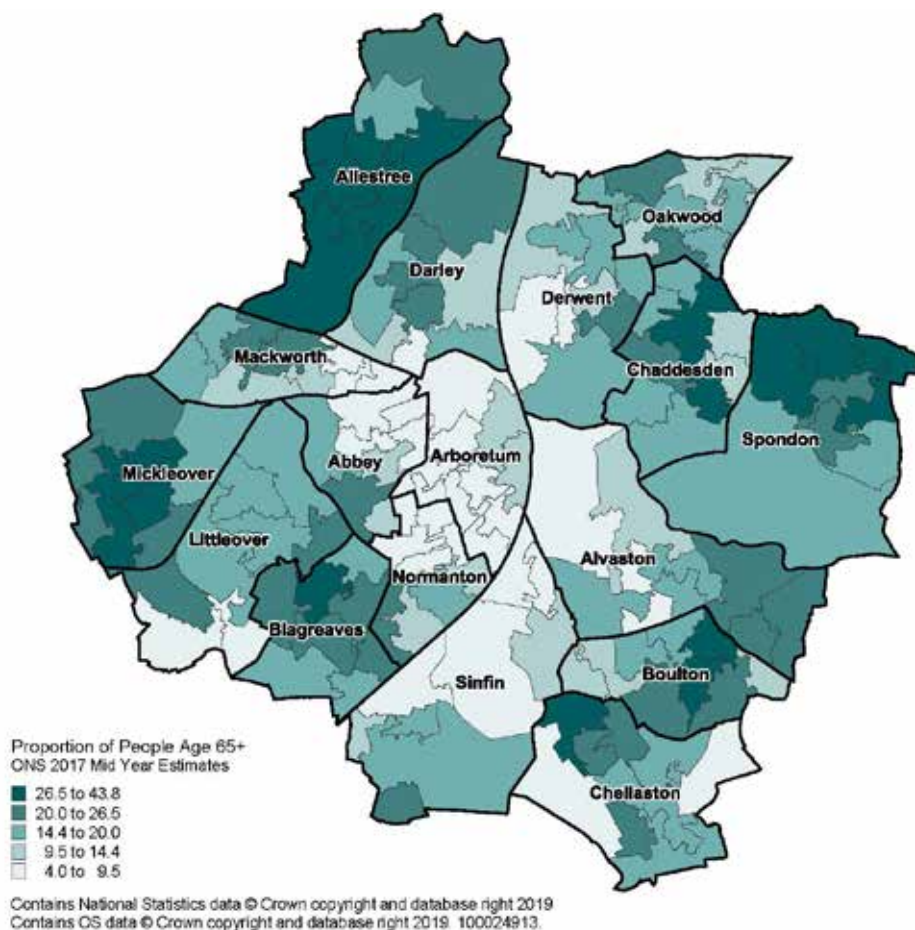
HHSRS Category 1 Hazards for Falls

Ward	Falls on Stairs		Falls on the Level		Falls between levels		Total Falls	%All Falls
	Count	%	Count	%	Count	%	Count	%
Abbey	525	9.6%	202	3.7%	97	1.8%	823	15.0%
Allestree	265	4.4%	99	1.6%	193	3.2%	557	9.3%
Alvaston	596	10.0%	122	2.1%	80	1.3%	798	13.4%
Arboretum	695	11.6%	102	1.7%	112	1.9%	909	15.1%
Blagreaves	293	6.4%	131	2.9%	63	1.4%	487	10.7%
Boulton	375	8.4%	89	2.0%	56	1.2%	519	11.6%
Chaddesden	314	6.7%	135	2.9%	63	1.3%	511	10.9%
Chellaston	191	3.5%	104	1.9%	131	2.4%	426	7.8%
Darley	428	8.0%	170	3.2%	95	1.8%	693	13.0%
Derwent	307	7.4%	90	2.2%	64	1.5%	460	11.1%
Littleover	213	4.3%	123	2.5%	65	1.3%	400	8.0%
Mackworth	462	9.0%	150	2.9%	73	1.4%	685	13.3%
Mickleover	304	4.9%	102	1.6%	155	2.5%	561	9.1%
Normanton	703	13.5%	129	2.5%	114	2.2%	945	18.2%
Oakwood	204	3.9%	94	1.8%	49	0.9%	347	6.6%
Sinfin	410	11.0%	87	2.3%	51	1.4%	549	14.7%
Spondon	377	7.5%	113	2.3%	108	2.2%	598	11.9%
Total	6,658	7.6%	2,041	2.3%	1,569	1.8%	10,268	11.7%

Source : 2019 Derby stock condition property level database

Falls Between Levels

A HHSRS category 1 hazard for falls between levels can include falls such as falling out of windows, falls from landings where banisters are not suitable and falls from walls.

Falls are the most common cause of accidental injury to children. Everyday 45 children are admitted to hospital after a fall[47]. Children are most susceptible to harm resulting from a fall between levels for example falls out of windows, falls from landings, falls from accessible roofs and over garden retaining walls.

The Child and Adolescent Accident Prevention Trust (CAPT) identifies that windows and balconies post a particular threat to children and advises safety lock and catches be fitted to all windows and other safety measures such as keeping furniture away from windows to prevent children climbing up.
In Derby143 children aged 0-4 received an emergency hospital admission due to a fall between 2014/15 and 2016/17[46].

Evaluation, by Ripplez Family Nurse Partnership (FNP) 2018-2019, of the impacts of the Child Home Safety Equipment Programme that was piloted in Derby reported:
The Child Safety Equipment Programme has produced very positive results: A&E admission because of an injury or ingestion for young children on the FNP case loads now sits at 2.4%, reduced from 20% the previous year: with all of this year's attendances being for young children of 6-12 months and zero for babies under 6 months[48].

Allestree (3.2%) Mickleover (2.5%) and Spondon (2.2%) have the greatest proportion of homes with a HHSRS hazard for a fall between levels.

Falls On The Stairs

The HHSRS identifies two different hazards for falls where older people are more vulnerable to harm:

- falls on the Level - falls on any level surface such as floors, yards and paths.
- falls associated with stairs and steps - Including falls on stars and ramps internally and externally to home.   It also includes falls over a step or ramp

In Derby the number of home with a HHSRS

category 1 hazard for a fall on the stairs is approximately 6,658.

The number of homes with the greatest proportions of HHSRS category 1 hazards for falls on the stairs are located in the more central wards of Normanton (13.5%) Arboretum (11.6%) and Sinfin (11.0%). These wards are also the areas of the city with the greatest proportion of older homes which were constructed before the introduction of modern building standards.

Proportion of Homes in Derby with a Hazard for Falls on Stairs

Proportion of homes with hazard for falls on stairs
2016-2017 English Housing Survey
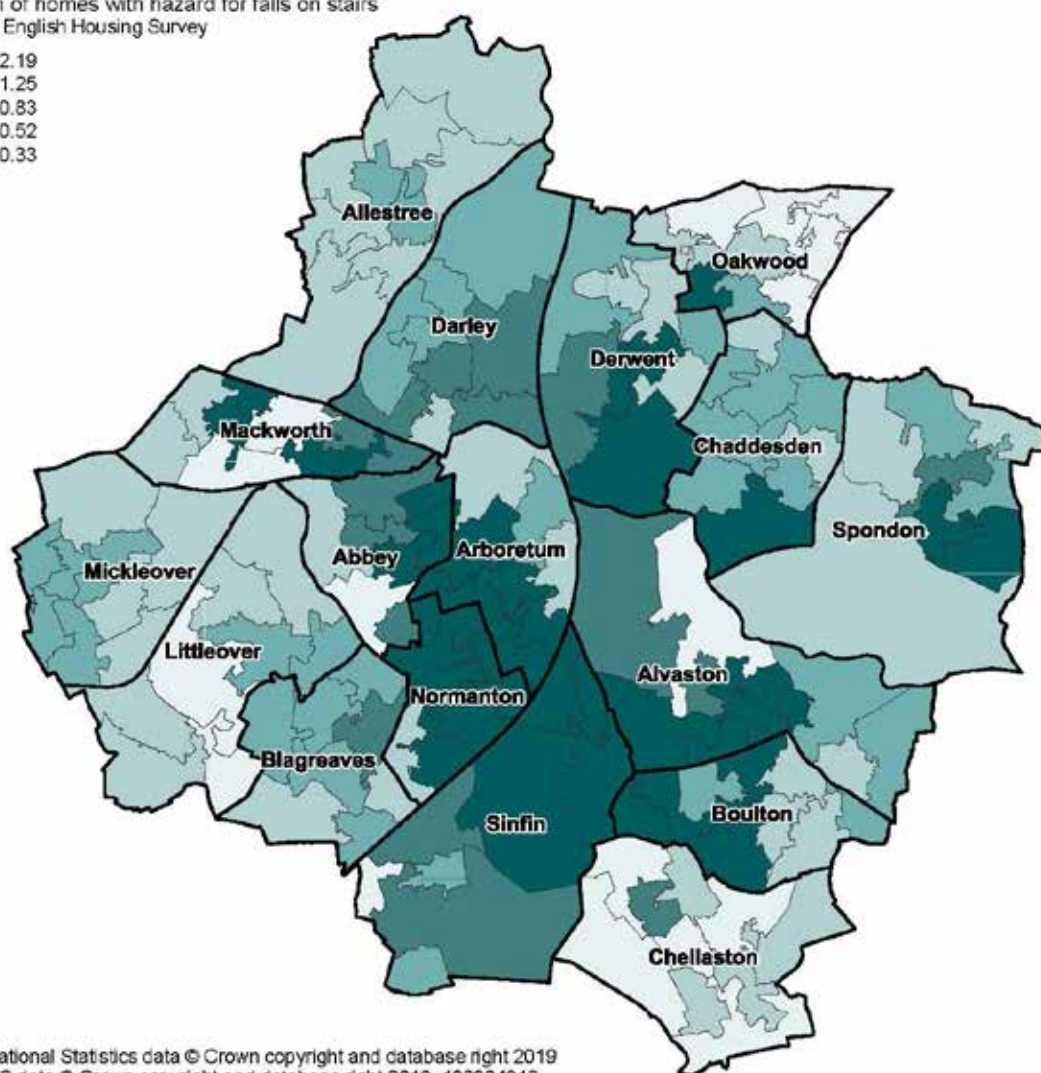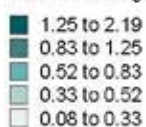
- 1.25 to 2.19
- 0.83 to 1.25
- 0.52 to 0.83
- 0.33 to 0.52
- 0.08 to 0.33

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Mosaic Segmentation for Homes with a Hazard for Falls on Stairs

Mosaic Group	Falls on Stairs	%	Private Sector Homes	%	Proportion	Index	
A Country Living		0.0%		0.0%			
B Prestige Positions	164	2.5%	5,785	6.8%	2.8%	36	
C City Prosperity	4	0.1%	86	0.1%	5.0%	64	
D Domestic Success	291	4.4%	6,670	7.9%	4.4%	56	
E Suburban Stability	601	9.0%	10,145	12.0%	5.9%	75	
F Senior Security	589	8.9%	10,459	12.3%	5.6%	72	
G Rural Reality	0	0.0%	3	0.0%	7.5%	96	
H Aspiring Homemakers	576	8.7%	10,536	12.4%	5.5%	70	
I Urban Cohesion	715	10.7%	5,223	6.2%	13.7%	174	
J Rental Hubs	562	8.4%	6,514	7.7%	8.6%	110	
K Modest Traditions	711	10.7%	8,008	9.5%	8.9%	113	
L Transient Renters	1,299	19.5%	10,814	12.8%	12.0%	153	
M Family Basics	691	10.4%	6,145	7.3%	11.2%	143	
N Vintage Value	310	4.7%	3,222	3.8%	9.6%	123	
O Municipal Challenge	139	2.1%	1,095	1.3%	12.7%	162	
Grand Total	6,653	100.0%	84,705	100.0%	7.9%	100	

Segmentation analysis of Mosaic data indicates that the proportion of homes with a HHSRS category 1 hazard for falls on the stairs is greatest among Mosaic Groups I- Urban Cohesion (13.7%), O- Municipal Challenge, L - Transient Renters (12.0%) and M - Family Basics (11.2%).

These groups are those that are often living in older, poorer quality housing with a limited income. They are often of working age with or without children. These low cost properties are often rented and therefore remedial works to rectify the hazard will fall to the landlord.

I - Urban Cohesion

Urban Cohesion are settled extended families and older people who live in multi-cultural city suburbs. Typical homes are Victorian terraced houses or semi-detached and terraced houses.

O- Municipal Challenge

Municipal Tenants are long-term social renters living in low-value multi-storey flats in urban locations, or small terraces on outlying estates.

M - Family Basics

Family Basics are families with children who have limited budgets and can struggle to make ends meet. Their homes are low cost and are often found in areas with fewer employment options.

L - Transient Renters

Transient Renters are single people who pay modest rents for low cost homes. Mainly younger people, they are highly transient, often living in a property for only a short length of time before moving on.

Falls on the Level

HHSRS hazards for falls on the level can be defined as a risk of a fall on any level surface in the home or garden, including garden paths and yards.

The areas of the city with a high proportion of homes with a hazard for falls on the level are Abbey (3.7%), Darley (3.2%),Blagreaves (2.9%) and Chaddesden (2.9%)

The consequences of falling on the level can range from uncomplicated cuts and bruises through to broken bones. Therefore the consequences from these falls can be significant both to the individual and to the NHS through significant treatment costs .

The Mosaic Groups that are at greater risk of homes with a HHSRS category 1 hazard for falls on the level are C - City Prosperity (4.0%), G - Rural Reality (3.5%) and J - Rental Hubs (3.2%).   These groups, with the exception of City Prosperity, generally live in low cost homes with lower incomes and may not have the financial means to invest in home improvements to reduce the risk of falls in and around the home.

Proportion of Homes in Derby with a Hazard for falls on the level

Proportion of homes with a hazard for falls on the level
2016 - 2017 English Housing Survey

- 3.26 to 5.83
- 2.29 to 3.26
- 1.79 to 2.29
- 1.31 to 1.79
- 0.49 to 1.31

Allestree

Oakwood

Darley

Derwent

Mackworth

Chaddesden

Spondon

Mickleover

Abbey

Arboretum

Littleover

Alvaston

Normanton

Blagreaves

Boulton

Sinfin

Chellaston

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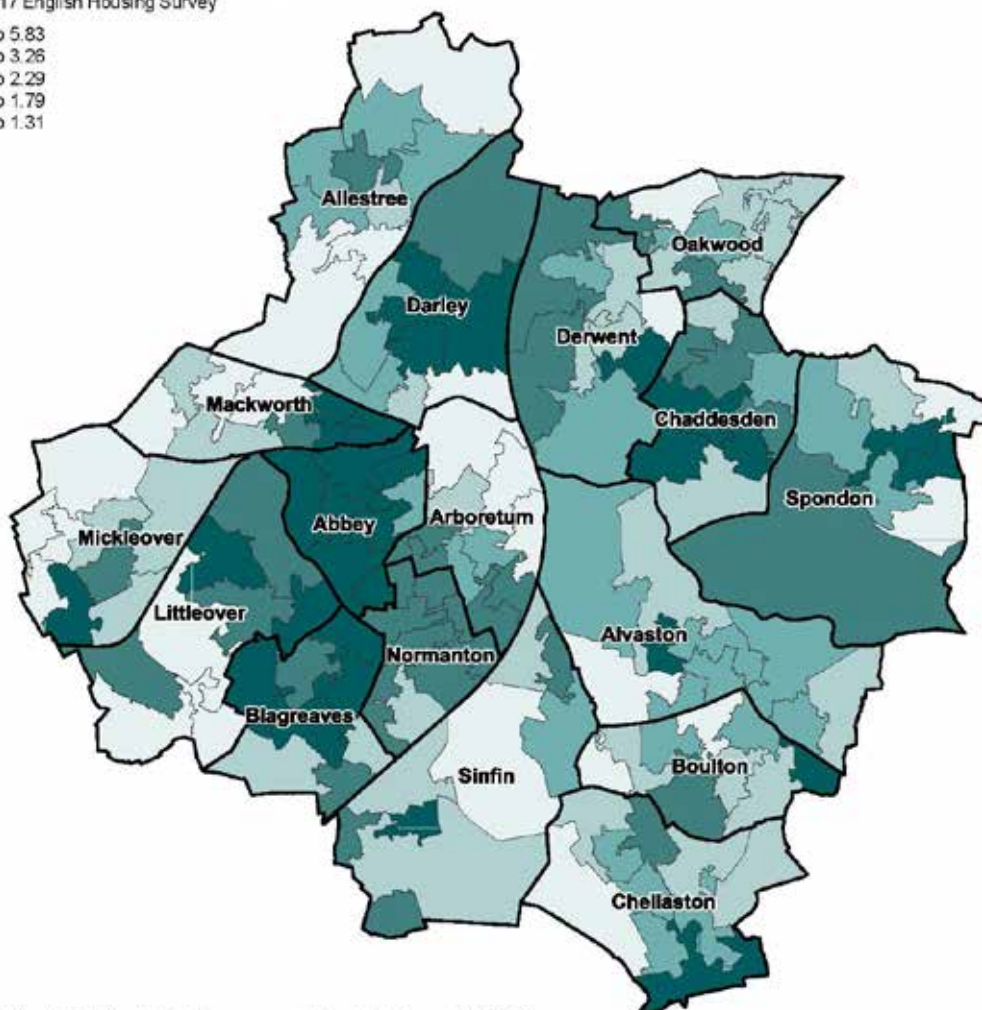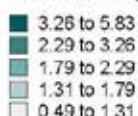
Hospital Admissions for all Falls

Analysis of Hospital Episode Statistics for falls in the home clearly shows that there is a strong correlation between areas of the city where there is a greater proportion of older people living, and the proportion of emergency hospital admissions for falls in the home.

The greatest overall rate of hospital admissions for falls in the home are found in Allestree (4.51 per 1,000 population) Mickleover (4.50 per 1,000 population) and Chaddesden (4.33 per 1,000 population). These are also the areas of the city with the highest concentrations of older people many of whom may be living in a home that contains a HHSRS category 1 hazard for falls.

Emergency Hospital Admissions for falls in the home

Emergency Hospital Admissions
Falls In The Home

Hospital Episode Statistics 2015-2018
Rate per 1,000 population

- 5.01 to 8.52
- 3.46 to 5.01
- 2.44 to 3.46
- 1.6 to 2.44
- 0.4 to 1.6

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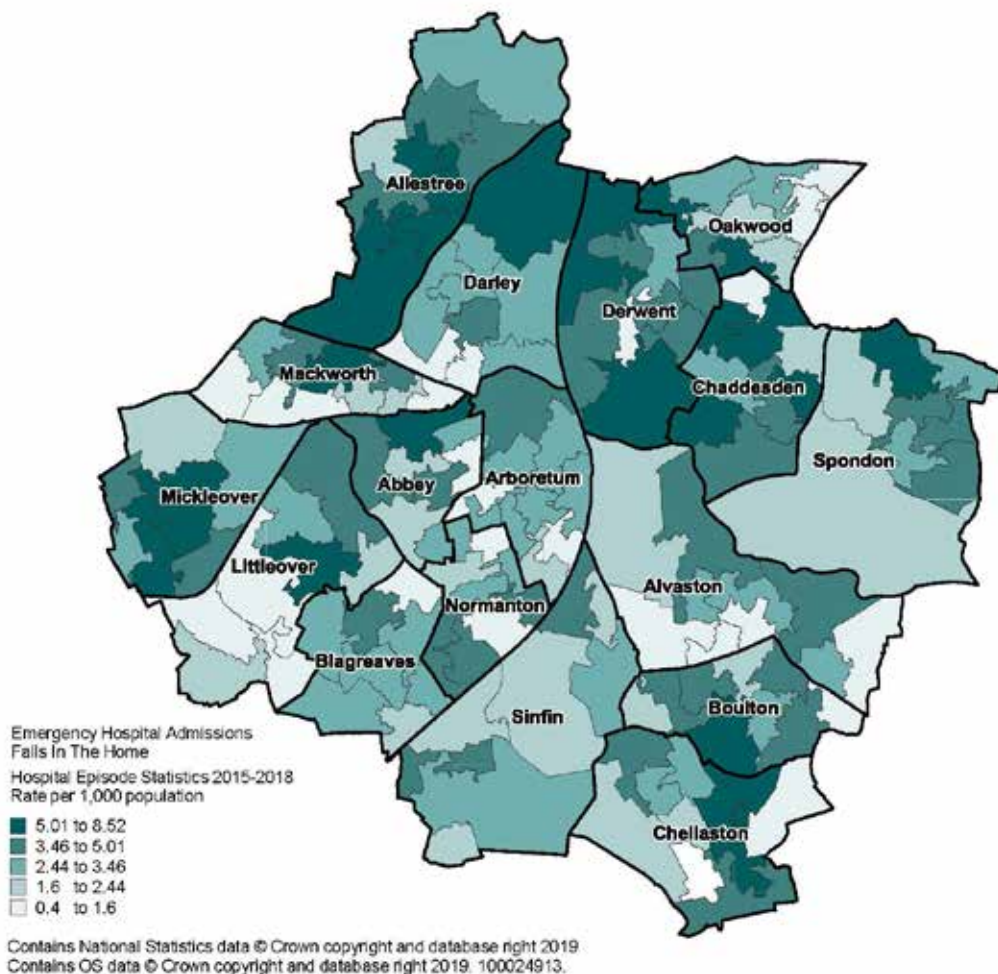
Case Study

Mrs S is 75 years old and lives on her own, she has several health concerns including heart failure, leg arterial disease, diabetes, breathlessness and poor mobility. Mrs S struggles on her feet and has tripped in the house, to prevent further trips and falls Healthy Housing Hub have installed: 2nd stair rail, care link lifeline, a hand rail in hall, to walk between kitchen and living room safely and grab rail at front door.

Vulnerable Households

What is the impact on vulnerable households living in non decent homes?

Derby is one of the 20% most deprived areas in England.

Derby is one of the 20% most deprived Local Authority Districts in England. Derby is home to some of the most deprived areas in England,18.5% of Derby's LSOAs fall into the most deprived 10% of LSOA's in England[50].

The most deprived areas of Derby are concentrated towards the central LSOAs of Arboretum, Normanton and Sinfin.

Index of Multiple Deprivation

The English Housing Survey shows that nationally 53.3% of non decent private rented homes are in the most deprived 40% of LSOAs (IMD score 1- 4), this compares to just 31.8% of owner occupied properties.

Index of Multiple Deprivation Decile 2015

- 8 to 10
- 5 to 8
- 3 to 5
- 2 to 3
- 1 to 2

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Tenure of Non Decent Homes by IMD Score

Nationally, 32.7% of households living in a non decent private sector home are currently in receipt of means tested benefits or tax credits with a relevant income below the threshold. Using this as an estimate, in Derby there are approximately 6,124 households living in non decent private sector homes which do not meet the Decent Home Standard that are also eligible to claim means tested benefits and tax credits.

There is little difference in the proportion of households living in a non-decent home in receipt of means tested benefits between the private rented sector (33.7%) and owner occupied sector (32.2%).

One in five people (22%) in the UK are classed as living below the poverty line, where a family has an income of less than 60% of the median income for their family type after housing costs.

The English Housing Survey identified that 22.7% of families in the private sector are living below the poverty line and also living in a non-decent home. People living in poverty are much less likely to be able to build up savings to cover unexpected expenses or to invest in improvements to their homes. This is perhaps most problematic for people who own their own homes, which do not meet the Decent Homes Standard.

The English Housing Survey contains a variable that looks to model vulnerable households. These are those households for which one of the following apply

- In receipt of means tested benefits or tax credits with a relevant income below the threshold
- Attendance allowance
- Disability Living Allowance
- Personal Independence Payment
- Industrial injuries disablement benefit or
- War disablement

Nationally 35.9% of people who can be classed as vulnerable live in a home that does not meet the decent homes standard.

6,124 families in Derby are eligible to claim means tested benefits living in a non decent private sector home.

Discussion

Local Authorities have a legal duty to understand and monitor the condition of private sector housing in their area, and to develop strategies to address areas of concern. The last private sector housing survey in Derby was carried out in 2007, since this time there have been significant changes both nationally and locally, in the condition and use of private sector housing.

A desktop modelling approach has been developed and undertaken to identify the condition of private sector homes in Derby. Data surrounding the age, type and tenure of each home in Derby has been analysed in detail to provide an accurate estimate of the housing stock in Derby.

The English Housing Survey, a continuous national survey surrounding peoples housing circumstances and the condition and energy efficiency of housing in England, has been analysed to identify the propensity of each home within Derby to meet the Decent Homes Standard. Analysis of related health data has been carried out to establish the wider health implications of living in poor housing. This study is focused on the condition of private sector homes; as such social housing has been excluded from the figures for decency.

Housing and its central and often overlooked role in the health and wellbeing is beginning to take a more central role in health and housing policy. The Marmot Review (2010) concluded that housing is a 'social determinant of health' which means that it can affect physical and mental health inequalities throughout life. There is growing evidence of the need to more deeply embed housing into health policy. The Kings Fund (2018) highlighted the need for Sustainability and Transformation Partnerships (STPs) and Integrated Care Systems (ICSs) to work more closely and constructively with the housing sector to prevent ill health if they are to successfully improve population health[25.].

Public Health England list housing as a positive protective factor across the life course together with having a healthy balanced diet, access to physical activity, good education and stable employment. The need for housing and health practitioners and policy makers to work more effectively and collaboratively is clear in order to make a positive difference to population health.

There is growing evidence of the cost of poor housing to the NHS. The Building Research Establishment (2015) estimated that HHSRS (Housing, Health and Safety Rating System) category 1 hazards cost the NHS £1.4 billion per year in first year treatment costs[5]. Furthermore the Kings Fund (2014) estimated that every £1 spent on improving homes saves the NHS £70 over 10 years[4]. It is imperative in terms of limited budgets that practitioners increase awareness of the impact poor housing has on the health and wellbeing of populations.

Too often housing policy is focused on the supply of new housing whilst failing to address the inequalities in the existing housing stock. Good quality housing is essential throughout the life course with well designed, appropriate and well maintained housing allowing people of all ages to enhance their long term health and wellbeing. The 2016 Good Housing: Better Health paper puts forward the case for a more balanced approach to housing policy and sets out the case for increasing the focus on the quality and use made of the current housing stock, and argues the case that building new homes will not address the inadequacies in the existing housing stock[8].

The Housing Health and Safety Rating System (HHSRS) is a risk based assessment tool used to assess the likelihood and severity of hazards in the home. A category 1 Hazard represents the most serious hazard and a home containing a category 1 hazard will also fail the decent homes standard. In Derby this is the most likely reason that a home will fail the decent homes standard.

The Decent Homes Standard is the current standard for housing based upon the HHSRS and sets out the minimum standard for housing. It states that for a home to be considered decent it must;

• be free from any hazard that poses a serious threat to health and safety
• be in a reasonable state of repair
• have reasonably modern facilities
• provide a reasonable degree of thermal comfort.

The 10 year decent homes programme to 2010 was successful in tackling many problems of housing conditions in the social rented sector, however the same progress has not been made in the private rented and owner occupied sectors.

There are approximately 18,700 homes in the private sector in Derby that do not currently meet the Decent Homes Standard. In real terms this means that approximately 1 in 5 families (21.4%) living in the private sector in Derby are living in a home that is not suitable for their needs and will likely be having a detrimental impact on their health and wellbeing. Poor housing in Derby is concentrated towards the more central wards of Normanton, Arboretum, Abbey, Darley and Sinfin with more than1 in 4 private sector homes in these wards being classed as non-decent.

Derby is comprised of around 110,000 homes; 37.8% were built before 1944, 33.8% were built between 1945 and 1980 and 27.1% build since 1981. Nationally research has how that the likelihood of a home not meeting the Decent Homes Standard increases with property age. Older homes built before modern building techniques and standards for ensuring thermal comfort and safety in the home are less likely to be of a condition that meets the decent homes standard. In Derby 30.8% of homes built before 1918 and 31.1% of homes built between 1919 - 1944 do not pass the Decent Homes Standard compared to 11.6% of homes built between 1981 – 2002 and 1.8% built after 2002.

The private rented sector is growing rapidly nationally with the proportion of private rented homes almost doubling since 2006 when just 11% of homes were privately rented. This is certainly the case in Derby where in 2011 (54) 16.8% of homes were privately rented compared to 22.4% of homes in 2019.

There is growing evidence that nationally the private rented sector has a greater proportion of non-decent homes than the owner occupied sector. This is certainly the case in Derby where 24.2% of private rented homes do not meet the Decent Homes Standard compared to 20.3% of owner occupied homes. This difference may in part be due to the nature of private rented homes which tend to be older terraced and semi-detached properties built before 1944; whereas owner occupied homes tend to be newer semi-detached and detached properties. Levels of non-decency in the private rented sector are higher in the more central wards of Normanton, Arboretum, Abbey, Darley and Sinfin with more than 1 in 4 homes in these areas not meeting the Decent Homes Standard.

There are approximately 5,000 private sector homes in Derby which fail the decent homes standard for thermal comfort. The proportion of homes that fail the decent homes standard for thermal comfort is greater in the private rented sector (8.9%) than among owner occupied homes (4.6%). The greatest proportions of homes failing the Decent Homes Standard for thermal comfort are found in the more central wards of Darley, Abbey, Mackworth and Alvaston.

Too often housing policy is focused on the supply of new housing whilst failing to address the inequalities in the existing housing stock. Good quality housing is essential throughout the life course with well designed, appropriate and well maintained housing allowing people of all ages to enhance their long term health and wellbeing.

Families living in homes lacking thermal comfort are more likely to be living in a home with an EPC rating below a band E. Nationally 34.1% of fuel poor families are living in a home with the lowest EPC ratings; band E, F or G.

In Derby 27.9% off all homes have an EPC rating band of E, F or G this is greater than the national average of 20.4% of homes. The more central wards of Abbey, Normanton and the areas of Chaddesden and Derwent closest to the city centre have the greatest proportion of homes with EPC bands below E. These are also the areas of the city with the greatest proportion of older homes. In addition to this, Derby has a greater proportion of the population living in fuel poverty (10.8%) than the proportion nationally (9.3%).

The 2018 Home Fitness for Human Habitation Act[13] requires landlords to ensure that properties that are let on new lettings have an EPC band E or above. This is to ensure that homes provide a reasonable level of energy efficiency and thermal comfort for tenants. There are currently approximately 6,657 privately rented homes in Derby that have an EPC below band E.

The UK is committed under the 2008 Climate Change Act[14] to an 80% reduction in emissions reduction by 2050. Derby City Council's Climate Change Strategy, published in 2015 identifies the need to reduce domestic carbon emissions, which currently account for 30% of city wide emissions, in order to meet the national target of an 80% reduction in emissions. The strategy also highlights how residents will be affected by changes in the climate due to increased heat and cold weather events.

Nationally the proportion of private sector homes failing the thermal comfort element of the decent homes standard has significantly decreased from 13.2% in 2008 to 6.9% in 2016. This decrease has been in part due to the success of the national Green Deal and ECO (Energy Company Obligation)scheme which provided grants and loans for home owners and landlords to install insulation and new boilers, amongst other energy efficiency measures, to improve the energy efficiency of their homes. Despite this decrease however,

there are still a significant number of families in Derby living in a home that does not provide a decent level of thermal comfort.

The Decent Homes Standard also assesses whether a home has reasonably modern facilities. In Derby approximately 1,800 homes do not meet the Decent Homes Standard criteria for modern facilities. A greater proportion of these homes are found in the most central wards of Normanton, Arboretum and Alvaston. As might be expected these homes were generally built before 1944.

There are approximately 4,000 private sector homes in Derby that fail the Decent Homes Standard for disrepair. This includes homes where one of more key building components are old and need replacing. The proportion of homes failing the Decent Homes Standard for disrepair is greater within the private rented sector (6.9%) than the owner occupied sector (3.8%). As might be expected older homes are more likely to fail the Decent Homes Standard for disrepair than newer built homes. 13.2% of homes in Derby built before 1918 fail the Decent Homes Standard for disrepair compared to 0.4% of homes built after 1981.

Approximately 12,500 private sector homes in Derby contain at least one category 1 HHSRS hazard and therefore also fail the Decent Homes Standard. The greatest concentrations of homes containing at least one category 1 hazard are found in the central wards of Normanton, Arboretum, Sinfin and Darley. There is little difference between the private rented sector and owner occupied sector in terms of proportion of homes possessing a HHSRS category 1 hazard. As might be expected, older homes are more likely to possess a HHSRS category 1 hazard. In Derby 28.2% of homes built before 1918 possess a category 1 hazard compared to just 3.3% of homes built after 2002.

Research has shown that housing interventions to keep people warm, safe and free from cold and damp are an efficient use of resources. Research by the Kings Fund (2014) found that for every £1 spent on improving homes saves the NHS £70 over 10 year[5].

Analysis of the English Housing Survey has allowed for the median costs to make homes decent to be calculated. The average cost per property to bring all non-decent homes up to the Decent Homes Standard would be £2,566. The total cost for the city to improve all private sector homes to meet the Decent Homes Standard would be in the region of £48million. The cost to make safe all homes with a HHSRS category 1 hazard has been estimated at £2,239 per property, giving a total for the city of £28 million.

The cost benefit of improving the existing housing stock is well known and understood, and housing is beginning to form a central role in health related policy. The King's Fund suggested in 2018 that the potential impact of housing on improving health and the resulting cost benefits for the NHS in terms of moderating demands and financial savings are so large that STPs have to do more to engage with the housing sector[25].

A house is more than a physical structure to provide shelter, they are our homes where we bring up our families, socialise, and our own space where we can seek refuge from the world around us. Shelter is one of the most basic of human physiological needs together with air, food, drink and warmth. Maslow (1954) suggested that these basic human needs must be met before other personal needs can be achieved[22]. The interconnected nature of housing, health and wellbeing must be recognised, and the negative impact their living in poor housing has upon populations taken into account when developing health and housing policy.

There is clear evidence linking cold indoor air temperatures and respiratory and circulatory conditions including Asthma, Chronic Obstructive Pulmonary Disease (COPD), Coronary Heart Disease and Strokes[28, 29, 30]. Respiratory diseases remain the most prominent cause of excess winter deaths with 84.9% more respiratory deaths in the winter months compared with the non-winter months in 2017 – 2018[31].

There is clear evidence also linking home temperatures with mental and emotional health. Evaluation of the Government's Warm Front scheme found increases in room temperature were associated with reduced likelihood of experiencing depression and anxiety[35]. Research published by Shelter UK found that children living in a cold home were more likely to suffer with mental health problems than children not living in cold homes[36]. Mental ill health will in turn have implications for educational attainment and opportunities in adulthood.

Many population groups are particularly at risk from cold temperatures, including older people, children and those with chronic illnesses. It is these most vulnerable groups, who spend the majority of their times indoors, who are most susceptible to the effects of living in cold homes[21]. This combined with their greater likelihood of reduced mobility or immobility increases their vulnerability to the effects of living in a cold home.

In Derby approximately 3,000 families are residing in private sector homes which contain a HHSRS category 1 hazard for excess cold or damp. Furthermore 5,000 private sector homes in Derby do not meet the minimum standard required under the Decent Homes Standard for thermal comfort. There is little difference in the proportions of private rented homes (3.7%) and owner occupied homes (3.8%) which contain a HHSRS category 1 hazard for cold and or damp. However, research by the University of York (2018) into vulnerability of low income families concluded that vulnerable families, who are already struggling, have to struggle harder in the private rented sector[27]. In some wards of the city such as Chaddesden the difference between private rented and owner occupied sector are more significant. Figures for Derby show that homes built before 1944 have a greater likelihood of containing a HHSRS category 1 hazard for cold and or damp compared to homes built after 1981.

The average cost per property to bring all non-decent homes up to the Decent Homes Standard would be £2,566. The total cost for the city to improve all private sector homes to meet the Decent Homes Standard would be in the region of £48million.

Analysis of Hospital Episode Statistics reveals that in Derby there is some overlap between areas of the city with a greater proportion of homes with a HHSRS category 1 hazard for cold and damp and increased rates of hospital admission for respiratory disease, asthma and coronary heart disease. Hospital Episode Statistics (HES) represent only the most serious of cases where an emergency hospital admission was made. Further investigation and analysis of the prevalence of respiratory conditions in the wider population would be necessary to draw conclusions around the impact of living in a cold and damp home has on health and wellbeing of the population in Derby.

The risk posed by living in an unsafe home in terms of trips and falls is significant and poses a significant cost to the NHS. Public Health England estimates that unaddressed fall hazards in the home cost the NHS in England £435 million[44]. Falls are estimated to cost the NHS more than £2.3 billion per yea per yearr[42]. It is the most vulnerable in our society that are at the most risk of accidents due to trips and falls. Older people age 65 and older have the highest risk of falling with 30% of people over 65 and 50% of people older than 80 falling once a year[42]. Falls account for 40% of all ambulance call-outs to the homes of the over 65s annually[43].

Falls and fractures in older people are a costly and often preventable health issue. Reducing falls and fractures is important for maintaining health, wellbeing and independence amongst older people. Hip fractures are perhaps the most serious fragility fracture affecting older people, with one cause of such fractures being living in a home with a serious hazard with potential to lead to a fall. Short and long term outlooks for patients are generally poor following a hip fracture, with an increased one year mortality of between 18% and 33%[44]. Public Health England estimate that Hip Fractures alone account for 1.8 million hospital bed days and £1.9 billion of hospital costs every year, excluding the cost of social care[44].

In Derby approximately 10,000 families are living in a private sector home that has a HHSRS category 1 hazard for a fall. Abbey, Arboretum, Sinfin and Mackworth have the greatest proportion of private sector homes with a HHSRS category 1 hazard for falls in these wards more than 1 in 10 homes possess a HHSRS category 1 hazard for falls. In Derby 1,029 people age over 65 received an emergency hospital admission due to a fall in 2017/18, although it is not known how many of these are a specific fall in the home.

Falls are also the most common cause of accidental injury to children; every day in England 45 children under age 5 are admitted to hospital following a serious fall[47]. Falls are also a serious risk to older children, each year around 27,000 children ages 5-14 in England are admitted to hospital after a fall[47]. Children and young people are most susceptible to harm resulting from a fall between levels in a home, for example a fall out of windows, from landings and falls from accessible roofs and garden walls. In Derby 143 children aged 0-4 received an emergency hospital admission due to a fall between 2014 – 2015 and 2016-2017[46]. An evaluation of the Child Safety Equipment programme that was piloted by the Ripples Family Nurse Partnership in 2018/19 reported very positive results in reducing A&E admissions due to an injury or ingestion for your children[48].

The interconnection between health, wellbeing and the homes in which we live are clear. Investment into current housing stock in addition to building new homes is essential if we are to mitigate health inequalities due to the home in which we live. Measures to ensure that those living in the private rented sector are not further disadvantaged due to the often poorer housing conditions in this sector are essential to ensure real improvements to the health and wellbeing of those who rent their home privately. An holistic approach to housing and health policy and practice is necessary to ensure that limited resources are targeted to those most in need in society.

Recommendations

1. Adoption of findings to review existing and inform development of new housing strategies and policies

The findings from this Derby Private Sector Stock Condition Survey and accompanying database enable accurate estimates of the levels of non-decency and HHSRS Category 1 hazards in the private sector to be generated at an individual address level. Intelligence at this most granular level allows for enhanced targeting of resources into areas most at need, to support improvements in the standard of local housing and improve overall levels of decency. The potential for such targeted improvements to improve the health and wellbeing of the local population is considerable and offers a cost effective solution for use of existing finances.

It is therefore recommended that the findings be used by Derby City Council to review existing and inform development of new housing strategies and policies designed to deliver improvement where most needed and to best effect.

2. Explore opportunities to raise the standard of decency of local housing stock.

The cost of poor housing to both the NHS and wider society is well known. It requires a significant investment into private sector homes to bring non decent homes up to a decent standard in order to mitigate the costs of living in poor housing. Opportunities should be explored to bring in funds that can be used to improve the homes and the housing-related health, safety and well-being of residents in Derby, particularly for those most vulnerable to negative health outcomes arising from poor or unsuitable housing conditions. Such an example could be for a pilot study to improve a targeted sample of homes and undertake a robust evaluation

of the impact of this for residents' health and wellbeing, including the use and reliance on health and social care services. With Information Sharing Agreements in place to support such an evaluation exercise and, with consent from residents, this could provide valuable evidence to help justify greater funding in the future for similar housing and health improvement programmes at scale.

It is therefore recommended that opportunities be explored to source funding for targeted improvement to homes and to the housing-related health, safety and well-being of residents; and that robust evaluation of such schemes be undertaken by Public Health colleagues in order to deepen our understanding and widen the evidence base of the true health and well-being benefits of improvements to people's homes and lives.

3. Carry out more detailed analysis of conditions within the private rented sector.

The findings of this wider private sector survey are that 24.2% of homes in the private rented sector in Derby fail the Decent Homes Standard; and that the most common reason for those homes failing the Decent Homes Standard is because they are exposed to a HHSRS Category 1 Hazard to Health.

It is, therefore, strongly recommended that a more detail analysis of housing and health conditions and vulnerabilities within the private rented sector, particularly the lower end of the private rented sector, be undertaken to better inform Council decision-making with respect to its specific statutory powers, responsibilities and, particularly, its statutory enforcement options to help best ensure improvement to this sector; again, to inform review of existing and inform development of new housing strategies, policies and statutory enforcement approaches designed to deliver improvement where most needed and to best effect.

4. Review the strategic approach and the support, incentives and enforcement options available to accelerate the return to use of empty homes

In a time of increasing housing need, vacant homes are considered a waste of housing resources at both national and local levels. There is common agreement that the situation needs addressing. The current demand for housing in our city far outstrips supply. As a result, there are many families on the waiting list for housing in Derby. There are also many others living in cramped, overcrowded or otherwise unsuitable conditions. At the same time 2.1% of private sector properties are vacant. Of those 2,269 vacant dwellings, 1,245 dwellings have been vacant for over 6 months.

In addition, empty properties can be detrimental to the lives of local residents as they are a magnet for crime and antisocial behaviour, drive down property values locally and contribute to urban decline and blight. They also represent a risk for the emergency services and put added pressure on responsive council services.
In order to better meet the demand for housing and see an overall improvement in housing choice, we must make the best possible use of our existing housing; and that must include the timely return to use of empty homes.

It is therefore recommended that the findings be used by Derby City Council to review its existing and inform development of its new empty homes strategy and related policies/practices to best support, encourage and enforce, where appropriate, reduction in numbers of long term empty homes in Derby.

5. Ensure housing is central to health policy

This report and wider literature highlight the importance for health and wellbeing of living in a decent, safe and warm home. It is essential that decent, safe and warm housing is a key consideration for both housing and health policies. Housing as a wider determinant of health calls for a more holistic approach to health care, looking at the home in which a person lives in combination with their care and support needs.

It is recommended that organisationally, the Stock Condition Survey report be presented to the Health & Wellbeing Board with a view to incorporating the findings and priorities for action into the refreshed Health & Wellbeing Strategy.

Appendix

Appendix 1 Creation of Stock Condition Survey Database

The property type of each dwelling has been determined through the analysis of a number of data sources including the OS Addressbase classification of dwellings, Experian Mosaic, Land Registry and EPC (Energy Performance Certificate) data. The final probable property type (terrace, end terrace, semi-detached, detached and flats) has been validated against the 2018 VOA (Valuations Office Agency) figures for property types within Derby

The figures obtained for the Derby Housing Stock Condition database vary slightly to the 2018 VOA figures; this is primarily due to the difficulties in obtaining dwelling level data about property type combined with the inaccuracy of data sources in accurately identifying the property type. The VOA 2018 figures identify 8,950 bungalows within the city. There are no address level datasets available to identify bungalows as these are no longer identified in the LLPG (Local Land and Property Gazetteer). Bungalows have been identified in the database as their built characteristics (terrace, semi-detached, detached). This explains the over representation of semi-detached and detached dwellings in the database, since some of the dwellings will be characterised as bungalows in the VOA 2018 figures.

Types of homes in Derby

	Flat	Terrace	Semi-Detached	Detached	Other
VOA 2018 Figures (England)	17,000	29,220	37,965	18,130	9,270
Database	17,188	28,742	39,324	23,907	1,100
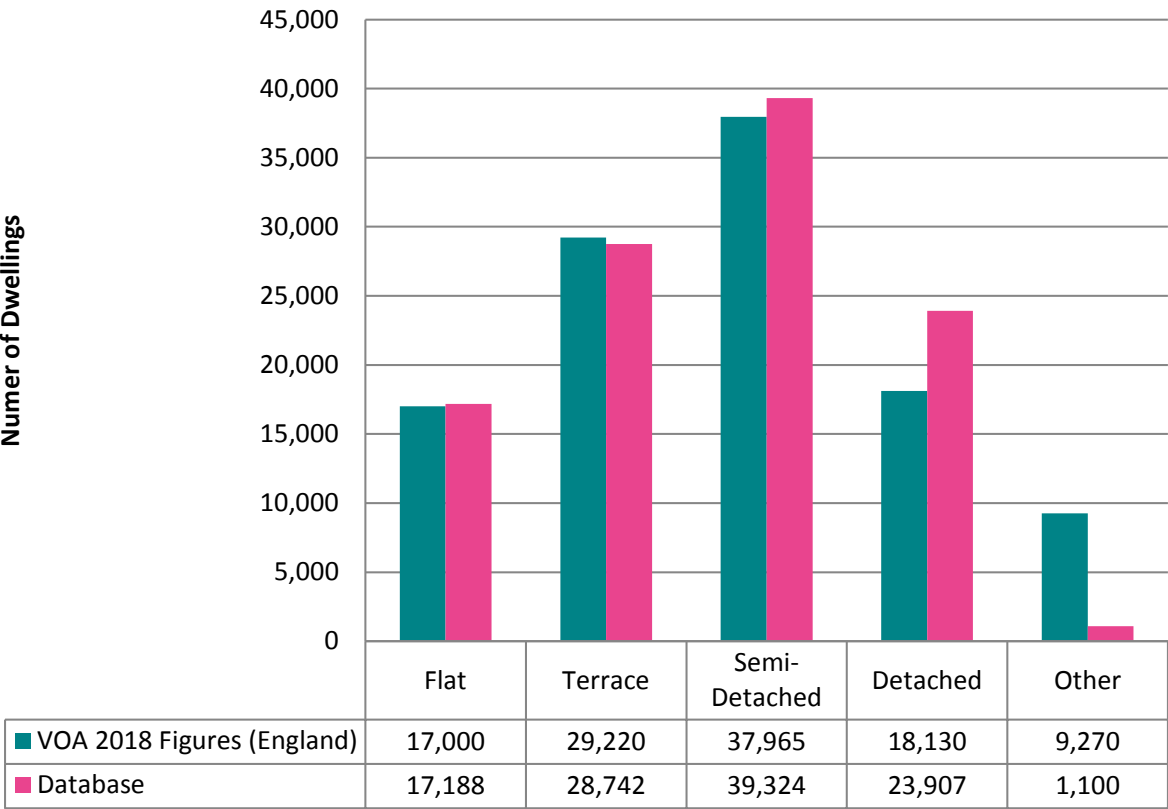
Data regarding the age or build period of individual properties is limited in the data available.

Three main data sources have been combined to infer an individual build date for each property in the city. The Land Registry releases some limited information on the date of first sale for properties that have been sold since 1995, this combined with the Council Tax band from date (post April 1993) has been used to identify property build periods where possible.

Where this has not been possible, and the band from figure held in council tax is equal to April 1993, the build period has been taken from Experian data.

The age bands within the available data did not form a direct match to those within the English Housing Survey. As such it was necessary to reclassify some age bands

Reclassification of Age Bands in Database

Final Age band	EHS Age Bands	Experian Age Band
Pre 1818	Pre 1850	Pre 1870
	1850 - 1899	1871 - 1919
	1900 - 1918	
1919 – 1944	1919 – 1944	1920 – 1945
1945 – 1980	1945 – 1964	1946 – 1954
	1965 – 1974	1956 - 1979
	1975 - 1980	
1981 – 2002	1981 – 1990	1980 - 1999
	1991 – 1995	
	1996 – 2002	
Post 2002	2002+	2000 – 2009
		2010+

Comparison figures for property ages released by the VOA for Derby allow for a comparison between the two datasets. Pre-1918 properties are under-represented in the Derby Housing Stock Database where inter war 1919 – 1944 properties are over represented.   Further investigation suggests that many of the pre

1918 terraces have been incorrectly classified as post 1919 terraces by the Experian data. These properties have been reclassified as pre 1919 properties in the SCS Database.

Ages of homes in Derby

	Pre 1918	1919 - 1944	1945 - 1980	1981 - 2002	Post 2002	Unknown
VOA 2018 Figures	19,460	23,320	39,780	15,780	10,680	1,050
Database	18,490	23,178	37,226	19,038	10,827	1,502
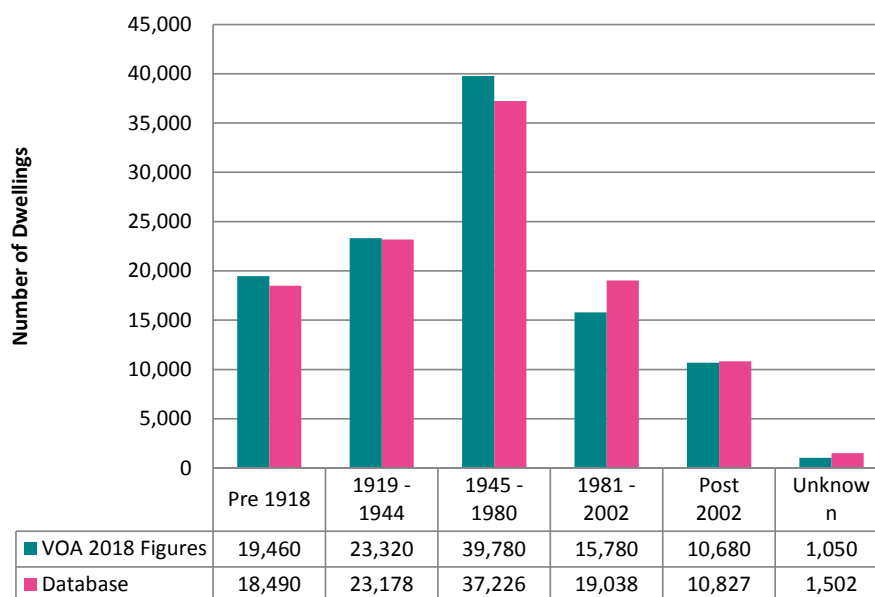
Total housing stock can be broken down into private sector (which consists of both owner occupation and private rented) and social housing. The Tenure of each property has been derived from the analysis of several data sets including data around membership of the three Tenancy Deposit Schemes for Private Rents, NROSH (National Register of Social Housing), known Council owned housing stock including those properties which have been purchased through the RTB (Right to Buy) scheme.   Since a private sector property can change from owner occupation to private rented relatively quickly these figures should be taken as indicative figures representing a single point in time.

The figures obtained through the analysis and creation of the housing stock database have been compared to and validated against the latest OS tenure estimates for 2017[1] . The database figures for each tenure type

are broadly comparable to the 2017 tenure estimates. Slightly fewer owner occupied properties have been identified; however more private rented properties have been identified, given the relative ease that a property may change from owner occupation to private rent this is to be expected.

1 https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ subnationaldwellingstockbytenureestimates data for Private Rent from https://www.gov.uk/ government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants

Tenure of Homes in Derby Comparison to OS Tenure Estimates

	Owner Occupied	Private Rent	Social
Database	62,929	24,751	22,581
2017 OS tenure Estimates	65,779	22,551	20,960
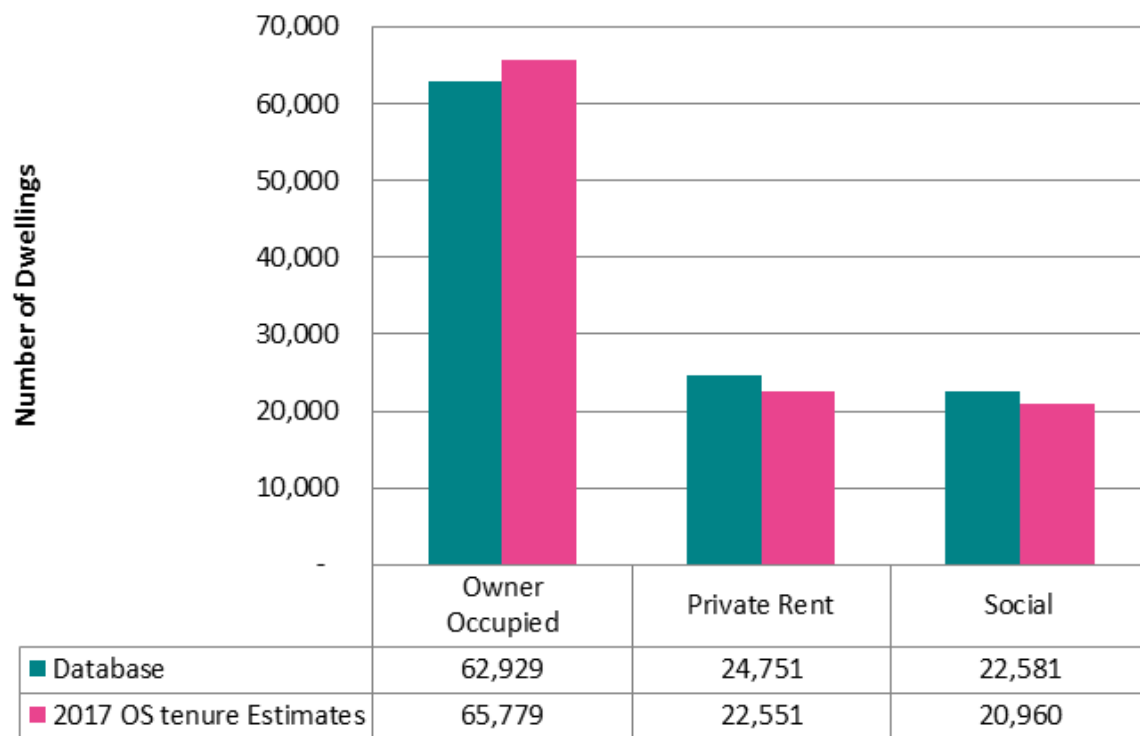
Appendix 2 Calculation of Decent Homes Propensity

The English Housing Survey (EHS) covers the whole of England and consists of a physical property survey and face to face interview. The results of this have been provided under a special licence to allow propensity modelling to be carried out against a local property database.

Propensity modelling of properties based on their physical characteristics was carried out to calculate the likelihood of each individual home to be decent or non-decent using the EHS variable for decency. This variable takes into account the 4 elements that a property is required to meet in order to be classified and decent or non decent.

The EHS covers the whole of England and, as such, results from the survey can be broken down into the Government Office regions at individual case level which is the lowest geographical identifier. An analysis of the CIFPA Nearest neighbours was carried out to identify the Government Office regions with Local Authorities most similar to those in Derbyshire. Based on this analysis, the modelling was carried out using the results from the East Midlands, West Midlands and North West Government Office regions in the first instance.

Properties from the local database were grouped by their build period, property type, tenure and their IMD quintile. These individual characteristics were each assigned a propensity to be decent / non-decent based upon corresponding results within the EHS. In cases where it was not possible to identify a propensity score, the Government Office regions were widened to include Derbyshire's wider comparators based on CIFPA nearest neighbours analysis (all Government Office Regions excluding London, South East and North East). Should a propensity still not be identified the Government Office regions were widened further to include the whole of England.

Known empty properties were removed from the modelling process since it is known that these properties have a higher propensity to be non-decent.   The modelling was then repeated using the EHS identifying the propensity of an empty property to be non-decent based upon it's build period and age.

The results from this propensity modelling have been used in the analysis of non decent homes within this report.

This methodology has been used to model the cost to make non-decent properties decent using the costs to make decent variable in the English Housing Survey dataset.

Table 1 Non decency and age of property

Ward	Pre 1918	1919 - 1944	1945 - 1980	1981 - 2002	Post 2002
Abbey	60.4%	26.7%	2.5%	8.8%	1.6%
Allestree	5.1%	23.6%	60.4%	7.9%	3.0%
Alvaston	32.8%	38.9%	12.9%	12.6%	2.8%
Arboretum	72.9%	11.2%	6.6%	6.1%	3.2%
Blagreaves	4.9%	57.7%	25.9%	11.4%	0.2%
Boulton	5.1%	54.4%	34.6%	5.5%	0.5%
Chaddesden	11.3%	59.5%	25.3%	3.8%	0.2%
Chellaston	2.7%	21.6%	30.7%	38.9%	6.1%
Darley	57.1%	23.2%	9.0%	8.4%	2.3%
Derwent	20.5%	41.5%	29.1%	8.0%	0.8%
Littleover	13.4%	53.1%	15.7%	15.8%	2.0%
Mackworth	48.8%	20.0%	25.5%	4.9%	0.9%
Mickleover	3.3%	9.8%	71.4%	12.2%	3.2%
Normanton	62.8%	29.8%	4.8%	1.7%	0.9%
Oakwood	0.3%	8.9%	21.4%	68.7%	0.7%
Sinfin	21.2%	29.8%	35.6%	12.2%	1.2%
Spondon	13.6%	23.3%	54.9%	7.1%	1.0%
Total	**30.8%**	**31.1%**	**24.7%**	**11.6%**	**1.8%**

Table 2 Cost to make decent

Ward	Pre 1918	1919 - 1944	1945 - 1980	1981 - 2002	Post 2002
Abbey	£2,931,874	£1,534,139	£48,905	£159,800	£14,313
Allestree	£280,086	£1,214,116	£831,116	£80,133	£19,561
Alvaston	£1,485,790	£1,568,853	£187,370	£215,027	£24,388
Arboretum	£3,917,999	£742,031	£87,709	£98,190	£31,289
Blagreaves	£189,610	£2,024,909	£321,437	£138,566	£1,075
Boulton	£155,442	£1,393,721	£324,025	£63,656	£3,090
Chaddesden	£524,388	£2,539,910	£286,981	£47,860	£1,396
Chellaston	£95,740	£673,358	£273,765	£375,310	£31,146
Darley	£2,747,752	£1,568,384	£159,648	£158,792	£20,196
Derwent	£605,191	£1,079,917	£241,828	£102,736	£4,698
Littleover	£457,738	£1,771,165	£167,771	£177,476	£10,592
Mackworth	£1,913,690	£774,588	£295,516	£67,473	£6,058
Mickleover	£132,375	£272,281	£753,839	£103,587	£19,175
Normanton	£3,464,284	£1,337,852	£69,924	£36,159	£9,536
Oakwood	£6,190	£177,502	£142,335	£556,918	£3,301
Sinfin	£681,211	£614,562	£303,328	£141,316	£7,288
Spondon	£597,793	£781,093	£592,051	£76,479	£6,469
Total	**£20,187,154**	**£20,068,380**	**£5,087,549**	**£2,599,477**	**£213,572**

Appendix 3 Calculation of HHSRS Hazards

The EHS contains variables that cover the 26 main HHSRS hazards. Using the same propensity modelling technique used to identify the propensity of homes to be decent it has been possible to calculate the propensity for each property type to possess a category 1 hazard.

The results from this modelling have been used to identify the properties that are most likely to contain a HHSRS category 1 hazard. The results do not show which properties do contain each hazard but rather the likelihood of them to possess a hazard.

Table 3 Hazards by tenure

Values	Owner Occupied		Private Rent		Total	
	Count	%	Count	%	Count	%
Falls on Stairs	4,635	7.4%	2,023	8.2%	6,658	7.6%
Falls on the Level	1,249	2.0%	792	3.2%	2,041	2.3%
Falls between levels	1,238	2.0%	331	1.3%	1,569	1.8%
Falls associated with bath	211	0.3%	360	1.5%	571	0.7%
Cold Homes	1,875	3.0%	889	3.6%	2,764	3.2%
Damp and Mold	211	0.3%	360	1.5%	571	0.7%
Overcrowding	211	0.3%	360	1.5%	571	0.7%
Fire	425	0.7%	277	1.1%	702	0.8%
Hot Surfaces	290	0.5%	126	0.5%	415	0.5%
Lead	1,105	1.8%	220	0.9%	1,325	1.5%
Total	62,929	20.3%	24,751	24.2%	87,680	21.4%

Map 1 Proportion of Private Rented Homes with Hazard for Cold and or Damp
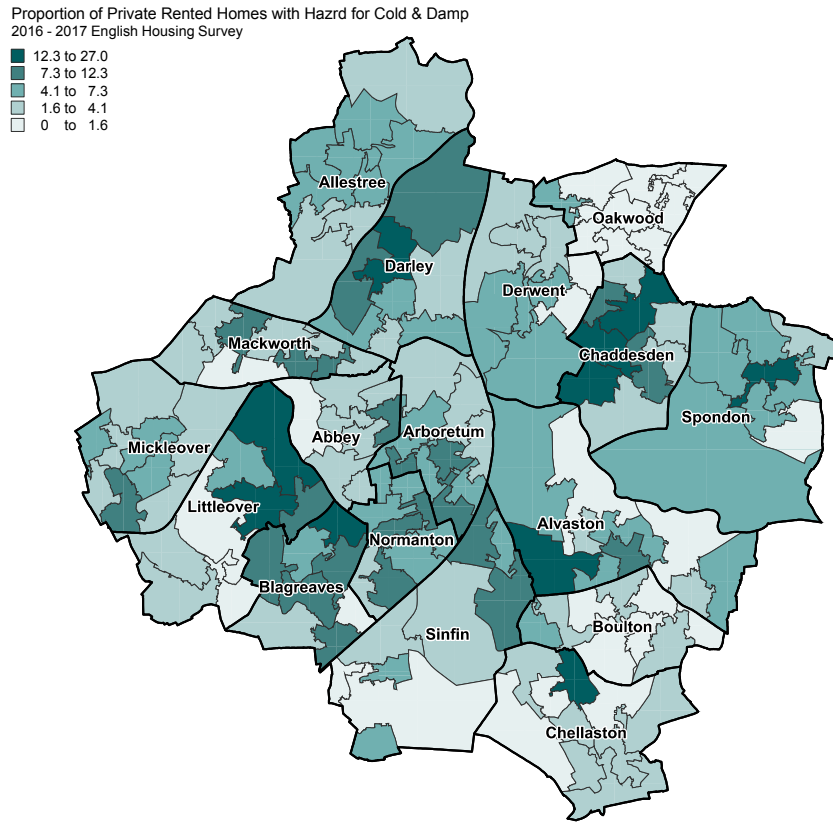
Proportion of Private Rented Homes with Hazrd for Cold & Damp
2016 - 2017 English Housing Survey

12.3 to 27.0
7.3 to 12.3
4.1 to 7.3
1.6 to 4.1
0 to 1.6

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Map 2 Proportion of Owner Occupied Homes with Hazard for Cold and or Damp
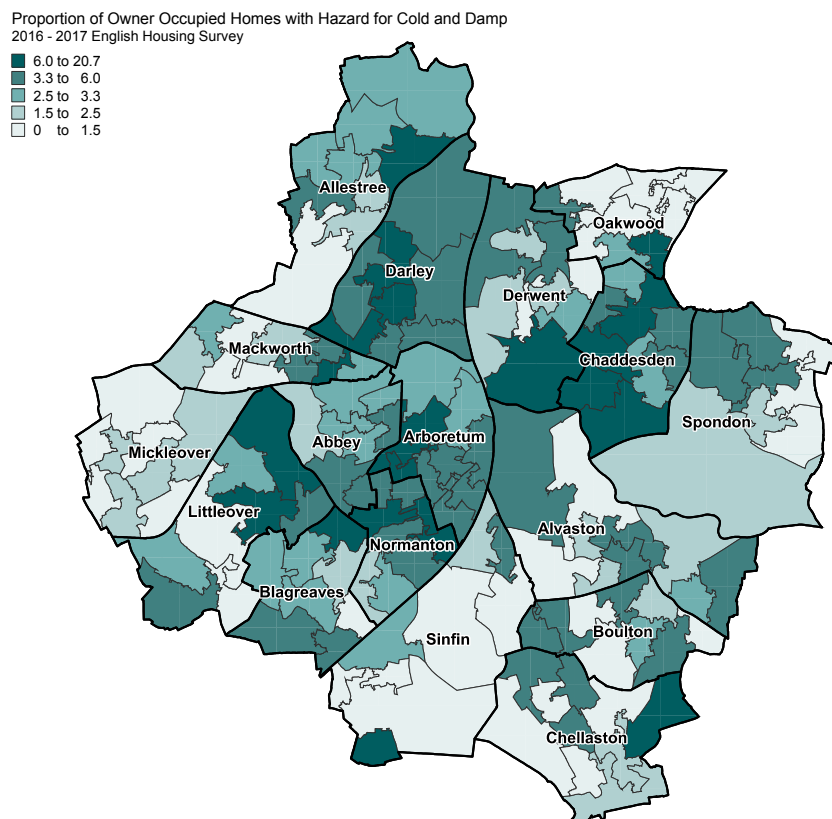
Proportion of Owner Occupied Homes with Hazard for Cold and Damp
2016 - 2017 English Housing Survey

6.0 to 20.7
3.3 to 6.0
2.5 to 3.3
1.5 to 2.5
0 to 1.5

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Appendix 4 Hospital Episode Statistics

Analysis of Hospital Episode Statistics (HES) has been carried to identify any patterns between areas of poor housing and hospital episode statistics for conditions for which poor housing is known to exacerbate the condition.

The HES data used in this report dates from 2015 - 2018 (3 years) and covers emergency hospital admissions. This data does not give a full picture of disease prevalence and its links to the home in which people live. However it does provide a snapshot of perhaps the most serious impacts of the conditions.

Emergency Hospital Admissions 2015/16 - 2017/18

Ward	Private Sector Homes	Cold and/ or Damp	Respiratory Disease *	Asthma *	Child- hood Asthma*	CHD *	Stroke *
Abbey	5,477	3.3%	33.08	2.80	3.66	6.25	4.84
Allestree	6,014	3.5%	26.33	1.41	3.55	7.99	6.88
Alvaston	5,959	4.0%	44.71	3.17	5.57	9.50	3.81
Arboretum	6,000	5.5%	38.43	5.02	6.98	9.21	3.10
Blagreaves	4,544	4.0%	39.76	2.51	4.29	9.52	5.96
Boulton	4,466	2.3%	49.71	3.52	1.85	11.15	6.96
Chaddesden	4,711	6.0%	42.72	3.89	4.16	9.89	5.22
Chellaston	5,446	2.6%	31.72	2.13	2.45	7.25	4.60
Darley	5,330	6.3%	31.92	1.73	2.16	7.90	4.75
Derwent	4,161	3.3%	57.70	3.19	4.00	7.48	5.15
Littleover	5,001	4.1%	29.15	2.06	1.24	8.99	3.79
Mackworth	5,160	4.0%	39.69	3.22	4.15	7.12	3.96
Mickleover	6,191	1.7%	34.16	2.32	4.02	10.40	5.27
Normanton	5,190	5.8%	48.46	3.52	6.95	8.60	3.94
Oakwood	5,276	1.8%	25.47	2.27	3.84	5.16	4.23
Sinfin	3,732	3.3%	42.83	5.28	7.83	8.89	3.98
Spondon	5,022	2.9%	52.10	2.70	5.73	10.98	7.00
Total	**87,680**	**3.8%**	**39.32**	**3.06**	**4.59**	**8.63**	**4.77**

- * Rate per 1,000 age standardised population

Appendix 5 Mosaic Segmentation of Hazards

Mosaic Group	Falls on Stairs	%	Private Sector Homes	%	Penetration	Index	
A Country Living		0.0%		0.0%			
B Prestige Positions	164	2.5%	5,785	6.8%	2.8%	36	
C City Prosperity	4	0.1%	86	0.1%	5.0%	64	
D Domestic Success	291	4.4%	6,670	7.9%	4.4%	56	
E Suburban Stability	601	9.0%	10,145	12.0%	5.9%	75	
F Senior Security	589	8.9%	10,459	12.3%	5.6%	72	
G Rural Reality	0	0.0%	3	0.0%	7.5%	96	
H Aspiring Homemakers	576	8.7%	10,536	12.4%	5.5%	70	
I Urban Cohesion	715	10.7%	5,223	6.2%	13.7%	174	
J Rental Hubs	562	8.4%	6,514	7.7%	8.6%	110	
K Modest Traditions	711	10.7%	8,008	9.5%	8.9%	113	
L Transient Renters	1,299	19.5%	10,814	12.8%	12.0%	153	
M Family Basics	691	10.4%	6,145	7.3%	11.2%	143	
N Vintage Value	310	4.7%	3,222	3.8%	9.6%	123	
O Municipal Challenge	139	2.1%	1,095	1.3%	12.7%	162	
Grand Total	6,653	100.0%	84,705	100.0%	7.9%	100	

Mosaic Group	Falls Between Levels	%	Private Sector Homes	%	Penetration	Index	
A Country Living		0.0%		0.0%			
B Prestige Positions	156	10.0%	5,785	6.8%	2.7%	146	
C City Prosperity	2	0.1%	86	0.1%	2.1%	113	
D Domestic Success	161	10.3%	6,670	7.9%	2.4%	131	
E Suburban Stability	206	13.2%	10,145	12.0%	2.0%	110	
F Senior Security	237	15.2%	10,459	12.3%	2.3%	123	
G Rural Reality	0	0.0%	3	0.0%	1.1%	58	
H Aspiring Homemakers	129	8.2%	10,536	12.4%	1.2%	66	
I Urban Cohesion	128	8.2%	5,223	6.2%	2.5%	133	
J Rental Hubs	96	6.1%	6,514	7.7%	1.5%	80	
K Modest Traditions	106	6.8%	8,008	9.5%	1.3%	72	
L Transient Renters	196	12.5%	10,814	12.8%	1.8%	98	
M Family Basics	84	5.3%	6,145	7.3%	1.4%	74	
N Vintage Value	47	3.0%	3,222	3.8%	1.5%	79	
O Municipal Challenge	16	1.0%	1,095	1.3%	1.4%	78	
Grand Total	1,562	100.0%	84,705	100.0%	1.8%	100	

Mosaic Group	Falls on Level	%	Private Sector Homes	%	Penetration	Index	
A Country Living		0.0%		0.0%			
B Prestige Positions	87	4.3%	5,785	6.8%	1.5%	62	
C City Prosperity	3	0.2%	86	0.1%	4.0%	168	
D Domestic Success	161	7.9%	6,670	7.9%	2.4%	100	
E Suburban Stability	242	11.9%	10,145	12.0%	2.4%	99	
F Senior Security	221	10.8%	10,459	12.3%	2.1%	88	
G Rural Reality	0	0.0%	3	0.0%	3.5%	145	
H Aspiring Homemakers	260	12.8%	10,536	12.4%	2.5%	103	
I Urban Cohesion	161	7.9%	5,223	6.2%	3.1%	128	
J Rental Hubs	206	10.1%	6,514	7.7%	3.2%	131	
K Modest Traditions	170	8.4%	8,008	9.5%	2.1%	88	
L Transient Renters	318	15.6%	10,814	12.8%	2.9%	122	
M Family Basics	124	6.1%	6,145	7.3%	2.0%	84	
N Vintage Value	67	3.3%	3,222	3.8%	2.1%	86	
O Municipal Challenge	18	0.9%	1,095	1.3%	1.6%	68	
Grand Total	2,037	100.0%	84,705	100.0%	2.4%	100	

HHSRS Hazards and Health Effects

HHSRS Hazard	Health Effects
Damp and mould growth Health threats due to dust mites, mould or fungal including mental and social wellbeing health threats associated with damp, humid and mouldy conditions	Allergies, asthma, effects of toxins from mould and fungal infections
Excess cold Threats to health from cold indoor temperatures. A healthy indoor temperature is 18oC to 21oC	Respiratory conditions: flu, pneumonia and bronchitis Cardiovascular conditions: heart attacks and strokes
Excess heat Threats due to high indoor temperatures	Dehydration, trauma, stroke, cardiovascular and respiratory
Carbon Monoxide and fuel combustion products Excess levels of carbon monoxide, nitrogen dioxide, sulphur dioxide and smoke	Dizziness, nausea, headaches, disorientation, unconsciousness and breathing problems
Lead Threats to health from lead ingestion from paint, water pipes, soil and fumes from leaded petrol	Lead poisoning causing nervous disorders, mental health and blood production issues
Radiation Health threats from radon gas and its daughters, primarily airborne but also radon dissolved in water	Lung cancer caused by exposure, which increases amount and length of exposure
Uncombusted fuel gas Threat from fuel gas escaping into the atmosphere within a property	Suffocation
Crowding and space Hazards associated with lack of space for living, sleeping and normal household or family life	Psychological distress and mental disorders, increased risk of hygiene issues, accidents and personal space and privacy compromised
Entry by intruders Problems keeping a property secure against unauthorised entry and maintaining defensible space	Fear of burglary occurring, stress and anguish caused by burglary and injuries caused by the intruder
Lighting Threats to physical and mental health associated with inadequate natural or artificial light, including the psychological effects associated with the view from the property through glazing	20.5% Depression and psychological effects due to lack of natural light. Eye strain from glare and inadequate light
Noise Threats to physical and mental health due to exposure to noise within the property or within its curtilage	Psychological and physiological changes resulting from lack of sleep, poor concentration, headaches and anxiety
Domestic hygiene, pests and refuse Health hazards due to poor design, layout and construction making it hard to keep clean and hygienic, attracting pests and inadequate and unhygienic provision for storing household waste	Stomach and intestinal disease, infection, asthma, allergies, disease from rats and physical hazards

Food safety Threats of infection from poor provision and facilities to store, prepare and cook food	Stomach and intestinal disease, diarrhea, vomiting, stomach upset and dehydration
Personal hygiene, sanitation and drainage Threats of infections and threat to mental health associated with personal hygiene, including personal and clothes washing facilities, sanitation and drainage	Stomach and intestinal disease, skin infections and depression
Water supply Threats to health from contamination by bacteria, parasites, viruses and chemical pollutants due to the quality of water supply for drinking household use such as cooking, washing and sanitation	Dehydration, fatigue, headaches, dry skin, bladder infections and legionnaires disease
Falls on the level surfaces Falls on any level surface such as floor, yards and paths, including falls associated with trip steps, thresholds or ramps where the change in level is less than 300mm	Physical injuries: bruising, fractures, head, brain and spinal injuries
Falls associated with stairs and steps Falls associated with stairs and ramps where the change in level is greater than 300mm. It includes internal stairs or ramps within a property, external steps or ramps associated with the property, access to the property and to shared facilities or means of escape from fire and falls over stairs, ramp or step guarding	Physical injuries: bruising, fractures, head, brain and spinal injuries
Falls between levels Falls from one level to another, inside or outside a dwelling where the difference is more than 300mm. Including falls from balconies, landings or out of windows	Physical injuries
Electrical hazards Hazards from electric shock and electricity burns	Electric shock and burns
Fire Threats to health from exposure to uncontrolled fire and associated smoke. It includes injuries from clothing catching fire, a common injuring when trying to put a fire out.	Burns, being overcome by smoke or death
Flames, hot surfaces and materials Burns or injuries caused by contact with a hot flame or fire, hot objects and non-water based liquids. Scalds caused by contact with hot liquids and vapors.	Burns, scalds, permanent scarring and death.
Collision and entrapment Risks of physical injuries from trapping body parts in architectural features such as trapping fingers in doors and windows and colliding with objects such as windows, doors and low ceilings	Physical injuries such as cuts and bruising to the body

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