South Derbyshire District Council

Derby City Council

Derbyshire Private Sector Housing

South Derbyshire Stock Condition Report 2019

Acknowledgements

The Derbyshire Housing and Health Systems Group wishes to sincerely thank Rebecca Jones, Public Health Support Officer, who, with support from John Parnham, Public Health Intelligence Analyst, both Derby City Council, have produced a most comprehensive report into the housing stock condition of the Derby and Derbyshire area.

The group also wishes to thank Andrew Muirhead, Senior Public Health Manager (Epidemiology), Derby City Council, and Jane Horton, Health Improvement Practitioner – Planning and Housing, Derbyshire County Council, for their oversight, guidance and steer of this project.

Finally we wish to thank our Derby City, Derbyshire District and Borough Housing colleagues for their support in providing the data required to provide us with such a robust assessment.

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

Houses are much more than just bricks and mortar that provide physical shelter, they are homes where we bring up our families, socialise, unwind and lock the world outside, it is the place where we will spend most of our time. The quality of housing and the home environment is a key determinant of our health and wellbeing, this makes housing a public health priority.

Public Health as a discipline is focused on protecting and improving health and wellbeing at the population level, in order to achieve this working in partnership is vital. The development of this Derbyshire wide housing stock condition survey is testament to the strong partnership working that has evolved within Derby and Derbyshire in relation to housing and health.

In 2018 Derbyshire County Council, Districts and Boroughs identified a partnership development opportunity with the Derbyshire Housing and Health Systems Group, to work collaboratively to produce a Derbyshire wide Housing Stock Condition Survey, for each Local Authority area. As part of the partnership Derby City Council developed a desktop model to identify the condition of private sector housing across the area, including the use of enhanced health data, not usually provided in similar surveys.

This model utilised a broadly similar methodology to the approach taken by one of the market leaders in this field of research. However crucially by developing and delivering this project within Derbyshire it offers significant advantages including:-

- Reduced costs
- Standardised approach across Derbyshire
- The potential to be updated at minimal expense.

This project offered a significant opportunity to enhance the work of the partnership across the housing and health agenda. It has enabled Derbyshire County Council and Derby City Council the opportunity to develop a sustainable business model and offers a cost effective package to all Borough and District Councils within Derbyshire.

The Housing Stock Condition Survey has provided a comprehensive, statistically reliable picture across Derbyshire. This document will inform a range of strategies and areas of work, covering Local Authorities, the local NHS, Adults and Childrens Social Care and cross system work to support the prevention agenda.

I am delighted to have had the opportunity to support the development of this Strategy and look forward to the future Health Impact Assessment and the continual development of the Strategy with existing and future partners.

Dean Wallace
Director of Public Health
Chair of the Health and Housing Systems Group

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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].

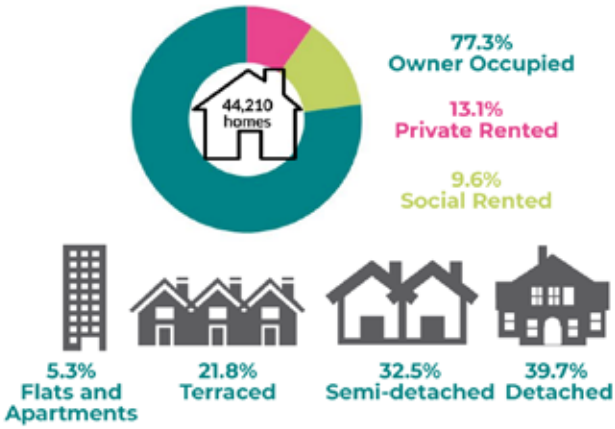
Local Authorities have a legal duty under the 2004 housing act to keep the conditions of homes in their areas under review with a view to identifying any action that may need to be taken[2]. The last Housing Stock Condition Survey in South Derbyshire was conducted in 2014, since this time there have 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 category 1 hazards in the home cost the NHS £1.4billion per year[5]. Public Health England estimated in 2019 that unaddressed hazards for falls in the home cost the NHS £435million annually[44].

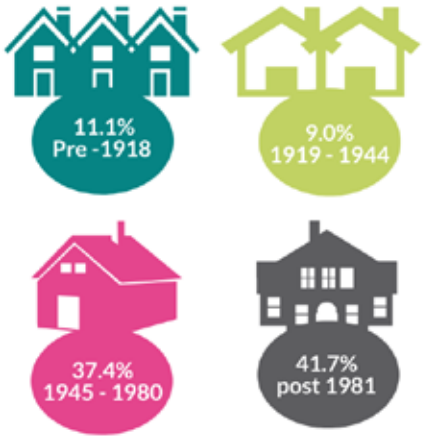
Derby City Council on behalf of each borough and district in Derbyshire, have developed a desktop survey approach to identify and asses the condition of private sector housing in Derbyshire. Address level modelling has been undertaken to estimate the likelihood of each private sector dwelling in the county 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.

Key Findings

Type and Tenure of Homes in South Derbyshire



Age of Homes in South Derbyshire



Cost to Improve Homes

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

£2,983

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

£21.8 million

Living in a Non Decent Home

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

7,314

Homes in South Derbyshire do not meet the decent homes standard.

Cold and Damp Homes

1,985

Approximately 1,985 private sector homes in South Derbyshire 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

3,776

Approximately 3,776 private sector homes in South Derbyshire have a HHSRS category 1 hazard for falls in the home

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 in England 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
10.7	% of homes not meeting the decent homes standard for thermal comfort. Approximately 2,440 (6.1%) homes in South Derbyshire fail the decent homes standard for thermal comfort.	5.3
2.1	% of homes not meeting the decent homes standard for modern facilities. Approximately 425 (1.1%) homes in South Derbyshire fail the decent homes standard for modern facilities	0.9
4.5	% of homes not meeting the decent homes standard for disrepair. Approximately 1,476 (3.7%) homes in South Derbyshire fail the decent homes standard for disrepair	3.6
15.3	% of homes not meeting the decent homes standard for HHSRS category 1 hazard. Approximately 5,157 (12.9%) homes in South Derbyshire fail the decent homes standard for HHSRS category 1 hazard	12.5

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 South Derbyshire was completed in 2014. 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 on behalf of each borough and district in Derbyshire 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, 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[9] 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.

South Derbyshire's emerging Housing and Heath Strategy 2019 – 21 has identified key priorities:

- Improving health outcomes through housing interventions.
- Delivering more genuinely affordable homes.
- Meeting the needs of our ageing population.
- Tackling disrepair in the private sector.
- Joining up services to prevent crisis.

Private Sector Housing Policy

Private sector housing (owner occupied and private rented) represents the largest form of tenure nationally, this is also true for South Derbyshire.

The Private Sector Renewal Policy 2016 has been updated with The Private Sector Housing Assistance Policy 2019 – 2022. The policy sets out the provision of mandatory Disabled Facilities Grants (DFG) under the provisions of the Housing Grants, Construction and Regeneration Act 1996 and use of the discretion afforded under Article 3 of the Regulatory Reform Order (Housing Assistance) (England & Wales) Order 2002 (the RRO) to provide flexible assistance to help improve the living conditions of people living within the District. DFGs and discretionary housing grants can make a significant contribution in meeting the needs of older, vulnerable and disabled people by providing assistance to facilitate adaptations and essential repairs in their homes to promote health and wellbeing and the maximise opportunities for continued independence.

The Homes (Fitness for Human Habitation) Act 2018[10] 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[11] to an 80% reduction in emissions by 2050. South Derbyshire District Council declared a Climate Emergency in June 2019 and in doing so has committed to "Strive to make South Derbyshire District Council carbon neutral by 2030 and achieve carbon neutrality before the Government target of 2050". Residential housing across South Derbyshire is estimated to emit over 190,000 tonnes of carbon per annum, equating to roughly a quarter of all carbon emissions. The Council has published a Climate and Environment Strategy and a Climate and Emergency Action Plan 2020-24.

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[12] (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.

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 Ordnance Survey Addressbase and 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 Derbyshire stock condition property level database.

Results of Address Matching

Dataset	Total Addresses	Matched	Unmatched	Matched %
Experian Mosaic (Derbyshire)	44,212	43,306	906	97.9
Council Tax	44,718	44,210	478	98.8
Energy Performance Certificates	19,969	19,556	413	97.9
Housing Benefit	6,901	6,774	127	98.1
Price Paid (to end Feb 2019)	28,227	26,424	1,803	93.6
National Register of Social Housing	4,227	4,185	42	99.0
HIMO Register	30	30	0	100
Tenancy Deposit Scheme	2,759	2,660	99	96.4

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 South Derbyshire

What does the local picture of homes in South Derbyshire look like?

South Derbyshire is made up of 15 electoral wards which are further broken down into 58 Lower Super Output Areas (LSOA) each of which contain approximately 500 – 1,000 households

South Derbyshire Wards

Ward Number	Ward Name
1	Linton
2	Aston
3	Church Gresley
4	Etwall
5	Woodville
6	Midway
7	Hatton
8	Hilton
9	Melbourne
10	Newhall and Stanton
11	Repton
12	Seales
13	Stenson
14	Swadlincote
15	Willington and Findern

There are a total of 42,210[16] properties in South Derbyshire as of July 2019. The majority of these 97.4% are currently occupied, and the remaining 2.6% of properties are vacant.

South Derbyshire is comprised primarily of houses and bungalows (94.1%) with the remainder made up of flats and apartments (5.3%) and other property types (0.6%). South Derbyshire 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 district varies from ward to ward. The wards with the greatest proportions of detached dwellings are the wards of Etwall (58.7%), Aston (56.2%), Repton (52.6%) and Hilton (50.8%). In these wards over one half of all properties are detached.

Semi-detached properties are located throughout the district, with the highest concentrations in the wards of Midway (50.3%), Newhall and Stanton (46.5%), Hatton (38.2%) and Willington and Findern (37.1%).

The greatest concentrations of terrace homes are found in the wards of Church Gresley (33.7%), Hatton(32.6%) and Melbourne (32.3%).

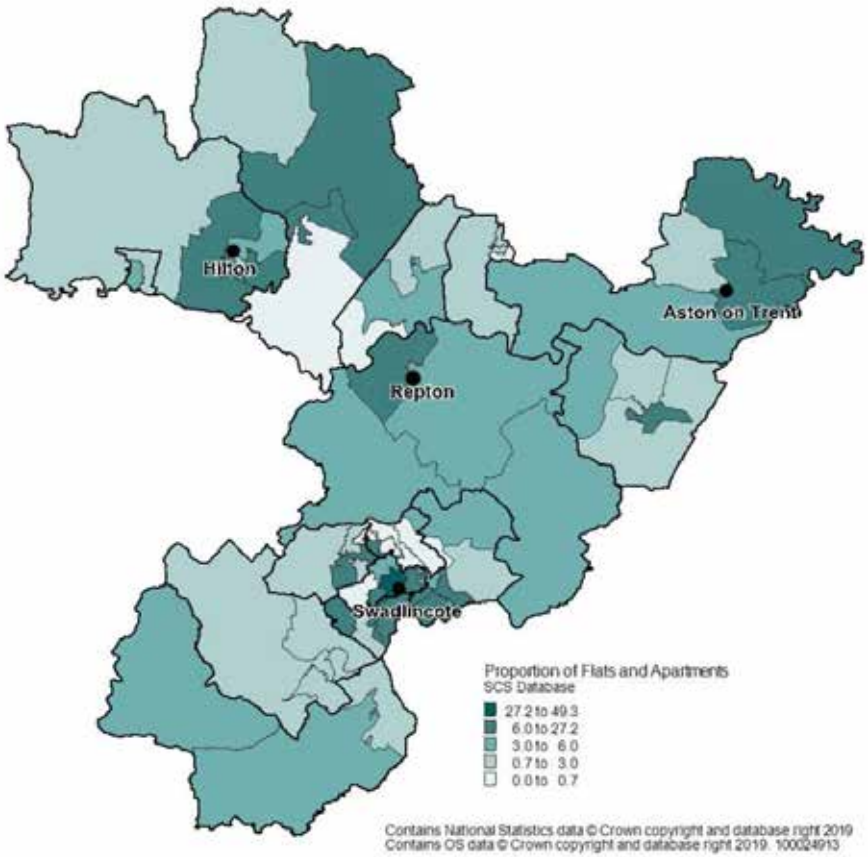
The wards of Hilton and Swadlincote have the greatest concentrations of Flats and Apartments where 10.2% of homes are Flats or apartments.

Proportion of Homes by Type and Ward

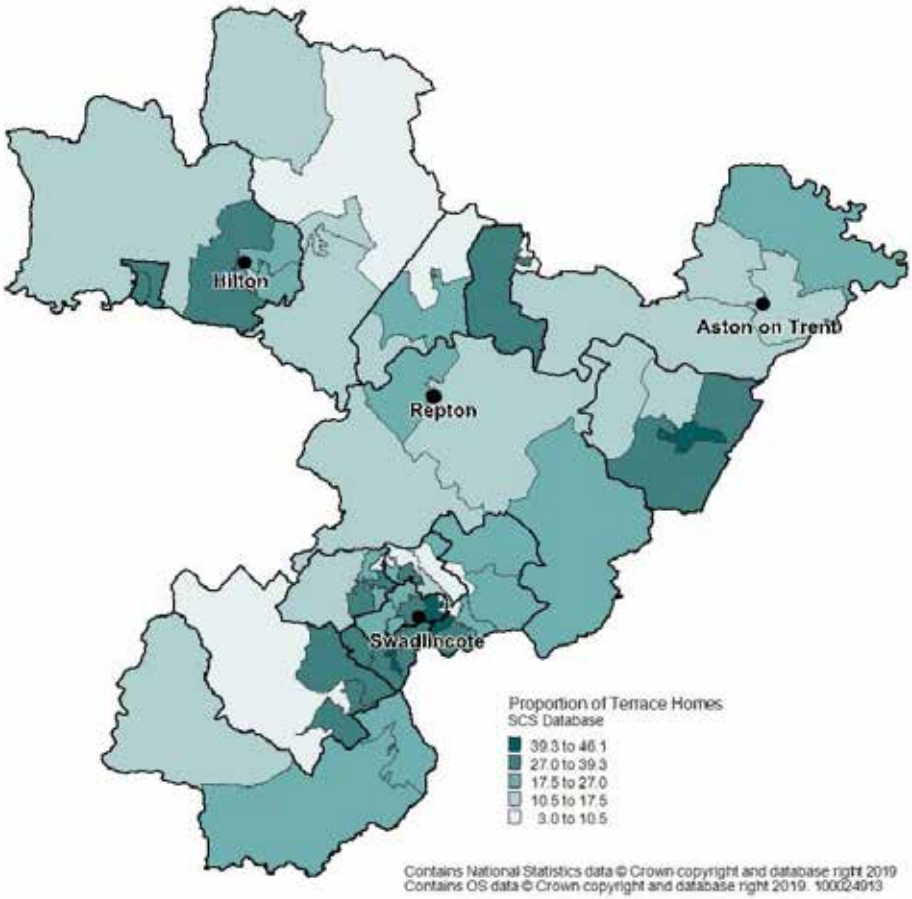
Ward	Detached	Semi-Detached	Terrace	Flat	Other	Total
Aston	56.2%	23.3%	14.5%	5.2%	0.8%	3,487
Church Gresley	28.4%	30.3%	33.7%	7.3%	0.3%	3,899
Etwall	58.7%	23.0%	12.2%	5.3%	0.8%	2,511
Hatton	25.6%	38.2%	32.6%	3.2%	0.4%	1,222
Hilton	50.8%	17.8%	20.4%	10.2%	0.8%	3,864
Linton	38.8%	34.2%	24.0%	1.7%	1.3%	2,503
Melbourne	36.0%	24.8%	32.3%	5.9%	1.0%	2,508
Midway	33.4%	50.3%	14.4%	1.6%	0.2%	3,540
Newhall and Stanton	27.3%	46.5%	22.2%	3.7%	0.3%	3,638
Repton	52.6%	25.6%	16.8%	3.9%	1.2%	2,325
Seales	38.7%	36.2%	21.7%	2.7%	0.8%	2,360
Stenson	45.5%	34.2%	18.9%	1.1%	0.3%	2,139
Swadlincote	31.9%	33.7%	23.9%	10.2%	0.4%	3,559
Willington and Findern	45.9%	37.1%	14.6%	1.7%	0.7%	2,545
Woodville	30.9%	33.8%	26.4%	8.4%	0.5%	4,110
Total	39.7%	32.5%	21.8%	5.3%	0.6%	44,210

Source : 2019 Derbyshire stock condition property level database

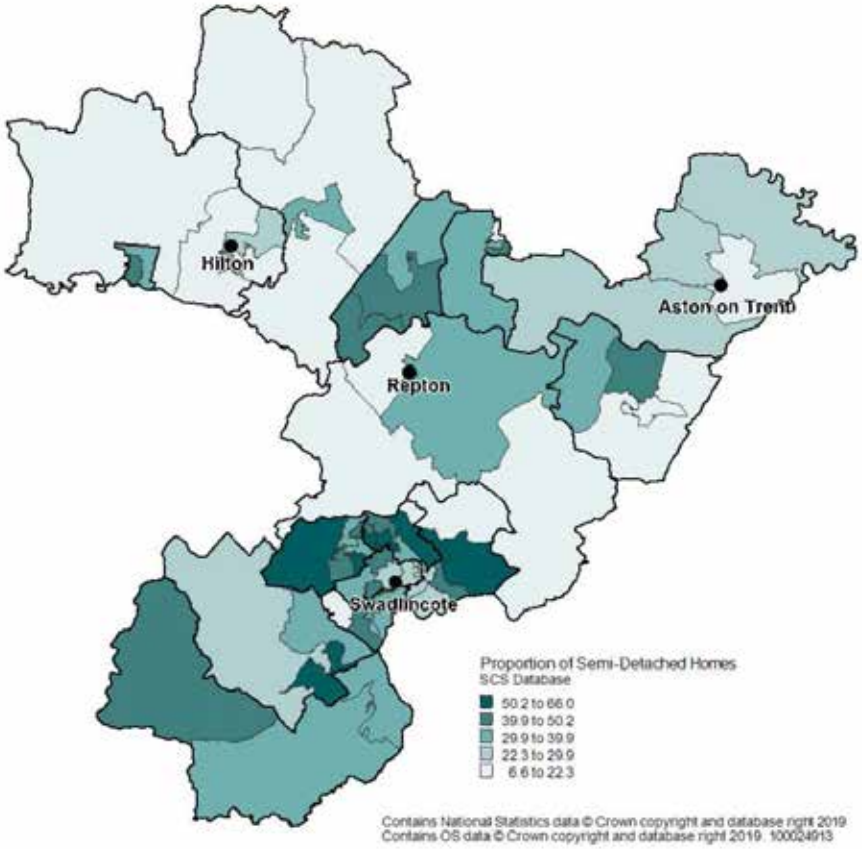
Proportion of Flats and Apartments



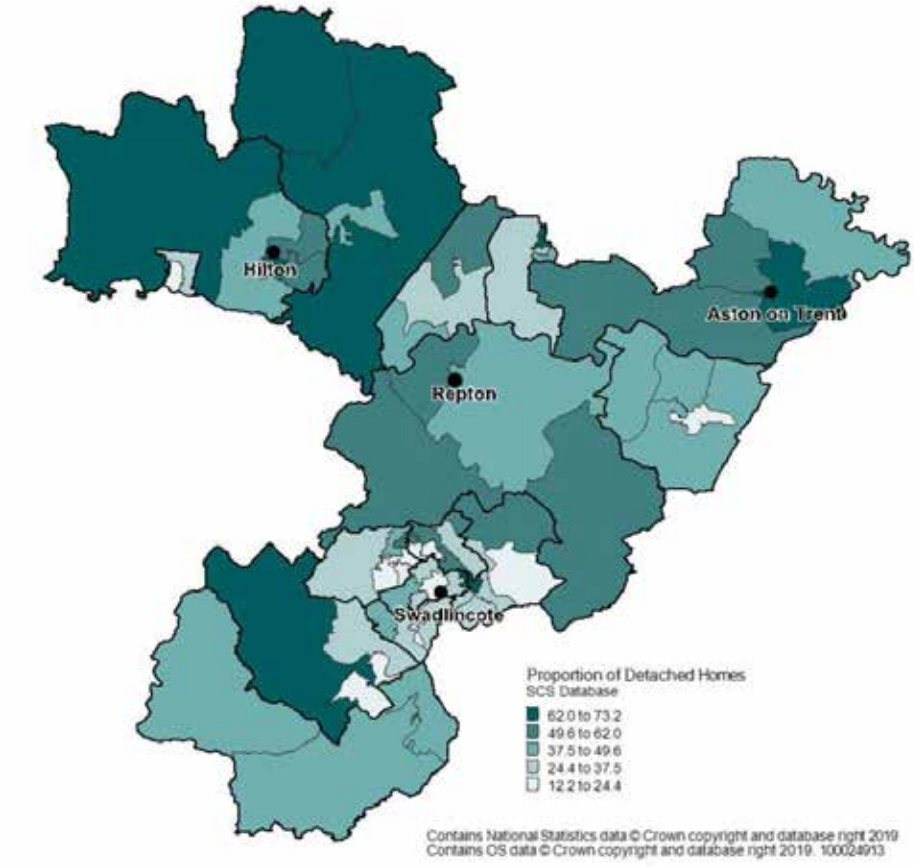
Proportion of Terraced Homes



Proportion of Semi-detached Homes



Proportion of Detached Homes



Build Period of Homes in South Derbyshire

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, Energy Performance Certificates, and Experian has been triangulated to produce a probable build period for each address. This allows detailed analysis surrounding the age of properties to be carried out.

The distribution of different property ages as might be expected isn't uniform across the district, there are instead pockets of higher concentrations of different property ages.

South Derbyshire District has a greater proportion of newer homes than other regions of Derbyshire, 72.8% of homes have been built since 1945. One third of homes in South Derbyshire were built between 1945 and 1980. One in four homes in South Derbyshire has been constructed since 2002.

The greatest proportion of older homes built before 1918 can be found in the Wards of Repton (32.8%) and Seales (20.8%).

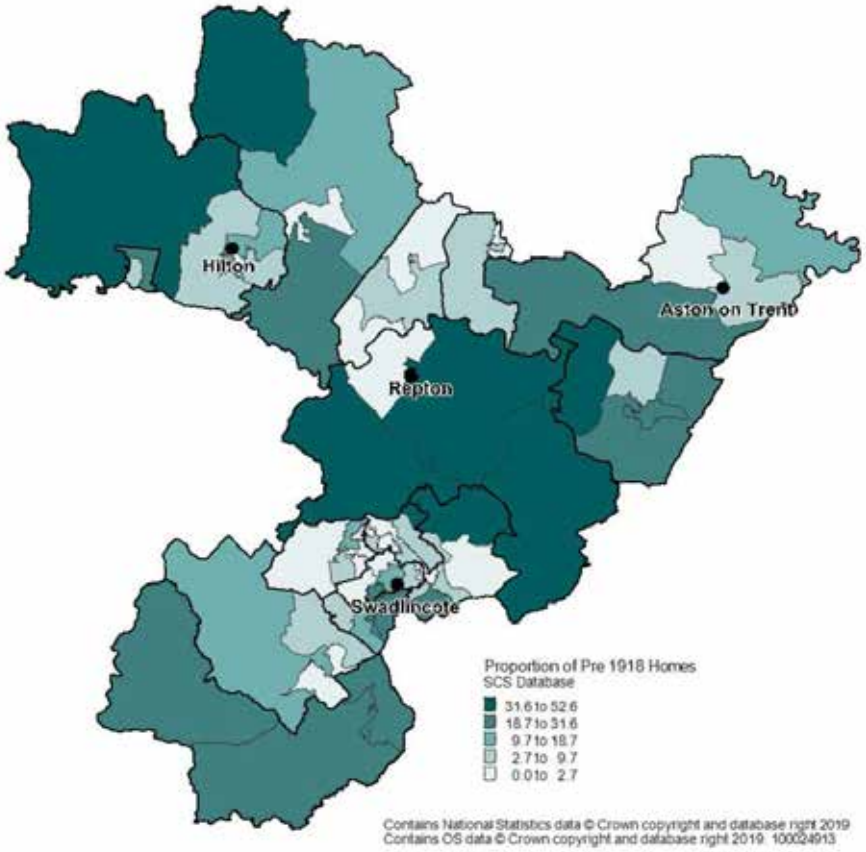
The areas of the district with the greatest proportion of home built since 2002 are the wards of Hilton (59.2%) and Etwall (31.1%).

Proportion of Homes by Age and Ward

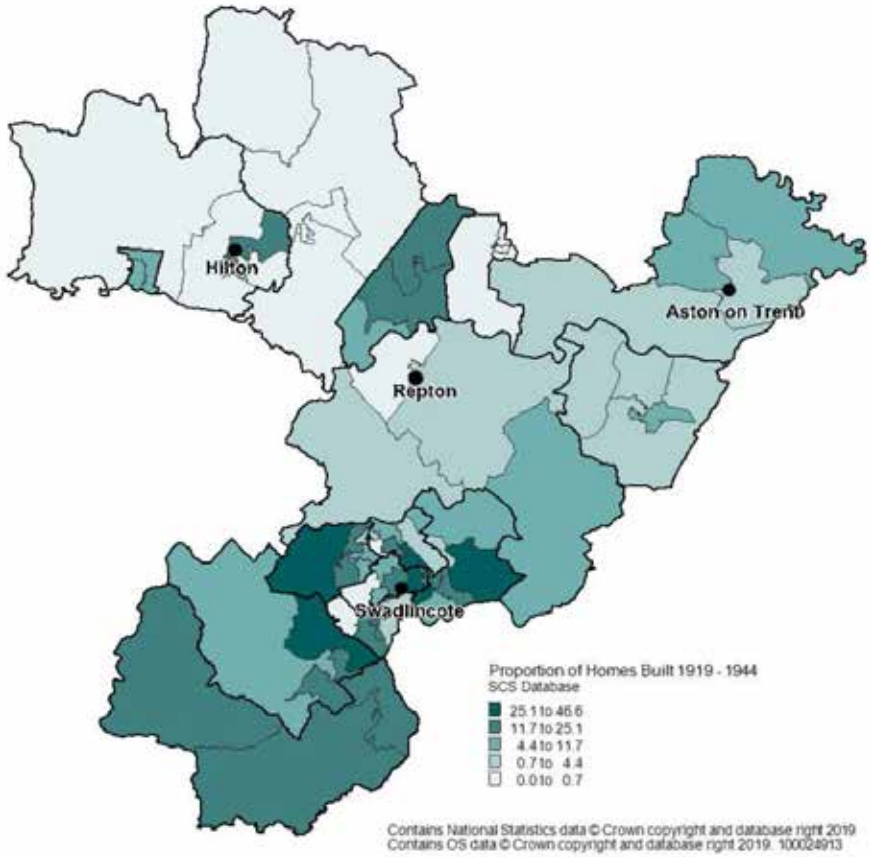
Ward	Pre 1918	1919 - 1944	1945 - 1980	1981 - 2002	Post 2002	Un-known	Total
Aston	10.0%	3.4%	35.8%	23.9%	25.3%	1.5%	3,487
Church Gresley	13.3%	9.0%	26.4%	20.7%	29.8%	0.9%	3,899
Etwall	16.2%	0.0%	41.5%	10.7%	31.1%	0.6%	2,511
Hatton	13.5%	6.2%	27.0%	39.5%	13.3%	0.4%	1,222
Hilton	11.2%	2.0%	12.3%	14.2%	59.2%	1.0%	3,864
Linton	6.4%	17.3%	42.9%	15.1%	17.0%	1.4%	2,503
Melbourne	19.9%	3.5%	49.8%	15.2%	11.0%	0.6%	2,508
Midway	3.5%	12.6%	61.2%	17.2%	5.2%	0.3%	3,540
Newhall and Stanton	4.3%	16.3%	51.6%	20.5%	6.6%	0.6%	3,638
Repton	32.8%	2.3%	49.6%	3.9%	10.3%	1.2%	2,325
Seales	20.8%	16.7%	40.5%	11.3%	9.2%	1.5%	2,360
Stenson	2.6%	0.0%	20.1%	57.0%	19.9%	0.3%	2,139
Swadlincote	7.2%	7.2%	42.8%	25.2%	16.5%	1.1%	3,559
Willington and Findern	2.1%	10.8%	31.6%	27.3%	26.9%	1.4%	2,545
Woodville	11.1%	19.9%	28.2%	14.3%	25.8%	0.7%	4,110
Total	**11.1%**	**9.0%**	**37.4%**	**19.9%**	**21.7%**	**0.9%**	**44,210**

Source : 2019 Derbyshire stock condition property level database

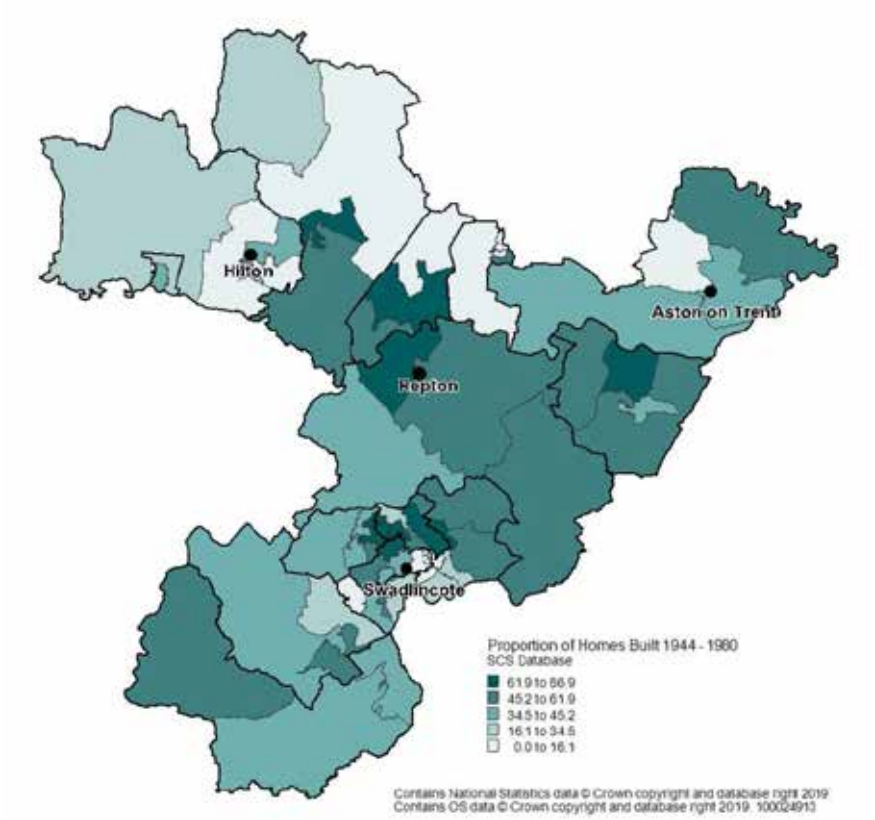
Proportion of Homes Built Before 1918



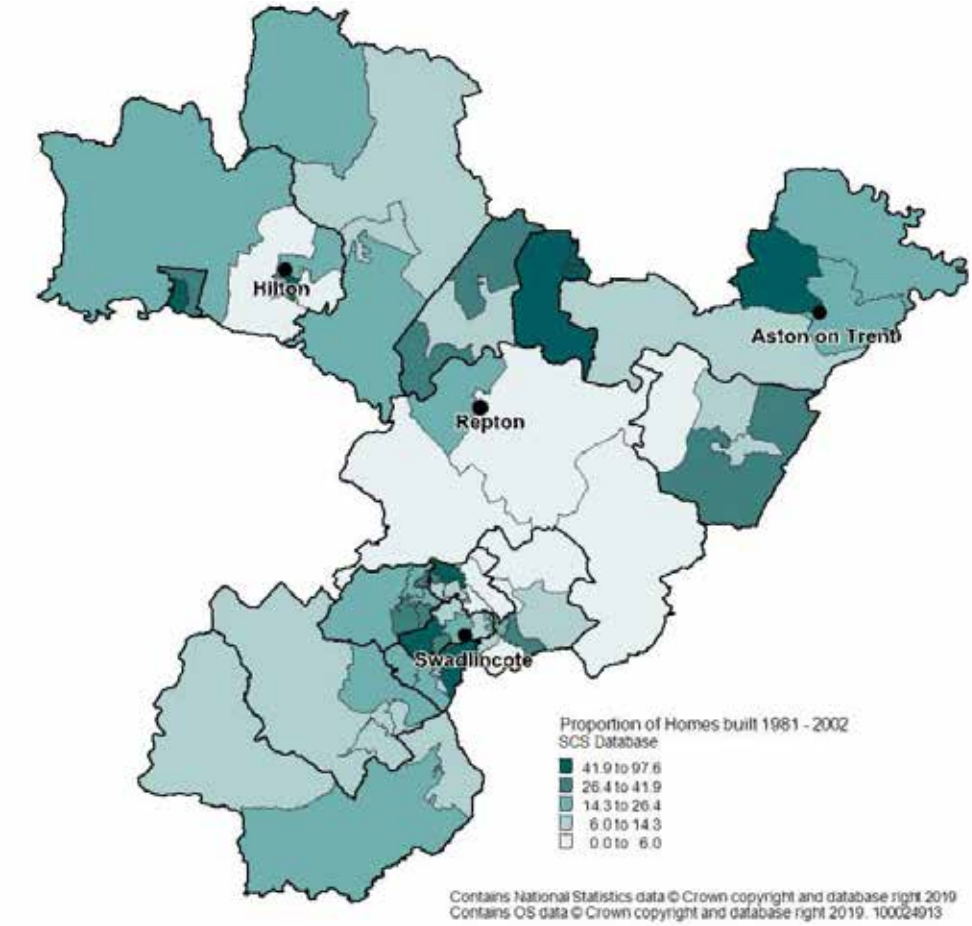
Proportion of Homes Built Between 1919 and 1944



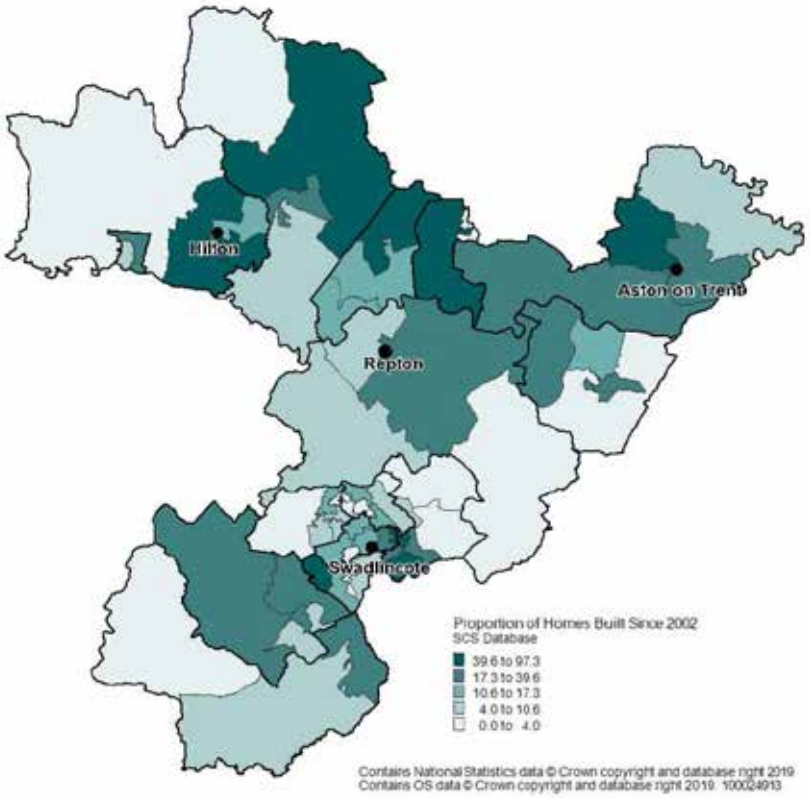
Proportion of Homes Built Between 1945 and1980



Proportion of Homes Built Between 1981 and 2002



Proportion of Homes Built After 2002



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 South Derbyshire

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, 77.3% of homes in South Derbyshire are owner occupied, 13.1% are privately rented and 9.6% of homes are social rented.

South Derbyshire has a greater proportion of owner occupiers than both the England average (62.9%) and the East Midlands (65.8%). Conversely the proportion of private rented properties is below both the England average (19.9%) and East Midlands average (18.8%).

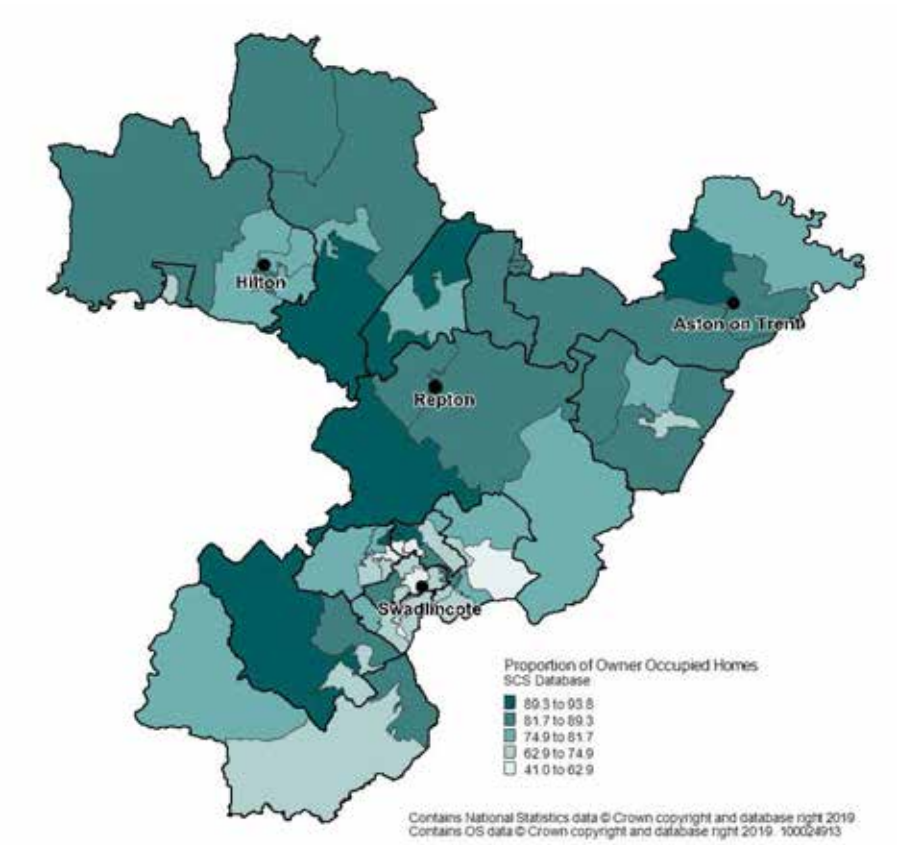
It should be noted that a property can change from owner occupation to private rent and vice versa relatively easily. Therefore, the tenure breakdown figures contained in this report should be used as an estimate of the tenure split as of February 2019 rather than absolute figures.

Tenure of Homes in South Derbyshire

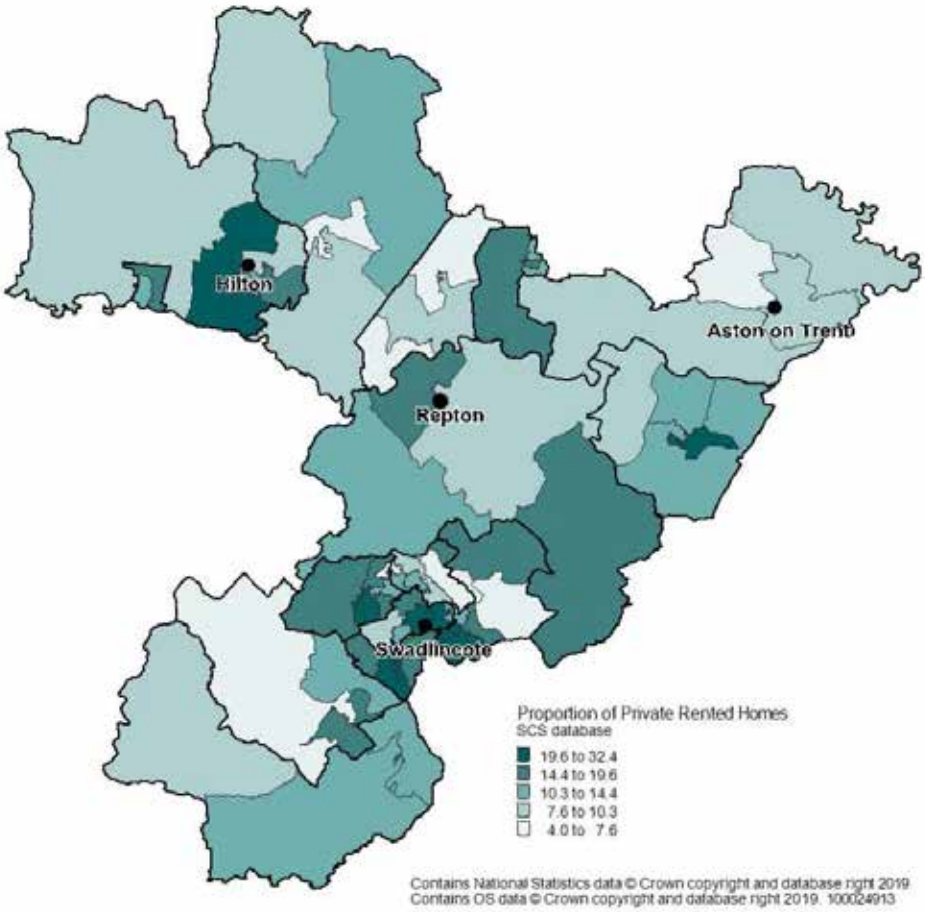
Ward	Owner Occupied	Private Rented	Social Housing	Total
Aston	87.0%	8.2%	4.8%	3,487
Church Gresley	70.9%	18.9%	10.2%	3,899
Etwall	85.5%	9.2%	5.3%	2,511
Hatton	76.7%	13.4%	9.9%	1,222
Hilton	79.1%	15.5%	5.4%	3,864
Linton	81.3%	10.2%	8.5%	2,503
Melbourne	76.2%	14.3%	9.4%	2,508
Midway	72.6%	9.1%	18.3%	3,540
Newhall and Stanton	67.6%	15.8%	16.6%	3,638
Repton	83.1%	12.8%	4.1%	2,325
Seales	77.6%	11.5%	10.9%	2,360
Stenson	85.6%	13.3%	1.1%	2,139
Swadlincote	72.8%	13.9%	13.3%	3,559
Willington and Findern	89.0%	6.9%	4.0%	2,545
Woodville	68.7%	17.7%	13.6%	4,110
Total	77.3%	13.1%	9.6%	44,210

Source : 2019 Derbyshire stock condition property level database

Proportion of Owner Occupied Homes



Proportion of Private Rented Homes



Type and Age of Homes in South Derbyshire

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

Owner occupied properties tend to be biased towards semi-detached (31.9%) and detached (47.3%) homes. Only 2.4% of owner occupiers in South Derbyshire live in a flat or apartment, this contrasts with 10.3% of private renters who live in flats and apartments in the district.

Private rented homes are biased towards terraced (37.3%) and semi-detached (31.6%) homes. Only 20.6% of private rented homes are detached compared to 47.3% of owner occupiers who live in detached homes.

Private rented homes are often much older than owner occupied homes. 13.2% of private rented homes were built before 1918 compared to 11.6% of owner occupied homes built before 1918.

The largest proportion of owner occupied homes were constructed between 1945 - 1980 (35.0%).

These findings for South Derbyshire mirror the national patterns of tenure and property type identified by the English Housing Survey 2016 - 17[13], 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.

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						
Detached	16,162	47.3%	1189	20.6%	202	4.8%
Semi-Detached	10,895	31.9%	1828	31.6%	1660	39.2%
Terrace	6,045	17.7%	2155	37.3%	1453	34.3%
Flat	826	2.4%	598	10.3%	920	21.7%
Unknown	267	0.8%	10	0.2%		0.0%
Property Age						
Pre 1918	3970	11.6%	764	13.2%	157	3.7%
1919 - 1944	2877	8.4%	658	11.4%	443	10.5%
1945 - 1980	11958	35.0%	1806	31.2%	2750	64.9%
1981 - 2002	6925	20.3%	1181	20.4%	713	16.8%
Post 2002	8107	23.7%	1353	23.4%	154	3.6%
Unknown	358	1.0%	18	0.3%	18	0.4%
Total	34,195		5,780		4,235	

Source : 2019 Derbyshire 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.

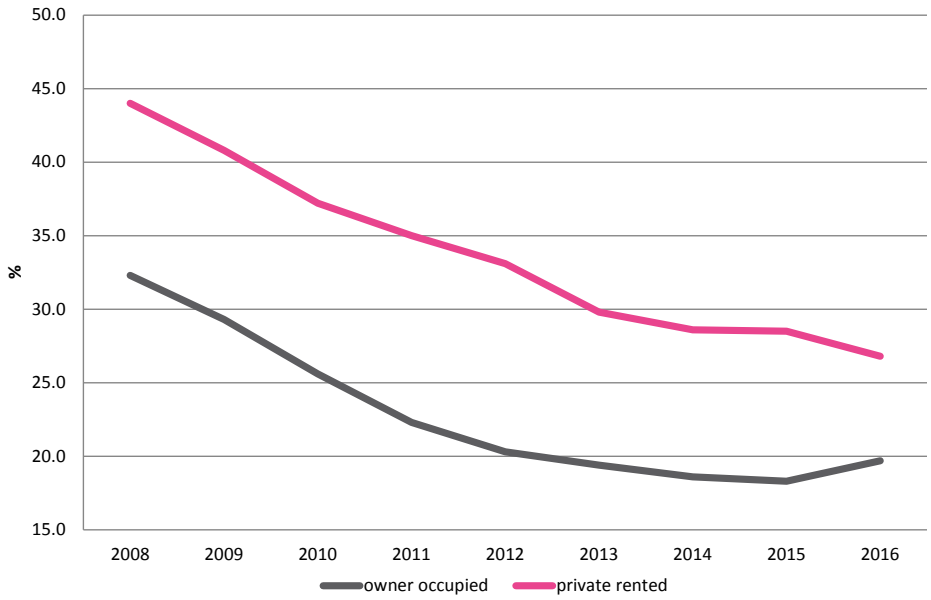
This steady decline has been seen in both owner occupied and private rented homes. Overall, proportions of owner occupied homes failing to meet the decent homes standard has decreased from a high of 32.3% in 2008 to 19.7% in 2016.

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?

18.3% of families living in the private sector in South Derbyshire 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 South Derbyshire the number of private sector homes not meeting the Decent Homes Standard is estimated to be approximately 7,314 (18.3% of all private sector homes). This is slightly below the proportion of non -decent homes for the East Midlands (19.4%).

The distribution of non-decent homes throughout the district as might be expected is not uniform, instead being more concentrated in the wards of Seales (28.4%), Repton (23.4%), Woodvile (21.9%) and Melborne (21.6%).

The most likely reason for a home in South Derbyshire to fail the Decent Homes Standard is for possessing a HHSRS Category 1 Hazard (12.9%). Followed by thermal comfort (6.1%), disrepair (3.7%) and modern facilities (1.1%).

Compared to national and regional figures South Derbyshire has a similar proportion of private sector homes failing the Decent Homes criteria thermal comfort, disrepair and HHSRS Category 1 hazards than both the East Midlands and England as a whole.

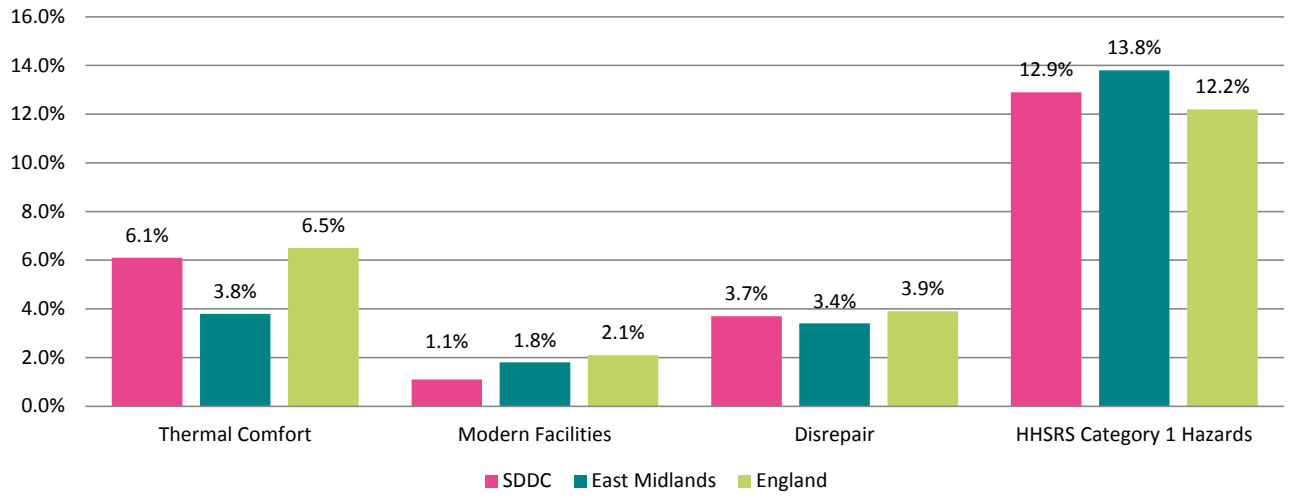
7,314 (18.3%) private sector homes in South Derbyshire do not meet the Decent Home

Proportion of Non-Decent Homes

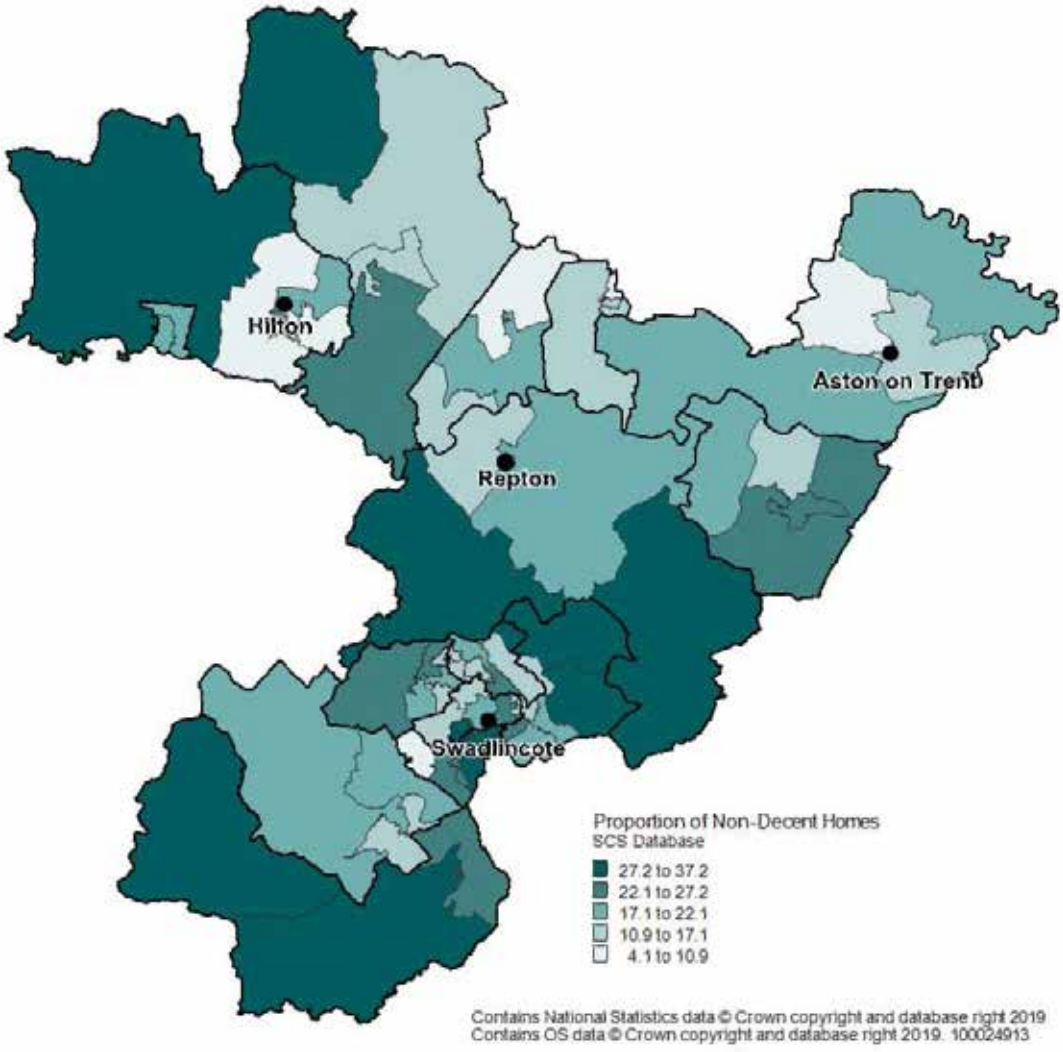
Ward	Total Private Sector Homes	Total non-de-cent dwelling	Proportion of non-decent dwellings
Seales	2,103	597	28.4%
Repton	2,230	521	23.4%
Woodville	3,553	777	21.9%
Melbourne	2,271	491	21.6%
Hatton	1,101	224	20.4%
Newhall and Stanton	3,035	612	20.2%
Church Gresley	3,503	648	18.5%
Etwall	2,379	438	18.4%
Linton	2,289	416	18.2%
Swadlincote	3,085	542	17.6%
Midway	2,892	487	16.8%
Aston	3,320	485	14.6%
Willington and Findern	2,442	329	13.5%
Hilton	3,656	488	13.4%
Stenson	2,116	258	12.2%
Total	39,975	7,314	18.3%

Source : 2019 Derbyshire stock condition property level database

Proportion of Homes failing Each of the Decent Homes Criteria



Proportion of Non-Decent Private Sector Homes



Tenure of Non-Decent Homes

The tenure breakdown of non-decent homes within South Derbyshire shows that there are more private rented homes that are failing to meet the decent homes standard (22.9%) compared to the proportion of owner occupied homes (17.5%).

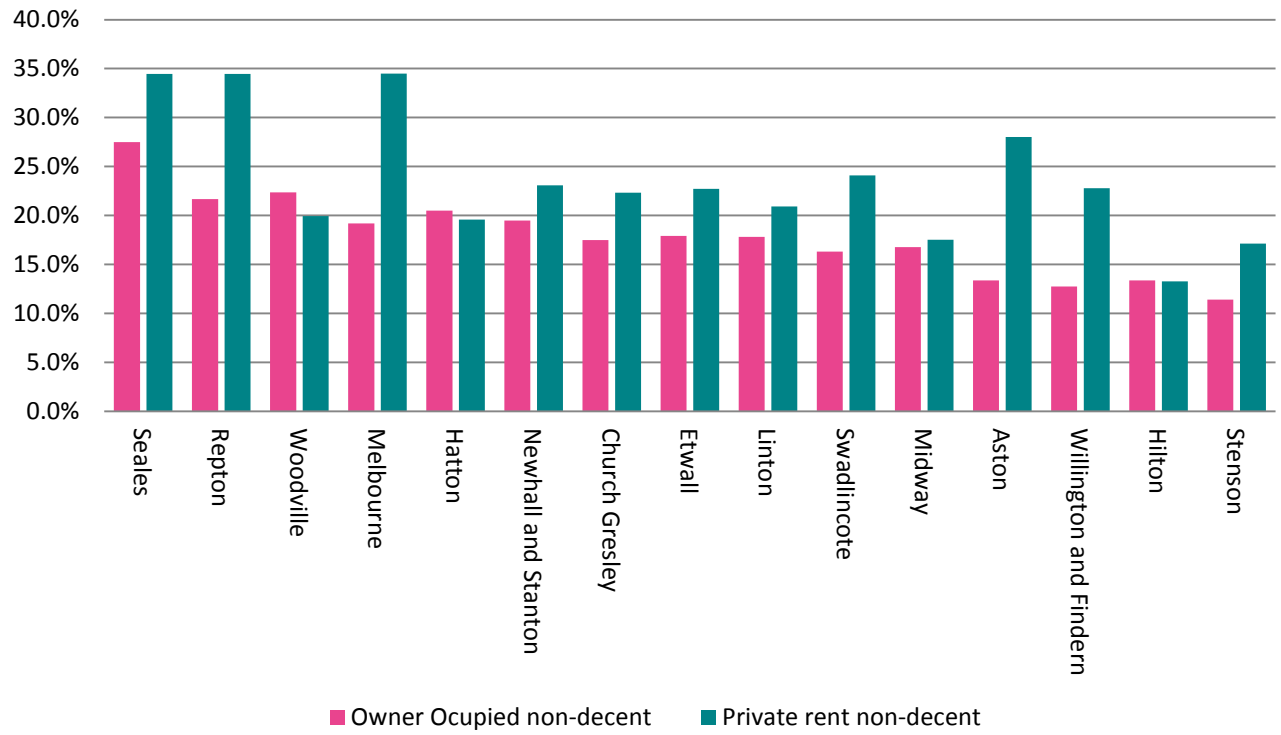
This pattern of non-decent homes mirrors the national picture where levels of non-decency are greater in the private rented sector (26.8%) than owner occupied (19.7%)[20].

There are some similarities between the geographical distribution of decent and non decent homes in the both the owner occupied and private rented sectors. Seales has the greatest proportion of non-decent homes in both the owner occupied (27.5%) and private rented (34.5%) sectors.

As might be expected, a greater proportion of older properties do not meet the Decent Homes Standard. 49.4% of homes built pre 1918 in South Derbyshire are non decent, 36.9% of homes built between 1919 and 1945 are classed as non decent compared to 14.8% of homes built between 1981 and 2002 and 3.3% of homes built since 2002.

22.9% of homes in the private rented sector fail the Decent Homes Standard compared to 17.5% of owner occupied homes.

Tenure of Non-Decent Private Sector Homes

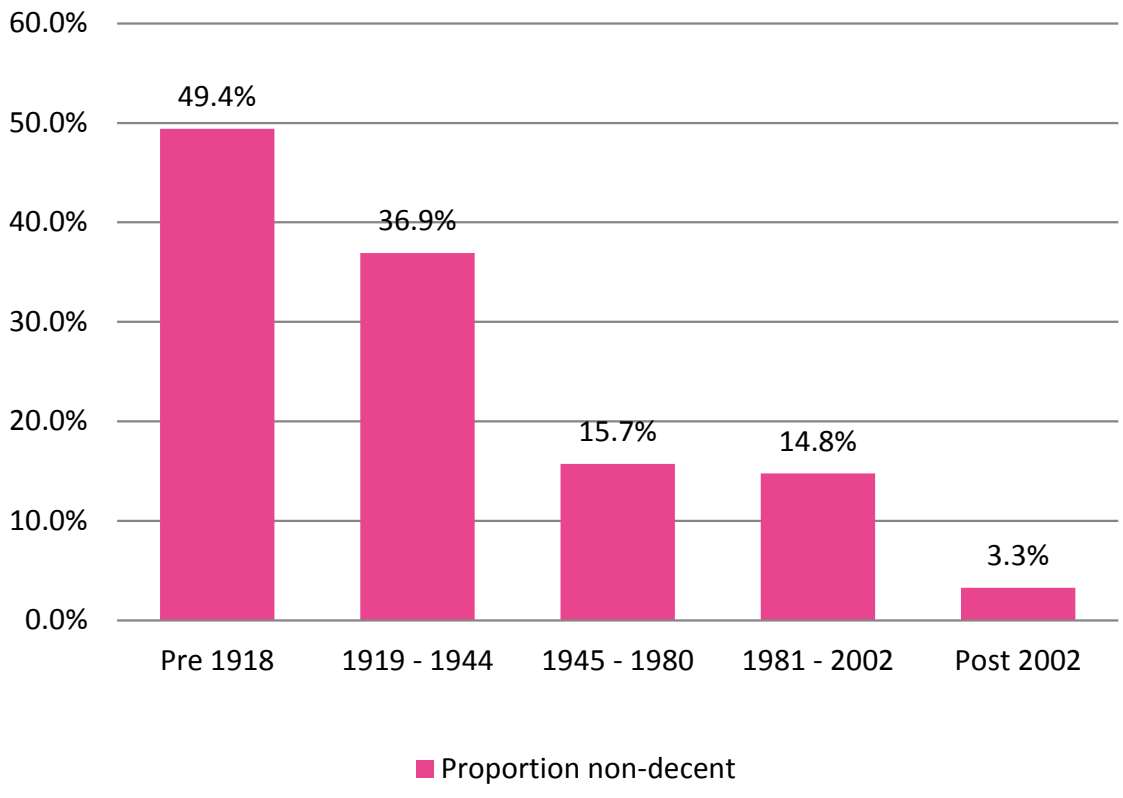


Proportion of Non-Decent Homes by Tenure and Ward

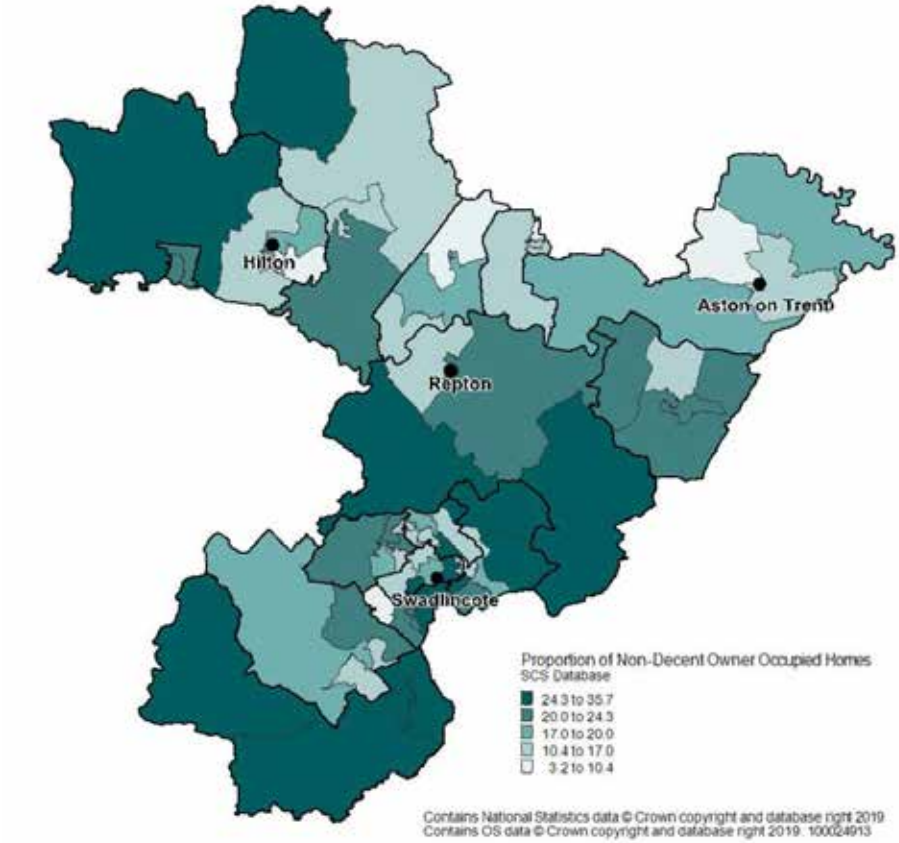
Ward	Owner Occupied non-decent		Private Rent non-decent		Total non-decent	
	Number	%	Number	%	Number	%
Seales	503	27.5%	94	34.5%	597	28.4%
Repton	419	21.7%	103	34.5%	521	23.4%
Woodville	632	22.4%	145	19.9%	777	21.9%
Melbourne	367	19.2%	124	34.5%	491	21.6%
Hatton	192	20.5%	32	19.6%	224	20.4%
Newhall and Stanton	480	19.5%	132	23.1%	612	20.2%
Church Gresley	483	17.5%	165	22.3%	648	18.5%
Etwall	385	17.9%	52	22.7%	438	18.4%
Linton	362	17.8%	53	20.9%	416	18.2%
Swadlincote	423	16.3%	119	24.1%	542	17.6%
Midway	431	16.8%	56	17.5%	487	16.8%
Aston	405	13.4%	80	28.0%	485	14.6%
Willington and Findern	289	12.8%	40	22.8%	329	13.5%
Hilton	409	13.4%	80	13.3%	488	13.4%
Stenson	209	11.4%	49	17.1%	258	12.2%
Total	5,989	17.5%	1,324	22.9%	7,314	18.3%

Source : 2019 Derbyshire stock condition property level database

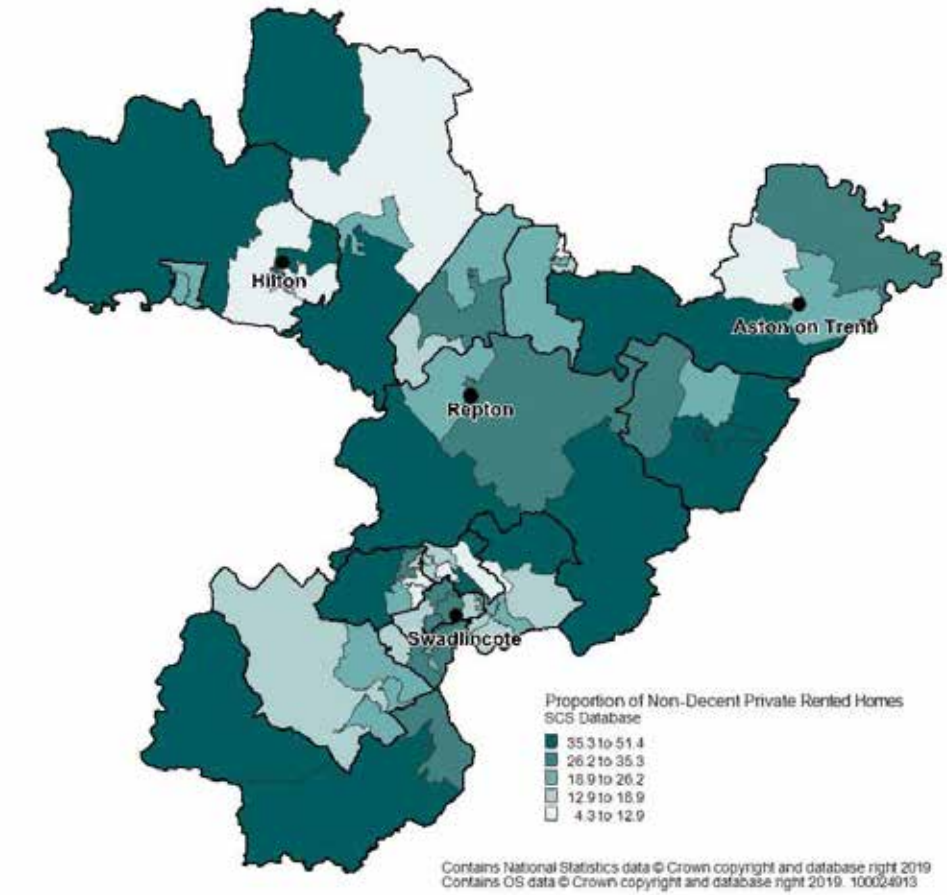
Proportion of Non-Decent Homes by Age of Home



Proportion of Non-Decent Owner Occupied Homes



Proportion of Non-Decent Private Rented Homes



Thermal Comfort

How many homes fail the Decent Homes Criteria thermal comfort?

Approximately 2,440 homes in South Derbyshire fail the Decent Homes Standard for thermal comfort.

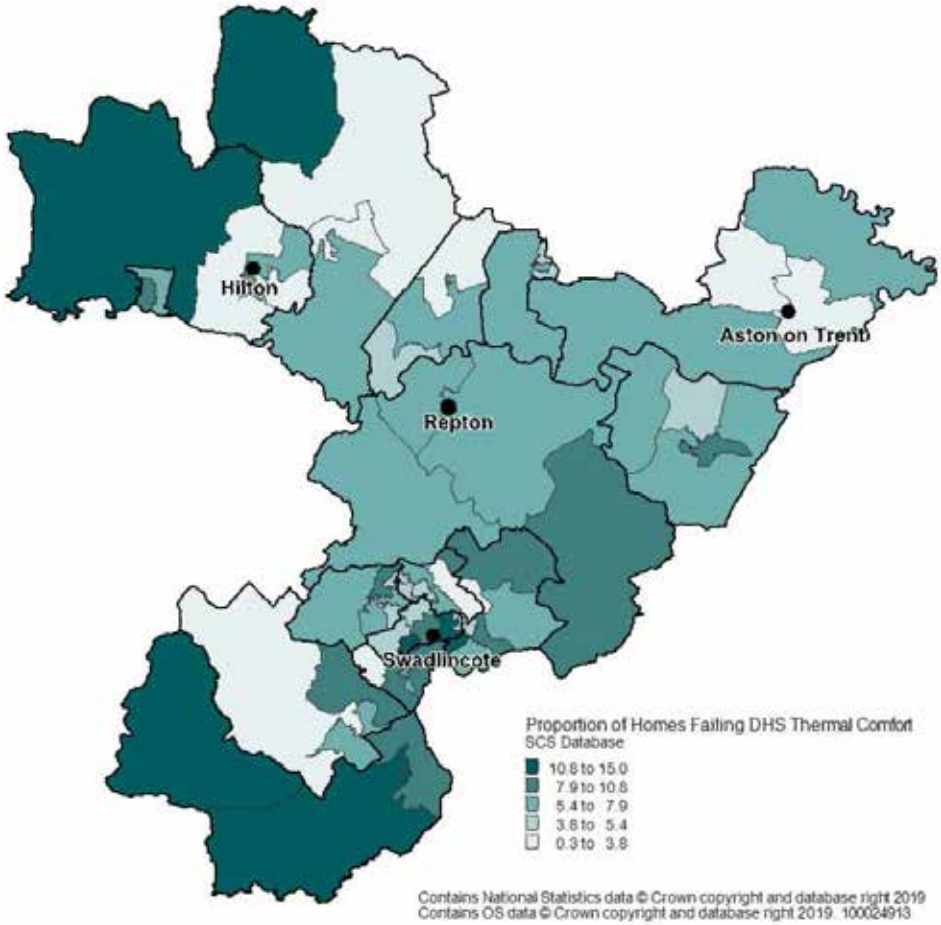
The Decent Homes Standard requires a home to have both efficient heating and effective insulation. Homes can fail the Decent Homes Standard by not providing a reasonable degree of thermal comfort.

In South Derbyshire approximately 2,440 private sector homes fail the Decent Homes Standard for thermal comfort. A greater proportion of private rented homes do not meet the required standard for thermal comfort (10.7%) than owner occupied homes (5.3%).

Overall, the greatest proportion of private sector homes failing the Decent Homes Standard for thermal comfort are the wards of Seales (10.4%), Woodville (8.6%) and Hatton (7.3%).

The proportions of private sector homes failing the Decent Homes Standard for thermal comfort is greatest in homes constructed before 1918 (13.8%).

Proportion of Homes Failing the Decent Homes Criteria Thermal Comfort

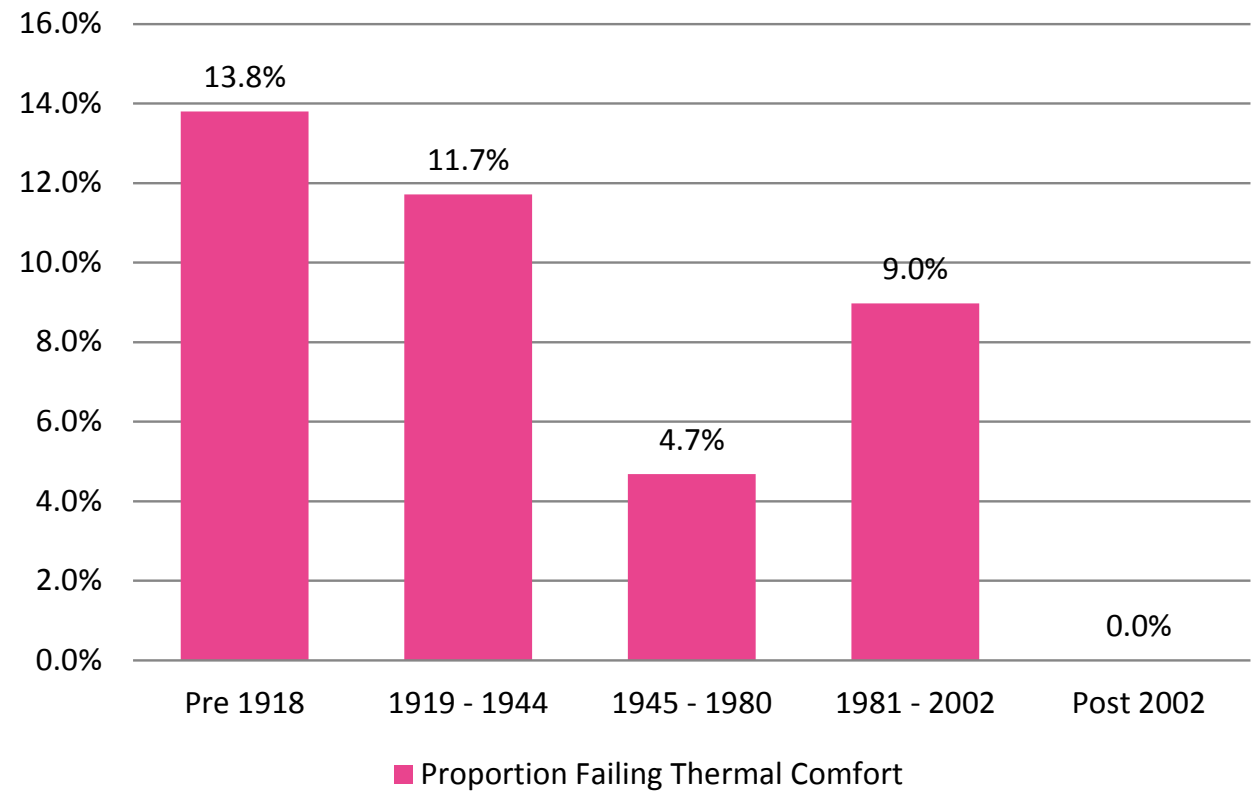


Proportion of Homes Failing the Decent Homes Criteria Thermal Comfort

Ward	Owner Occupied non-decent		Private Rent non-decent		Total non-decent	
	Number	%	Number	%	Number	%
Seales	182	9.9%	38	13.9%	219	10.4%
Woodville	231	8.2%	75	10.2%	305	8.6%
Hatton	64	6.8%	17	10.3%	81	7.3%
Melbourne	101	5.3%	61	16.9%	161	7.1%
Repton	113	5.8%	41	13.9%	154	6.9%
Swadlincote	149	5.7%	61	12.4%	210	6.8%
Newhall and Stanton	146	5.9%	50	8.7%	196	6.5%
Linton	115	5.7%	28	10.9%	143	6.3%
Church Gresley	146	5.3%	72	9.8%	218	6.2%
Stenson	86	4.7%	29	10.1%	115	5.4%
Midway	122	4.7%	25	7.7%	146	5.1%
Etwall	73	3.4%	33	14.1%	106	4.4%
Aston	100	3.3%	39	13.7%	139	4.2%
Willington and Findern	82	3.6%	19	11.1%	101	4.1%
Hilton	111	3.6%	33	5.5%	144	3.9%
Total	1,819	5.3%	620	10.7%	2,440	6.1%

Source : 2019 Derbyshire stock condition property level database

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



Modern Facilities

How many homes fail the Decent Homes Criteria modern facilities?

Approximately 425 homes in South Derbyshire fail the Decent Homes Standard for modern facilities.

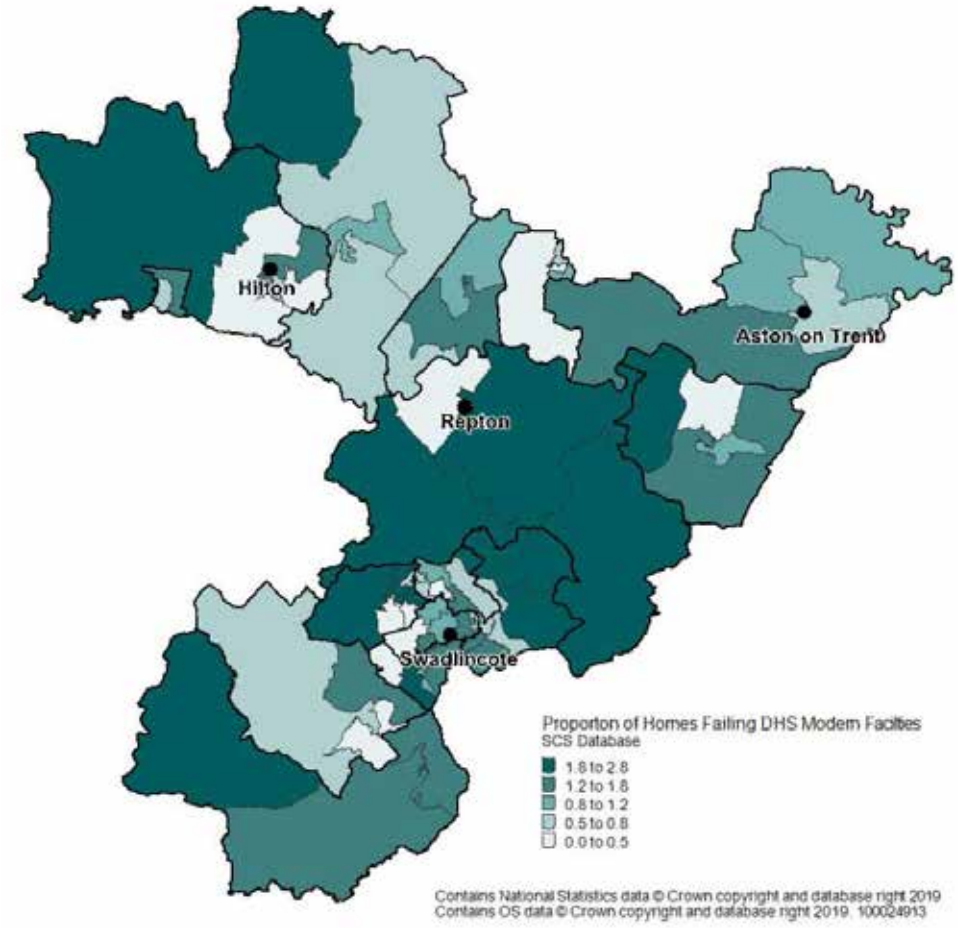
The Decent Homes Standard requires a home to have reasonably modern facilities and services which includes relatively modern kitchen and bathrooms.

There are approximately 425 private sector homes in South Derbyshire that fail the Decent Homes Standard for reasonably modern facilities.

The wards of Seales (1.6%), Repton (1.6%) and Newhall and Stanton (1.5%) 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, 3.7% of homes built before 1918 and 2.8% of homes built between 1919 and 1944 fail the Decent Homes Standard for modern facilities compared to 0.7% of homes built between 1945 and 1980 and 0.6% of homes built between 1981 and 2002.

Proportion of Homes Failing the Decent Homes Criteria Modern Facilities

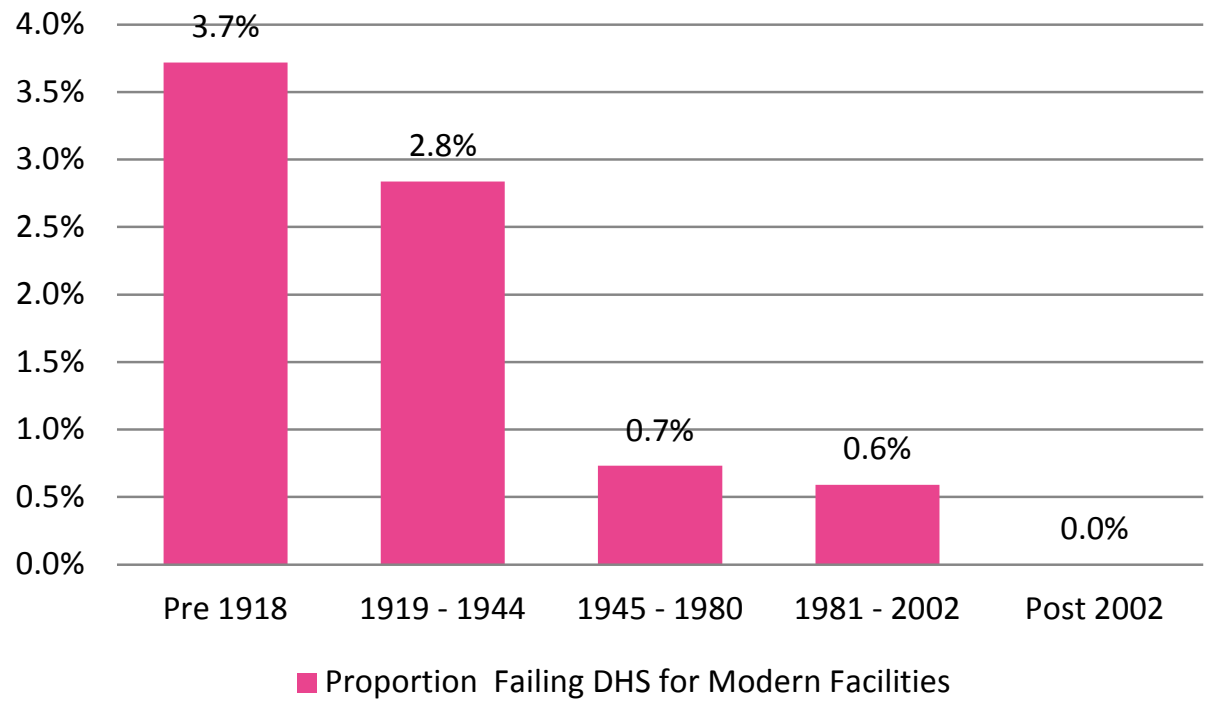


Proportion of Homes Failing the Decent Homes Criteria Modern Facilities

Ward	Owner Occupied non-decent		Private Rent non-decent		Total non-decent	
	Number	%	Number	%	Number	%
Seales	27	1.5%	7	2.6%	34	1.6%
Repton	33	1.7%	1	0.5%	35	1.6%
Newhall and Stanton	28	1.1%	16	2.8%	44	1.5%
Woodville	32	1.1%	14	2.0%	46	1.3%
Church Gresley	18	0.6%	22	3.0%	40	1.1%
Melbourne	20	1.0%	5	1.5%	25	1.1%
Hatton	9	1.0%	3	1.8%	12	1.1%
Aston	29	1.0%	4	1.4%	33	1.0%
Etwall	19	0.9%	4	1.9%	23	1.0%
Willington and Findern	16	0.7%	7	3.9%	23	0.9%
Swadlincote	12	0.5%	14	2.9%	27	0.9%
Hilton	20	0.7%	10	1.7%	30	0.8%
Linton	13	0.6%	6	2.5%	19	0.8%
Midway	19	0.8%	3	1.0%	23	0.8%
Stenson	10	0.5%	1	0.5%	11	0.5%
Total	305	0.9%	120	2.1%	425	1.1%

Source : 2019 Derbyshire stock condition property level database

Proportion of Homes Failing the Decent Homes Criteria Modern Facilities by age of Home



Disrepair

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

Approximately 1,476 homes in South Derbyshire fail the Decent Homes Standard for reasonable state of repair.

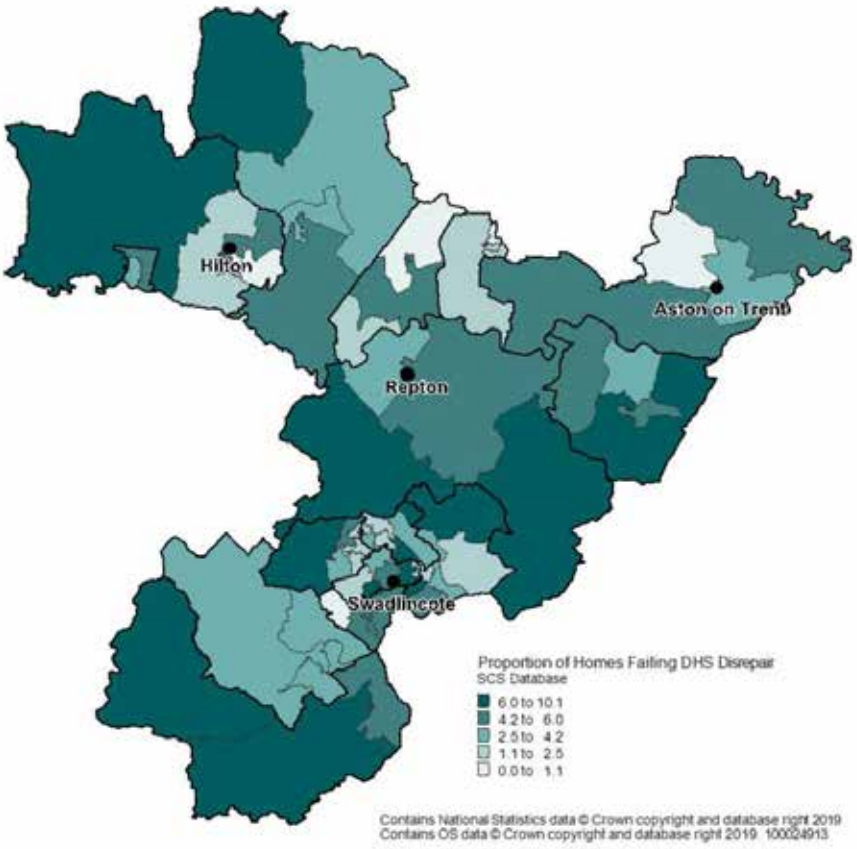
The Decent Homes Standard requires a home to be in a reasonable state of repair. A home may fail this criteria if it has one or more key building components that are old, and because of their condition need replacing or major repair.

The greatest levels of disrepair can be found in the wards of Seales (6.7%), Repton (5.4%), Melbourne (4.8%) and Woodville (4.5%).

Levels of disrepair are greatest within private rented homes, 4.5% compared to 3.6% of owner occupied homes.

Older homes are more likely to fail the Decent Homes Standard repair component in South Derbyshire. In homes built before 1918 13.5% fail the Decent Homes Standard for disrepair compared to 0.5% of homes built after 1981.

Proportion of Homes Failing the Decent Homes Standard for Disrepair

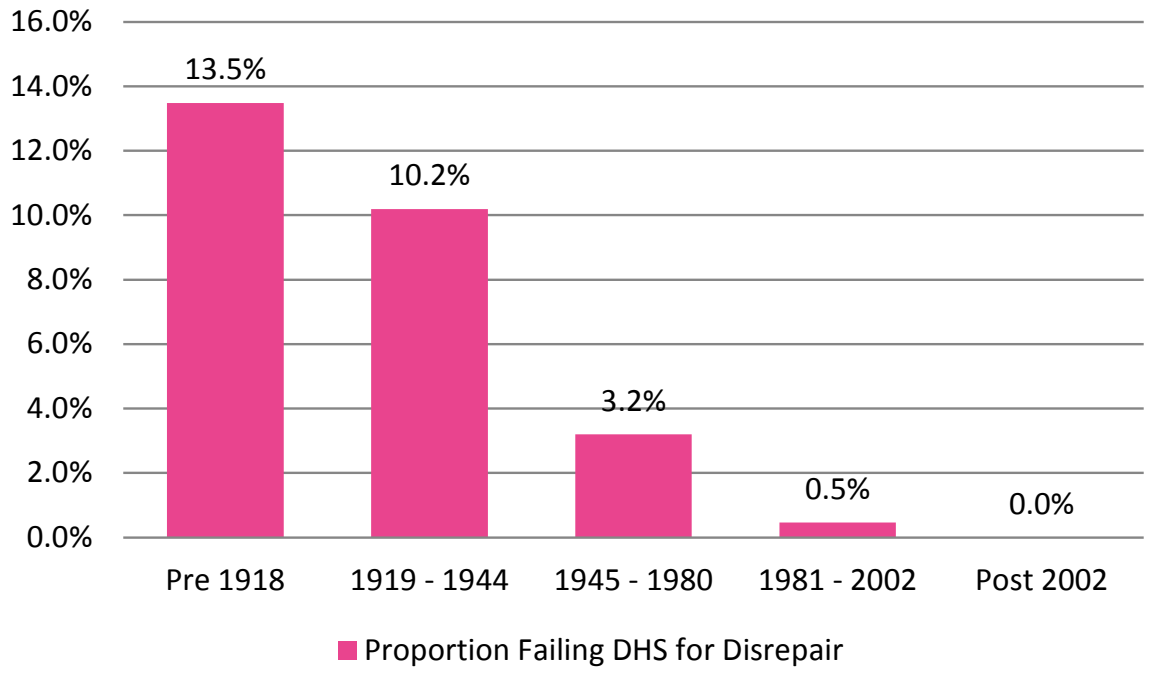


Proportion of Homes Failing the Decent Homes Criteria Disrepair

Ward	Owner Occupied non-decent		Private Rent non-decent		Total non-decent	
	Number	%	Number	%	Number	%
Seales	120	6.5%	22	8.0%	141	6.7%
Repton	101	5.2%	19	6.5%	120	5.4%
Melbourne	92	4.8%	17	4.9%	109	4.8%
Woodville	123	4.3%	37	5.1%	160	4.5%
Etwall	97	4.5%	9	3.7%	106	4.4%
Newhall and Stanton	76	3.1%	52	9.0%	127	4.2%
Midway	108	4.2%	10	3.0%	118	4.1%
Hatton	38	4.1%	4	2.1%	42	3.8%
Swadlincote	88	3.4%	17	3.4%	105	3.4%
Church Gresley	86	3.1%	33	4.5%	119	3.4%
Linton	64	3.1%	10	4.0%	74	3.2%
Aston	80	2.6%	9	3.3%	90	2.7%
Hilton	78	2.6%	11	1.9%	90	2.5%
Willington and Findern	38	1.7%	6	3.7%	44	1.8%
Stenson	28	1.5%	4	1.2%	31	1.5%
Total	1,216	3.6%	260	4.5%	1,476	3.7%

Source : 2019 Derbyshire stock condition property level database

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



HHSRS Hazards

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

Approximately 5,157 homes in South Derbyshire 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 5,157 (12.9%) private sector homes in South Derbyshire 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 South Derbyshire to posses each of the HHSRS hazards.

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

South Derbyshire has a greater proportion of private sector homes with a HHSRS category 1 hazard for cold (4.4%) than both the East Midlands (3.4%) and England (4.0%) averages. The proportion of private sector homes with a HHSRS hazard for damp and mould is also slightly greater in South Derbyshire (0.5%) than the East Midlands (0.3%) and England (0.4%) averages.

South Derbyshire has a comparable proportion of homes with a HHSRS category 1 hazard for falls on the stairs (2.0%) and Falls on the level (2.1%) than the East Midlands and England averages.

The types of hazard present in homes also varies by tenure. Private Rented homes are more likely to have a HHSRS hazard for cold (5.3%) and Damp (1.2%) than Owner Occupied Properties (cold, 4.4% and damp, 0.3%).

Private rented homes have a greater proportion of hazards for falls on the level (3.5%) than owner occupied homes (1.8%). However owner occupied homes have a greater proportion of homes with a HHSRS category 1 hazard for falls on the stairs (5.6%) than private rented homes (4.5%).

HHSRS Category 1 Hazards in South Derbyshire

Hazards	South Derbyshire (Count)	South Derbyshire (%)	EHS East Mid-lands (%)	EHS England (%)
Number of private sector homes	39,975			
All Hazards	5,157	12.9%	13.8%	12.2%
Cold Homes	1,778	4.4%	3.4%	4.0%
Falls on Stairs	2,159	5.4%	6.8%	5.8%
Falls on the level	820	2.1%	2.5%	2.2%
Falls between levels	797	2.0%	2.7%	1.2%
Damp and Mold	186	0.5%	0.3%	0.4%
Entry by intruders	5	0.0%		0.1%
Risk of Fire	201	0.5%	0.5%	0.5%
Hot Surfaces	125	0.3%		0.3%
Overcrowding	6	0.0%	0.2%	0.1%
Lead	176	0.4%		0.5%
Falls associated with the bath	2	0.0%		
Noise	18	0.0%	0.1%	
Collision and Entrapment	61	0.2%		0.1%
Excess Heat	0	0.0%		
Sanitation	59	0.1%		0.1%
Food Safety	47	0.1%		0.1%
Carbon Monoxide	7	0.0%		
Electrical Hazards	84	0.2%		0.1%
Structural Collapse	35	0.1%		
Hygiene	0	0.0%		0.1%

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

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

Ward	Owner Occupied non-decent		Private Rent non-decent		Total non-decent	
	Number	%	Number	%	Number	%
Seales	354	19.3%	75	27.6%	429	20.4%
Repton	325	16.8%	83	27.7%	408	18.3%
Melbourne	277	14.5%	81	22.6%	358	15.8%
Hatton	140	14.9%	20	12.2%	160	14.5%
Etwall	312	14.5%	33	14.1%	345	14.5%
Woodville	427	15.1%	86	11.8%	513	14.4%
Newhall and Stanton	334	13.6%	79	13.8%	413	13.6%
Church Gresley	347	12.5%	104	14.1%	451	12.9%
Linton	246	12.1%	31	12.2%	277	12.1%
Swadlincote	270	10.4%	77	15.6%	346	11.2%
Aston	295	9.7%	64	22.3%	359	10.8%
Hilton	335	11.0%	58	9.7%	393	10.8%
Midway	255	9.9%	42	13.0%	297	10.3%
Stenson	164	9.0%	26	9.2%	190	9.0%
Willington and Findern	195	8.6%	24	13.4%	219	8.9%
Total	4,275	12.5%	882	15.3%	5,157	12.9%

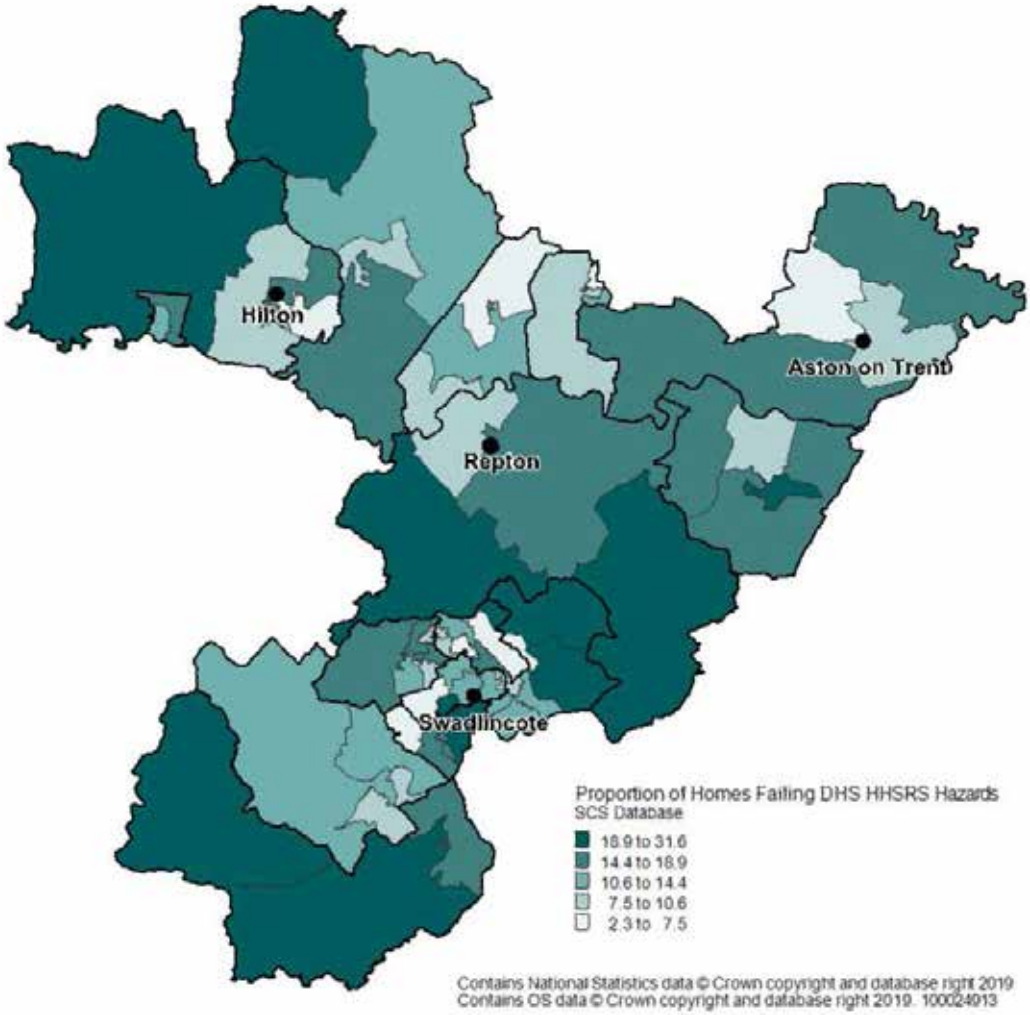
Source : 2019 Derbyshire stock condition property level database

The greatest proportions of homes within the district failing the Decent Homes Criteria for HHSRS category 1 hazards are located in the wards of Seales (20.4%), Repton (18.3%), Melbourne (15.8%) and Hatton (14.5%).

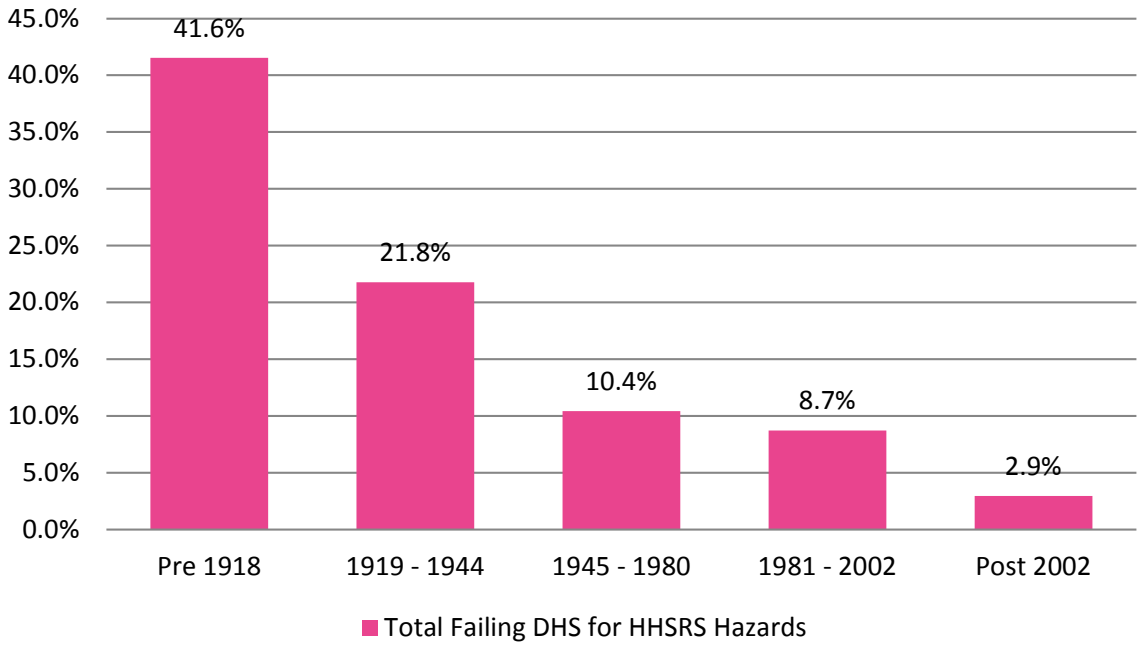
Private rented homes are more likely to posses a HHSRS category 1 hazard than homes which are owner occupied (15.3% private rented, 12.5% owner occupied).

Older homes in South Derbyshire are more likely to posses a HHSRS category 1 hazard. 41.6% of homes built before 1918 and 21.8% of homes built between 1919 and 1944 posses a HHSRS category 1 hazard compared to 8.7% of homes built 1981 - 2002 and 2.9% of homes built after 2002

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



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



Cost to Make Decent

How much would it cost to make homes decent?

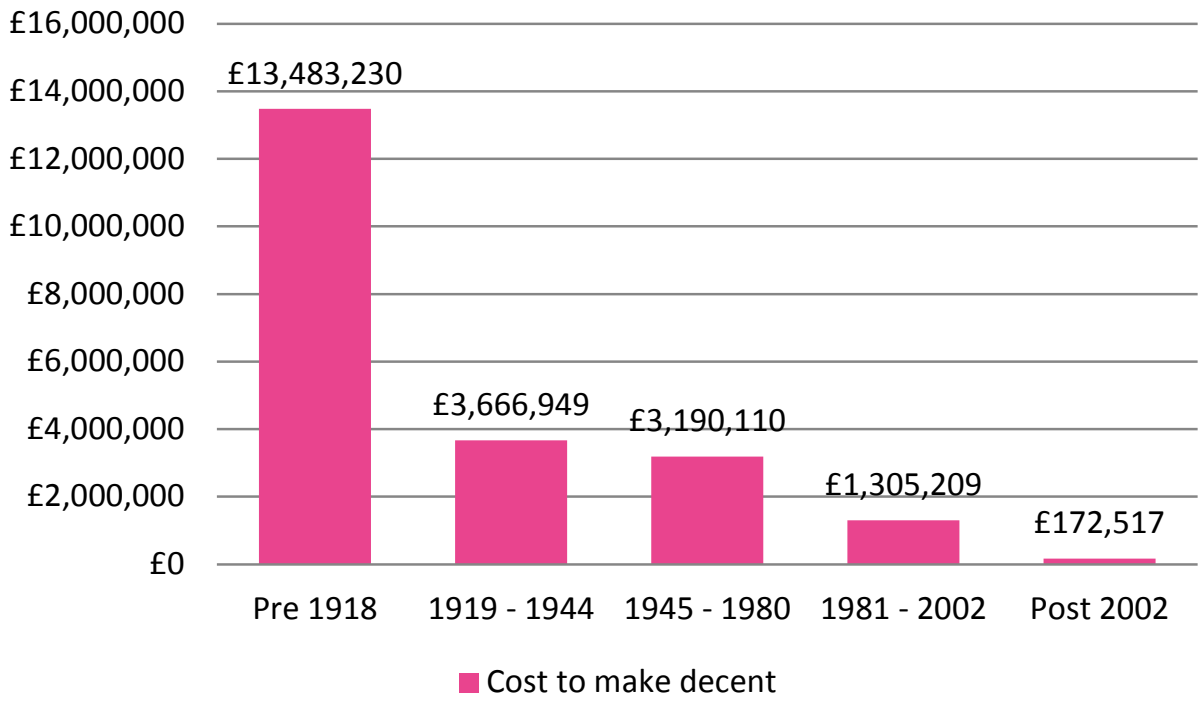
It is estimated that the median cost per home to make all current non-decent homes decent in South Derbyshire would be £2,983.

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 South Derbyshire. This cost has been applied to the database of private sector properties in South Derbyshire to give an approximate cost to make each property decent.

The results show that to bring every private sector property in South Derbyshire up to the Decent Homes Standard would cost £2,983 per property a total of ££21,818,014

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 £13.4 million with a further £3.6 million for homes built between 1919 and 1944. This compares to £4.6million for all private sector homes built since 1945.

Cost to Make Decent by Age of Home



Cost to make Homes Decent

Ward	Owner Occupied	Private Rent	Total
Seales	£2,003,648	£323,303	£2,326,951
Woodville	£1,802,490	£429,991	£2,232,481
Repton	£1,754,684	£437,131	£2,191,815
Hilton	£1,596,619	£278,585	£1,875,204
Church Gresley	£1,368,436	£434,624	£1,803,060
Etwall	£1,563,024	£147,465	£1,710,489
Melbourne	£1,217,760	£321,915	£1,539,675
Aston	£1,202,731	£256,489	£1,459,220
Newhall and Stanton	£1,068,920	£315,322	£1,384,242
Swadlincote	£1,014,614	£268,536	£1,283,150
Linton	£979,549	£105,206	£1,084,756
Midway	£906,928	£122,163	£1,029,092
Willington and Findern	£670,996	£74,623	£745,618
Hatton	£618,733	£68,737	£687,470
Stenson	£381,451	£83,342	£464,792
Total	£18,150,583	£3,667,431	£21,818,014

Source : 2019 Derbyshire stock condition property level database

Cost to Make Safe

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

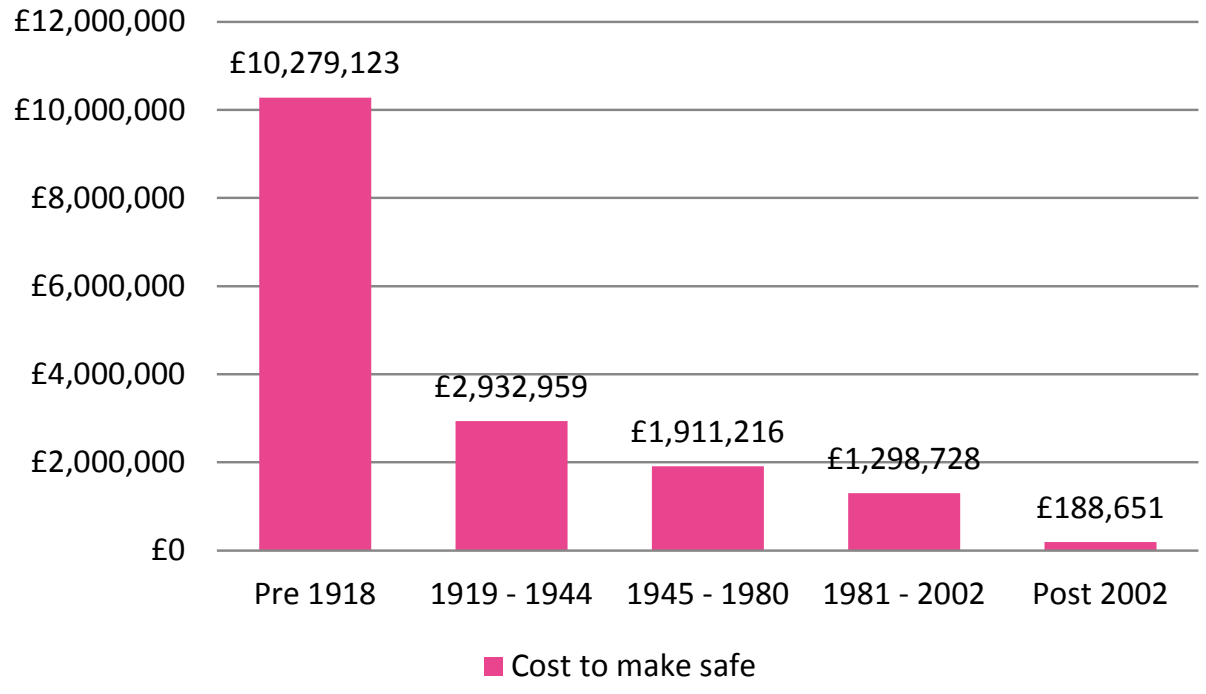
It is estimated that the median cost to make all private sector homes with a HHSRS category 1 hazard safe is £2,271.

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 South Derbyshire. This cost has been applied to the database of private sector properties in South Derbyshire 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 South Derbyshire would cost £ £16,610,676 or £2,271 per property.

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 before1918 is estimated to be around £10million with a further £2.9 million for homes built between 1919 and 1944. This compares to £3.3 million for all private sector homes built since 1945.

Cost to Make Safe by Age of Home



Cost to make Homes Safe

Ward	Owner Occupied	Private Rent	Total
Seales	£1,631,952	£240,435	£1,872,387
Repton	£1,394,151	£365,369	£1,759,520
Hilton	£1,438,754	£217,767	£1,656,521
Etwall	£1,366,115	£111,815	£1,477,930
Woodville	£1,168,242	£236,400	£1,404,642
Aston	£983,022	£211,254	£1,194,276
Church Gresley	£892,512	£247,192	£1,139,704
Melbourne	£875,445	£186,996	£1,062,441
Newhall and Stanton	£771,032	£202,581	£973,613
Swadlincote	£741,018	£161,723	£902,741
Linton	£792,304	£69,655	£861,959
Midway	£699,685	£84,478	£784,163
Willington and Findern	£582,600	£67,505	£650,105
Hatton	£470,945	£41,587	£512,532
Stenson	£309,122	£49,019	£358,141
Grand Total	£14,116,898	£2,493,778	£16,610,676

Source : 2019 Derbyshire stock condition property level database

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[16]. 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[17].

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[18].

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.

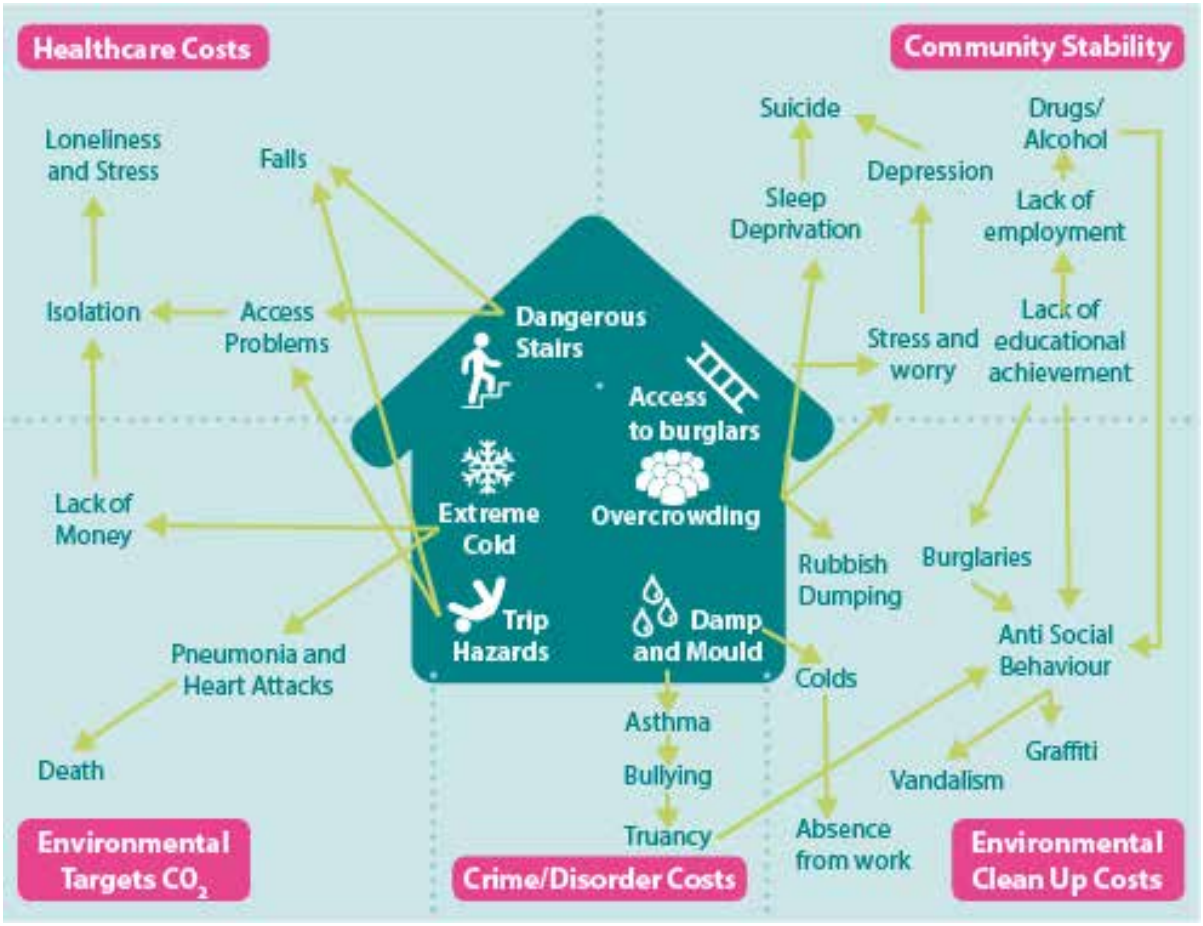
Vulnerable Households

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[22].

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 1hazards 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[21]



Cold and Damp Homes

How does living in a cold home impact health?

1,985 private sector homes in South Derbyshire have a hazard for excess cold or damp

There have been many studies linking cold and damp homes to poor health outcomes[23]. In South Derbyshire, approximately 4.5% of all private sector homes contain a HHSRS category 1 hazard for excess cold and 0.5% contain a HHSRS category 1hazard for damp and mould, in addition to this approximately 2,440 families in South Derbyshire live in a home 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[24,25].

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[26]. 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[27].

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.[28]

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[29].

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[30]

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[31].

How cold homes affect health...

Accidents

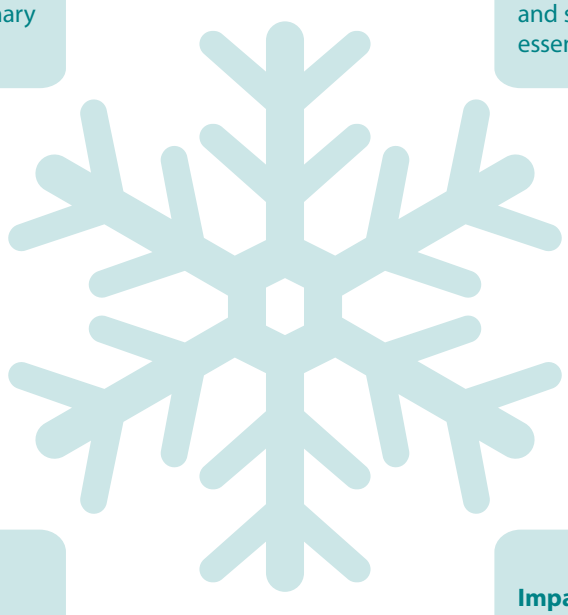
Increased risk of falls and accidents due to loss of strength and dexterity in the hands, and due to open or free-standing heating

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 South Derbyshire 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. 5.0% of private sector homes in South Derbyshire contain a HHSRS category 1 hazard for cold and or damp, this figure is greater than 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 district. The ward of Seales has the greatest proportion of homes with a HHSRS hazard for cold and or damp (10.5%) followed by Repton (8.1%)

The proportion of private rented homes in South Derbyshire which have a HHSRS category 1 hazard for cold and / or damp is greater in the private rented sector overall (6.5%) compared to the owner occupied sector (4.7%).

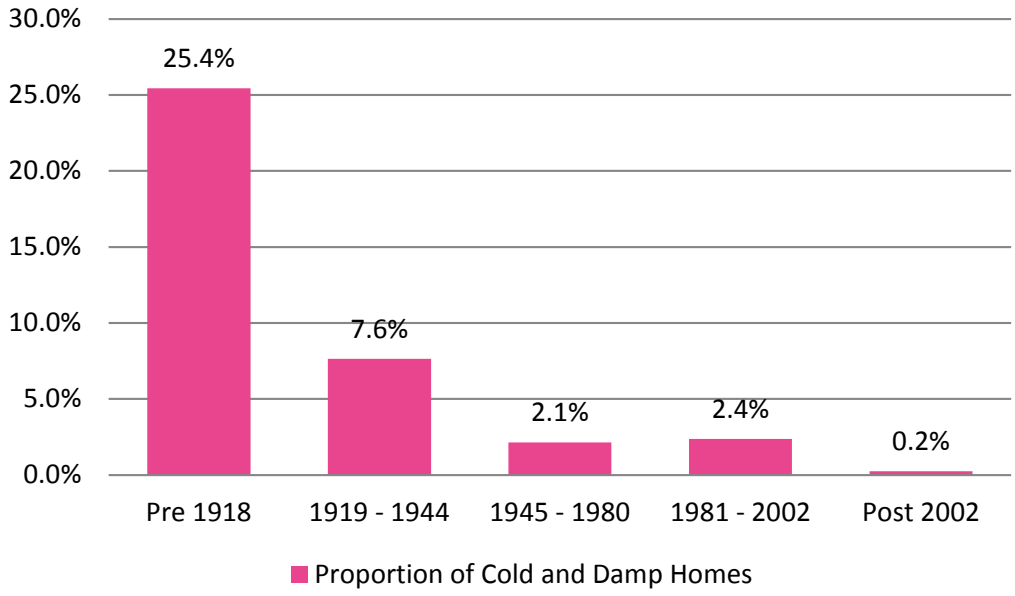
The figures for South Derbyshire show that older homes have a greater proportion of homes with a HHSRS category 1 hazard for cold and / or damp. 25.4% of private sector homes built before 1918 contain a HHSRS category 1 hazard for excess cold or damp compared to 4.5% of homes built since 1945.

Cold and or Damp Homes by Ward

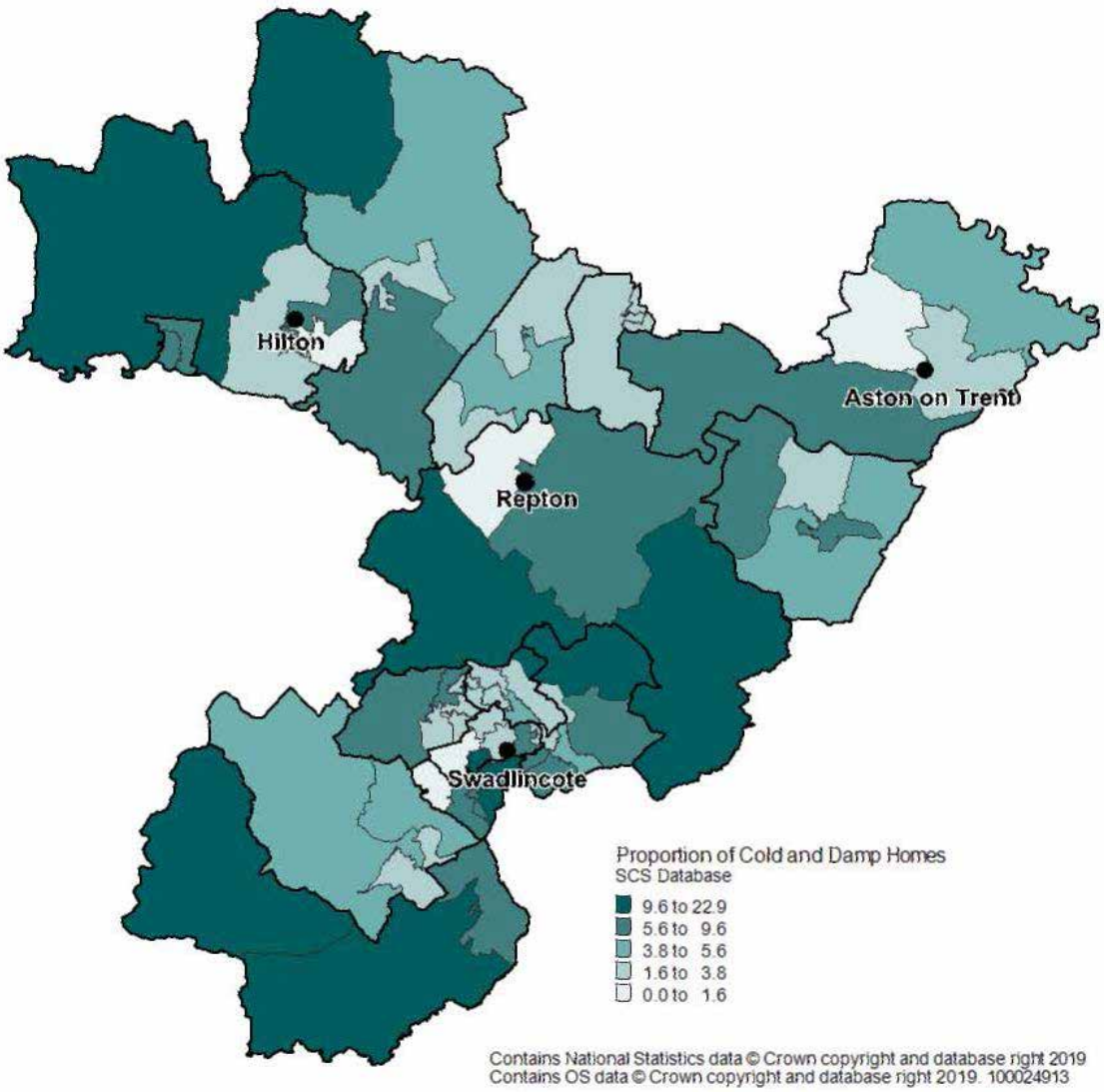
Ward	Owner Occupied Cold and Damp		Private Rent Cold and Damp		Total Cold and Damp	
	Number	%	Number	%	Number	%
Seales	182	9.9%	40	14.8%	222	10.5%
Repton	142	7.3%	40	13.4%	182	8.1%
Etwall	140	6.5%	14	5.9%	153	6.4%
Woodville	165	5.9%	50	6.9%	216	6.1%
Hatton	62	6.6%	5	3.0%	67	6.0%
Melbourne	87	4.5%	30	8.4%	117	5.2%
Hilton	152	5.0%	26	4.3%	178	4.9%
Church Gresley	127	4.6%	39	5.3%	166	4.7%
Newhall and Stanton	96	3.9%	37	6.5%	133	4.4%
Linton	87	4.3%	8	3.3%	96	4.2%
Aston	100	3.3%	29	10.2%	129	3.9%
Swadlincote	91	3.5%	23	4.7%	115	3.7%
Stenson	53	2.9%	8	2.7%	61	2.9%
Midway	67	2.6%	16	4.9%	83	2.9%
Willington and Findern	62	2.7%	7	4.0%	69	2.8%
Total	1,612	4.7%	373	6.5%	1,985	5.0%

Source : 2019 Derbyshire stock condition property level database

Proportion of Cold and Damp Homes by Age of Home



Proportion of Cold and Damp Homes by Ward



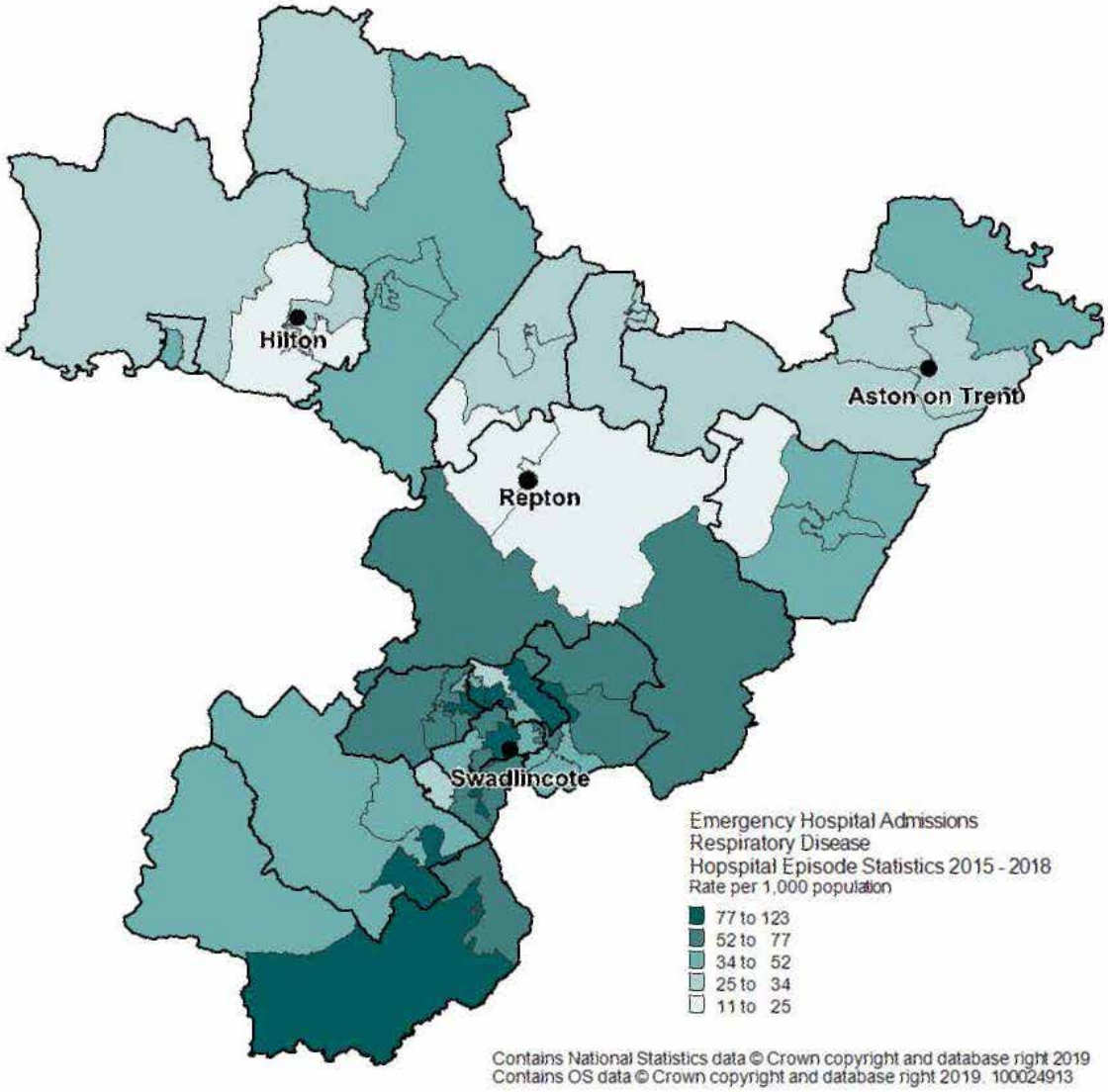
Analysis of Hospital Episode Statistics (HES), for conditions which are known to be affected by living in a cold or damp home, allows comparisons to be made between the areas of the borough with higher proportions of housing with cold and damp hazards and those areas with higher rates of hospital admissions.

Swadlincote ward has the highest rate of emergency hospital admission for respiratory diseases (73.96 per 1,000 population). This compares to a low rate of 22.97 per 1,000 population in Willington and Findern.

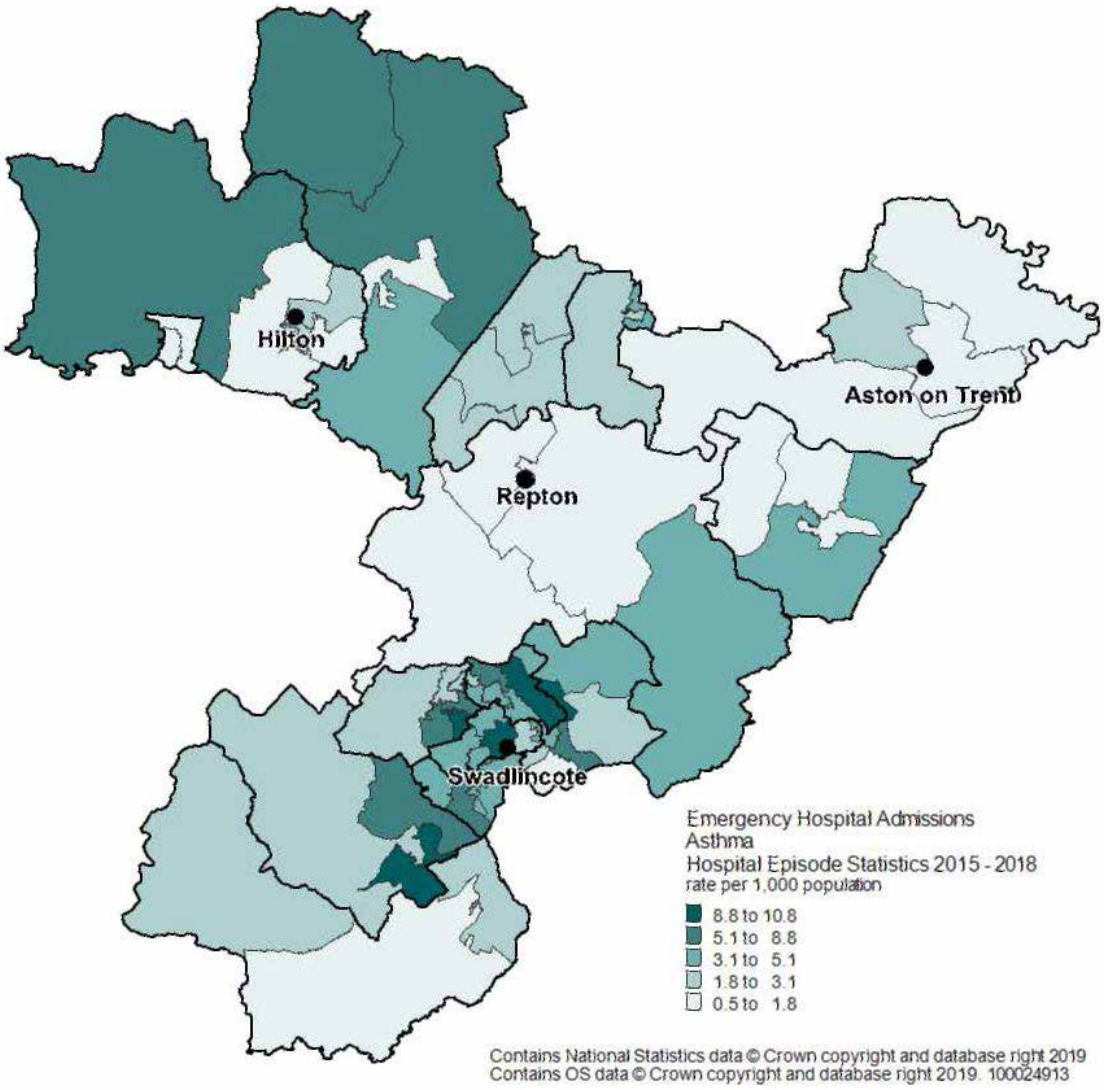
Further investigation would be required to fully assess the impact of cold and damp homes on the health outcomes of those with respiratory disease.

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 South Derbyshire.

Emergency Hospital Admissions for Respiratory Diseases



Emergency Hospital Admissions for Asthma



Research has found that people with asthma were two to three times more likely to live in cold and damp households than non-asthmatics[32]. The evidence that living in a home with damp and mould can lead to respiratory infections, allergies and asthma is clear[33].

Linton ward is the area of the district with the highest rate of emergency hospital admissions due to asthma (5.99 per 1,000 population) followed by Midway (5.54 per 1,000 population). This compares to a low rate of 1.38 per 1,000 population in Aston and 1.03 per 1,000 population in Repton.

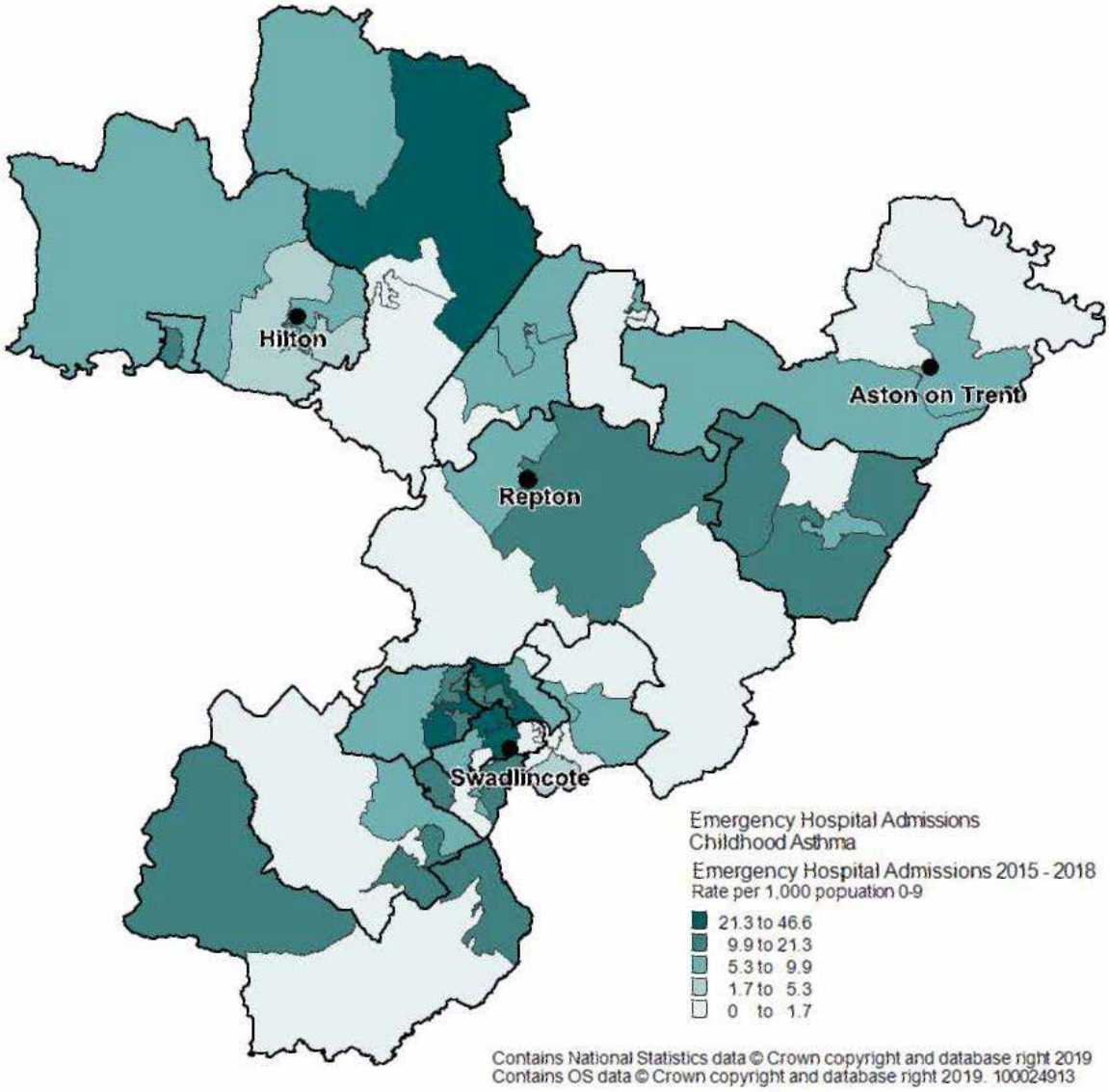
Asthma has many causes, however cold and damp homes can be a contributing factor and can make the treatment of the condition more complicated. Further investigation into the proportion of people living in cold damp homes who are diagnosed with Asthma compared to those who are not living in cold and damp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

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].

Midway has a rate of emergency hospital admission for childhood asthma of 18.57 per 1,000 population age 0-9.

Emergency Hospital Admissions for Childhood Asthma.

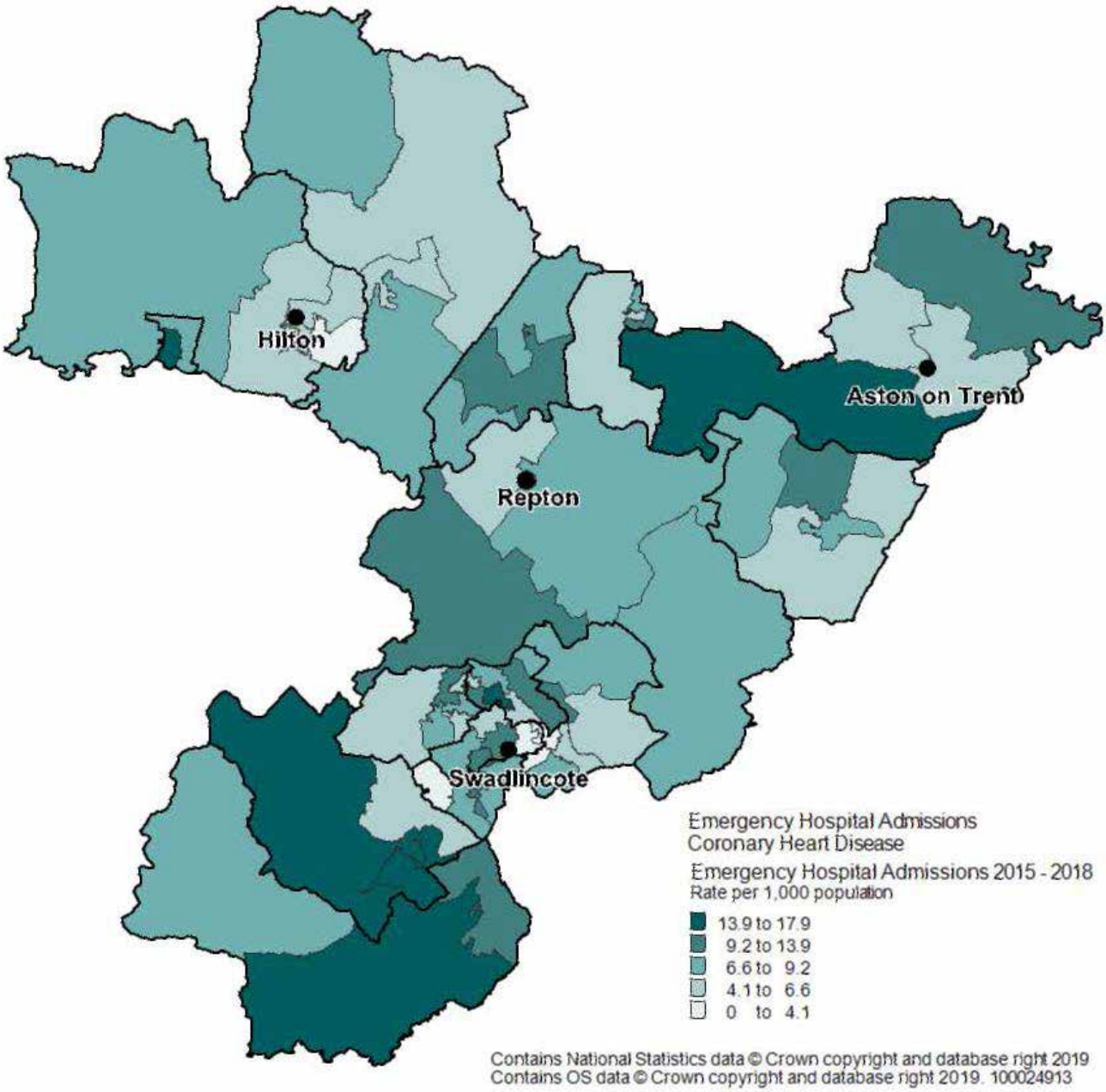


It is known that living in a cold home can have a negative impact on people who are susceptible to heart disease. The British Heart Foundation estimates that 650 excess winter deaths each week were caused nationally by heart and circulatory diseases, between December 2017 and March 2018.

The rate of emergency hospital admissions for Coronary Heart Disease are relatively evenly spread across the District, with the wards of Hatton (12.14 per 1,000 population), Seales (11.62 per 1,000 population) and Linton (10.53 per 1,000 population) having the highest rates.

The lowest rates of Coronary Heart Disease are found in Etwall (4.99 per 1,000 population) and Hilton (4.272 per 1,000 population).

Emergency Hospital Admissions for Coronary Heart Disease



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 A- Country Living (12.9%) and I - Urban Cohesion (11.0%). These are the Mosaic groups which also have some of the highest rates of self diagnosed respiratory conditions.

Mosaic Segmentation of Cold Homes in South Derbyshire

Mosaic Group	Cold Homes	%	Private Sector Homes	%	Proportion	Index
A Country Living	560	31.3%	4330	11.1%	12.9%	283
B Prestige Positions	57	3.2%	1548	4.0%	3.7%	80
D Domestic Success	63	3.5%	4770	12.2%	1.3%	29
E Suburban Stability	133	7.5%	3046	7.8%	4.4%	96
F Senior Security	64	3.6%	1597	4.1%	4.0%	88
G Rural Reality	345	19.3%	6281	16.1%	5.5%	120
H Aspiring Homemakers	173	9.6%	9719	24.9%	1.8%	39
I Urban Cohesion	3	0.1%	24	0.1%	11.0%	240
J Rental Hubs	14	0.8%	275	0.7%	5.1%	111
K Modest Traditions	210	11.7%	3443	8.8%	6.1%	133
L Transient Renters	87	4.8%	1720	4.4%	5.0%	110
M Family Basics	72	4.0%	1599	4.1%	4.5%	98
N Vintage Value	4	0.2%	488	1.2%	0.9%	19
O Municipal Challenge	5	0.3%	230	0.6%	2.1%	46
Grand Total	1789	100.0%	39070	100.0%	4.6%	100

A- Country Living

Country Living consists of affluent people who can afford to live in pleasant rural locations surrounded by agricultural landscapes. This population is divided between those still in work and retired people.

These people live in attractive, spacious detached homes that are often period properties or named buildings, and the majority are owned.

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.

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

The Urban Cohesion group has the highest proportion of damp homes in the district (7.8%). This group typically live in older Victorian terraces and semi-detached homes.

The majority of homes in South Derbyshire with a HHSRS category 1 hazard for damp and cold were built before 1918 (25.4%) .

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 South Derbyshire

Mosaic Group	Damp Homes	%	Private Sector Homes	%	Proportion	Index
A Country Living	43	23.4%	4330	11.1%	1.0%	211
B Prestige Positions	8	4.2%	1548	4.0%	0.5%	105
D Domestic Success	4	2.0%	4770	12.2%	0.1%	16
E Suburban Stability	4	2.2%	3046	7.8%	0.1%	28
F Senior Security	1	0.6%	1597	4.1%	0.1%	14
G Rural Reality	33	17.7%	6281	16.1%	0.5%	110
H Aspiring Homemakers	15	8.2%	9719	24.9%	0.2%	33
I Urban Cohesion	2	1.0%	24	0.1%	7.8%	1638
J Rental Hubs	2	1.1%	275	0.7%	0.7%	155
K Modest Traditions	39	20.9%	3443	8.8%	1.1%	237
L Transient Renters	16	8.6%	1720	4.4%	0.9%	196
M Family Basics	18	9.8%	1599	4.1%	1.1%	239
N Vintage Value	1	0.3%	488	1.2%	0.1%	25
O Municipal Challenge	0	0.2%	230	0.6%	0.2%	32
Grand Total	186	*100.0%*	*39070*	100.0%	*0.5%*	*100*

K - Modest Traditions

Modest Traditions consists of people aged mostly between 46 and 65 who have worked hard to buy their own homes and are now benefiting from that decision. They live in older two or three bedroom terraced or semi-detached homes, some bought from the local council.

They are a combination of single people, married couples and families with grown-up children still living at home.

L - Transient Renters

Households in this group are typically aged in their 20s and 30s and are either living alone or homesharing. Very few people are married and there are few children.

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, and with tenants moving on quickly and paying low rents, private landlords are often not inclined to invest in improvements.

Case Study

Mrs G (61), suffering with severe arthritis in her hands and osteoporosis had been without heating and hot water for 6 months.

Mrs G lived out of one room within the house, by a gas fire under a blanket. However the fire was only switched on when her grandchildren visited due to the high cost.

The Healthy Homes programme installed a heating system and loft insulation which has provided warmth throughout the house.

Fuel Poverty

7.9% of households in South Derbyshire are in fuel poverty.

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 South Derbyshire 7.9% of households are living in fuel poverty[35].

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.

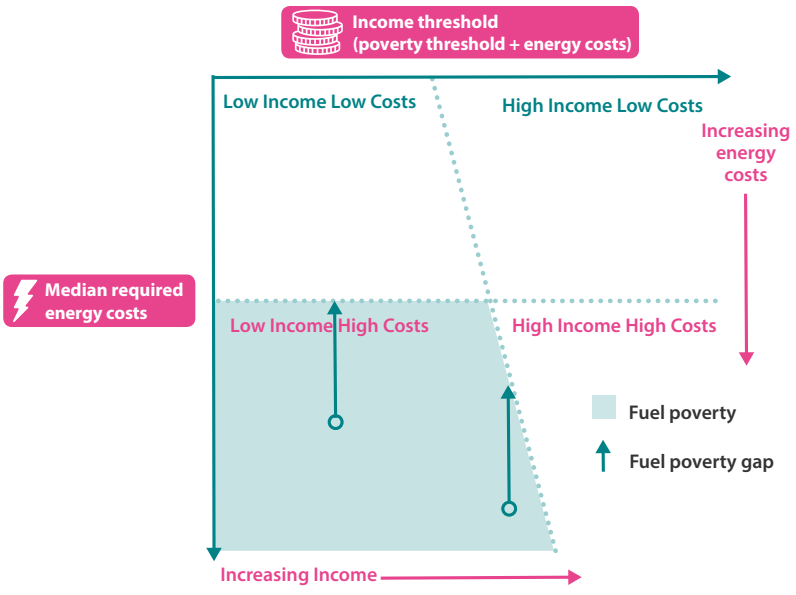
Fuel poverty nationally is also highest in the private rented sector, where 19.4% of households are in fuel poverty compared to 8.0% of owner occupied households[41].

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

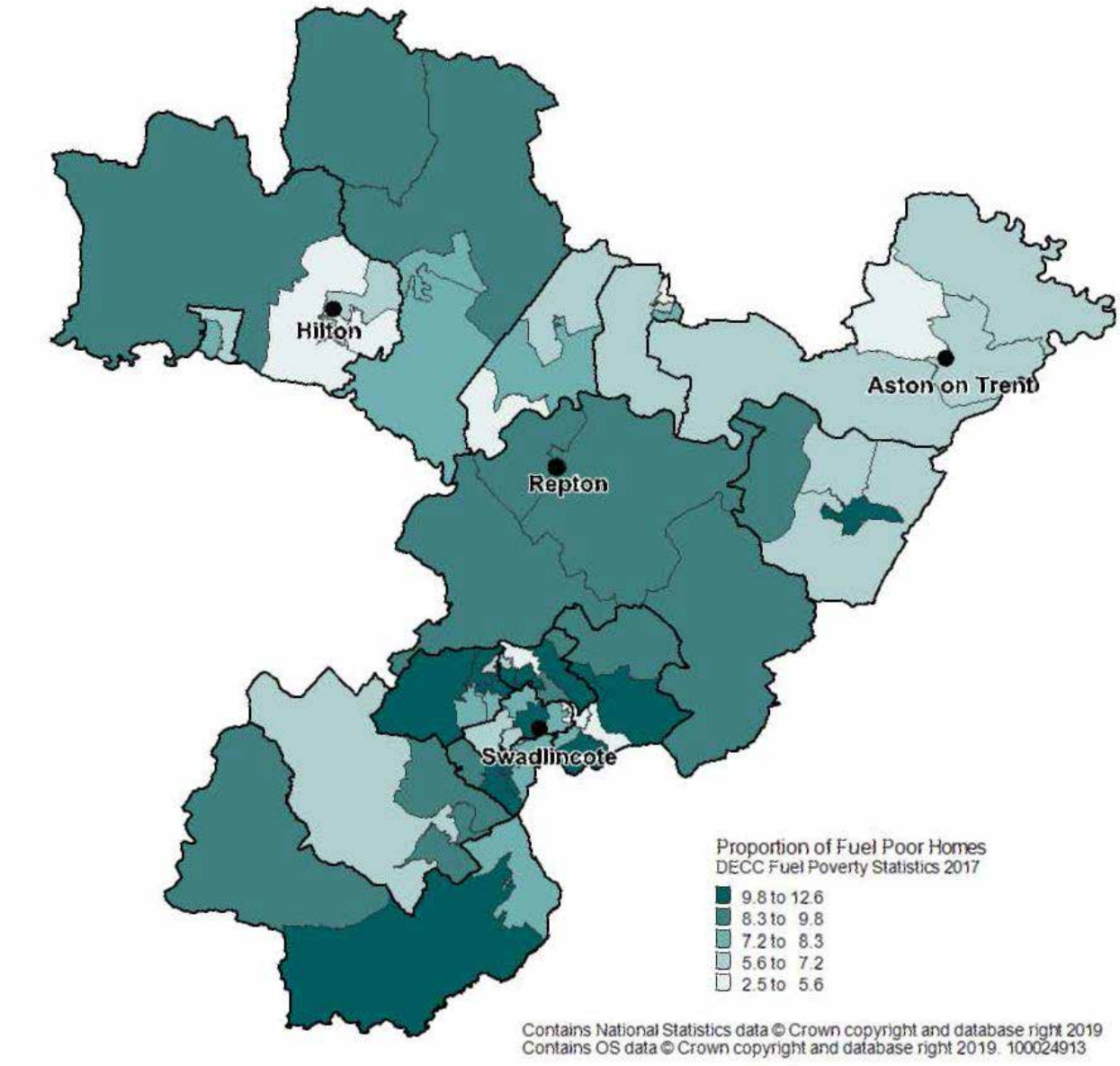


Fuel poor households include some households who may not traditionally be considered to be poor but are pushed into fuel poverty by their high energy requirements.

There were estimated to be 3,226 (7.9%) households in South Derbyshire classified as being in fuel poverty in 2017. This is below the figure for the East Midlands (9.3%) and England as a whole (10.9%).

The areas of the district with the highest proportions of households in fuel poverty are Newhall and Stanton (9.8%), Church Gresley (9.5%), Seales (9.0%) and Midway (8.5%).

Proportion of South Derbyshire Households in Fuel Poverty



Fuel Poverty Case Study

An elderly couple with COPD were struggling to heat their home with old and inefficient electric storage heaters. The property had no connection to the gas main.

The Healthy Homes programme arranged for a new gas connection to the property along with the removal of the old storage heaters and installation of a new gas fired condensing boiler and radiators.

Energy Performance

23.0% of private sector homes in South Derbyshire 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.

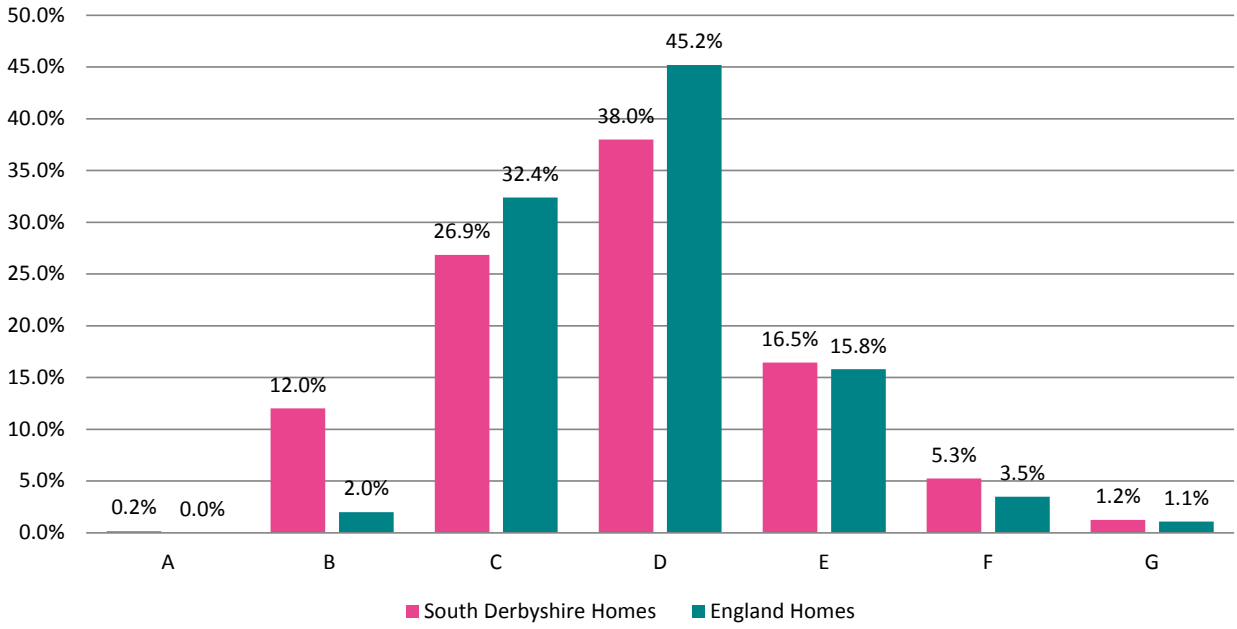
The government introduced a statutory fuel poverty target in 2014 to move as many as practicably possible homes to an EPC band C by 2030 with an interim target of band E by 2020.

23.0% of all homes in South Derbyshire have an EPC rating of E, F or G this compares to 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].

23.0% of all private sector homes in South Derbyshire have an 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 South Derbyshire compared to England averages



The proportions of homes with an EPC rating band E or below in the private rented sector are comparable to owner occupied homes in South Derbyshire (23.1% and 22.8% respectively).

The distribution of properties with an EPC below E is not even within the district. The wards of Woodville (28.0%), Newhall and Stanton (26.3%), and Repton (25.4%) have the highest proportion of homes with EPC bands below E.

EPC Rating of Homes in South Derbyshire

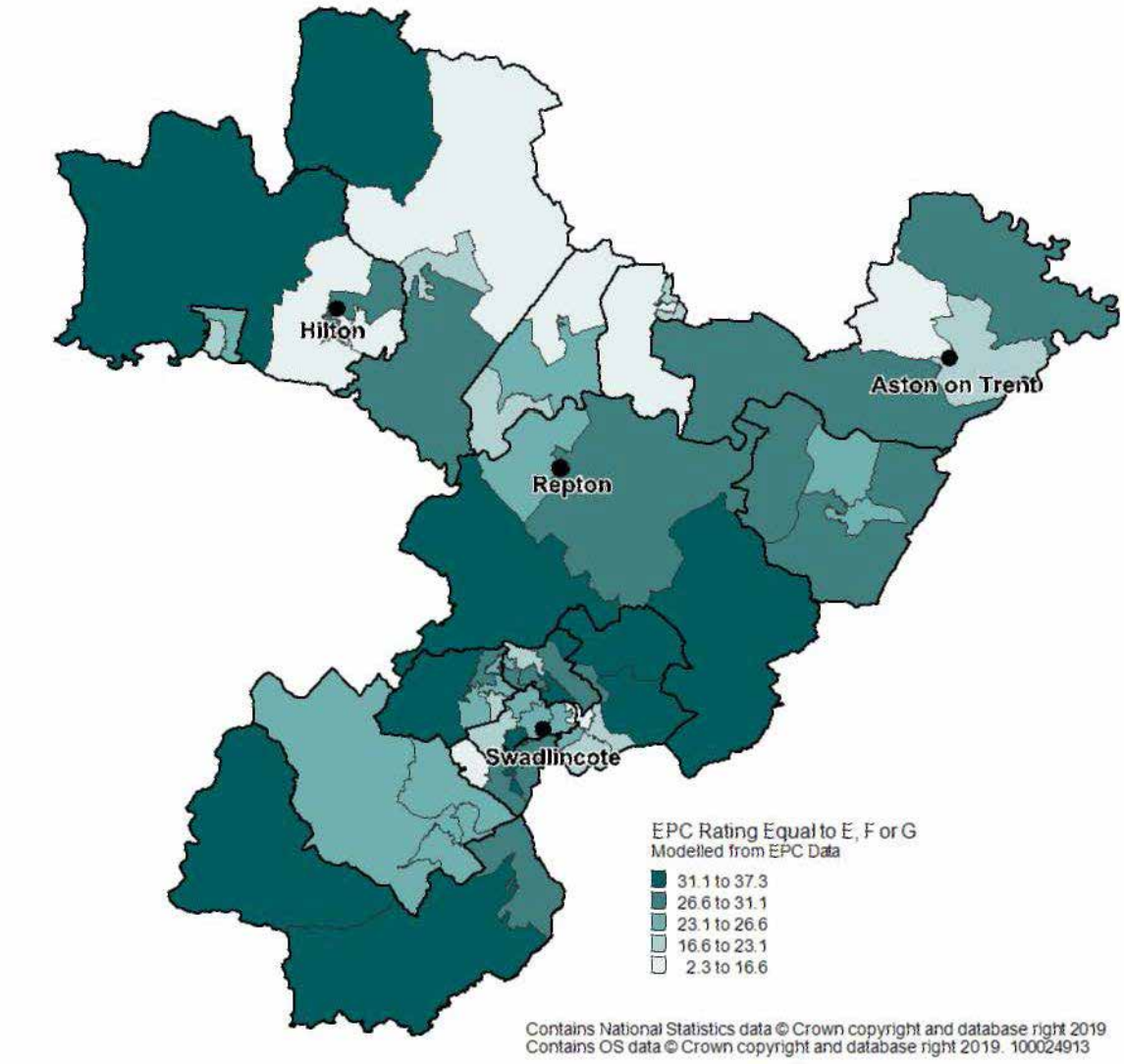
Tenure	Owner Occupied		Private Rent		Total	
	Count	%	Count	%	Count	%
A	53	0.2%	8	0.1%	61	0.2%
B	4,096	12.1%	789	13.7%	4,885	12.4%
C	8,811	26.1%	1,634	28.4%	10,444	26.4%
D	12,996	38.5%	2,017	35.0%	15,013	38.0%
E	5,577	16.5%	931	16.2%	6,508	16.5%
F	1,780	5.3%	310	5.4%	2,090	5.3%
G	421	1.2%	71	1.2%	492	1.2%
Below E	7,778	23.1%	1,312	22.8%	9,090	23.0%

Case Study

Mr W was diagnosed with stage 4 cancer. His property was in a state of disrepair, dirty, hoarded and without working central heating. With Mr W's health deteriorating, rapid intervention was required.

The District Council Officers managed to get the property cleared and to a state fit for heating engineers to carry out their work involving a new boiler and radiators.

South Derbyshire Private Sector Homes Below EPC Rating E



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

Ward	Number of Private Sector Homes	Proportion Fuel Poor	HHSRS Category 1 Hazard Cold and/or Damp	Respiratory Disease *	Asthma *	Childhood Asthma*	CHD *	Stroke *
Aston	3,320	6.2%	3.9%	29.45	1.38	2.74	9.36	5.23
Church Gresley	3,503	9.5%	4.7%	51.34	4.22	9.01	5.59	2.74
Etwall	2,379	8.1%	6.4%	38.29	3.38	12.11	4.99	4.45
Hatton	1,101	7.1%	6.0%	34.22	1.47	10.10	12.14	4.05
Hilton	3,656	5.4%	4.9%	24.60	2.73	5.00	4.78	2.64
Linton	2,289	8.0%	4.2%	61.17	5.99	7.05	10.53	4.72
Melbourne	2,271	8.1%	5.2%	36.68	1.81	6.23	6.69	5.24
Midway	2,892	8.6%	2.9%	66.61	5.54	18.57	9.90	5.31
Newhall and Stanton	3,035	9.8%	4.4%	63.30	4.59	15.38	6.59	4.82
Repton	2,230	8.5%	8.1%	26.05	1.03	6.65	7.03	4.63
Seales	2,103	9.0%	10.5%	73.94	2.40	9.23	11.62	6.09
Stenson	2,116	6.7%	2.9%	28.43	3.24	1.37	7.25	2.86
Swadlincote	3,085	7.7%	3.7%	73.96	5.09	12.28	8.94	6.58
Willington and Findern	2,442	6.5%	2.8%	22.97	2.11	4.23	9.00	5.74
Woodville	3,553	8.4%	6.1%	52.15	3.51	2.13	6.12	3.31
Total	**39,975**	**7.9%**	**5.0%**	**46.93**	**3.42**	**8.17**	**7.66**	**4.46**

Source : 2019 Derbyshire stock condition property level database

Falls In The Home

3,776 homes in South Derbyshire have a HHSRS category 1 hazard for falls.

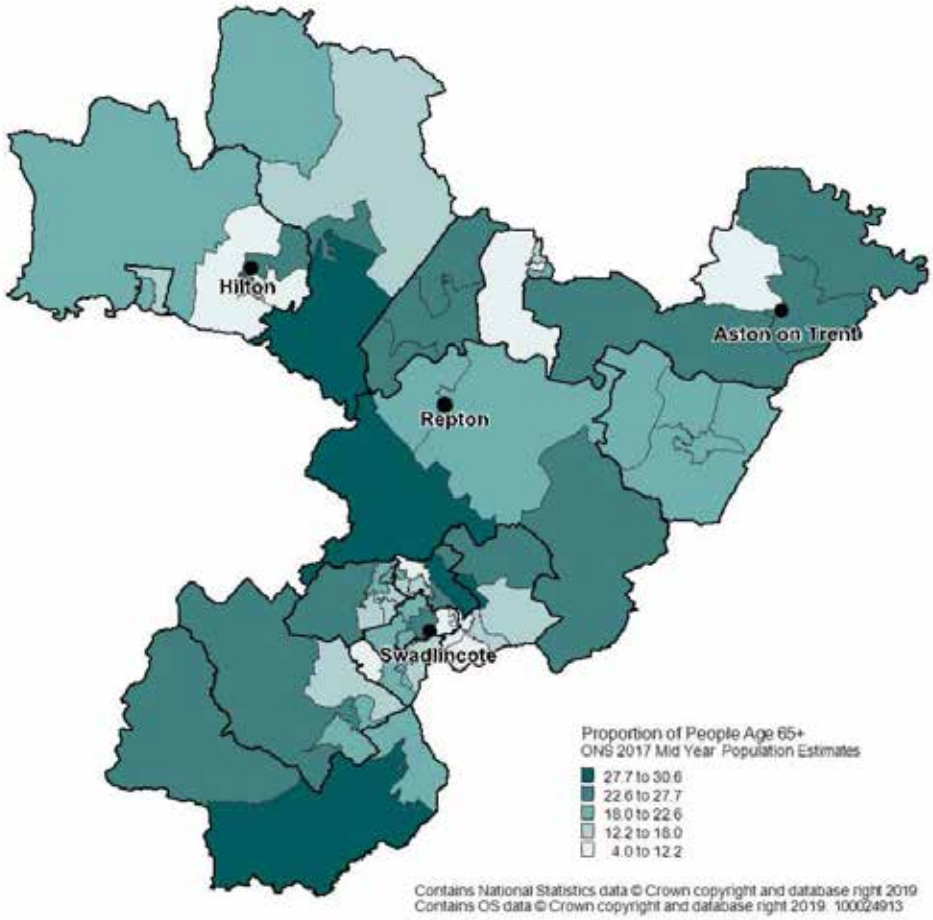
Falls are estimated to cost the NHS more than £2.3 billion each year[43]. Older people are more vulnerable to accidents in the home. People aged 65 and older have the highest risk of falling, with 30% of people older than 65 and 50% of people older than 80 falling at least once a year[44]. Falls account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

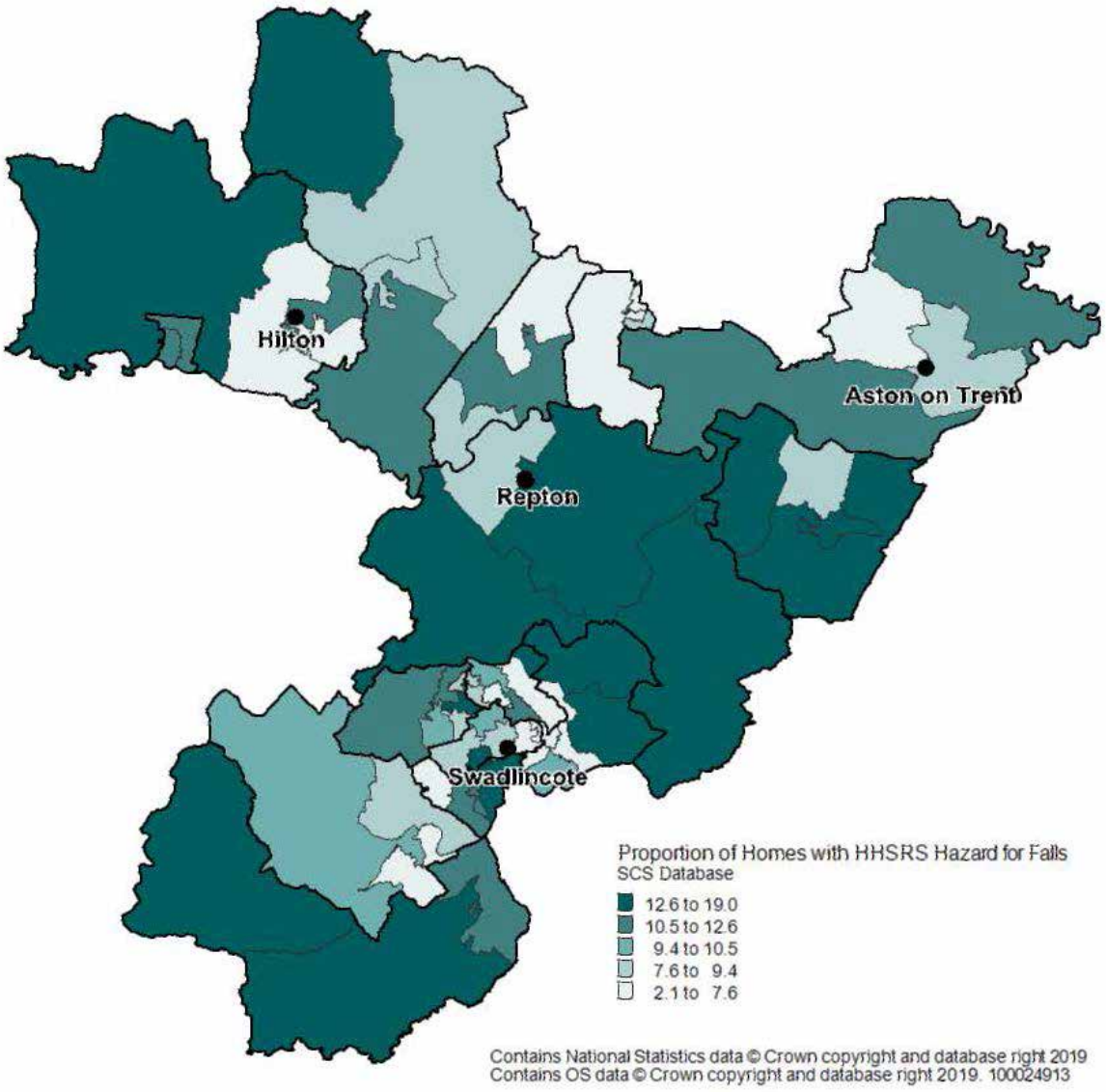
Falls contribute significantly to hip fractures in older people, many of which are preventable, and they have serious consequences for older people. Falls are the most common cause of injury related deaths in people over the age of 75[45].

2,390 per 100,000 population aged 65 and over received an emergency hospital admission due to a fall in 2017/18[46] in South Derbyshire

Proportion of Population over 65 by ward



Proportion of Homes in South Derbyshire with a Hazard for Falls.



HHSRS Category 1 Hazards for Falls

Ward	Private Sector Homes	HHSRS Falls Between Levels		HHSRS Falls on the Level		HHSRS Falls on Stairs		All Falls	
	n	n	%	n	%	n	%	n	%
Aston	3,320	71	2.1%	67	2.0%	151	4.6%	289	8.7%
Church Gresley	3,503	70	2.0%	81	2.3%	179	5.1%	330	9.4%
Etwall	2,379	66	2.8%	48	2.0%	122	5.1%	236	9.9%
Hatton	1,101	20	1.9%	25	2.3%	76	6.9%	122	11.1%
Hilton	3,656	99	2.7%	52	1.4%	118	3.2%	269	7.4%
Linton	2,289	50	2.2%	35	1.5%	104	4.6%	189	8.2%
Melbourne	2,271	47	2.1%	64	2.8%	164	7.2%	274	12.1%
Midway	2,892	46	1.6%	53	1.8%	143	4.9%	242	8.4%
Newhall and Stanton	3,035	72	2.4%	68	2.3%	190	6.3%	331	10.9%
Repton	2,230	42	1.9%	59	2.7%	195	8.7%	296	13.3%
Seales	2,103	37	1.7%	72	3.4%	152	7.2%	260	12.4%
Stenson	2,116	26	1.2%	24	1.2%	103	4.9%	153	7.3%
Swadlincote	3,085	54	1.7%	60	2.0%	156	5.1%	270	8.8%
Willington and Findern	2,442	60	2.4%	35	1.4%	94	3.8%	189	7.7%
Woodville	3,553	38	1.1%	76	2.2%	211	5.9%	325	9.2%
Grand Total	39,975	797	2.0%	820	2.1%	2,159	5.4%	3,776	9.4%

Source : 2019 Derbyshire 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.

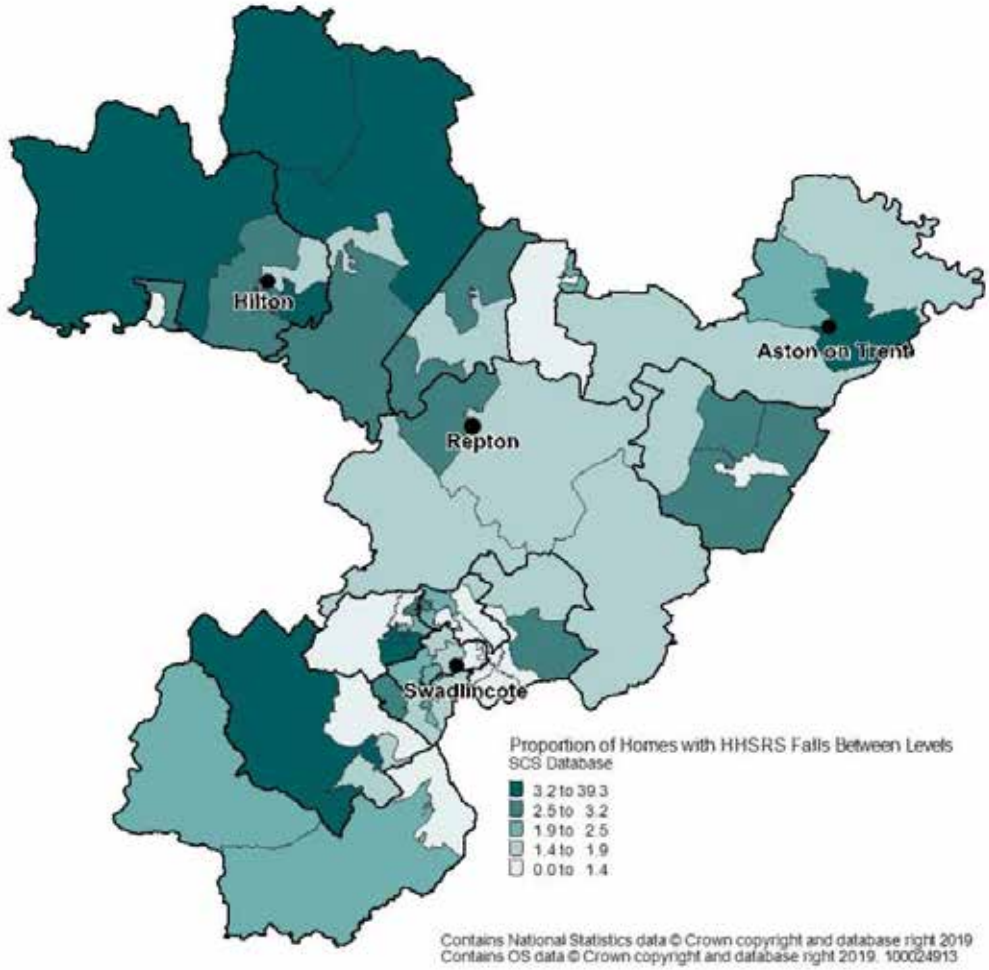
Falls are the most common cause of accidental injury to children. Everyday 45 children are admitted to hospital after a fall in the UK[47]. Children are most susceptible to harm resulting from a fall between levels for example falls out of windows, falls from landings, falls from accessible roofs and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

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].

There are approximately 797 homes in South Derbyshire with a HHSRS category 1 hazard for a fall between levels. Etwall (2.8%), Hilton (2.7%) and Newhall and Stanton (2.4%) have the greatest proportion of homes with a HHSRS hazard for a fall between levels.

Proportion of Homes in South Derbyshire with a Hazard for Falls Between Levels



Falls On The Stairs

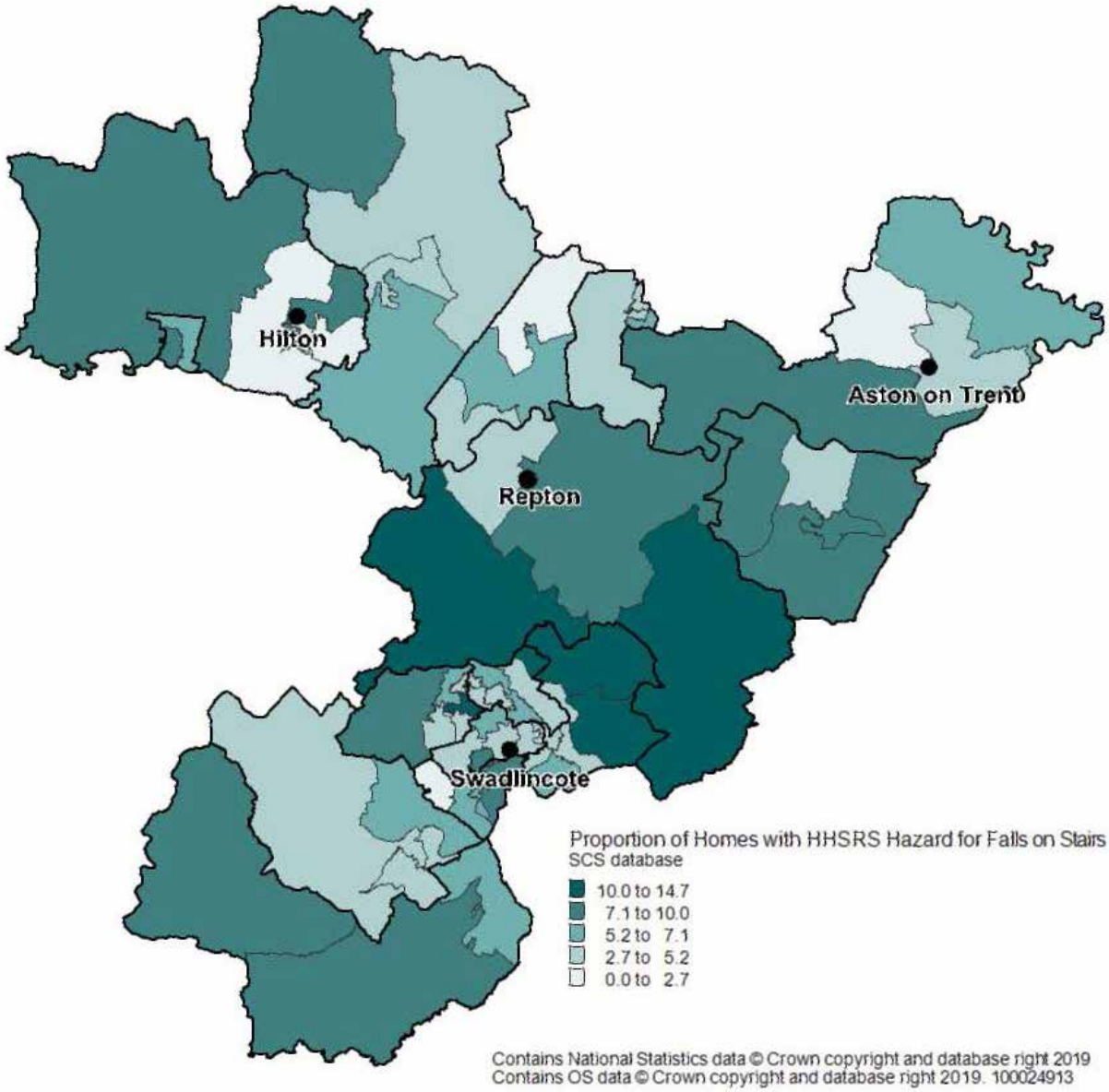
The HHSRS identifies two different hazards for falls where older people are more vulnerable to harm:

- 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 South Derbyshire the number of homes with a HHSRS category 1 hazard for a fall on the stairs is approximately 2,159.

The number of homes with the greatest proportions of HHSRS category 1 hazards for falls on the stairs are Repton (8.7%), Seales (7.2%) and Melbourne (7.2%).

Proportion of Homes in South Derbyshire with a Hazard for Falls on Stairs



Mosaic Segmentation for Homes with a Hazard for Falls on Stairs

Mosaic Group	Falls on Stairs	%	Private Sector Homes	%	Proportion	Index
A Country Living	371	17.2%	*4330*	11.1%	8.6%	156
B Prestige Positions	70	3.3%	*1548*	4.0%	4.5%	82
D Domestic Success	120	5.6%	*4770*	12.2%	2.5%	46
E Suburban Stability	184	8.5%	*3046*	7.8%	6.0%	110
F Senior Security	68	3.2%	*1597*	4.1%	4.3%	78
G Rural Reality	448	20.8%	*6281*	16.1%	7.1%	130
H Aspiring Homemakers	311	14.5%	*9719*	24.9%	3.2%	58
I Urban Cohesion	4	0.2%	*24*	0.1%	16.0%	291
J Rental Hubs	18	0.8%	*275*	0.7%	6.6%	119
K Modest Traditions	285	13.3%	*3443*	8.8%	8.3%	151
L Transient Renters	110	5.1%	*1720*	4.4%	6.4%	116
M Family Basics	130	6.0%	*1599*	4.1%	8.1%	147
N Vintage Value	20	0.9%	*488*	1.2%	4.1%	74
O Municipal Challenge	12	0.6%	*230*	0.6%	5.2%	95
Grand Total	2,150	100.0%	*39070*	100.0%	*5.5%*	*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 (16.0%) and K - Modest traditions (8.3%).

These groups are those that are often living in older homes which ere constructed before modern building regulations.

H - Aspiring Homemakers

Aspiring Homemakers are typically younger families, couples who are yet to have children, and singles in their 20s and 30s. A good number are setting up homes for the first time. Couples can be married or more likely cohabiting, and where there are children they are usually of nursery or primary school age.

Homes are likely to be semi-detached and terraced properties, modest in size but with three bedrooms and mostly owned.

K - Modest Traditions

Modest Traditions consists of people aged mostly between 46 and 65 who have worked hard to buy their own homes and are now benefiting from that decision. They live in older two or three bedroom terraced or semi-detached homes, some bought from the local council.

They are a combination of single people, married couples and families with grown-up children still living at home.

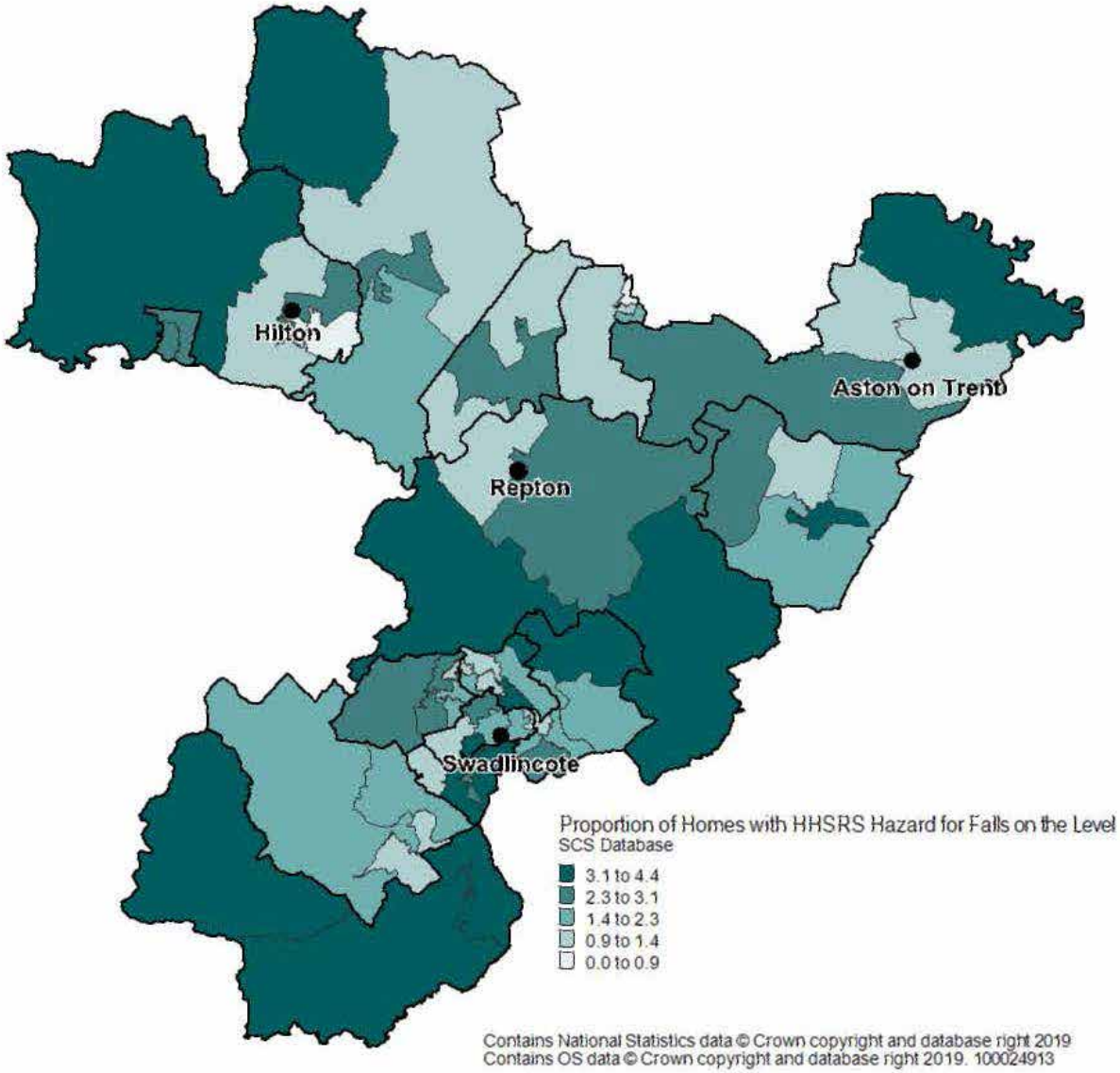
Falls on the Level

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.

There are approximately 820 homes in South Derbyshire which have a HHSRS category 1 hazard for falls on the level. The areas of the district with a high proportion of homes with a hazard for falls on the level are Seales (3.4%), Melbourne (2.8%) and Repton (2.7%).

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 .

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

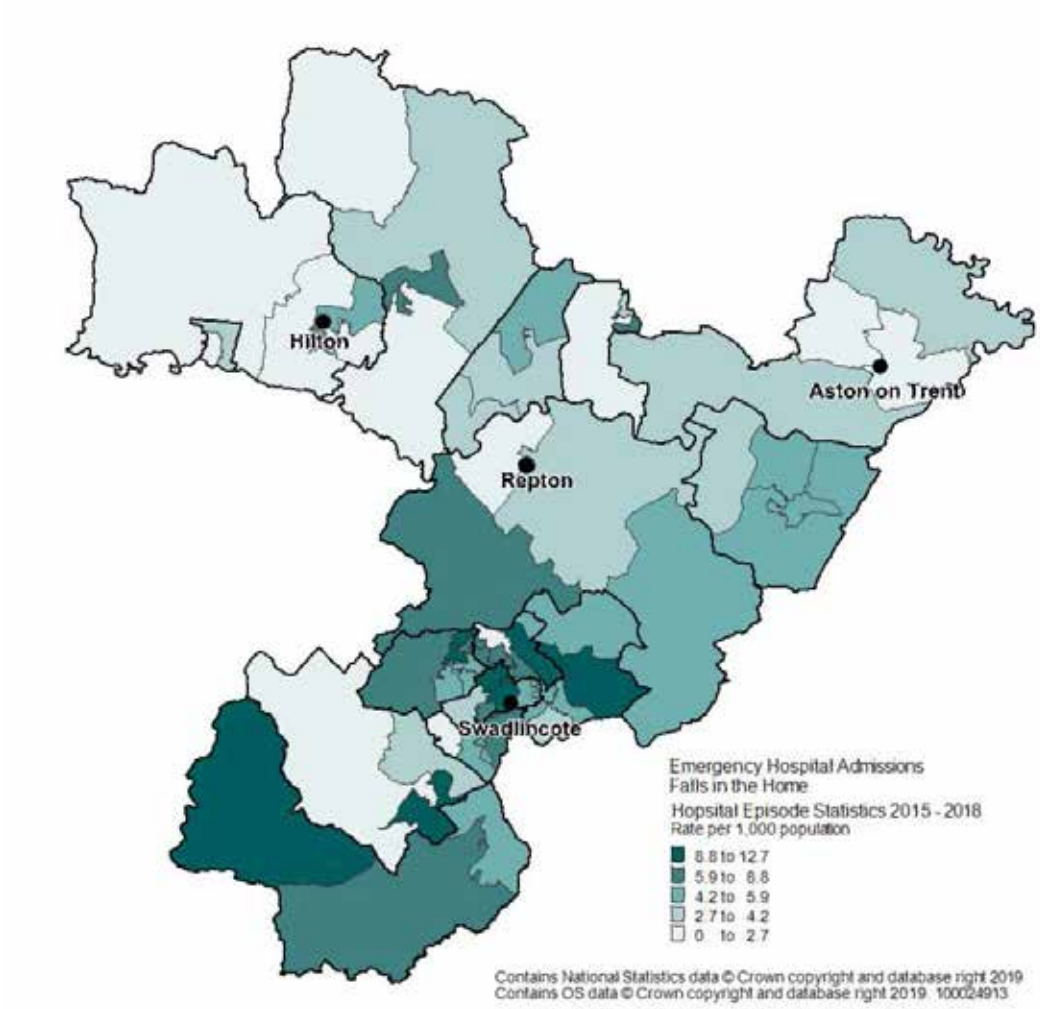


Hospital Admissions for all Falls

Analysis of Hospital Episode Statistics for falls in the home clearly shows that there is a strong correlation between areas of the borough 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 Swadlincote (8.07per 1,000 population), Midway (7.19 per 1,000 population) and Seales (7.19 per 1,000 population).

Emergency Hospital Admissions for falls in the home



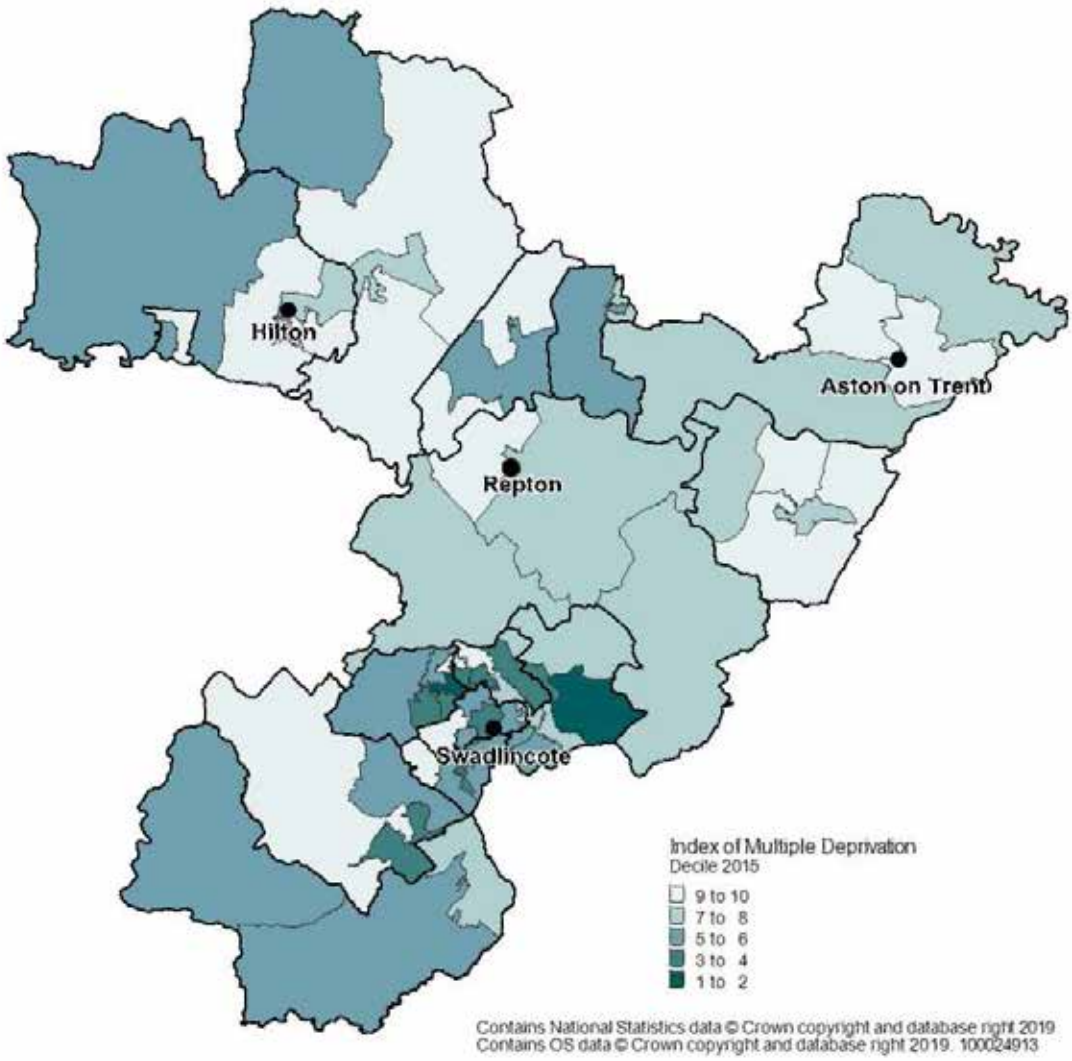
Vulnerable Households

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

South Derbyshire ranks 230h out of 326 English local authority areas in the 2015 Index of Multiple Deprivation (1 is the most deprived).

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



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 South Derbyshire there are approximately 2,391 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[43].

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.

2,391 families in South Derbyshire 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 Housing Stock Condition Survey in South Derbyshire was conducted in 2014, 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 Derbyshire. Data surrounding the age, type and tenure of each home in South Derbyshire has been analysed in detail to provide an accurate estimate of the housing stock in South Derbyshire.

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 South Derbyshire 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[44]. 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[45]. 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 South Derbyshire this is

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 7,314 homes in the private sector in South Derbyshire that do not currently meet the Decent Homes Standard. In real terms this means that approximately 1 in 5 families (18.3%) living in the private sector in South Derbyshire 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.

South Derbyshire is comprised of around 44,210 homes; 20.1% were built before 1944, 37.4% were built between 1945 and 1980 and 41.7% built since 1981. Nationally research has shown 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 South Derbyshire 49.4% of homes built before 1918 and 36.9% of homes built between 1919 - 1944 do not pass the Decent Homes Standard compared to 14.8% of homes built between 1981 – 2002 and 3.3% 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. In South Derbyshire10.9% of homes are privately rented.

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 South Derbyshire where 22.9% of private rented homes do not meet the Decent Homes Standard compared to 17.5% 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.

There are approximately 2,440 private sector homes in South Derbyshire 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 (10.7%) than among owner occupied homes (5.3%).

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 South Derbyshire 23.0% 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. South Derbyshire has a smaller proportion of the population living in fuel poverty 7.0%) 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 1,312 privately rented homes in South Derbyshire 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. South Derbyshire District Council declared a Climate Emergency in June 2019 and in doing so has committed to "Strive to make South Derbyshire District Council carbon neutral by 2030 and achieve carbon neutrality before the Government target of 2050" . Residential housing across South Derbyshire is estimated to emit over 190,000 tonnes of carbon per annum, equating to roughly a quarter of all carbon emissions. The Council has published a Climate and Environment Strategy and a Climate and Emergency Action Plan 2020-24.

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 South Derbyshire 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 South Derbyshire approximately 425 homes do not meet the Decent Homes Standard criteria for modern facilities. As might be expected these homes were generally built before 1944.

There are approximately1,476 private sector homes in South Derbyshire 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 (4.5%) than the owner occupied sector (3.6%). As might be expected older homes are more likely to fail the Decent Homes Standard for disrepair than newer built homes. 113.5% of homes in South Derbyshire built before 1918 fail the Decent Homes Standard for disrepair compared to 0.5% of homes built after 1981.

Approximately 5,157 private sector homes in South Derbyshire contain at least one category 1 HHSRS hazard and therefore also fail the Decent Homes Standard. A greater proportion private rented sector homes fail the Decent Homes Standard HHSRS category 1 hazards than owner occupied homes (15.3% and 12.5% respectively). As might be expected, older homes are more likely to possess a HHSRS category 1 hazard. In South Derbyshire 41.6% of homes built before 1918 possess a category 1 hazard compared to just 2.9% 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[4].

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 £2,983 The total cost for the district to improve all private sector homes to meet the Decent Homes Standard would be in the region of £21.8 million. The cost to make safe all homes with a HHSRS category 1 hazard has been estimated at £2,271per property, giving a total for the borough of £16.6 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 South Derbyshire approximately 1,985 families are residing in private sector homes which contain a HHSRS category 1 hazard for excess cold or damp. Furthermore 2,440 private sector homes in South Derbyshire do not meet the minimum standard required under the Decent Homes Standard for thermal comfort. There is a greater proportion of private rented homes (6.5%) that contain a HHSRS category 1 hazard for cold and damp than owner occupied homes (4.7%). 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]. Figures for South Derbyshire 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 £2,983 . The total cost for the district to improve all private sector homes to meet the Decent Homes Standard would be in the region of £21.8million.

Analysis of Hospital Episode Statistics reveals that in South Derbyshire there is some overlap between areas of the borough 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 South Derbyshire.

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 South Derbyshire approximately 3,776 families are living in a private sector home that has a HHSRS category 1 hazard for a fall. In South Derbyshire 2,390 per 100,000 population aged 65 and over received an emergency hospital admission due to a fall in 2017/18[46] however 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. 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. Maintenance of property level database.

A key benefit of developing an in house desktop modelling approach for monitoring the Housing Stock Condition for Derby and Derbyshire has been the creation of an address level database of property characteristics, with the ability to update the database and model the data on a regular basis, as and when new data and information become available. In order to preserve and improve the accuracy of the database and ensure that it remains current, it is recommended that officer time is allocated to maintaining the property level database and to apply updated propensities from future English Housing Survey results. The cost benefit of maintaining the database to allow for future updates to housing stock condition, as opposed to creating a new database each time an updated survey is required, should not be underestimated.

2. Access to information

The creation of a property level database for Derby and Derbyshire was the crucial first stage of the Housing Stock Condition Survey. The process relied heavily upon a combination of local and national data sources relating to the age, type and tenure of properties. The precision of the model relies upon accurate data at the database creation phase. The Valuation Office holds information on the age and type of every address in the country, however they are unable to release this to local authorities without an act of parliament. It is strongly advised that a letter to the Minister for Housing is written to allow this data to be released, enabling local authorities to complete stock condition surveys using our in-house methodology. This could realise potential cost savings to individual local authorities of circa £40 - £80k, against the cost of traditionally outsourced surveys. The increased data accuracy would also improve the overall precision of the model and streamline the modelling process, creating further efficiencies in the development of the database.

3. Adoption of findings

The findings from the Derby 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

4. 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. 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 At the system level, it is recommended that the Housing & Health Systems Group present the findings to the Joined Up Care Derbyshire Board and associated Place Board with a view to incorporating the findings and priorities for action into delivery plans at Place. 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 further recommended that this research is expanded to include a Health Impact Assessment of housing as demonstrated by the model across Derby and Derbyshire, to increase our understanding of the impact of housing upon local health and wellbeing and its wider cost to the local health and care economy.

5. 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 housing of residents in Derby. An example could be to apply for funding for a pilot study to improve a 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. We will have the Information Sharing Agreements in place for this and, with consent from residents, this could prove to be a valuable piece of evidence and means of securing greater funding in the future for similar housing improvement programmes at scale. There is limited literature and data surrounding the success of home improvement schemes on the health of residents. It is therefore further recommended that evaluations and monitoring of any improvements to homes be robust in order to deepen our understanding and widen the evidence base of the true benefits of improvements to people's homes and lives.

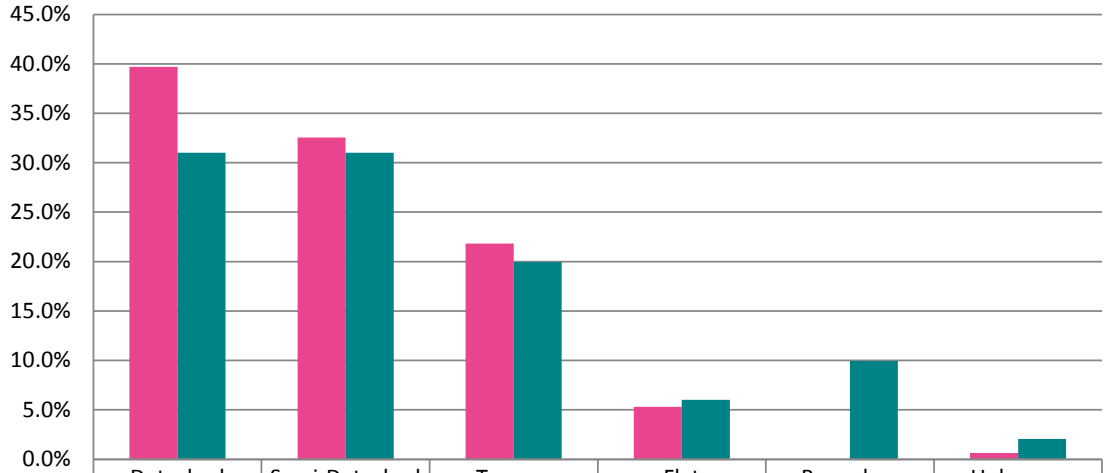
Appendices

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 South Derbyshire

The figures obtained for the Derbyshire 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 4,450 bungalows within the district. 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 South Derbyshire



	Detached	Semi-Detached	Terrace	Flat	Bungalow	Unknown
SCS Database	39.7%	32.5%	21.8%	5.3%	0.0%	0.6%
VOA	31.0%	31.0%	20.0%	6.0%	9.9%	2.1%

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 borough. 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.

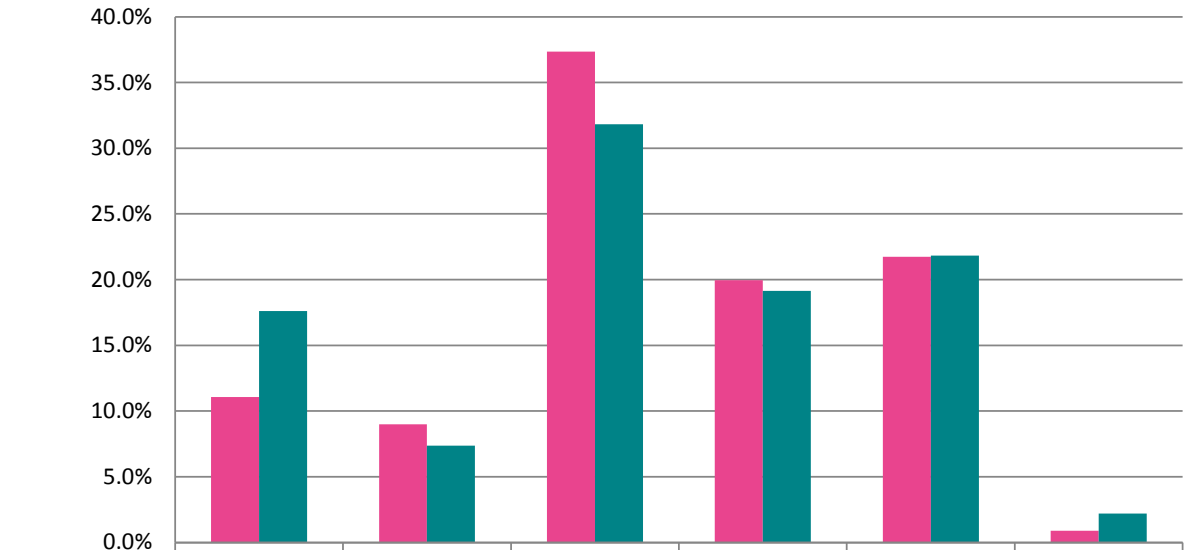
The age bands within the available data did not form a direct match to those within the English Housing Survey. As such it was necessary to reclassify some age bands

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 South Derbyshire allow for a comparison between the two datasets. Pre-1918 properties are under-represented in the South Derbyshire Housing Stock Database whereas 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.

Ages of homes in South Derbyshire



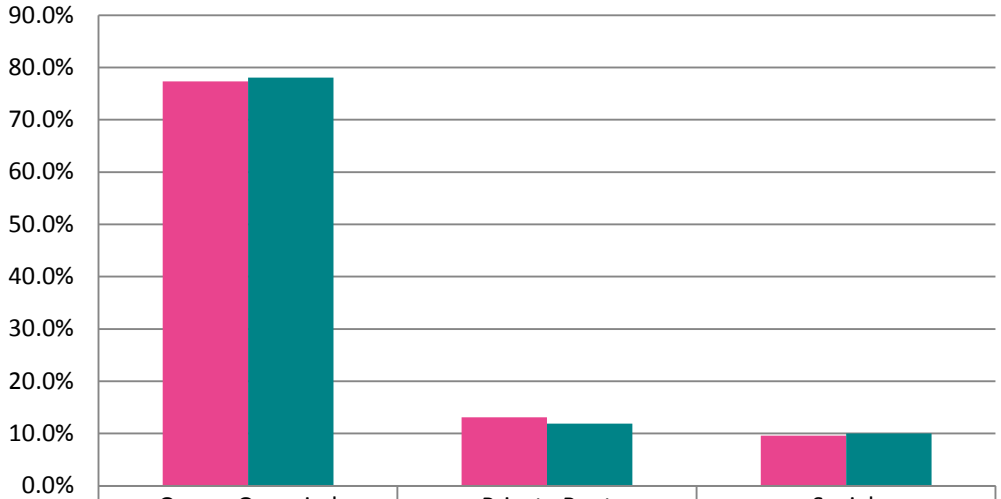
	Pre 1918	1919 - 1944	1945 - 1980	1981 - 2002	Post 2002	Unknown
SCS Database	11.1%	9.0%	37.4%	19.9%	21.7%	0.9%
VOA	17.6%	7.4%	31.8%	19.1%	21.8%	2.2%

Tenure of Homes in South Derbyshire Comparison to OS Tenure Estimates

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



	Owner Occupied	Private Rent	Social
SCS Datebase	77.3%	13.1%	9.6%
ONS Tenure Estimates	78.1%	11.9%	10.0%

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	Total
Aston	28.3%	8.1%	42.8%	13.9%	6.8%	485
Church Gresley	37.7%	16.6%	19.8%	18.8%	7.2%	648
Etwall	49.6%	0.0%	34.7%	7.4%	8.4%	438
Hatton	40.1%	8.3%	19.5%	29.6%	2.5%	224
Hilton	48.2%	5.5%	14.3%	12.5%	19.5%	488
Linton	18.2%	31.7%	29.2%	17.2%	3.6%	416
Melbourne	43.5%	5.5%	41.8%	7.2%	2.0%	491
Midway	10.1%	29.7%	38.1%	21.1%	1.0%	487
Newhall and Stanton	13.3%	32.6%	33.0%	21.1%	0.0%	612
Repton	56.4%	3.8%	37.1%	1.6%	1.0%	521
Seales	47.0%	23.2%	20.9%	8.1%	0.7%	597
Stenson	11.7%	0.0%	29.3%	58.6%	0.4%	258
Swadlincote	23.2%	13.3%	36.5%	25.0%	2.0%	542
Willington and Findern	9.3%	23.5%	32.8%	26.0%	8.4%	329
Woodville	30.3%	38.7%	19.4%	10.2%	1.4%	777
Total	**2,340**	**1,305**	**2,166**	**1,196**	**308**	**7,314**

Source : 2019 Derbyshire stock condition property level database

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	%
HHSRS Falls Between Levels	729	2.1%	68	1.2%	68	0.2%
HHSRS Falls on the Level	618	1.8%	202	3.5%	202	0.5%
HHSRS Falls on Stairs	1,899	5.6%	260	4.5%	260	0.6%
HHSRS Cold	1,494	4.4%	305	5.3%	305	0.8%
HHSRS Damp and Mould	118	0.3%	68	1.2%	68	0.2%
HHSRS Fire	149	0.4%	53	0.9%	53	0.1%
HHSRS Hot Surfaces	94	0.3%	31	0.5%	31	0.1%
HHSRS Lead	156	0.5%	20	0.3%	20	0.1%

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

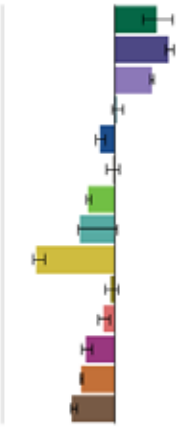
Ward	Number of Private Sector Homes	Proportion Fuel Poor	HHSRS Category 1 Hazard Cold and/or Damp	Respiratory Disease *	Asthma *	Childhood Asthma*	CHD *	Stroke *
Aston	3,320	6.2%	3.9%	29.45	1.38	2.74	9.36	5.23
Church Gresley	3,503	9.5%	4.7%	51.34	4.22	9.01	5.59	2.74
Etwall	2,379	8.1%	6.4%	38.29	3.38	12.11	4.99	4.45
Hatton	1,101	7.1%	6.0%	34.22	1.47	10.10	12.14	4.05
Hilton	3,656	5.4%	4.9%	24.60	2.73	5.00	4.78	2.64
Linton	2,289	8.0%	4.2%	61.17	5.99	7.05	10.53	4.72
Melbourne	2,271	8.1%	5.2%	36.68	1.81	6.23	6.69	5.24
Midway	2,892	8.6%	2.9%	66.61	5.54	18.57	9.90	5.31
Newhall and Stanton	3,035	9.8%	4.4%	63.30	4.59	15.38	6.59	4.82
Repton	2,230	8.5%	8.1%	26.05	1.03	6.65	7.03	4.63
Seales	2,103	9.0%	10.5%	73.94	2.40	9.23	11.62	6.09
Stenson	2,116	6.7%	2.9%	28.43	3.24	1.37	7.25	2.86
Swadlincote	3,085	7.7%	3.7%	73.96	5.09	12.28	8.94	6.58
Willington and Findern	2,442	6.5%	2.8%	22.97	2.11	4.23	9.00	5.74
Woodville	3,553	8.4%	6.1%	52.15	3.51	2.13	6.12	3.31
Total	39,975	7.9%	5.0%	46.93	3.42	8.17	7.66	4.46

Source : 2019 Derbyshire stock condition property level database

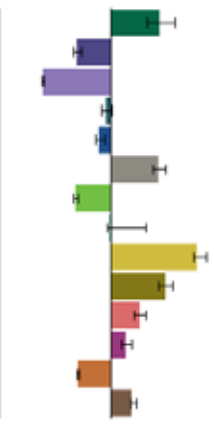
Appendix 5 Mosaic Segmentation of Hazards

Mosaic Group	Falls on Stairs	%	Private Sector Homes	%	Proportion	Index
A Country Living	371	17.2%	*4330*	11.1%	8.6%	156
B Prestige Positions	70	3.3%	*1548*	4.0%	4.5%	82
D Domestic Success	120	5.6%	*4770*	12.2%	2.5%	46
E Suburban Stability	184	8.5%	*3046*	7.8%	6.0%	110
F Senior Security	68	3.2%	*1597*	4.1%	4.3%	78
G Rural Reality	448	20.8%	*6281*	16.1%	7.1%	130
H Aspiring Homemakers	311	14.5%	*9719*	24.9%	3.2%	58
I Urban Cohesion	4	0.2%	*24*	0.1%	16.0%	291
J Rental Hubs	18	0.8%	*275*	0.7%	6.6%	119
K Modest Traditions	285	13.3%	*3443*	8.8%	8.3%	151
L Transient Renters	110	5.1%	*1720*	4.4%	6.4%	116
M Family Basics	130	6.0%	*1599*	4.1%	8.1%	147
N Vintage Value	20	0.9%	*488*	1.2%	4.1%	74
O Municipal Challenge	12	0.6%	*230*	0.6%	5.2%	95
Grand Total	2,150	100.0%	*39070*	100.0%	*5.5%*	*100*

Mosaic Group	Falls Between Levels	%	Private Sector Homes	%	Penetration	Index
A Country Living	119	15.2%	*4330*	11.1%	2.7%	137
B Prestige Positions	46	5.8%	*1548*	4.0%	3.0%	148
D Domestic Success	126	16.1%	*4770*	12.2%	2.6%	132
E Suburban Stability	62	7.9%	*3046*	7.8%	2.0%	101
F Senior Security	28	3.5%	*1597*	4.1%	1.7%	86
G Rural Reality	123	15.7%	*6281*	16.1%	2.0%	97
H Aspiring Homemakers	148	18.9%	*9719*	24.9%	1.5%	76
I Urban Cohesion	0	0.0%	*24*	0.1%	1.4%	68
J Rental Hubs	2	0.2%	*275*	0.7%	0.6%	30
K Modest Traditions	66	8.5%	*3443*	8.8%	1.9%	96
L Transient Renters	31	3.9%	*1720*	4.4%	1.8%	89
M Family Basics	24	3.0%	*1599*	4.1%	1.5%	74
N Vintage Value	7	0.9%	*488*	1.2%	1.4%	70
O Municipal Challenge	3	0.4%	*230*	0.6%	1.2%	61
Grand Total	782	100.0%	*39070*	100.0%	*2.0%*	*100*



Mosaic Group	Falls on Level	%	Private Sector Homes	%	Penetration	Index
A Country Living	130	15.9%	*4330*	11.1%	3.0%	143
B Prestige Positions	22	2.7%	*1548*	4.0%	1.4%	68
D Domestic Success	38	4.7%	*4770*	12.2%	0.8%	38
E Suburban Stability	61	7.4%	*3046*	7.8%	2.0%	95
F Senior Security	30	3.6%	*1597*	4.1%	1.9%	89
G Rural Reality	187	22.9%	*6281*	16.1%	3.0%	142
H Aspiring Homemakers	137	16.8%	*9719*	24.9%	1.4%	68
I Urban Cohesion	0	0.1%	*24*	0.1%	2.1%	98
J Rental Hubs	10	1.2%	*275*	0.7%	3.7%	177
K Modest Traditions	107	13.1%	*3443*	8.8%	3.1%	148
L Transient Renters	45	5.5%	*1720*	4.4%	2.6%	125
M Family Basics	38	4.6%	*1599*	4.1%	2.4%	113
N Vintage Value	7	0.9%	*488*	1.2%	1.5%	70
O Municipal Challenge	6	0.7%	*230*	0.6%	2.5%	118
Grand Total	817	100.0%	*39070*	100.0%	*2.1%*	*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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