Communities and Local Government

# English House Condition Survey 2006

## Annual Report

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Communities and Local Government
Eland House
Bressenden Place
London
SW1E 5DU
Telephone: 020 7944 4400
Website: www.communities.gov.uk



If you require this publication in an alternative format please email alternativeformats@communities.gsi.gov.uk

Communities and Local Government Publications
PO Box 236
Wetherby
West Yorkshire
LS23 7NB
Tel: 030 0123 1124
Fax: 030 0123 1125
Email: communities@capita.co.uk
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# Contents

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- The Office for National Statistics (ONS) who manage the EHCS on behalf of Communities and Local Government. They undertake the household interviews and have responsibilities for sampling, weighting and data validation. ONS also run the Market Value Survey.
- ONS also work in partnership with Miller Mitchell Burley Lane (MMBL) who undertake the visual inspection of the properties. MMBL employ a large field force of professional surveyors who work in close co-operation with the ONS interviewers to maximise response rates and deliver high quality data.
- The Building Research Establishment (BRE) who are the development partner of the office for the EHCS. They help develop the physical survey questionnaire and surveyor training materials, and deliver surveyor training sessions. They are also involved in validating and analysing the data, developing and running models to create the key measures and analytical variables for the survey, and reporting the findings.
- The Valuation Office Agency (VOA) who provide market valuations for each of the EHCS properties and information on the local area and housing market.
- The interviewers and surveyors who collect information from households and carry out the visual inspection.
- The households who take part in the survey.
- The Communities and Local Government staff who manage and work on the survey.

# Introduction

This report provides detailed findings of the condition and energy performance of the housing stock in 2006 and how these have changed since 1996. Initial key findings were published in the 2006 EHCS Headline Report[1].

The report begins with an overview chapter that provides a summary of the main findings. It then looks at the housing stock profile before providing a detailed analysis of housing conditions in relation to decent homes, the Housing Health and Rating System and damp and mould growth. The report also includes a chapter looking at neighbourhood problems.

There are two chapters relating to the energy performance of homes. The first looks at the heating and insulation measures present in the housing stock and the potential for improving them. The second concentrates on the energy performance of homes focusing on their energy efficiency and carbon emissions ($CO_2$).

The final chapter of the report identifies the extent to which a range of different household groups experience poor living conditions.

Summary statistics for the key measures of condition and energy performance are provided at the end of the report.

The 2006 findings presented in this report are based on fieldwork undertaken between April 2005 and March 2007. They are presented in terms of a mid-point survey position of April 2006 which is taken as the average position for the fieldwork period covered. Over this period data was collected from 16,269 dwellings and 15,648 households. The fieldwork was carried out throughout the period with 50.6% of dwelling surveys (and 50.7% household interviews) being achieved during the first year (April 2005 to March 2006). The achieved sample by housing sector is provided below (the renting sectors are over sampled and owner occupied housing under sampled to support key analyses).

## Achieved sample for 2006 findings

| | dwellings | households |
|---|---|---|
| private sector | 10,494 | 10,102 |
| social sector | 5,775 | 5,546 |
| all sectors | 16,269 | 15,648 |

Each estimate from the survey (as with all sample surveys) has a margin of error associated with it arising from sampling and design effects and from measurement error. The report comments on differences and trends only where they are significant after taking survey error into account.

[1] The 2006 Headline Report has been reissued since the publication in January 2008 due to amendments made to the estimates of Decent Homes.

Details on the sample design, structure, response rate, data quality and details of the key measures of condition and energy performance used in the report are provided in an accompanying 2006 EHCS Technical Report. The Annual and Technical Reports are available on the Department's website from the following address:
http://www.communities.gov.uk/housing/housingresearch/housingsurveys/

# List of Tables and Figures

# Chapter 1: Overview

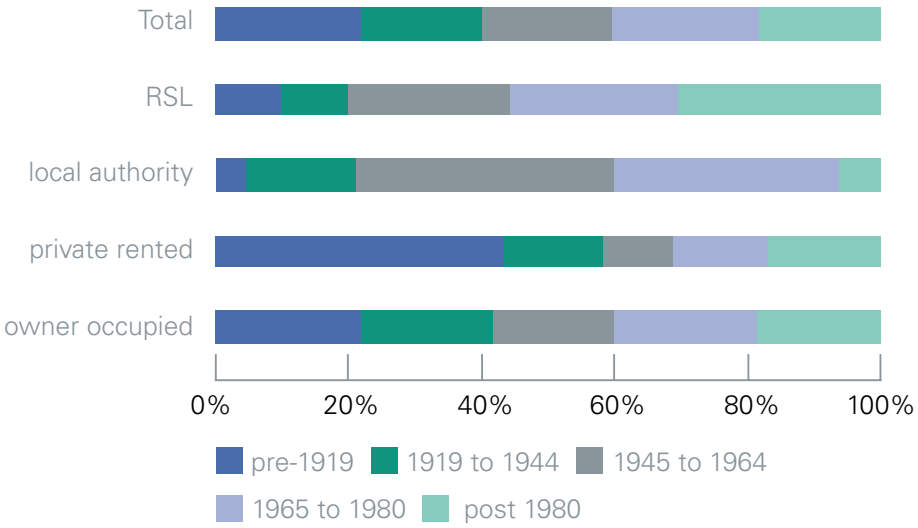
1. This overview provides a summary of the 2006 English House Condition Survey Annual Report. The focus of the report is the condition and energy performance of the housing stock in 2006 and how this has changed since 1996. This chapter summarises the key findings from the report. More details and explanations of key measures are found in the individual chapters of the report and in the Glossary of Terms.

## Housing stock and its amenities

2. In 2006 there were around 22 million homes in England. Some 15 million (70%) were owner-occupied, while 2.6 million (12%) were privately rented. Overall, 2.1 million (9%) homes were rented from local authorities and 1.8 million (8%) from Registered Social Landlords (RSLs).

3. More than one fifth (22%) of homes had been built before 1919. The great majority of this older stock (94%) was privately owned, and primarily owner occupied (71% of all pre-1919 homes). However, privately rented homes were most likely to be old – 43% of homes in this sector had been built before 1919, Figure 1.1. In contrast, the majority of social sector housing (62%) was built between 1945 and 1980. Registered Social Landlord (RSL) dwellings had the highest proportion of new homes with some 30% built since 1980.

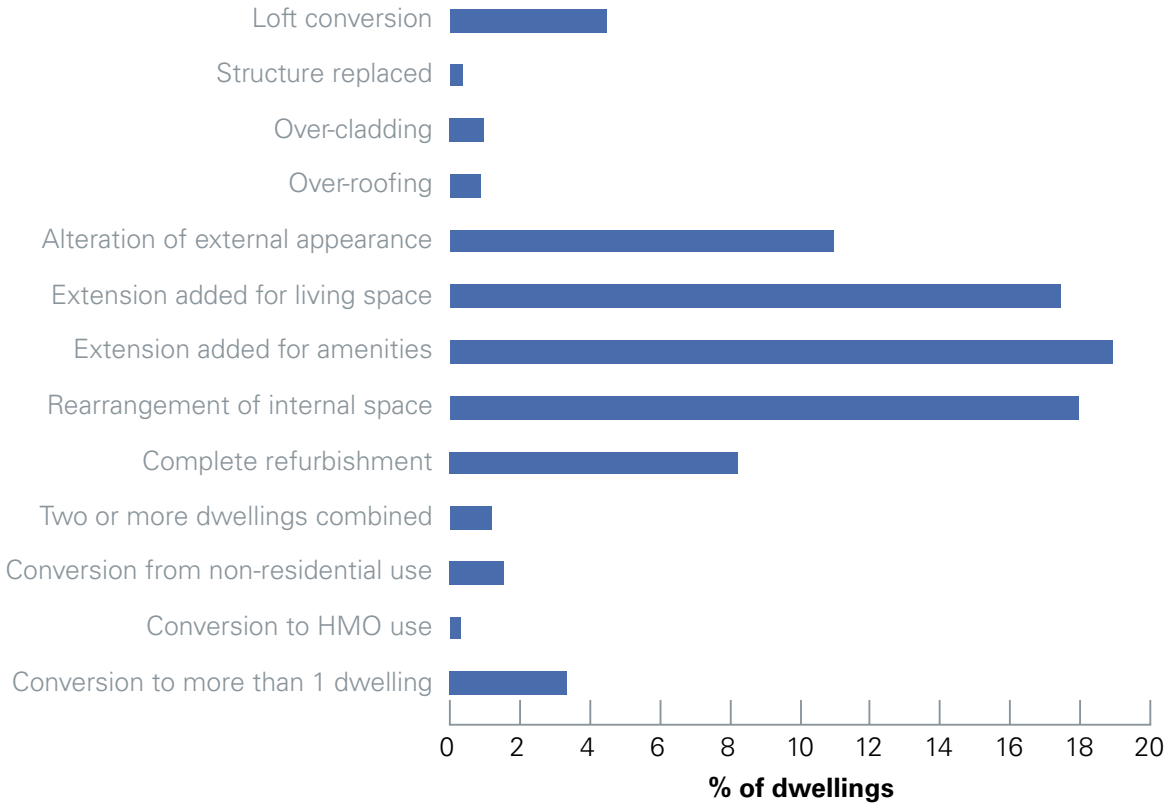
Figure 1.1: Dwelling age by tenure, 2006




Base: all dwellings.

4. While older housing stock can pose problems regarding its original design and construction and costs of maintenance, much of it had been improved and/or altered. Some 43% of the whole stock had been subject to one or more types of major improvement/ alterations since construction rising to 71% for homes built before 1919. Overall, the most common types of modification were extensions added for amenities (19% of homes), re-arrangement of internal space (18%) and adding extensions to provide extra living space (17%), Figure 1.2. Over a quarter of homes (29%) had had works carried out that would increase the useable floor area of the dwelling (extensions and/or loft conversions).

Figure 1.2: Percentage of homes having different types of major modifications since their original construction, 2006



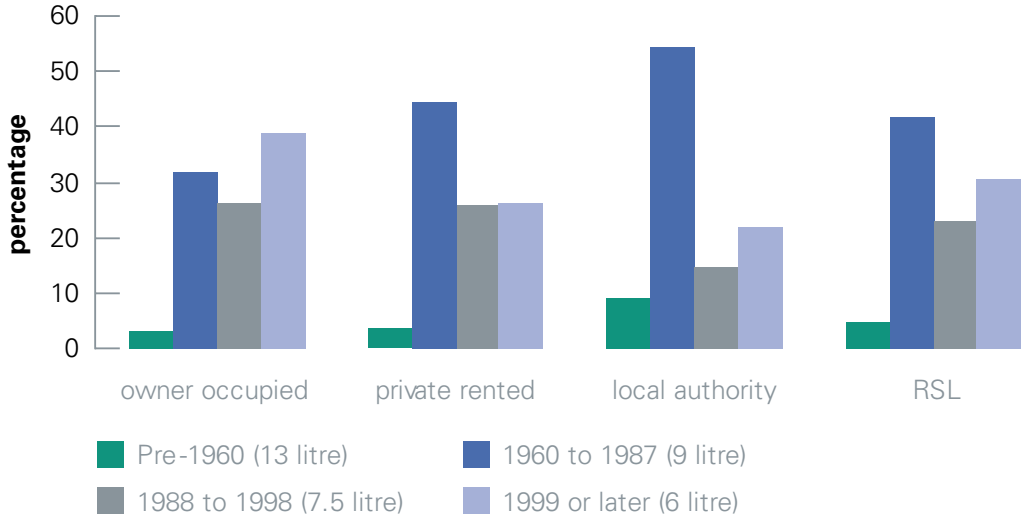

Base: all dwellings.

5. The extent of improvement activity reflects rising standards and growing expectations of what homes can and should provide. Across the housing stock as a whole in 2006, 40% of homes had a second WC and 20% had a second bath or shower. Such secondary amenities were most common in larger dwellings, those built after 1964 and within the owner-occupier sector.

6. However only around 42% of homes had a garage and 15% had to rely on inadequate street parking. There were however substantial differences across the housing sectors with 78% of owner occupied homes having either garages or other off road parking, compared to only 45% of privately rented, 35% of RSL and 27% of local authority homes. Privately rented and local authority dwellings were the most likely to have inadequate street parking – such problems being concentrated in urban centres. About 41% of private plots had at least half of the area covered with hard surfacing material. Whilst this had, in some cases, provided parking space it also reduced the potential for absorbing excess rainfall.

7. Currently around 30% of water used by each person is used to flush the toilet. This means that the size of the WC cistern has a significant impact on household water consumption. In 2006, some 36% of WCs in the housing stock dated from 1960 to 1987 and had cisterns with an average volume of about 9 litres. Some 35% were installed or replaced in or after 1999 and had 6 litre single flush or 6litre/3litre dual flush cisterns to comply with the 1999 Water Fittings Regulations. Owner occupied homes were much the most likely of the tenures to have smaller volume modern cisterns and local authority homes the least likely, Figure 1.3.

Figure 1.3: Age of WC by tenure, 2006




**Base: all dwellings.**

8. Some 28% of households overall had a water meter although this was much lower (10%) for local authority tenants. There was also a large regional variation in the incidence of water meters ranging from just 16-17% in the North East and London to almost half of all households in the Eastern region.

9. The number of households with smoke detectors has risen steadily with some 17.7 million households (84%) having a smoke alarm in 2006 – around 18% of these being mains powered.

## Housing conditions

10. In 2006, there were 7.7 million non-decent homes (using the updated definition of the standard) of which 6.6 million were privately owned, with the remaining 1.1 million being social housing. RSL homes were least likely to be non-decent and both the social sectors had a lower incidence of non-decency than either of the two private sectors, Table 1.1.

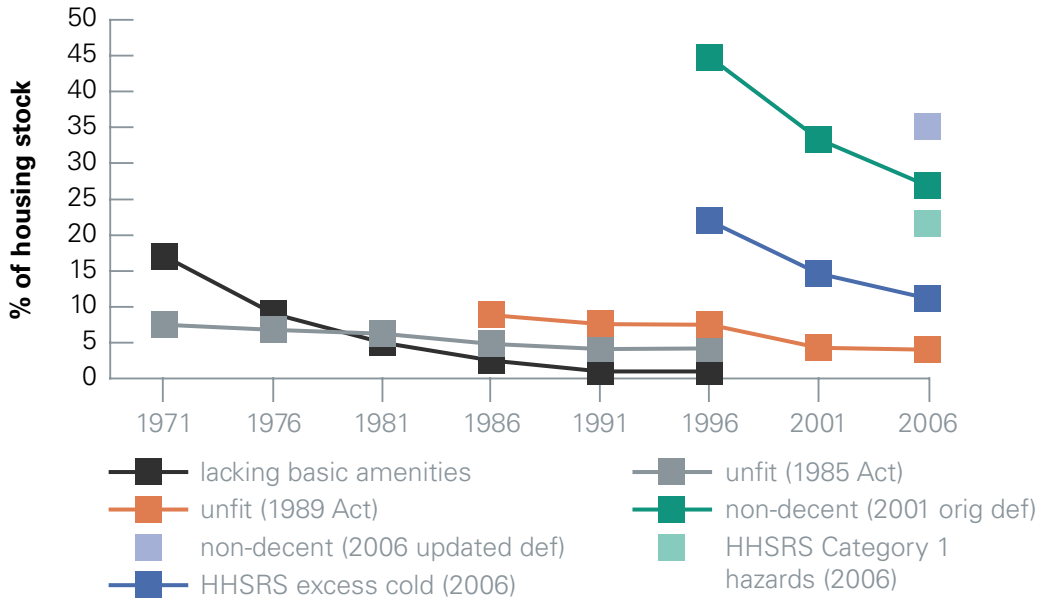
Table 1.1: Decent Homes by tenure, 2006

| | decent | non-decent | total | % non-decent |
|---|---|---|---|---|
| **numbers ('000s)** | | | | |
| owner occupied | 10,107 | 5,335 | 15,442 | 34.6 |
| private rented | 1,388 | 1,223 | 2,611 | 46.8 |
| **all private** | **11,495** | **6,558** | **18,053** | **36.3** |
| local authority | 1,410 | 676 | 2,086 | 32.4 |
| RSL | 1,385 | 465 | 1,850 | 12.8 |
| **all social** | **2,794** | **1,142** | **3,936** | **29.0** |
| **all tenures** | **14,289** | **7,700** | **21,989** | **35.0** |

**Base: all dwellings in each survey.**

11. The above figures are a marked increase on previously published figures, because the decent homes standard has been updated to incorporate the Housing Health and Safety Rating System (HHSRS) as its statutory criterion from 2006. They do not indicate any deterioration in real housing conditions. In fact, there was continued improvement for the stock as a whole and within each housing sector using the original definition of the standard. Taking a longer historical perspective it can be seen that, while the decent homes standard has embraced a much wider set of problems than previous indicators of condition, it exhibited steady improvement between 1996 and 2006, Figure 1.4. Moreover, the rate of improvement has been faster since 1996 for the households targeted by decent homes and related programmes – social tenants and for poorer households in the private housing sector – indicating that disparities in housing conditions have at least in some respects been narrowed (see below).

Figure 1.4: Housing conditions under different measures historically available from the English House Condition Survey, 1971-2006.




**Base: all dwellings.**
**Notes:**
**1. Basic amenities are: a kitchen sink; bath or shower in a bathroom; a washhand basin; hot and cold water supply to these amenities; and an inside WC.**
**2. Fit homes were those assessed to meet (from 1989) all specified requirements covering: the state of repair; structural stability; dampness; lighting, heating and ventilation; piped water supply, drainage; suitably located basic amenities (as above); and satisfactory facilities for food preparation. Prior to 1989 the standard set out a similar (but not identical) set of 'matters' on which to base an overall judgement of fitness taking matters individually or in combination. This meant a home could be defective in one or more matter but still judged to be fit.**
**3. Decent homes, the HHSRS and its excess cold hazard are detailed in this report.**

12. The HHSRS, which replaced the Fitness Standard, provides a more systematic and comprehensive risk assessment of hazards that may be present in homes, and takes into account the impact of deficiencies in design and maintenance on the health and safety of the most vulnerable potential occupant. To be decent, along with meeting the other three criteria of the standard, a home must be free of HHSRS 'Category 1' hazards.

13. In 2006, 4.75 million or 22% of the housing stock had one or more Category 1 hazards. The most common Category 1 hazard in the housing stock was excess cold (present in 11% of all homes) with three types of falls together present in a similar number and proportion of homes, Table 1.2. The remaining hazards together were present in around 0.75 million homes.

## Table 1.2: Incidence of HHSRS Category 1 hazards in homes, by type of hazard, 2006

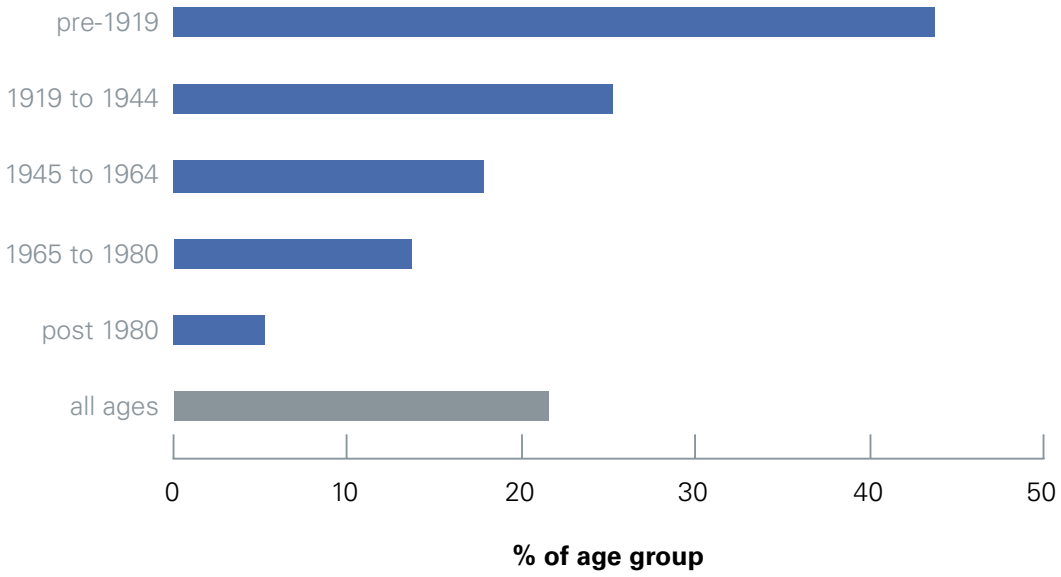
| individual hazards | homes number (000s) | grouped hazards: | homes number (000s) | % of all |
|---|---|---|---|---|
| excess cold | 2,430 | **excess cold** | 2,430 | 11.1 |
| falls on stairs | 1,755 | | | |
| falls on the level | 607 | **falls** | 2,352 | 10.7 |
| falls between levels | 332 | | | |
| fire | 210 | **fires, scalds & burns** | 290 | 1.3 |
| flames and hot surfaces | 50-100 | | | |
| lead | 154 | | | |
| dampness | 50-100 | | | |
| radon | 50-100 | | | |
| domestic hygiene | 50-100 | | | |
| overcrowding | <50 | **other hazards** | 484 | 2.2 |
| electrical safety | <50 | | | |
| carbon monoxide | <50 | | | |
| noise | <50 | | | |
| personal hygiene | <50 | | | |
| **any hazard** | **4,752** | **any hazard** | **4,752** | **21.6** |

**Base: all dwellings**

**Note: the number of homes with individual/grouped hazards sum up to more than the total number of homes with any hazard present total because some dwellings have more than one Category 1 hazard. Similarly the percentage of homes in each group of hazards add up to more than 21.6% of the whole stock because some homes have more than one type of hazard present.**

14. Older homes, particularly those built before 1919, were much more likely to have one or more Category 1 hazards than newer homes, Figure 1.5. Some 44% of pre-1919 homes had one or more Category 1 hazards compared with just 5% of those built after 1980.

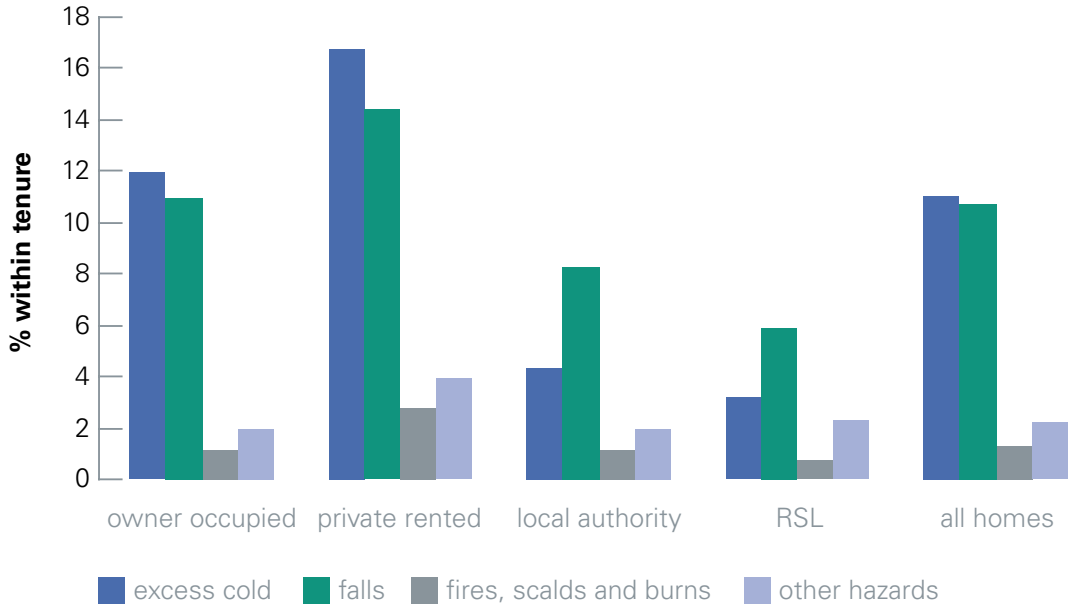
Figure 1.5: Percentage of homes in each age group with any Category 1 hazards, 2006




Base: all dwellings.

15. One consequence of the introduction of the HHSRS, given the concentration of older homes in private ownership, is that non-decency became relatively more common in the private housing sectors with the updated definition of the standard. This reflects the change in the definition of the standard rather than any deterioration in real conditions in these sectors. HHSRS Category 1 hazards were present in 30% of privately rented accommodation, compared to 22% of owner occupied homes and 13% of social rented dwellings. There were also some differences in the types of hazards most common in each of the tenures, with excess cold most prevalent in privately owned homes and falls hazards most prevalent in social housing, Figure 1.6.

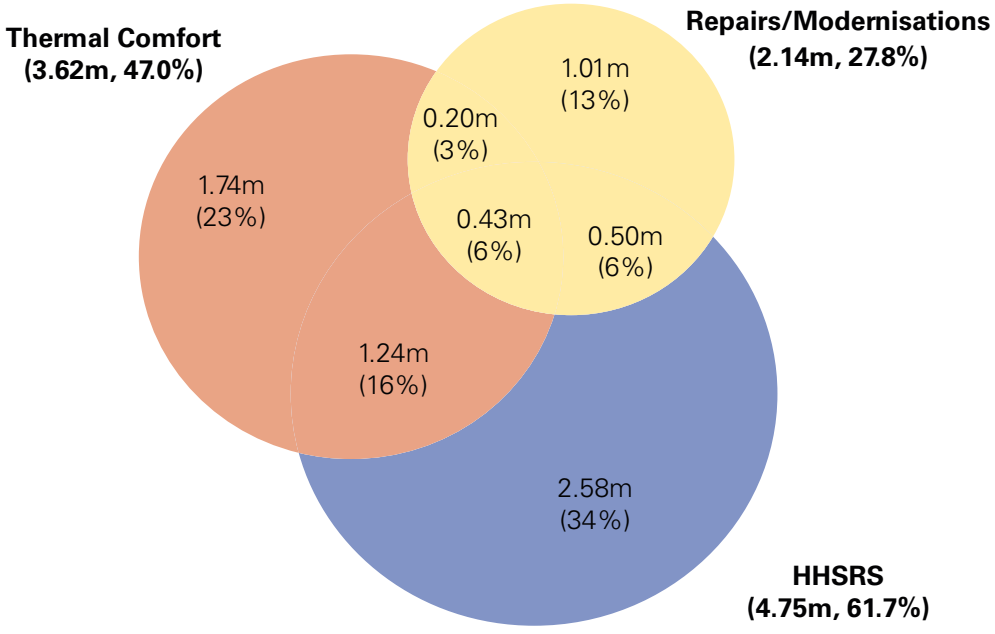
Figure 1.6: Percentage of homes with different given types of HHSRS Category 1 hazard, by tenure, 2006




Base: all dwellings.

16. The introduction of the HHSRS has also changed the profile of reasons for non-decency. Overall the most common reason for non-decency became failure to meet the statutory (HHSRS) criterion, accounting for 62% of all non-decent homes, Figure 1.7. However this profile varies substantially within each housing sector because of the differential impact of the HHSRS on private and social housing. For the latter more properties fail the thermal comfort criterion than the statutory (HHSRS) one.

Figure 1.7: Number of homes failing on components of the decent homes standard, 2006

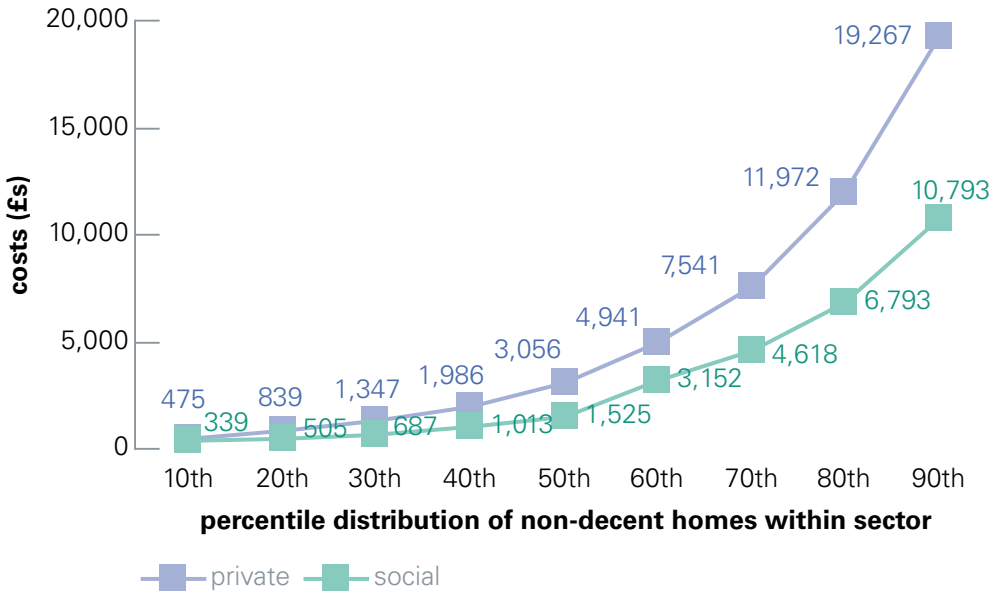



Base: all non-decent homes.

17. While the average (mean) cost to make a home decent in 2006 was £6,990, half of all such homes could be made decent for less than £2,800. There were a relatively small number of homes with very high costs set against a relatively large number of homes with quite low costs to carry out necessary work.

18. Homes in the private sector were on average more expensive to make decent than social sector homes, with a mean cost of £7,470 compared to £4,220 respectively. Nevertheless the majority of non-decent homes could be dealt with for far less. In the private sector 40% of non-decent homes could be dealt with for less than £2,000 and in the social sector this figure was £1,000, Figure 1.8.

Figure 1.8: Distribution of costs to make decent in the private and social sectors, 2006




Base: all non-decent homes.

19. Estimates of the number of non-decent homes from the survey are based on whether they fail to meet all four criteria of the standard without any additional considerations such as occupants' wishes to have the work carried out, practicalities in effecting improvements, or other limitations. For the first time a range of 'treatability' issues have been identified and modelled onto the 2006 findings for the survey. These suggest that, from a total non-decent stock of 7.7 million, nearly 5.4 million homes (71% of all non-decent) were 'straightforward' to treat. Others fall under a range of hierarchically arrange categories (from 'inappropriate' to 'not feasible') where work is increasingly problematic, Table 1.3. Of the 1.1 million non decent homes in social housing, over 400,000 homes were not 'straightforward' on these treatability criteria (detailed in Appendices B and C).

## Table 1.3: Non decent homes by treatment category by tenure, 2006

| | private | | | social | | | all | | |
|---|---|---|---|---|---|---|---|---|---|
| | num (000s) | % of all | % of non-decent | num (000s) | % of all | % of non-decent | num (000s) | % of all | % of non-decent |
| decent | 11,495 | *63.7* | – | 2,794 | *71.0* | – | 14,289 | *65.0* | – |
| non-decent | 6,558 | *36.3* | *100.0* | 1,142 | *29.0* | *100.0* | 7,700 | *35.0* | *100.0* |
| of which: | | | | | | | | | |
| straightforward to treat | 4,643 | *25.7* | *70.8* | 722 | *18.4* | *63.3* | 5,366 | *24.4* | *69.7* |
| inappropriate to treat | 52 | *0.3* | *0.8* | 97 | *2.5* | *8.5* | 148 | *0.7* | *1.9* |
| difficult to treat | 1,621 | | | | | | | *8.7* | *24.8* |
| uneconomic to treat | 57 | *0.3* | *0.9* | 9 | *0.2* | *0.8* | 66 | *0.3* | *0.9* |
| not feasible to treat | 184 | *1.0* | *2.8* | 28 | *0.7* | *2.4* | 212 | *1.0* | *2.8* |
| **all** | 18,053 | *100.0* | – | 3,936 | *100.0* | – | 21,989 | *100.0* | – |

**Base: all dwellings.**

20. The 2006 survey results also cover problems of damp, serious condensation and mould (which was last reported in 1996). These related problems can be caused by a variety of factors including disrepair, over-crowding, insufficiently heated rooms and/or ineffective ventilation and poor thermal insulation. Reflecting these diverse causes, both old (overwhelmingly private) homes and newer social housing are among those most likely to have any damp problems. Damp problems are most prevalent in privately rented homes but serious condensation and mould growth is equally common within social housing, Figure 1.9. While there has been relatively modest improvement since 1996, 2.1 million (10% of) homes had damp problems in 2006. Almost a quarter (22%) of homes built before 1919 had some damp problems.

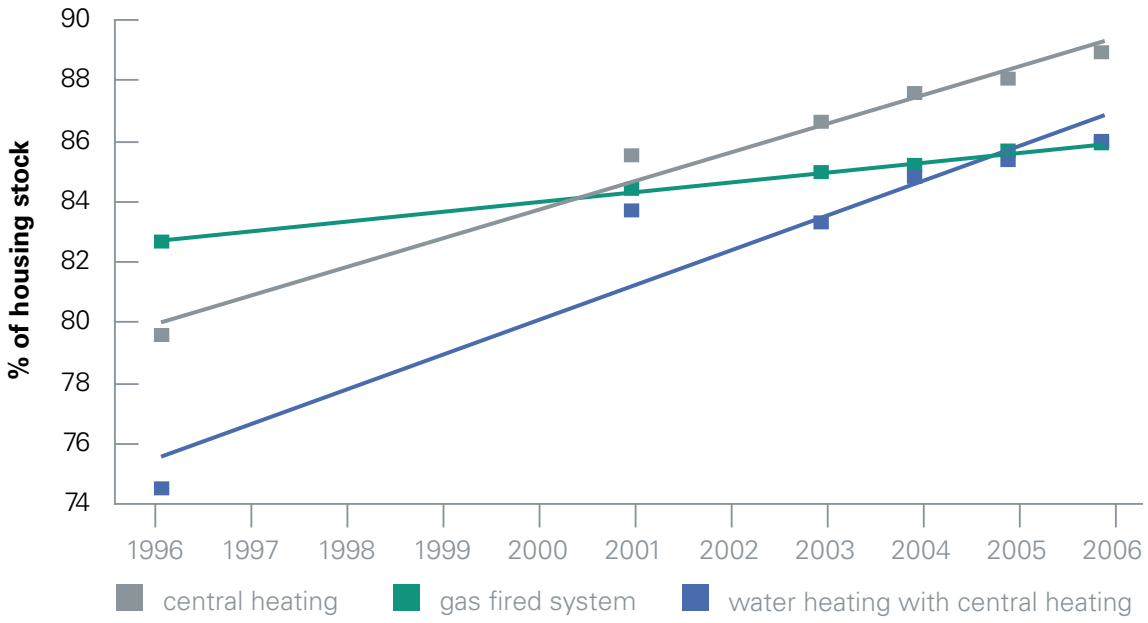
## Figure 1.9: Percentage of homes with damp problems by type and by tenure, 2006


**Base: all dwellings.**

## Energy measures and performance

21. Over the decade since 1996, there was a substantial increase in the number and proportion of homes with more efficient heating systems: homes with central heating rose from 80% of the housing stock in 1996 to 89% in 2006 and this was mirrored by the percentage of water heating systems that work with a central heating system, Figure 1.10.

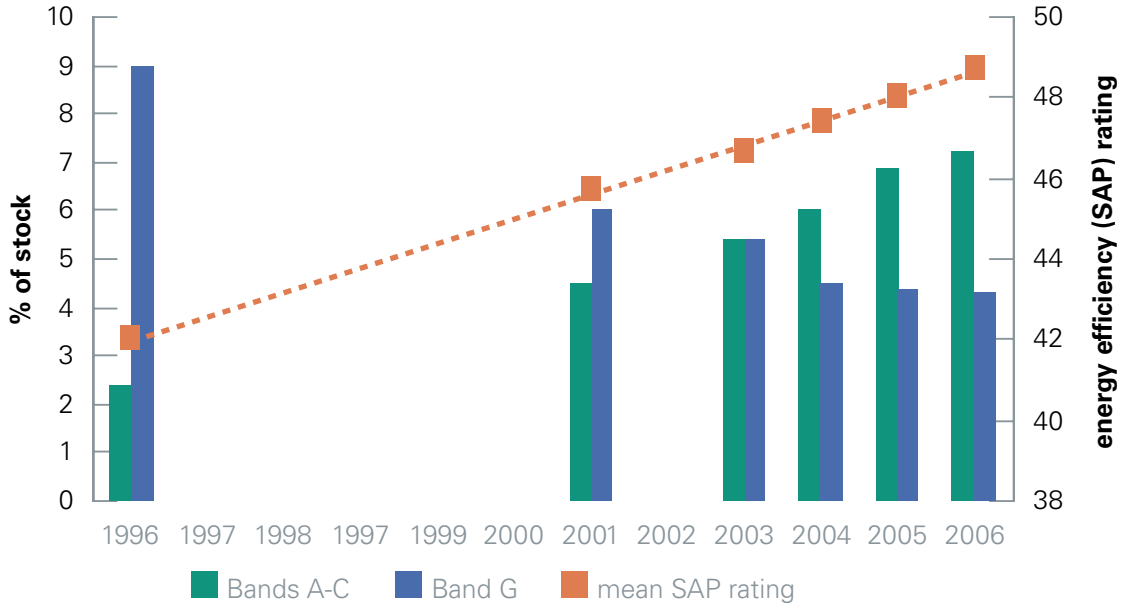
Figure 1.10: Percentage of central heating systems, gas fired heating systems and water heating systems that work with the central heating, 1996 to 2006.




**Base: all housing stock.**

22. In consequence of improvements to existing homes, the construction of new homes and demolition of older housing the energy efficiency rating of the stock as a whole continued to improve with the average SAP rating rising from 42 in 1996 to 49 in 2006. Over the same period, the proportion of homes achieving Energy Performance Certificate (EPC) Bands A/C (rating 69 or higher) increased from 2% to 7%, while those in the lowest Band G (rating 20 or less) fell from 9% to 4%, Figure 1.11.

Figure 1.11: Average energy efficiency (SAP) rating and percentage of homes in high-low EPC Bands, 1996-2006.

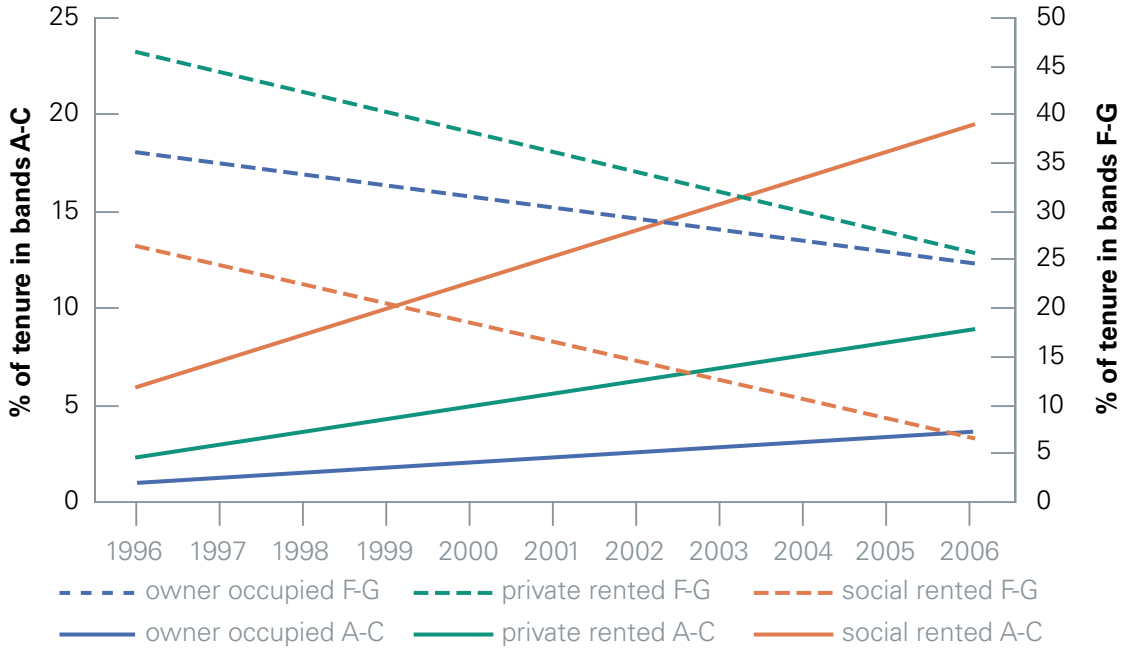



Base: all dwellings.

23. The improvement in energy efficiency from 1996 was greatest for social housing, where houses in particular benefited from the installation of new heating systems. Social sector homes were also better insulated than other tenures, with the greatest proportions of homes having their cavity walls insulated (53%), lofts with 200mm or more of insulation (29%), and full double-glazing (35%). Social housing also showed the greatest improvement since 1996 regarding all three forms of insulation, while private rented homes were least likely to have new heating installed and on average remained the poorest insulated.

24. In consequence, social housing was substantially more energy efficient than the privately owned stock in 2006 with some 20% of social sector housing achieving Band A-C ratings. Moreover this gap between the social and private sectors increased over the period, Figure 1.12. However even within the social sector considerable room for further improvement remained. Some 16% of homes in the social sector were still using back boilers, 36% would have benefited from additional loft insulation and 37% from cavity wall insulation.

Figure 1.12: Percentage of homes in higher (A-C) and lower (F-G) energy efficiency (SAP) bands by tenure, 1996-2006

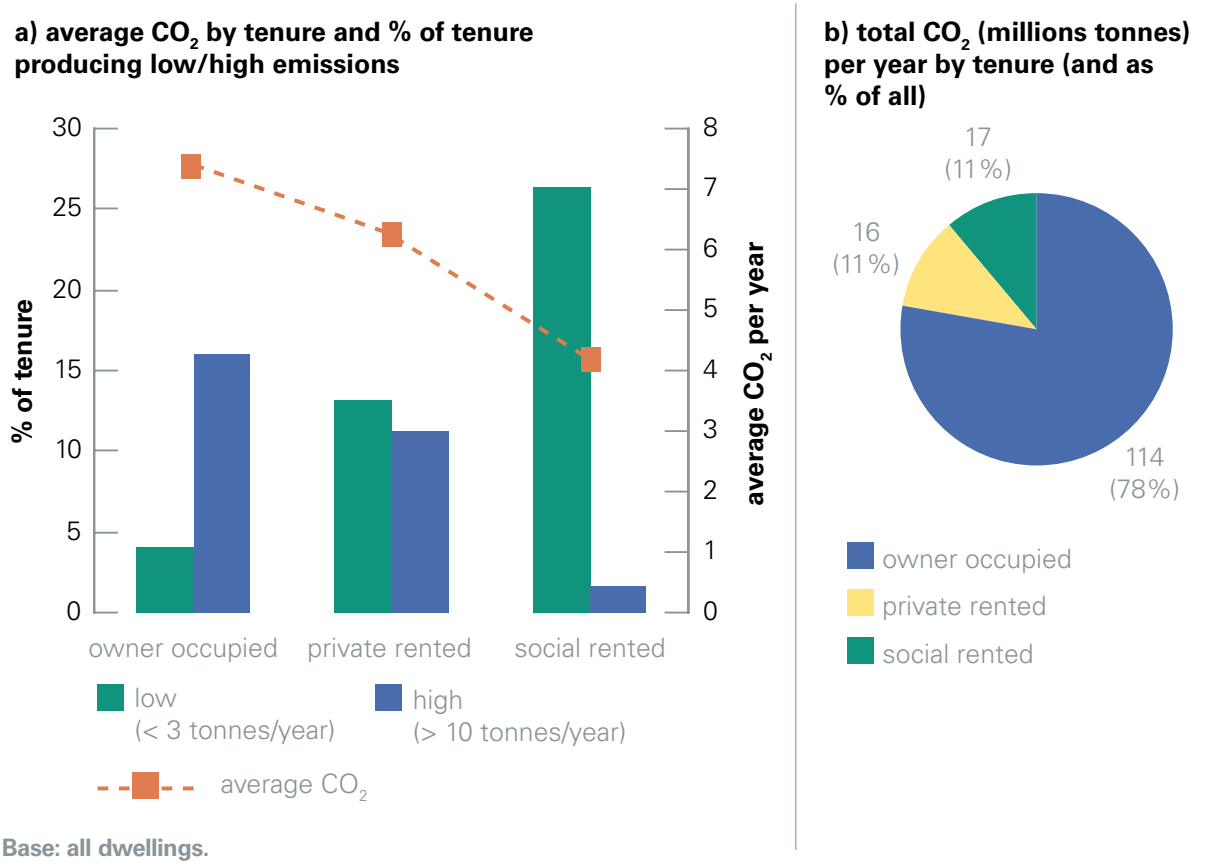



Base: all dwellings.

25. For the first time the 2006 survey is reporting on a wider range of energy performance indicators for the housing stock, including $CO_2$ emissions. While $CO_2$ emissions associated with heating and lighting requirements averaged 6.7 tonnes/year for each home (totalling over 146 million tonnes/year for the stock as a whole), some 2 million homes emitted less than 3 tonnes/year while 2.8 million emitted more than 10 tonnes/year. High emissions are associated with homes that are both energy inefficient and large.

26. The higher level of energy efficiency of social housing, along with the typically smaller size of its homes, resulted in it performing much better than other sectors in terms of $CO_2$ emissions, Figure 1.13. The social sector comprised 18% of all homes and houses 16% of the population but accounted for only 11% of the total $CO_2$ emissions associated with heating and lighting requirements.

Figure 1.13: Average and total $CO_2$ and percentage of homes with low and high emissions by tenure, 2006




Base: all dwellings.

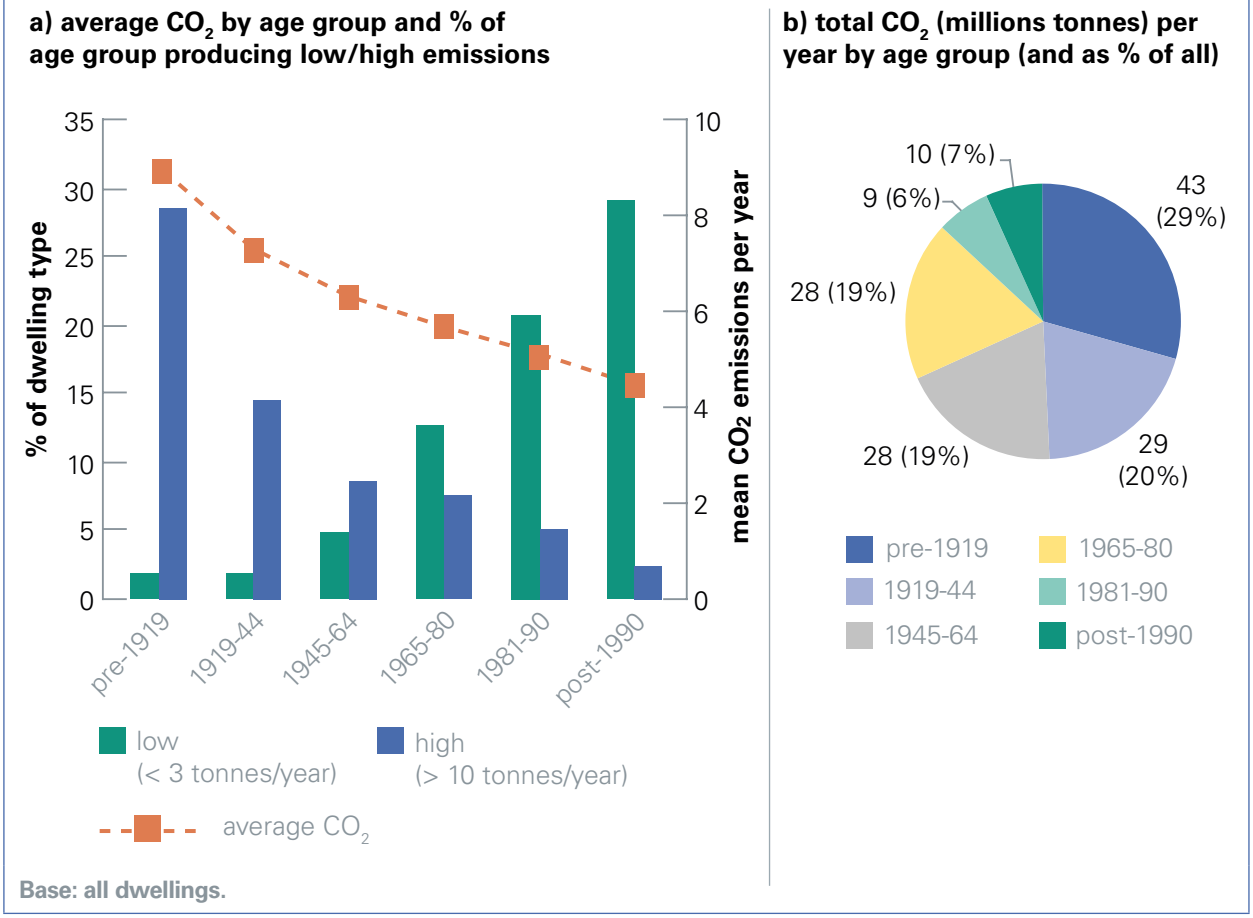
27. Figure 1.13 above indicates that the owner occupied stock made least progress of the tenures in improving its energy efficiency over the decade from 1996. In fact, the historically poor private rented sector had caught up with the owner occupied stock in terms of average energy efficiency ratings (SAP rating of 47). The improvement in the private rented sector was primarily as a result of new or newer and better condition properties entering the sector on the basis of a buoyant housing market and Buy to Let (the sector retained a higher proportion of lowest Band G properties than the other housing sectors).

28. The higher $CO_2$ emissions of the owner occupied sector arise from its higher proportions of large, detached and rural homes (the latter being less likely to have mains gas supply) compared with other sectors. However a key reason for the more sluggish rate of improvement of the owner occupied sector is the large proportion of older properties – 3.4 million homes in this sector were built before 1919, only a small proportion of which were of cavity wall construction. These properties are also likely to be disproportionately represented among those rural homes off the gas mains supply, and be located in areas of natural beauty and/or of other heritage value. The (appropriate) improvements that can be readily carried out are therefore more likely to be expensive and limited compared with the rest of the housing stock.

29. Nevertheless, setting aside new construction, in 2006 older homes (including pre-1919 stock) were *more* likely to have had new heating systems installed within the last three years than those built since 1945, reflecting the need to replace aged and faulty systems. However older housing had the poorest levels of insulation.

30. The combined tendencies for the older housing to be both less energy efficient (pre-1919 homes across all tenures had an average SAP rating of only 40) and larger (29% of these homes were 110m$^2$ or more in size) than the rest of the housing stock means that the older the stock, the more polluting it was likely to be in terms of $CO_2$ emissions, Figure 1.14. The pre-1919 stock accounted for almost half (48%) of all homes with emissions greater than 10 tonnes/year.

Figure 1.14: Average carbon dioxide emissions by dwelling age, 2006




Base: all dwellings.

31. In 2006 there remained huge potential to improve the energy efficiency of the housing stock. Some 17.0 million homes at that time would have significantly improved their energy performance by upgrading to a Class A condensing boiler. It is likely that changes in Building Regulations in 2005 and 2007 will have a marked impact in the medium term on the installation of condensing boilers for gas and oil fuelled central heating systems respectively. Nevertheless, insulation also remained a low cost and effective improvement for large numbers of homes: in 2006 nearly 11.0 million homes (half of all homes and 54% of owner occupied properties) would have benefited from installing or topping up their loft insulation and 8.5 million homes would also have improved the energy performance from having their cavity walls insulated.

## Disparities in living conditions

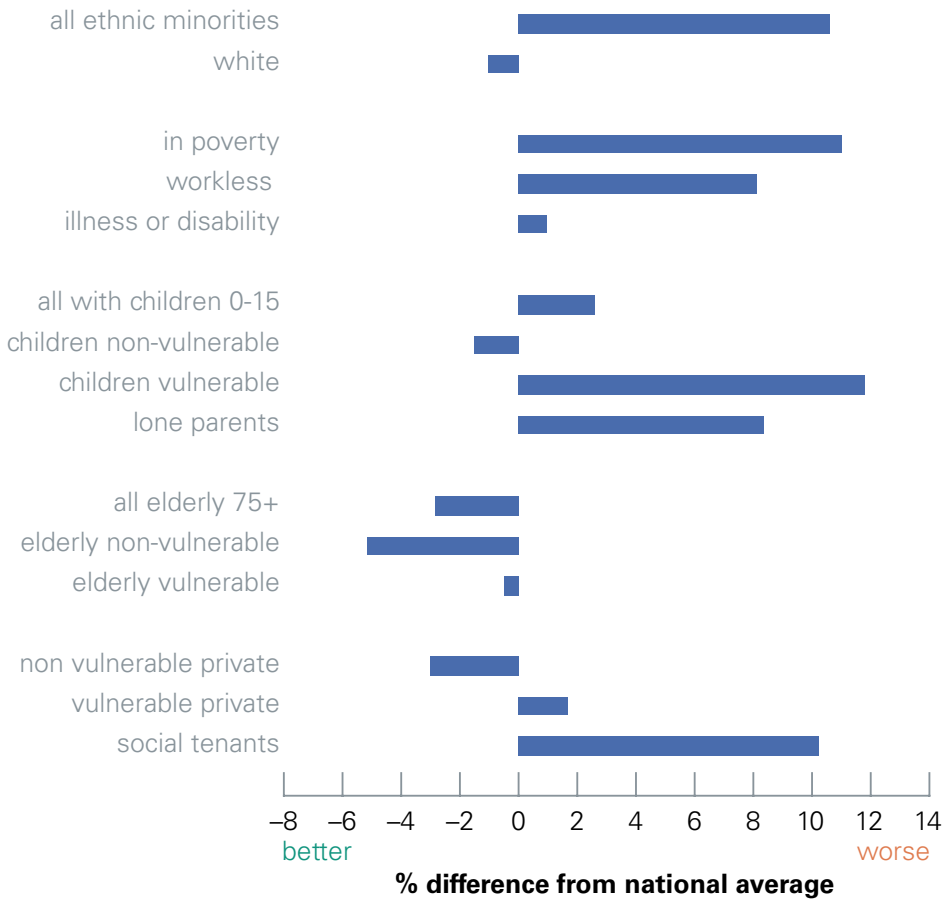
32. The link between poor living conditions and poverty or other forms of disadvantage was not straightforward. In 2006 different types of problems affected different groups according to their relative concentrations in particular housing sectors and in areas with distinctive stock and local environments. Poor conditions can also arise due to deficiencies in the original design and construction methods as well as inadequate maintenance and upgrading. Poor conditions associated with older design and construction methods are not restricted to deprived areas; they are also found in some older stock with high market values in more desirable areas.

### a) neighbourhoods

33. Overall the strongest link between poor living conditions and disadvantage was in relation to neighbourhood problems. The homes of those in poverty, social tenants, ethnic minority households, and children of poorer families were twice more likely than average to have problems related to the upkeep and management of the public and private space and buildings in their immediate neighbourhoods, Figure 1.15. Areas with these problems were usually also those where the residents themselves reported serious problems related to various forms of anti-social and criminal behaviours.

34. Households living in areas of predominantly local authority built housing (whatever their *current* tenure) were three times more likely than those living in other areas to reside in a neighbourhood with 'worst' upkeep or behavioural problems. Nevertheless, as a consequence of the preponderance of private developments across the housing stock as a whole, the number of households living in neighbourhoods with 'worst' problems was approximately equally divided between those residing in predominantly local authority built areas and those living in predominantly privately built areas. Within local authority built areas, 'worst' problems were more likely to arise in large estates and in areas dominated by flats, or a mixture of houses and flats. Within privately built areas, 'worst' problems were more likely in older housing and particularly in areas dominated by terraced houses. In both local authority and privately built areas these problems (and particularly the anti-social and criminal behaviours reported by residents) were also much more likely to arise in urban centres compared with suburban or rural areas.

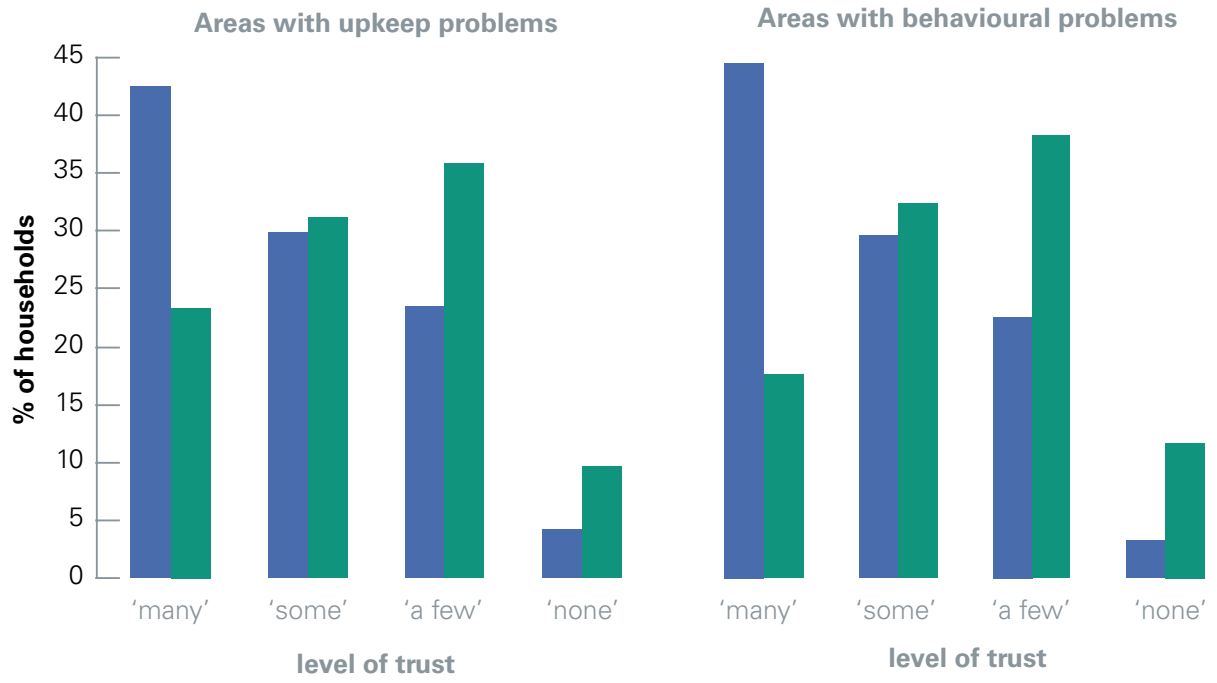
Figure 1.15: Household groups with 'worst' neighbourhood problems: percentage difference from the national average, 2006




**Base: specific household groups.**
**Notes: 'vulnerable' categories are those were the household in receipt of main means tested and disability related benefits.**

35. Households with 'worst' upkeep and behavioural problems in their neighbourhoods were much more likely to feel unsafe alone in their homes or walking in their area, to distrust other people living in their local community, and to express dissatisfaction with the neighbourhood as a place to live. Around half of households living in neighbourhoods with 'worst' upkeep and behavioural problems trusted 'many' or 'some' people in their neighbourhood but this rose to around three quarters of households who lived elsewhere, Figure 1.16. Around one in ten households in these 'worst' neighbourhoods said they could trust no one in their area (compared to around one in twenty five of those households living elsewhere).

Figure 1.16: Level of trust in others living in the area by 'worst' and other neighbourhoods, 2005




Base: all households.
Notes: the respondent is used as proxy for the household. While responses will vary by factors such as the sex and age of the respondent and how long they have lived in the area, very little of the lower level of trust exhibited by respondents living in neighbourhoods with 'worst' problems can be attributed to any differences in their profile compared to that of respondents living in other neighbourhoods.

## b) homes

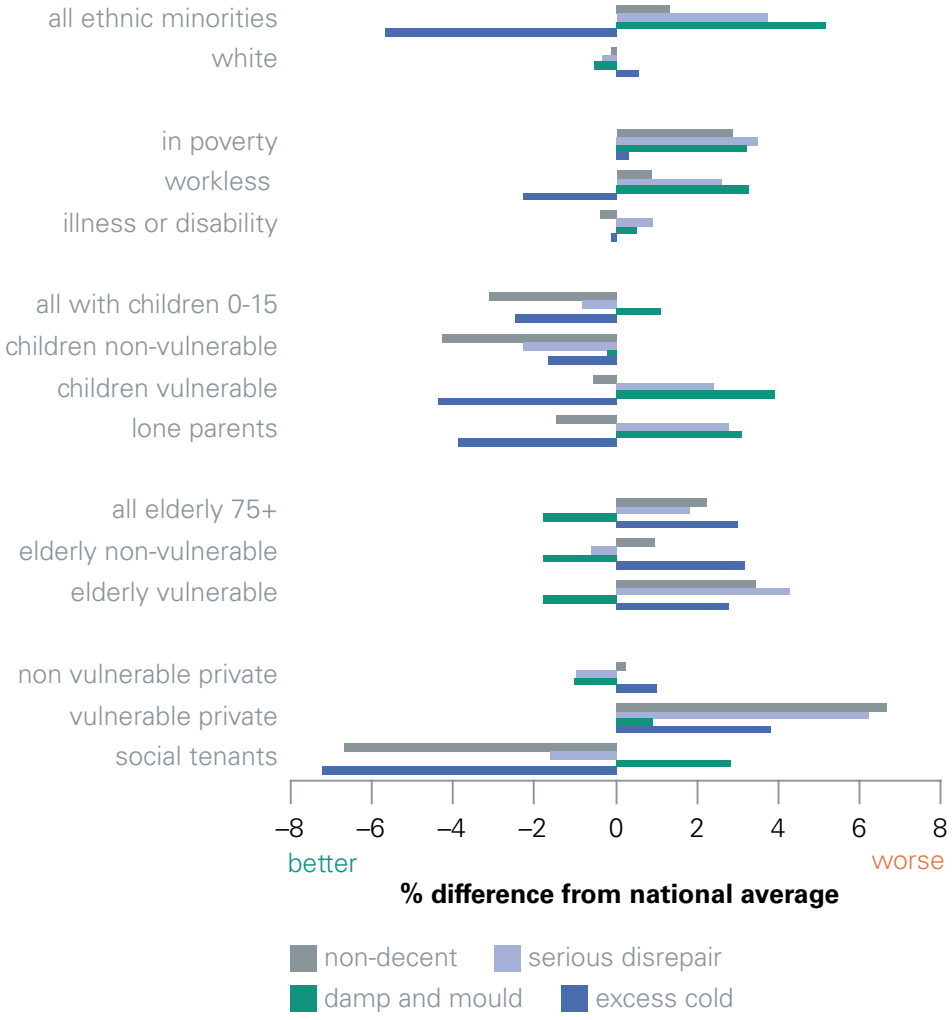
36. The housing allocation and maintenance processes of the social sector are very different to the market processes of the wider private sector where resources play a key role. In the former any disparity between households tends to arise from needs-based allocations (eg small households being allocated flats) or from a failure to carry out improvement work during long term lets. The social sector is also subject to centrally funded investment programmes and estate wide improvements benefiting tenants as a whole.

37. Over the decade since 1996 improvement in conditions and the energy performance of social housing outstripped that of the private housing sector – the outcome in 2006 being that on specific measures of condition (decent homes and energy efficiency) social tenants' homes were significantly better than average, Figure 1.17. In comparison, 'vulnerable' households in the private sector were generally the most likely to live in poor housing. These differences were accentuated with the introduction of the HHSRS – the homes of vulnerable private sector households were twice as likely to be classed as Category 1 hazards as those of social tenants (26% compared to 12%). With the updated decent homes standard, 28% of households in social housing were living in non-decent homes compared to 41% of vulnerable private sector households (and 35% of other private sector households).

38. While there are significant differences in the average circumstances of particular ethnic groups, minority households as a whole tend to live in the more deprived urban centres of the country. As with those in poverty more generally, ethnic minority households were much more likely than average to live in homes in serious disrepair or with problems of damp and mould. However they were less likely than average to live in cold homes, the latter reflecting the higher than average proportions of ethnic minority households living in social housing and in terraced accommodation (both of which have high average levels of energy efficiency).

39. Generally, households with children were less likely than average to live in homes with poor conditions, the exception being problems of damp and mould (largely because serious problems of condensation are more likely to arise with larger/more crowded households). However poorer families and lone parents were additionally more likely than average to live in homes in serious disrepair.

Figure 1.17: Household groups and the condition of their homes: percentage difference from the national average, 2006

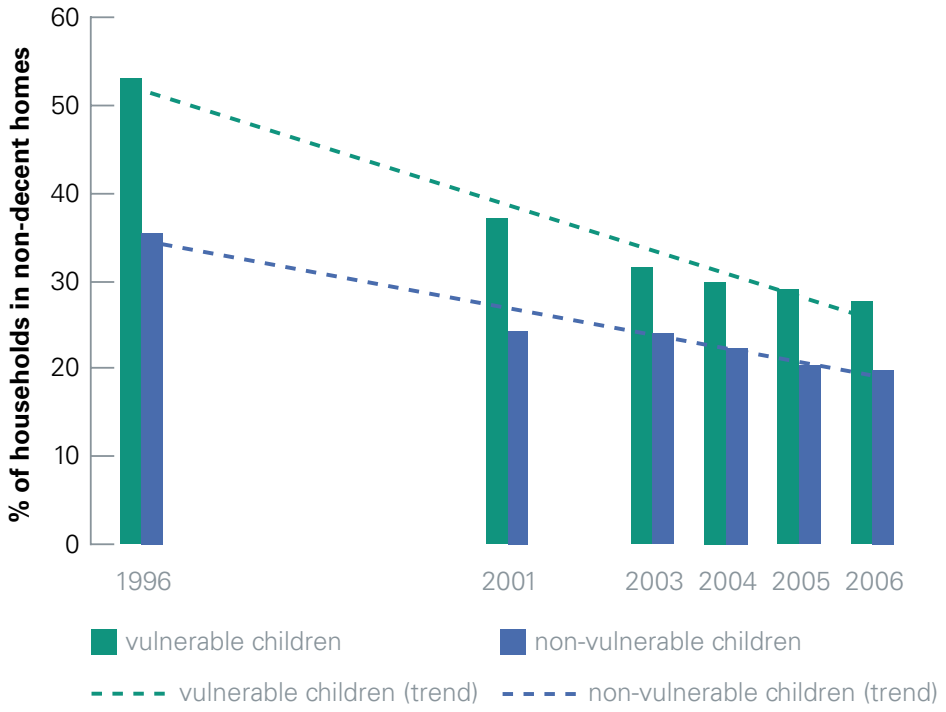



**Base: specific household groups.**
**Notes: 'vulnerable' categories are those were the household in receipt of main means tested and disability related benefits.**

40. Elderly households (with one or more people aged 75 years or more) were, with the exception of damp and mould problems, more likely than average to live in homes with condition problems – homes that were non-decent, in serious disrepair or had Category 1 excess cold hazards. As more detailed studies have shown[2], these housing problems tend to arise where older people remain long term resident with declining income. The declining capacity of some older people and the quality of local support – whether from family, friends or local services – also become key factors.

41. While substantial disparities remained, the decent homes and related programmes of investment into existing housing underpinned a faster than average rate of overall improvement in the housing conditions of social tenants and vulnerable private sector households between 1996 and 2006 – at least as measured by the original definition of decent homes (which incorporated Fitness as the statutory standard). This led to both a substantial improvement and a significant narrowing of the disparities 'gap' between 1996 and 2006 for all 'vulnerable' households (those in receipt of means tested and disability related benefits), and including those with children and with older people.

Figure 1.18: Percentage of vulnerable and non-vulnerable households with children in non-decent homes, 1996 to 2006.




**Base: all households with children.**
**Note: Decent homes figures based on the original definition of the standard incorporating Fitness as the statutory component. The bars represent the survey estimates; lines indicate a modelled linear trend.**

42. Focussing on households with children, under the original definition of the standard, the likelihood of those who were vulnerable living in non-decent homes halved between 1996 and 2006 – from 52% to 26%, an average reduction of 2.9 percentage points each year, Figure 1.18. This compares to a reduction for other (more affluent) households with children from 34% to 19% or an average reduction of 1.7 percentage points each year.

[2] P Leather et al (1994) *Papering over the Cracks: Housing conditions and the Nation's Health* (National Housing Forum). P Leather, S Rolfe (1998) *Repair and Maintenance in the Owner Occupied Sector* (Dept of the Environment). ODPM (2003) *English House Condition Survey: 2001.*

# Chapter 2. Stock and Amenities

This chapter examines the overall profile of the stock in terms of age, type, tenure and dwelling size. It also explores the number and type of extensions and modifications that have been carried out to homes since they were originally built and the amenities and facilities present for households. Finally, it examines features of the dwelling stock that affect water consumption, drainage of surface water and biodiversity. The key findings are:

- There were around 22 million homes in England. Some 70% were owner occupied, 12% privately rented with the remaining 18% rented from social landlords. Some 4.8 million homes were built before 1919.
- Overall 40% of homes had had a second WC and 20% had a second bath or shower. These secondary amenities were most common in larger dwellings, those built after 1964 and in the owner occupied sector.
- 43% of homes had had some form of major modification since they were built and this rose to 71% of the pre-1919 stock. The most common type of modification were extensions added for amenities, rearrangement of internal space and extensions added for living space.
- The number of households with smoke detectors rose steadily since 2001. In 2006, some 17.7 million (84%) had a smoke alarm and around 18% of these were mains powered.
- Around 42% of homes had a garage with 15% relying on inadequate street parking. For some 0.45 million homes (2%) there were no parking facilities.
- Some 40% of homes had WCs with a 9 litre or larger cistern and this rose to almost 60% of dwellings owned by local authorities.
- Some 28% of homes overall had a water meter although this was much lower (10%) for homes owned by local authorities. There was also a large regional variation in the incidence of water meters ranging from just 16-17% in the North East and London to almost half of all homes in the Eastern Region.
- Households who used the most water (those with the most people) were the least likely to have water meters. Just 16% of households with 6 or more people had a water meter compared with 31% of one and two-person households.
- The majority of houses (99%) had private gardens but only 28% of flats possessed these. Whilst the majority of private gardens consisted of mainly grass and planting, in 41% of cases at least 50% of the garden was covered by hard surfacing material.

## Stock profile

1. In 2006, there were around 22 million homes in England, Table 2.1. Some 15 million (70%) homes were owner occupied while 2.6 million (12%) were privately rented. The social sector accounted for the remaining 3.9 million (18%) homes, with 2.1 million (9%) homes rented by local authorities and 1.8 million (8%) homes by registered social landlords.

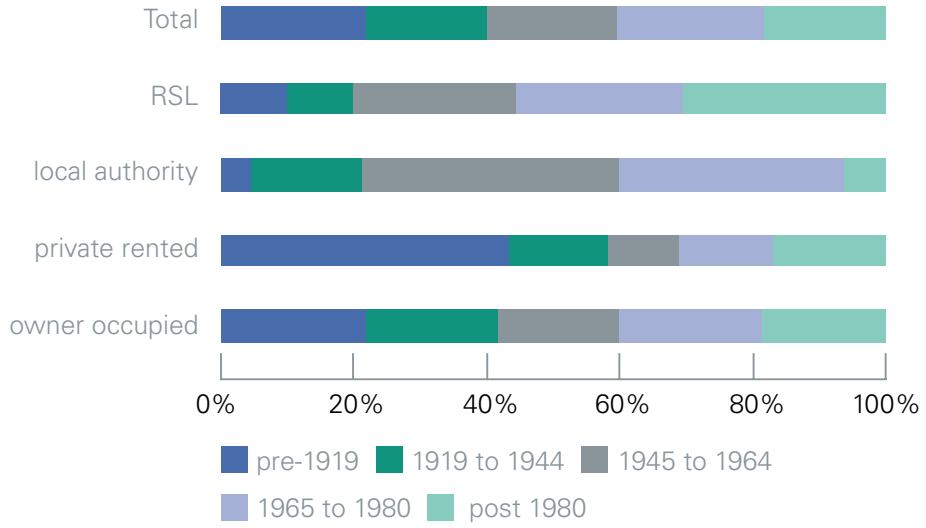
Table 2.1: Stock Profile, 2006

| percentage | owner occupied | private rented | all private | local authority | RSL | all social | Total |
|---|---|---|---|---|---|---|---|
| **Dwelling age** | | | | | | | |
| pre-1919 | 21.8 | 43.2 | 24.9 | 4.6 | 9.8 | 7.1 | 21.7 |
| 1919 to 1944 | 19.9 | 15.1 | 19.2 | 16.5 | 10.0 | 13.4 | 18.2 |
| 1945 to 1964 | 18.3 | 10.6 | 17.2 | 38.9 | 24.5 | 32.2 | 19.8 |
| 1965 to 1980 | 21.4 | 14.1 | 20.3 | 33.7 | 25.3 | 29.7 | 22.0 |
| post 1980 | 18.6 | 16.9 | 18.4 | 6.3 | 30.4 | 17.6 | 18.2 |
| **Dwelling type** | | | | | | | |
| small terraced house | 9.0 | 15.3 | 9.9 | 10.2 | 11.5 | 10.8 | 10.1 |
| medium/large terraced house | 19.1 | 19.2 | 19.1 | 17.9 | 19.4 | 18.6 | 19.0 |
| semi-detached house | 31.5 | 16.9 | 29.4 | 19.1 | 18.1 | 18.7 | 27.5 |
| detached house | 22.8 | 7.4 | 20.6 | 0.4 | 0.3 | 0.4 | 17.0 |
| bungalow | 9.7 | 3.7 | 8.8 | 9.4 | 10.6 | 9.9 | 9.0 |
| converted flat | 1.8 | 13.6 | 3.5 | 1.5 | 4.4 | 2.8 | 3.4 |
| purpose built flat, low rise | 5.6 | 21.6 | 7.9 | 34.6 | 33.0 | 33.8 | 12.6 |
| purpose built flat, high rise | 0.5 | 2.3 | 0.7 | 6.9 | 2.6 | 4.9 | 1.5 |
| **Useable floor area** | | | | | | | |
| less than 50 sqm | 5.2 | 20.3 | 7.4 | 26.1 | 31.3 | 28.6 | 11.2 |
| 50 to 69 sqm | 19.6 | 31.2 | 21.3 | 35.8 | 31.5 | 33.8 | 23.5 |
| 70 to 89 sqm | 30.0 | 27.4 | 29.6 | 31.0 | 29.1 | 30.1 | 29.7 |
| 90 to 109 sqm | 16.8 | 9.6 | 15.8 | 5.6 | 5.6 | 5.6 | 14.0 |
| 110 sqm or more | 28.3 | 11.6 | 25.9 | 1.5 | 2.5 | 2.0 | 21.6 |
| **all dwellings (000s)** | **15,442** | **2,611** | **18,053** | **2,086** | **1,850** | **3,936** | **21,989** |

**Base: all dwellings.**

2. More than one fifth (22%) of homes were built before 1919. The oldest stock was found in the private sector particularly the private rented sector where 43% of homes were built pre-1919. The majority (62%) of social sector homes were built between 1945 and 1980. It is the RSL sector that had the greatest concentration of new homes, 30% were been built since 1980, Figure 2.1.

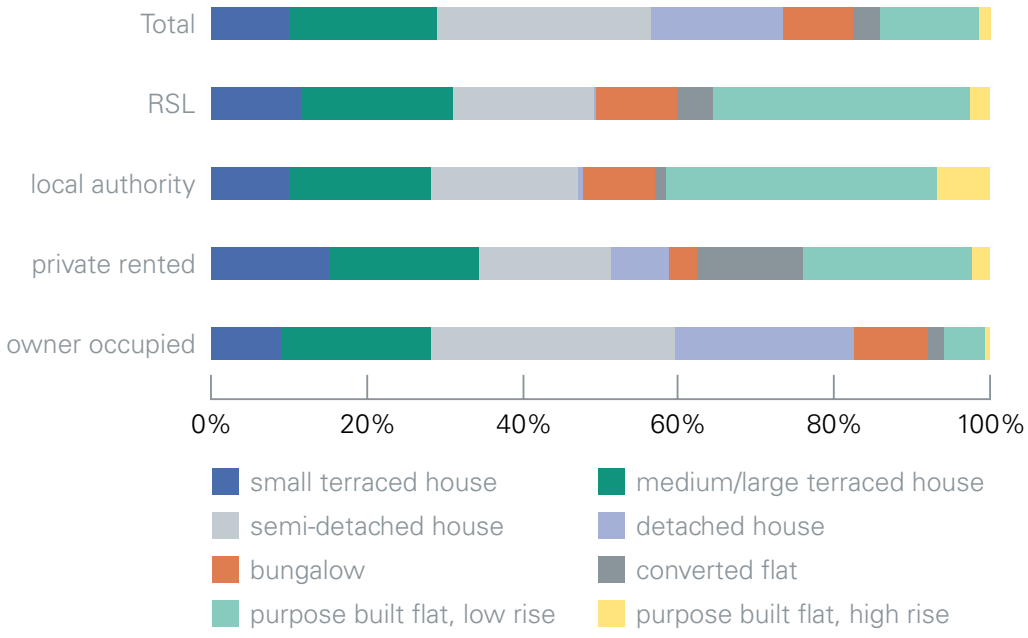
## Figure 2.1: Dwelling age by tenure, 2006




**Base: all dwellings.**

3. There was a concentration of flats in the social sector. Some 42% of social homes were flats compared to just 12% of homes in the private sector. Semi-detached and detached homes were more common in the private sector, particularly in the owner occupied sector where they made up 54% of homes. In the local authority and RSL sector semi-detached and detached homes accounted for just one fifth of the stock (20% and 18% respectively), Figure 2.2.

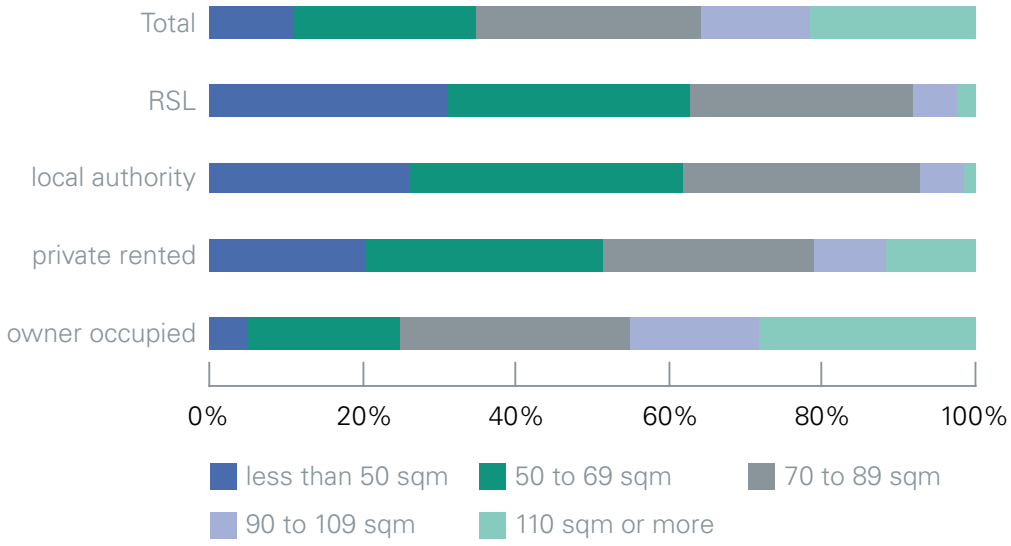
## Figure 2.2: Dwelling type by tenure, 2006




**Base: all dwellings.**

4. While 11% of homes had a floor area of less than 50m$^2$, 22% of homes had a floor area of more than 110m$^2$. Social sector homes tended to be smaller with 29% of homes having a floor area of less than 50m$^2$ compared with just 7% of homes in the private sector. The RSL sector had the largest proportion of very small homes, 31% of homes with a floor area of less than 50m$^2$, Figure 2.3.

Figure 2.3: Dwelling size by tenure, 2006

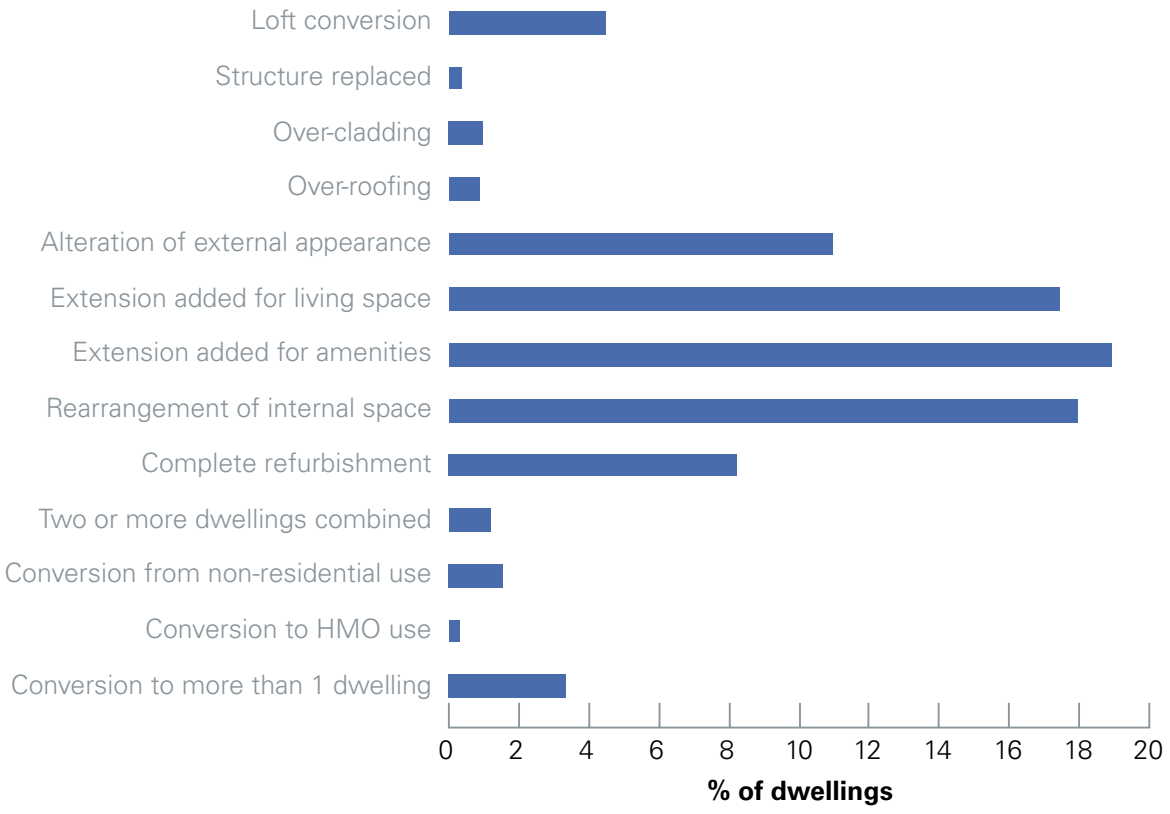



**Base: all dwellings.**

## Modifications since original construction

5. Some 43% of dwellings had had one or more types of modification or alteration carried out since they were built. The most common types of alteration were adding extensions for amenities (19% of homes), re-arranging internal space (18%) and adding extensions to provide extra living space (17%), Figure 2.4. Over a quarter of homes (29%) had had works carried out that increased the useable floor area of the dwelling (extensions and/or loft conversions).

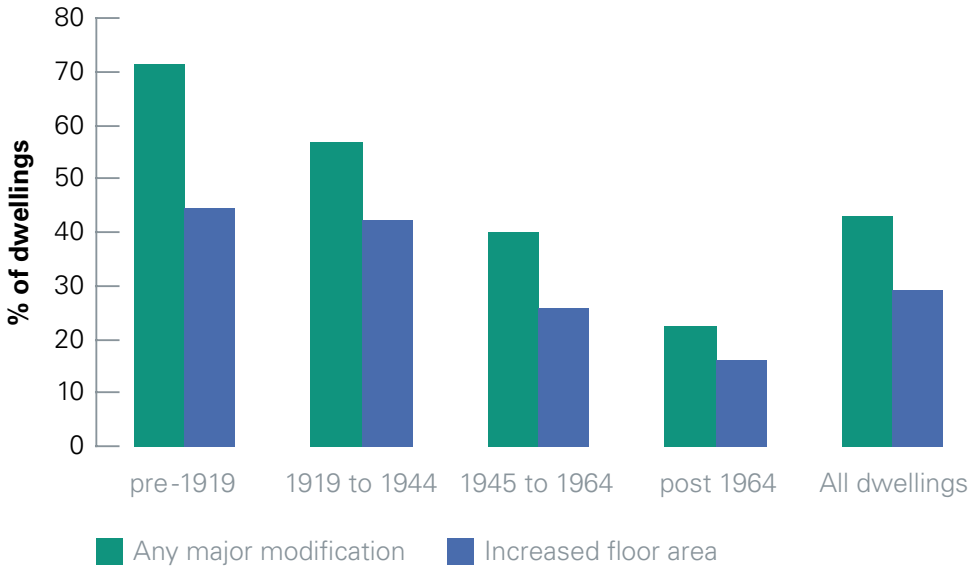
Figure 2.4: Percentage of dwelling having different types of major modifications since original construction, 2006




**Base: all dwellings.**

6. The older the dwelling, the more likely it was to have any major modifications. Almost three quarters (71%) of dwellings built before 1919 had had at least one major modification compared with 23% of those built after 1964 (Figure 2.4a).Older dwellings were also more likely to have had extensions or loft conversions to increase the amount of useable space. Some 45% of pre-1919 homes and 42% of those built between 1919 and 1944 had extensions and/or loft conversions carried out.

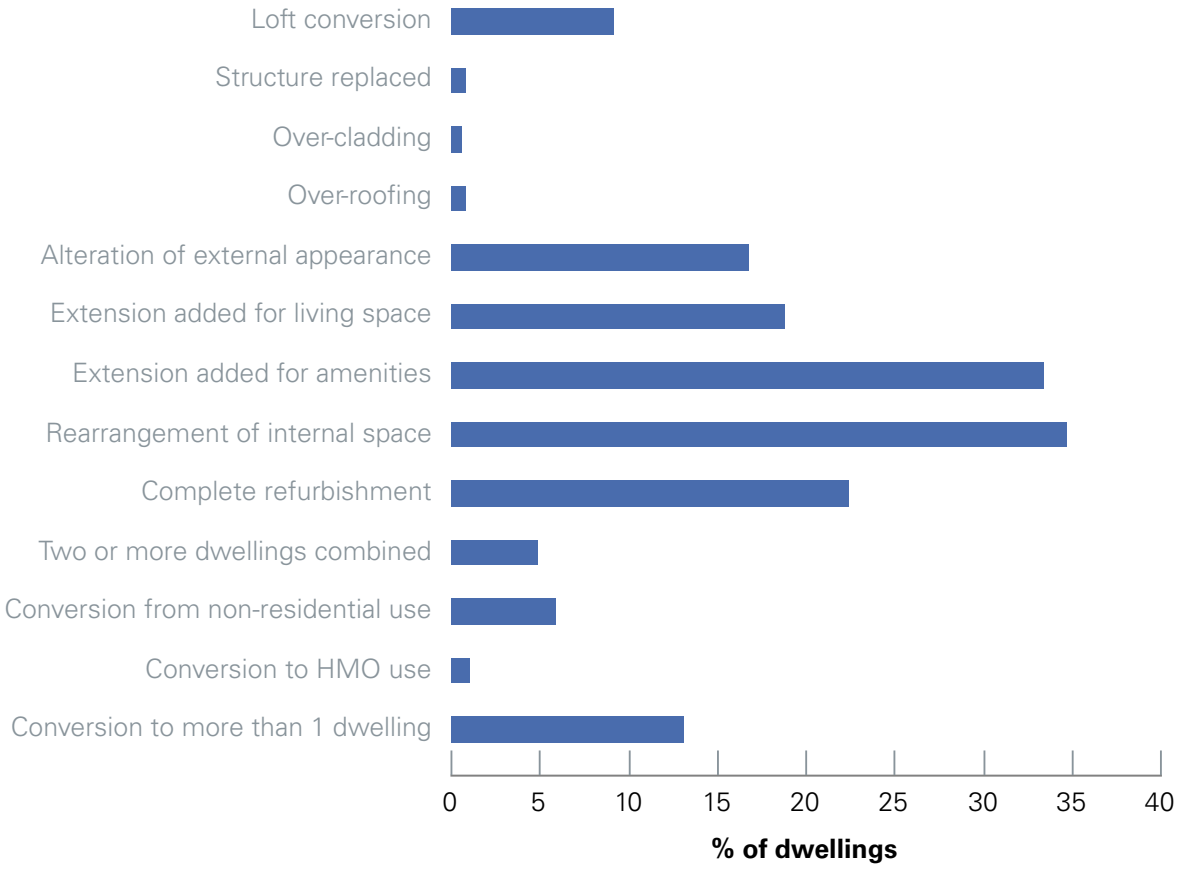
Figure 2.4a: Percentage of dwellings with any major modifications and work to increase floor area, 2006




**Base: all dwellings.**

7. Focusing on pre-1919 dwellings, the most common types of major modifications were broadly similar to the stock as a whole, although they were more likely to have been completely refurbished (22%) than had an extension added for living space (19%). In addition, one in six (17%) of these older homes have had their external appearance materially changed and one in seven (13%) have been created by converting a larger dwelling into 2 or more smaller units (normally by converting a house with 2 or more storeys into flats), Figure 2.5.

Figure 2.5: Percentage of pre-1919 dwellings having different types of major modifications since original construction, 2006

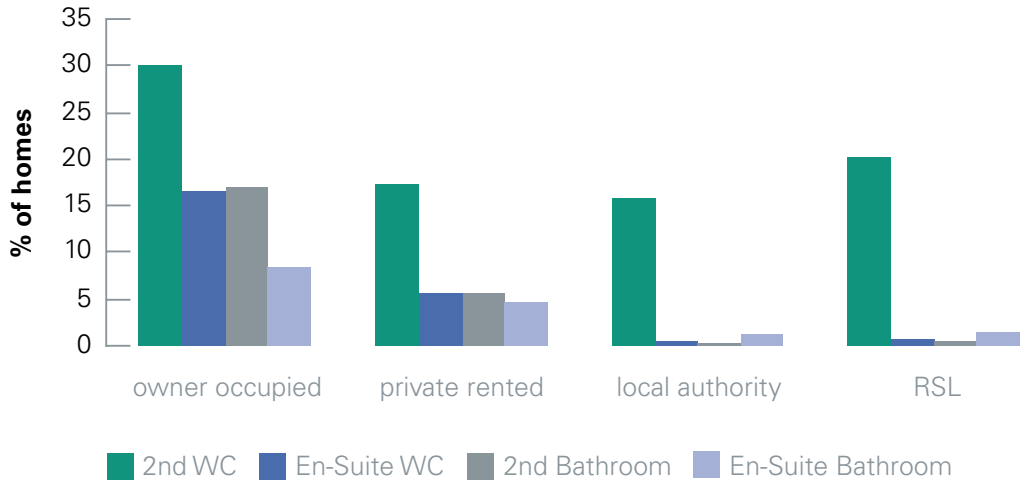



**Base: all pre-1919 dwellings.**

## Amenities and facilities

8. Some 40% of homes had a second WC and 20% had a second bath/shower room. Just under a third (32%) of second WCs were en-suite, whereas, a much larger proportion (66%) of second bath/shower rooms were en-suite. Owner occupiers were the most likely to have had a second WC or second bath/shower room, Figure 2.6. Almost half (46%) of all homes in this sector had a second WC, although in about a third of cases, these were en-suite. Social sector homes were the least likely to have second bath/shower rooms.

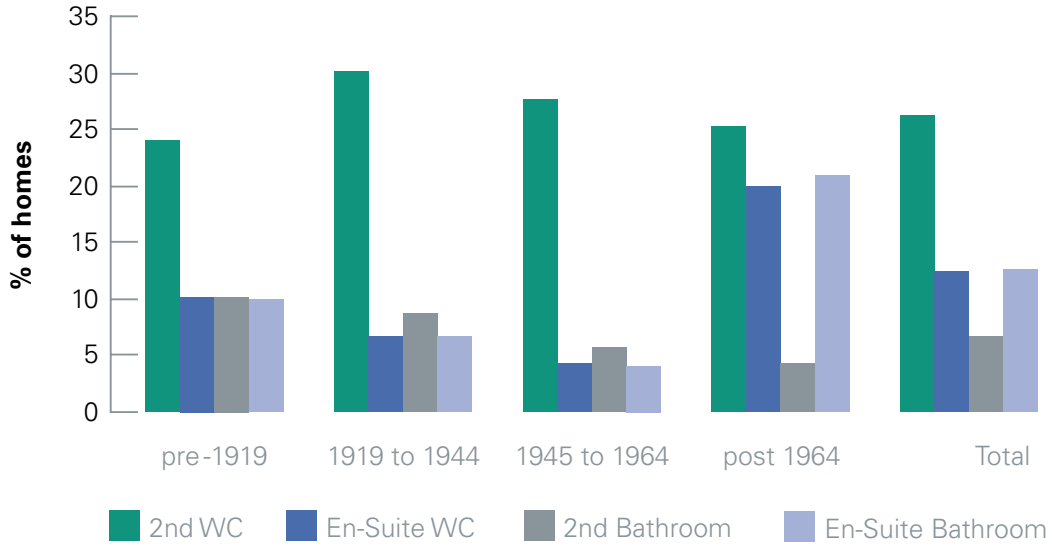
Figure 2.6: 2nd WC and 2nd bath/shower room by tenure, 2006




Base: all dwellings.

9. Newer dwellings were the mostly likely to have had en-suite WCs or bath/shower rooms, Figure 2.7. Some 20% of homes built after 1964 have en-suite WCs and 21% had en-suite bath/shower rooms. However, these newer homes were actually the least likely to have had second bath/shower rooms which were not en-suite.

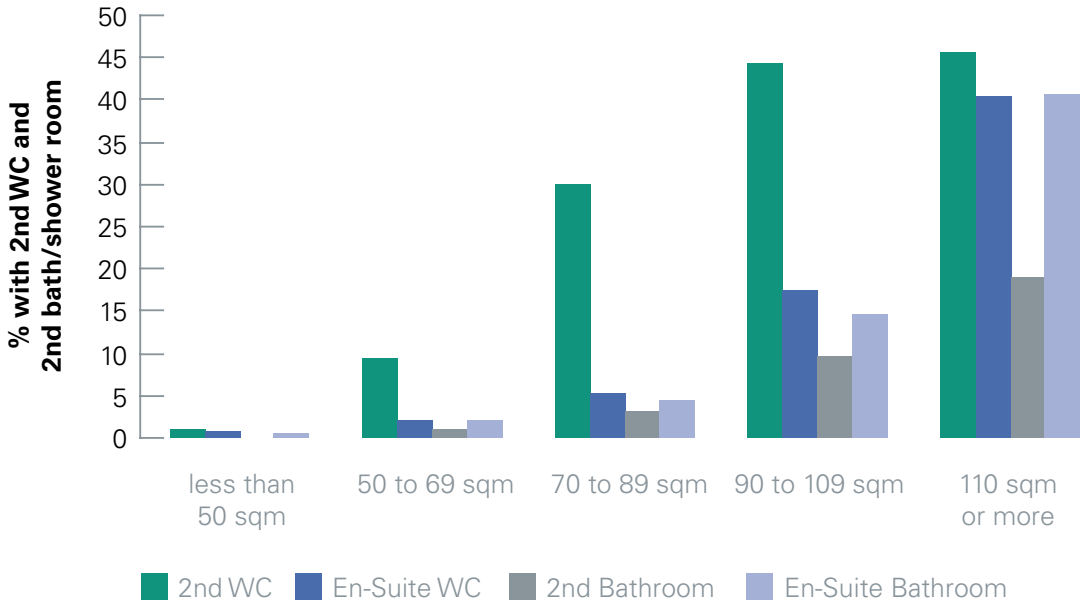
Figure 2.7: 2nd WC and 2nd bath/shower room by dwelling age, 2006




Base: all dwellings.

10. Not surprisingly, larger dwellings were more likely to have had second WCs and bath/shower rooms. Less than 10% of homes with a floor area under 70m$^2$ had a second WC compared with around 85% of those with a floor area of 110m$^2$ or more, Figure 2.8.

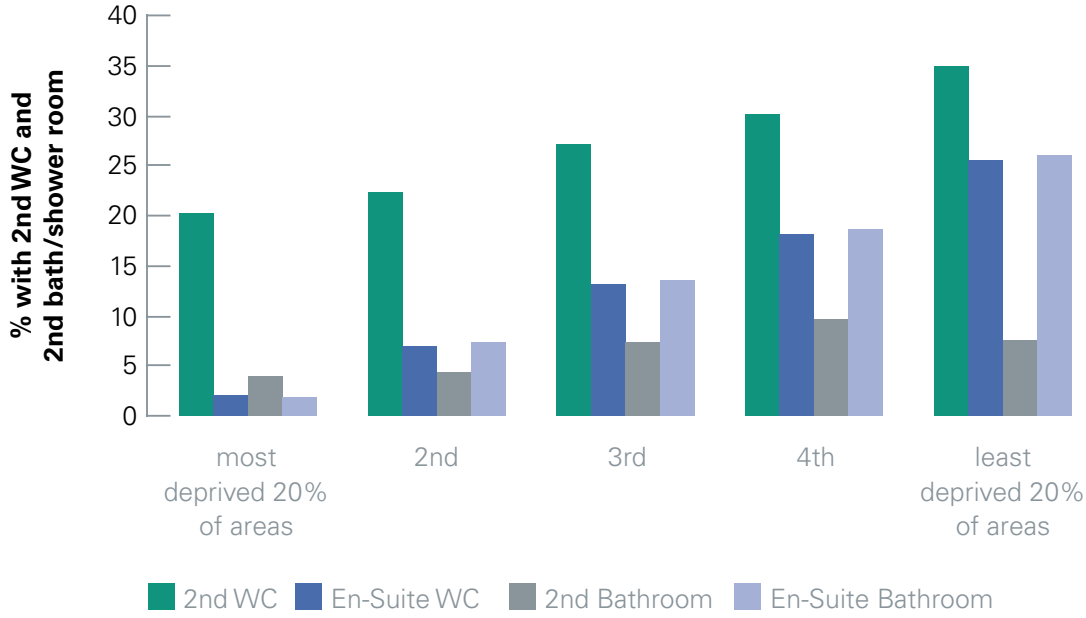
Figure 2.8: 2nd WC and 2nd bath/shower room by useable floor area, 2006




Base: all dwellings.

11. There was a steady increase in the proportion of dwellings with second WCs and en-suite bath/shower rooms from dwellings in the most deprived 20% of areas to the least deprived 20% of areas. Just under a quarter of those in the most deprived 20% of areas had a second WC compared with 60% in the least deprived, Figure 2.9. The trend was even more pronounced for second baths/showers.

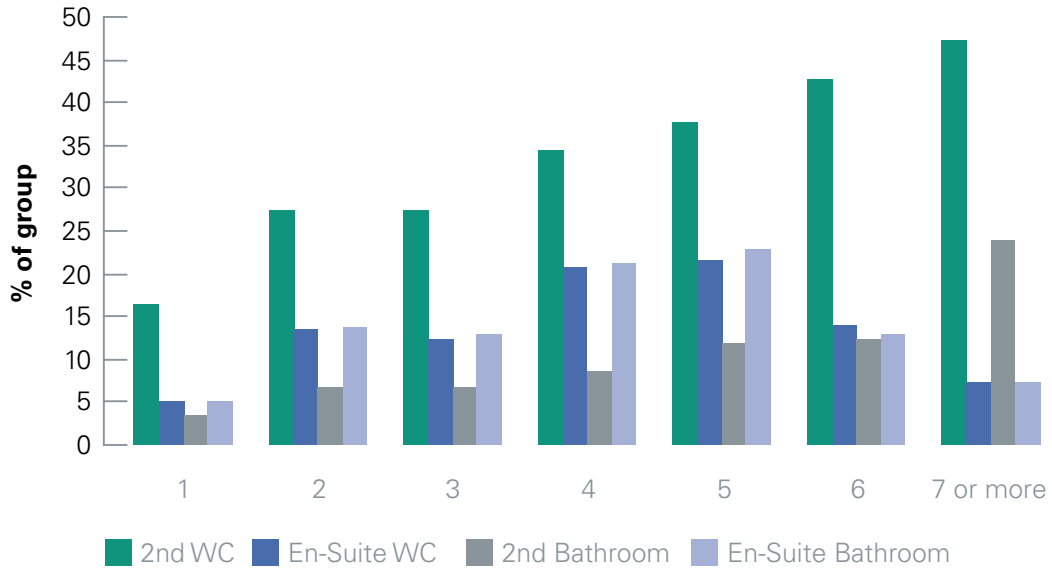
Figure 2.9: 2nd WC and 2nd bath/shower room by IMD 2004




Base: all dwellings.

12. Larger households were more likely to have second WCs than smaller ones, although the balance between en-suite and general secondary facilities varied considerably. Larger households of 6 or more people were less likely to have en-suite facilities, Figure 2.10. These larger households of 6 or more were less likely to have second bath/showers (en-suite or otherwise) than households with 4 or 5 people.

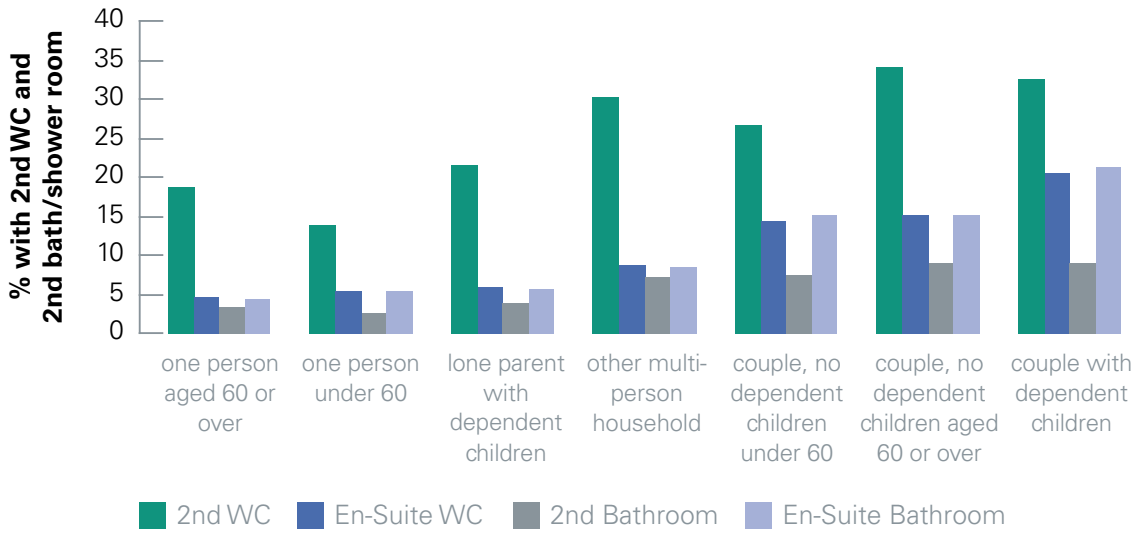
Figure 2.10: 2nd WC and 2nd bath/shower room by number of persons in the household, 2006




Base: all households.

13. Couples with dependent children were the most likely to have a second WC – half of this group had such facilities although over a third of these were en-suite, Figure 2.11. Couples aged 60 or over with no dependent children were more likely to have a second WC than lone parents with dependent children or other multi-person households. Couples of all ages (both with and without children) were also much more likely to have had a second bath or shower than other household groupings.

Figure 2.11: 2nd WC and 2nd bath/shower room by household composition, 2006

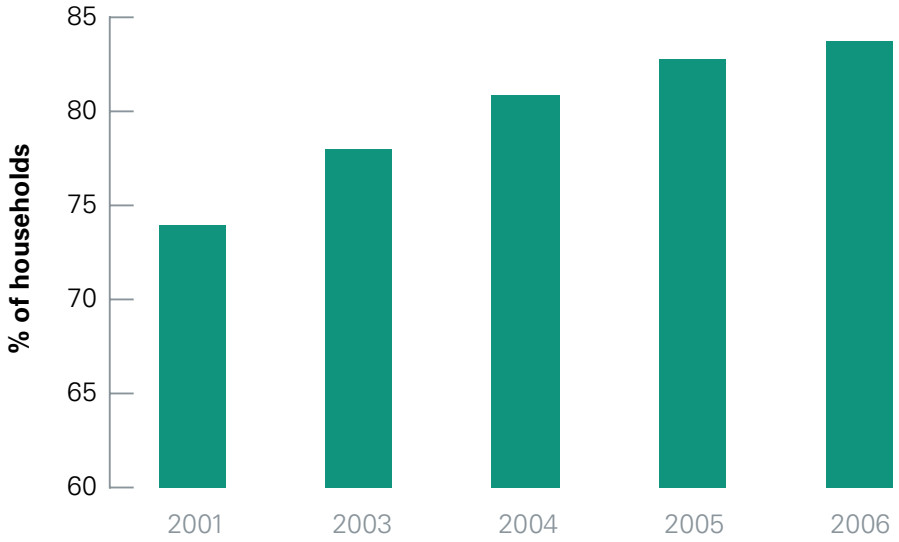



**Base: all households.**

14. At the other end of the spectrum, some 308 thousand homes lacked one or more basic amenities. In many cases, these had been removed to prevent vandalism or dwellings were in the process of being refurbished. Sample numbers were too small to enable a further breakdown of these.

15. The number of households with smoke detectors had been steadily increasing. In 2001 74% of households had one or more smoke detectors, this increased to 84% of households having one or more smoke detectors in 2006 (Figure 2.12).

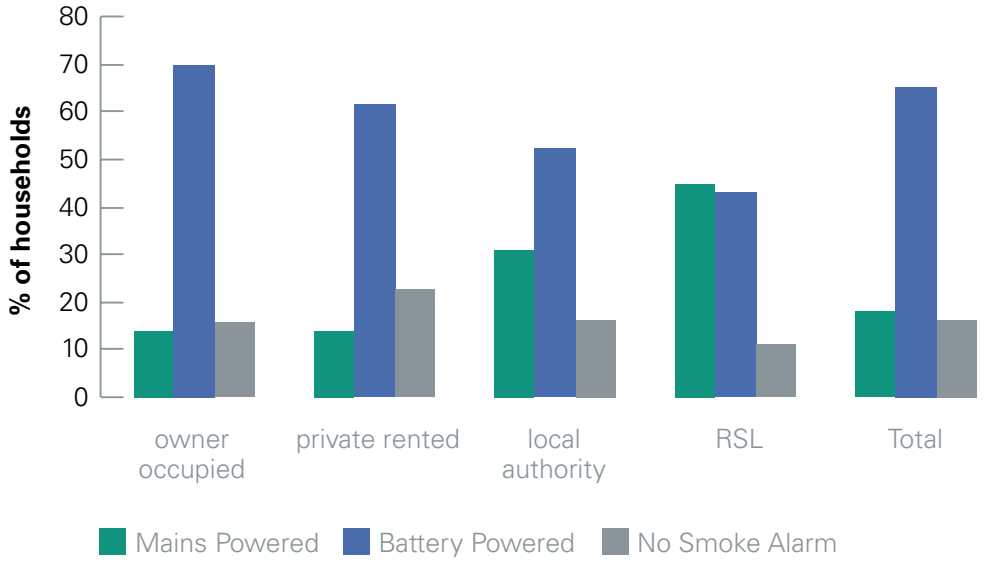
Figure 2.12: Households with one or more smoke detectors, 2001 to 2006




**Base: all households.**

16. Tenants in social housing were more likely to have these detectors, especially mains powered devices, than in the private sector. 89% of RSL had one or more smoke detectors 45% of those being mains powered, Figure 2.13. In the private sector, 77% of privately rented dwellings had smoke detectors with only 14% of those being mains powered.

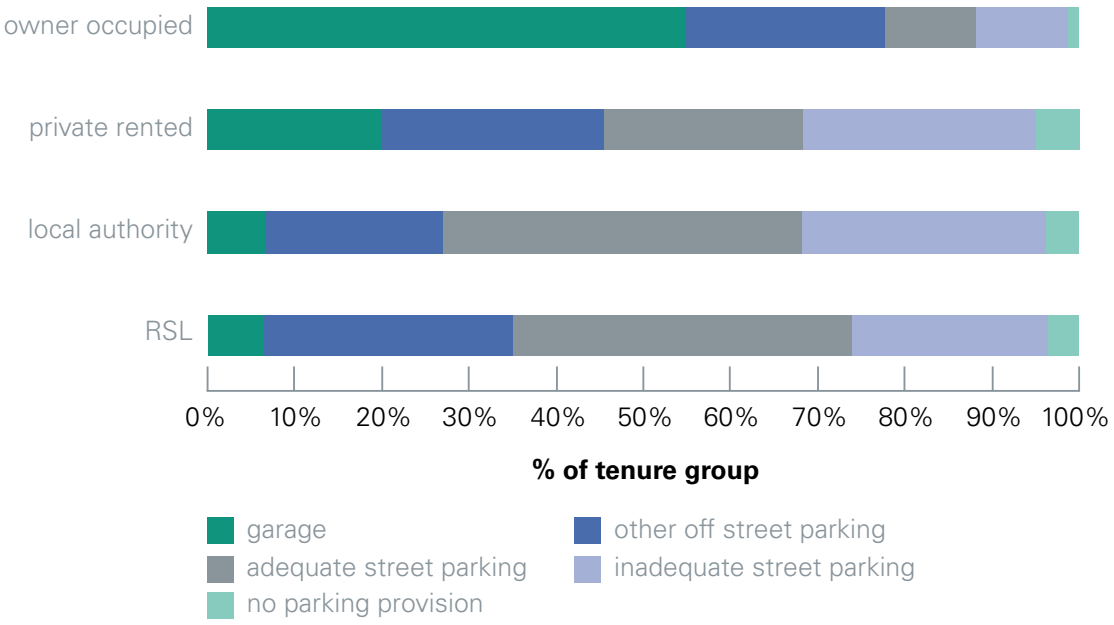
Figure 2.13: Households in each tenure with mains, battery only or no smoke detectors, 2006




**Base: all households.**

17. Only around 42% of homes had a garage and 15% had to rely on inadequate street parking. 78% of owner occupied dwellings had either garages or other off road parking, compared to only 45% of privately rented, 35% of RSL and 27% of local authority dwellings, Figure 2.14. Privately rented and local authority dwellings were the most likely to have inadequate street parking. The social rented sector was the most likely to have no parking provisions.

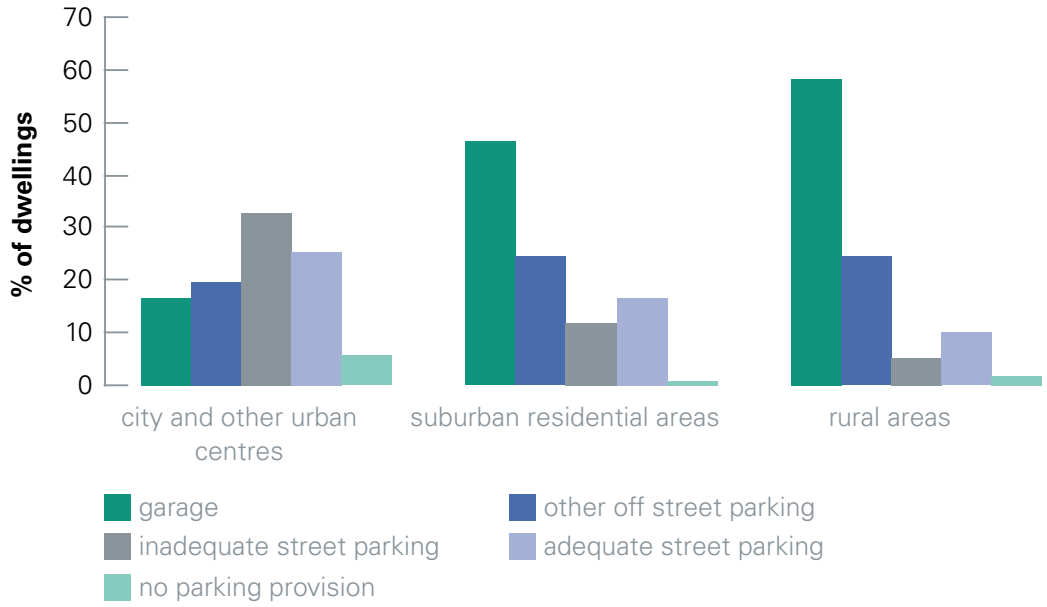
Figure 2.14: Parking provisions by tenure, 2006




**Base: all dwellings.**

18. Adequate parking provision was a particular problem in city and other urban centres. 33% of dwellings in city and other urban centres had inadequate street parking compared to only 12% in suburban residential areas and 5% in rural areas, Figure 2.15.

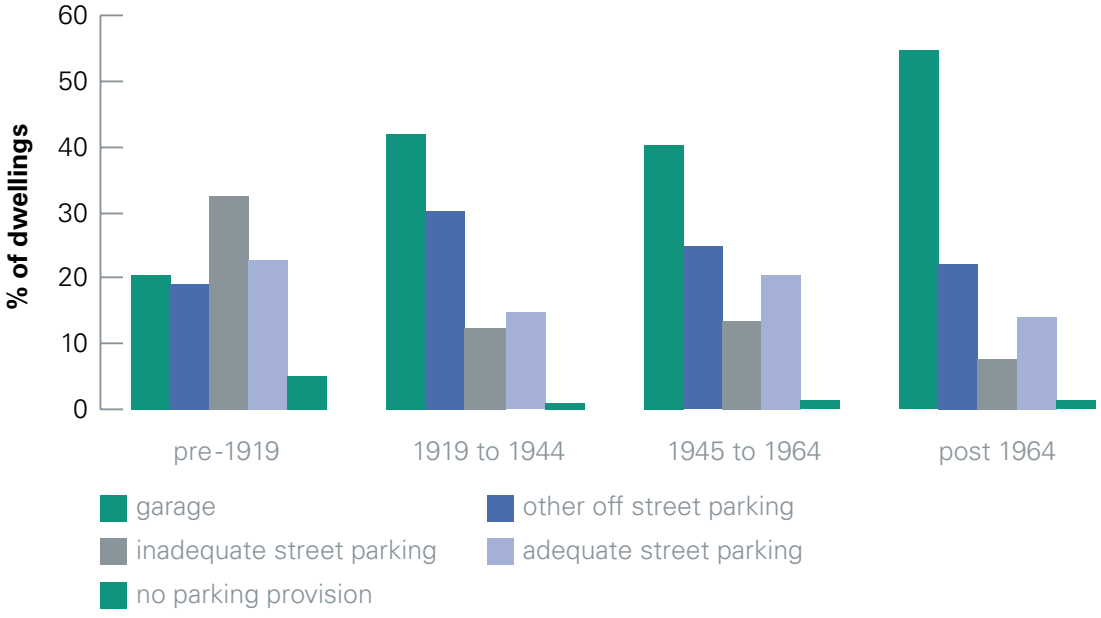
Figure 2.15: Parking provisions by type of area, 2006




**Base: all dwellings.**

19. Post 1964 dwellings were the most likely to have adequate parking provisions with 55% having garages, Figure 2.16. 21% of pre-1919 dwellings had garages whereas 33% had inadequate street parking.

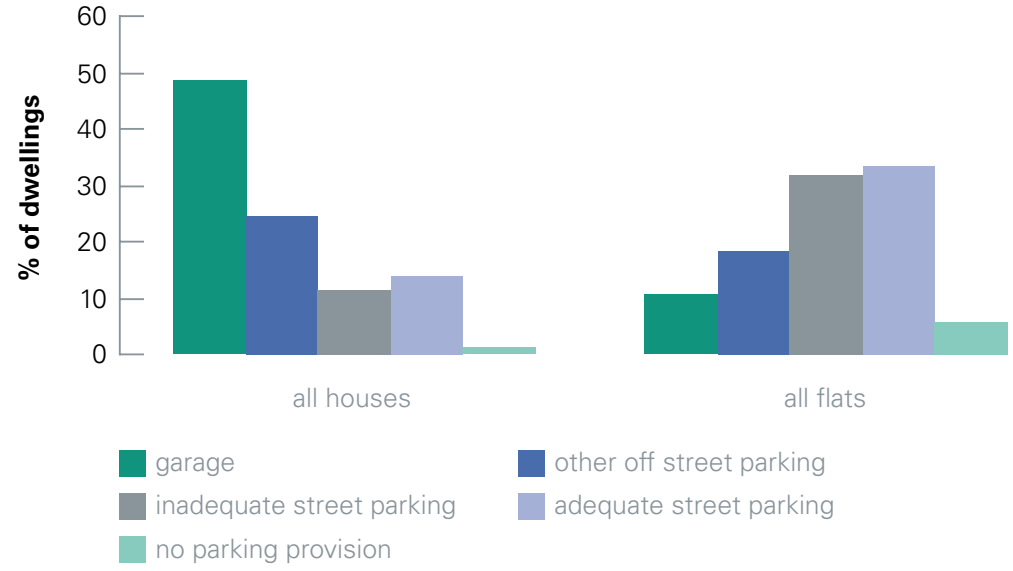
Figure 2.16: Parking provisions by dwelling age, 2006




**Base: all dwellings.**

20. Houses and bungalows were 5 times more likely to have garages compared to flats, Figure 2.17. 32% of Flats had inadequate street parking compared to only 12% of houses and bungalows.

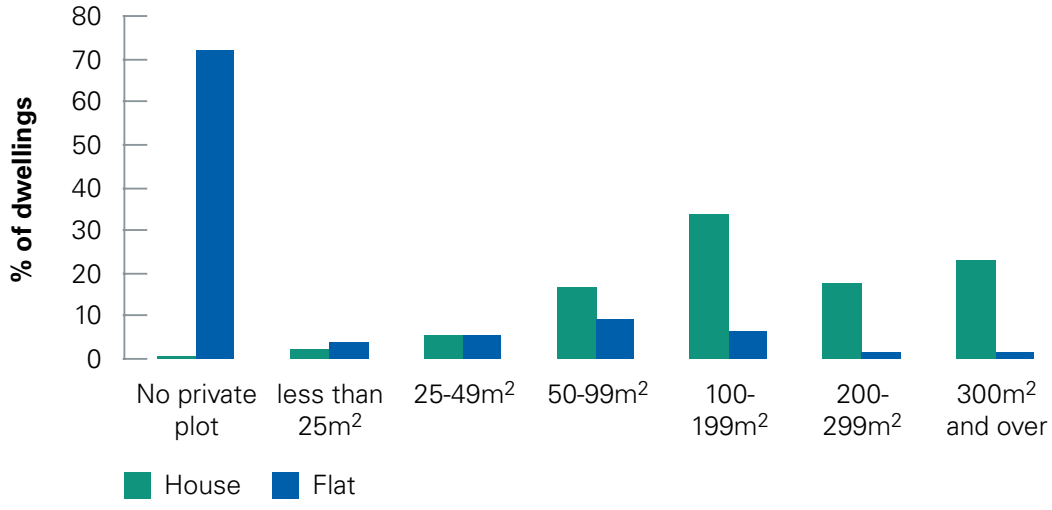
Figure 2.17: Parking provisions by dwelling type, 2006




Base: all dwellings.

21. Some 99% of houses and 28% of flats had their own private garden space at the front and/or the rear. These varied considerably in size. 34% of houses/bungalows had private gardens which were between 100 and 200m² compared to only 7% of flats, Figure 2.18.

Figure 2.18: Size of private plot by dwelling type, 2006




Base: all dwellings.

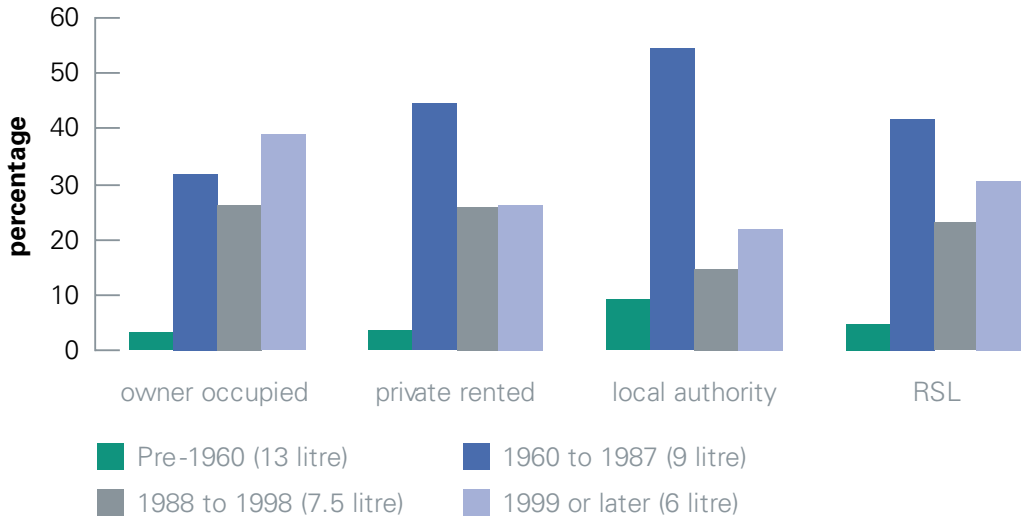
22. Not all gardens consisted mainly of grass and planting. About 41% of gardens had at least half of the area covered with hard surfacing material (concrete, paving, decking etc.) which reduced the potential for absorbing excess rainfall and possibly contributed to flooding as well as reducing available habitat for wildlife. Linked to this, only 30% of private gardens had at least some of their boundary consisting of a hedge.

## 3. Water consumption

23. Around 30% of water used by each person is used to flush the toilet. The size of the WC cistern has a significant impact on household water consumption. EHCS collects data on the age of the main WC which can be used as a proxy for the cistern size as this relates to standards and regulations that applied at the time of manufacture and/or installation. The majority, 36%, of WCs in the stock dated from 1960 to 1987 and had cisterns with an average volume of about 9 litres. Some 35% were installed or replaced in or after 1999 and had 6 litre single flush or 6litre/3litre dual flush cisterns to comply with the 1999 Water Fittings Regulations.

24. Owner occupied homes were much more likely to have smaller volume modern cisterns than rented homes; especially local authority, Figure 2.19. Some 39% of owner occupied homes had these smaller cisterns compared with just 22% of local authority dwellings.

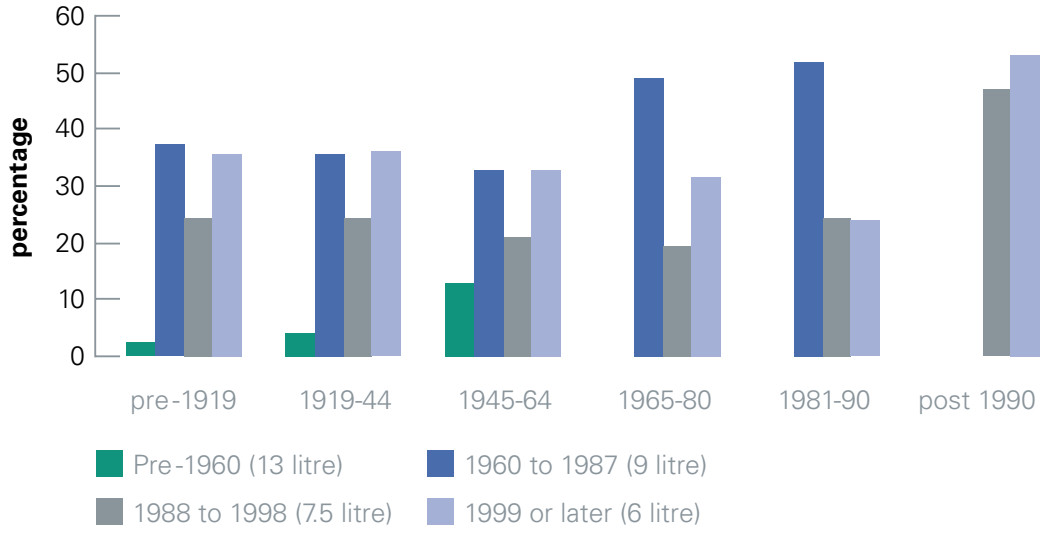
Figure 2.19: Age of WC by tenure, 2006




**Base: all dwellings.**

25. Many older dwellings have had the WC replaced at least once and this means that the oldest dwellings do not necessarily have the highest proportion of older high volume cisterns. It is dwellings built between 1945 and 1990 that are most likely to have cisterns of 9 litres or more, Figure 2.20. Over 10% of homes dating from 1945-64 had the very large (13 litre) cisterns.

Figure 2.20: Age of WC by dwelling age, 2006




Base: all dwellings.

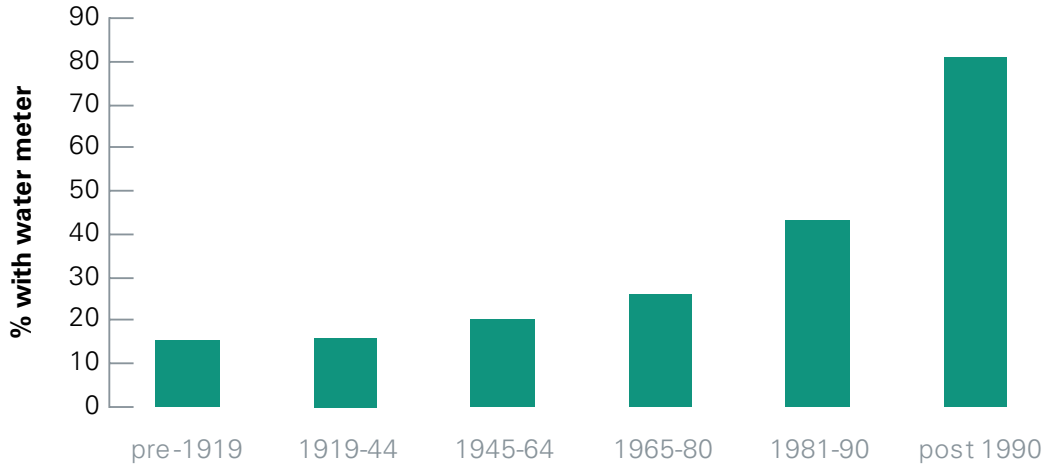
26. Over a quarter (28%) dwellings had water meters, although the figure is much lower for homes owned by local authorities (10%), Figure 2.21.

Figure 2.21: Proportion of dwellings with water meters by tenure, 2006


Base: all dwellings.

27. The older the dwelling the less likely it was to have a water meter. Just 15% of pre-1919 dwellings had water meters compared with 26% of those dating from 1965 and 1980 and 80% of dwellings built after 1990, Figure 2.22.

Figure 2.22: Proportion of dwellings with water meters by dwelling age, 2006

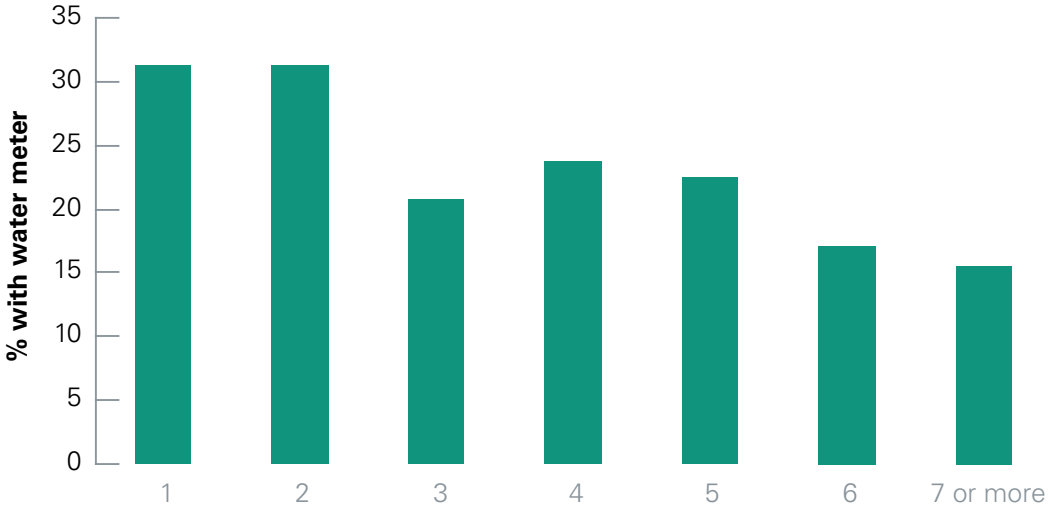



**Base: all dwellings.**

28. The proportion of dwellings with water meters varied considerably by region because different water companies have different policies and rainfall varies quite markedly across England.

29. Larger households, who will on average use the most water, were the least likely to have water meters. Just 16% of households with 6 or more people had a water meter compared with 31% of households comprising one or two people Figure 2.23.

Figure 2.23: Proportion of households with water meters by number of persons in the household, 2006




**Base: all households.**

# Chapter 3. Decent Homes

1. The decent homes definition has been updated to take account of the Housing Health and Safety Rating System (HHSRS) which replaced the Fitness Standard as the statutory element of the decent homes standard in April 2006[1].

2. This chapter presents a detailed analysis of the number and profile of non-decent homes using the updated definition, including: which components of the standard these homes fail on; what action is required to make them decent; and the costs of dealing with non-decency. The final section of this chapter looks at progress in reducing the numbers of non-decent homes. There is insufficient data to report progress using the updated definition prior to 2006 and therefore analysis of progress since 1996 uses the original definition of decent homes which incorporates the Fitness Standard as the statutory minimum.

For a dwelling to be considered **'decent'** it must:

- Meet the statutory minimum standard for housing (the Housing Health and Safety System (HHSRS) since April 2006). Homes posing a Category 1 hazard under the HHSRS are considered non-decent.
- Be in a reasonable state of repair.
- Have reasonably modern facilities and services.
- Provide a reasonable degree of thermal comfort.

3. Initial results for decent homes incorporating the HHSRS were published in the 2006 Headline Report. Following this publication detailed work was carried out to review the way the EHCS interprets and implements the published Decent Homes standard. As a result of this work a change has been made in how the survey implements the thermal comfort requirements for insulation for a specific group of flats. Details of the rationale for this change are included at Appendix A to this report. Its overall impact is to reduce the estimate of the number of flats not meeting the thermal comfort criterion in 2006 by 480,000, resulting in a reduction of 402,000 in the overall number of homes that are non-decent. The estimates presented in this report supersede previously published estimates for 2006.[2] This revision of how the survey implements the thermal comfort criterion has been applied to 2006 estimates using the updated definition of decent homes only. It has not been applied to 1996 to 2006 estimates based on the original definition of decent homes.

[1] See Appendix A for a full explanation of the updated definition and its impact.

[2] A revised 2006 EHCS Headline Report has been issued. See Appendix A for an explanation of these changes.

## Key Findings

- **In 2006 7.7 million homes (35% of all stock) were non-decent under the update definition of the standard. Of these, 1.1 million were in the social sector accounting for 29% of the sector.**

- **Some 30% (2.3 million) of all non-decent homes were not straightforward to make decent. In the social sector 37% (420 thousand) of non-decent homes were likely to fall into this category.**

- **Older homes were generally much more likely to be non-decent: 60% of pre-1919 houses were non-decent compared to just 9% of those built since 1980. However there was also a high incidence (43%) of non-decency among flats built 1965-80.**

- **Of the total 7.7 million non-decent homes, 1.7 million (22%) were non-decent solely because they did not meet the thermal comfort criterion. The remainder failed on at least one of the other criteria.**

- **The HHSRS criterion was the most commonly failed; 62% (4.8 million) of non-decent homes failed this criterion, but the rate in the private sector was 65% (4.2 million) compared with only 44% (500 thousand) of social sector non-decent homes.**

- **On average a private sector non-decent home required works costing £7,500 to meet the standard, however a third could be dealt with for less than £1,350. Costs were generally lower in the social sector with the average non-decent home requiring £4,200 spent and 40% of non-decent homes needing less than £1,000 to be made decent.**

- **Since 1996 the proportion of homes failing the decent homes standard under its original definition fell across all tenures. However progress was fastest in the social sector where the 10 percentage point gap between private and social sectors in 1996 had narrowed to only 2 percentage points by 2006.**

## Number and profile of non-decent homes in 2006

4. Under the updated definition of the standard there were 7.7 million non-decent homes in 2006 (35% of the stock), of which 5.3 million were owner-occupied, 1.2 million were privately rented, and 1.1m were in the social rented sector. Properties in the private rented sector were most likely to be non-decent (nearly 47%), while those rented from RSLs were most likely to be decent, Table 3.1.

Table 3.1: Decent Homes by tenure, 2006

| | decent | non-decent | total | % non decent |
|---|---|---|---|---|
| ***numbers ('000s)*** | | | | |
| owner occupied | 10,107 | 5,335 | 15,442 | 34.6 |
| private rented | 1,388 | 1,223 | 2,611 | 46.8 |
| **all private** | **11,495** | **6,558** | **18,053** | **36.3** |
| | | | | |
| local authority | 1,410 | 676 | 2,086 | 32.4 |
| RSL | 1,385 | 465 | 1,850 | 25.2 |
| **all social** | **2,794** | **1,142** | **3,936** | **29.0** |
| | | | | |
| **Total** | **14,289** | **7,700** | **21,989** | **35.0** |

**Base: all dwellings.**

5. These estimates were based simply on whether or not the property met the requirements set out for the updated definition of decent homes, subject to the information available in the survey.[3] However, not all non-decent homes were straightforward to deal with.[4] There is likely to be a proportion of non-decent homes where design, economic, technical or other considerations need to be taken into account in determining the most appropriate course of action. These issues are addressed in a later section of this chapter.

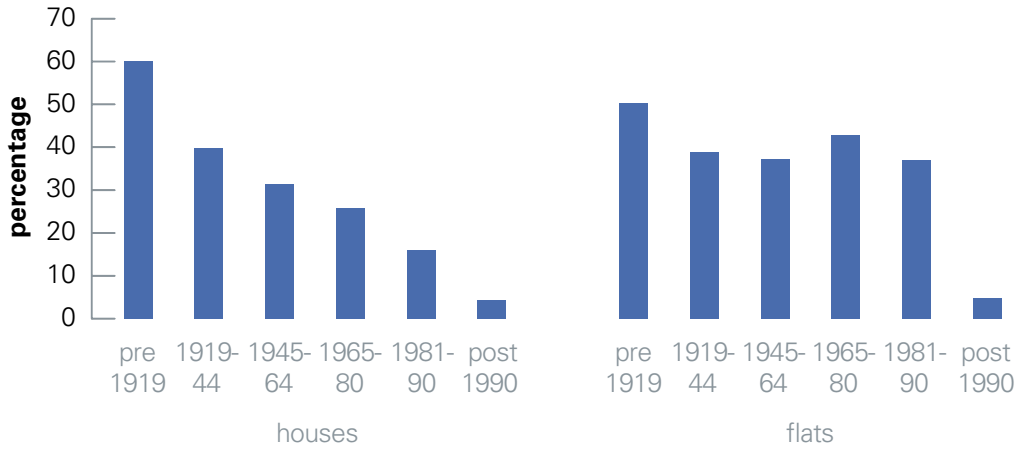
6. Of the total of non-decent dwellings, 6.2 million were houses and just under 1.5 million were flats. For houses and bungalows, non-decency was closely related to the age of the dwelling. On average about a third of houses are non-decent, but this reduced from 60% of the pre-1919 stock to 9% of post-1980 dwellings. Although many of these older houses had been substantially repaired and modernised since they were built (see Chapter 2) this was by no means universal. Pre-1919 homes tended to have higher levels of disrepair and poorer thermal performance than newer homes. They were also more likely to have steeper stairs and smaller kitchens than newer properties, increasing the potential for certain Category 1 HHSRS hazards.

7. For flats, there was also a high level of non-decency (50%) among those built before 1919, three quarters of which were conversions. Besides the increased likelihood of disrepair and poor thermal performance in these older properties, the legacy of any poor conversion work may have added to their likelihood of non-decency. Within the high volume construction of flats between1965-80 there was also a greater level of non-decency (43%) compared with the average for all flats (38%), Figure 3.1.

[3] See *A Decent Home: Definition and guidance for implementation*, Communities and Local Government, June 2006.

[4] Additionally some social tenants may not wish for work to make the home decent to be carried out during their tenancy.

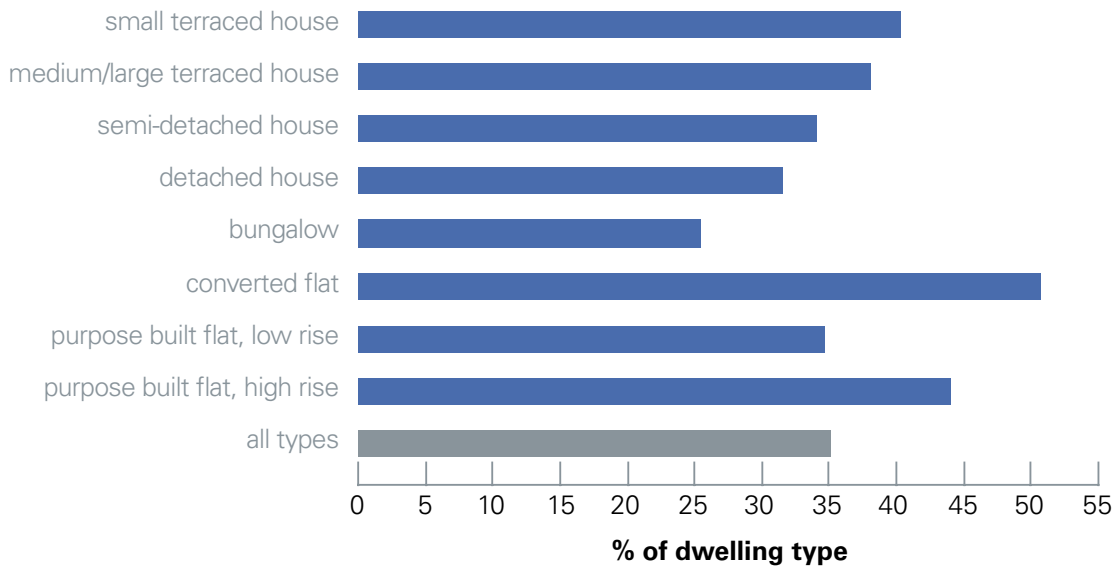
Figure 3.1: Percentage of homes non-decent by houses and flats and by dwelling age, 2006




**Base: all households.**

8. The likelihood of a home being non-decent was also related to its type and size. Converted flats were the most likely dwelling type to be non-decent, largely because of their age (84% were in buildings constructed before 1919). They were also more likely to have issues with design and layout which were associated with a higher rate of Category 1 hazards. For houses, detached houses were less likely to be non-decent than semi-detached homes, with small terraced properties being more likely than other types of houses. Bungalows were the least likely type of home overall to be non-decent, Figure 3.2. These trends for houses arose largely due to the age profile of different types – small and medium/large terraced houses had the highest proportions built before 1919 (37% and 41%) and bungalows had the lowest (3%). Similarly, detached houses tended to be newer than semi-detached with 61% of this group built after 1964 compared with 27% of semis.

Figure 3.2: Percentage of homes non-decent by dwelling type, 2006




**Base: all dwellings.**

9. Rates of non-decency also varied by location and type of area. For the stock as a whole, there was little difference between different geographic areas of England, Table 3.2. However, the south east regions had a slightly lower proportion of non-decent homes in the private sector, which was not a product of the age profile of the stock and probably reflected higher levels of investment in repair and improvement work over time. The reverse was true in the social sector where the proportion of non-decent homes was higher than in other areas. This was at least partly due to the higher proportion of flats, particularly high rise flats, in the south east regions.

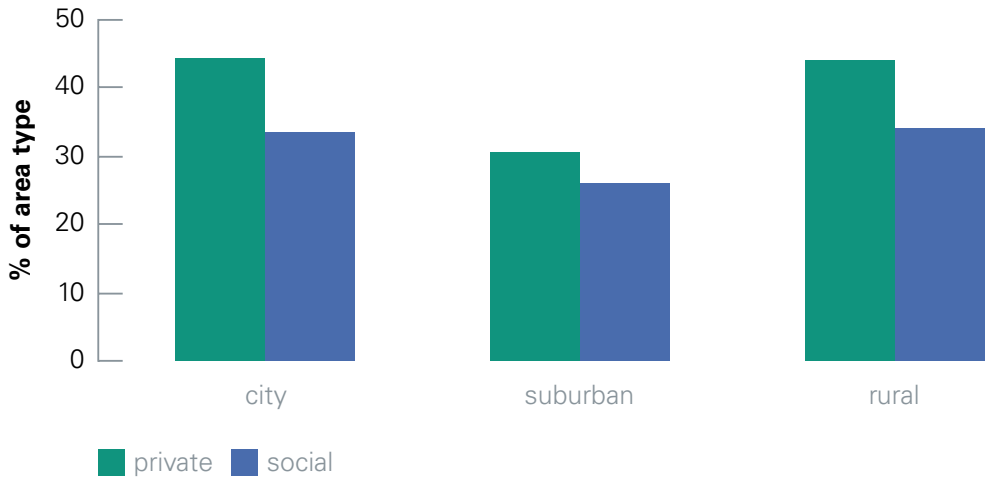
Table 3.2: Percentage non-decent by tenure and broad regional area, 2006

| | Private | Social | Total |
|---|---|---|---|
| Northern regions | 37.8 | 27.2 | 35.7 |
| South eastern regions | 34.3 | 31.5 | 33.8 |
| Rest of England | 36.8 | 28.5 | 35.5 |

Base: all dwellings.

10. Suburban homes of all tenures were less likely to be non-decent than their equivalents in either city-centre or rural areas, and this was particularly true of private sector properties, Figure 3.3. This arose mainly because of the much lower proportion of pre-1919 homes in the private stock located in suburban areas (13% compared with 30% in rural areas and 53% in urban areas).

Figure 3.3: Percentage of homes non-decent by area type and sector, 2006




Base: all dwellings.

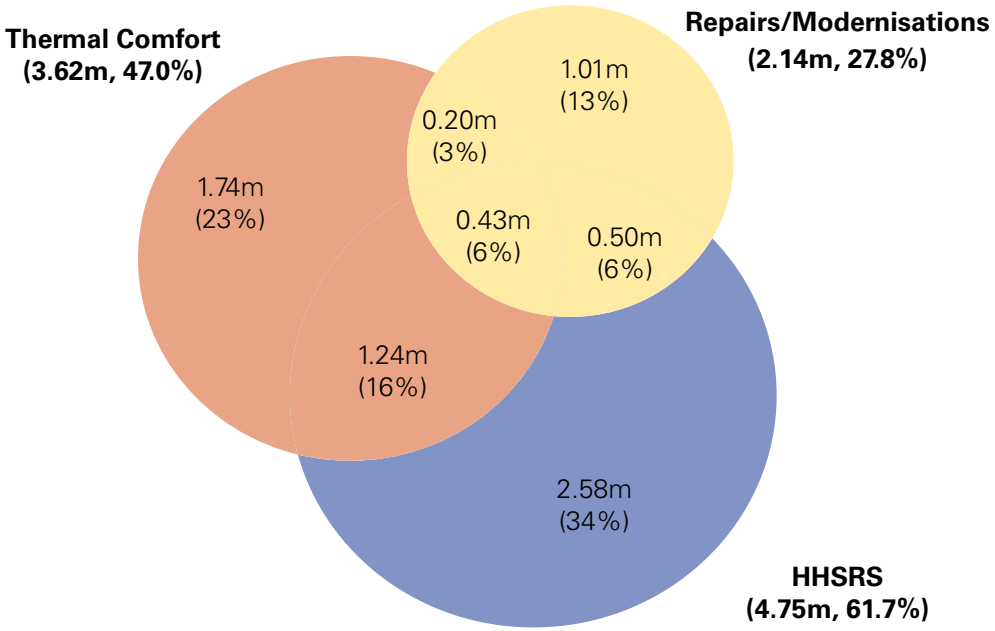
11. In the most deprived districts social sector and private sector homes were more likely to be non-decent than in other districts. Some 31% of social sector homes and 38% of private sector homes were non-decent compared to 26% and 35% respectively in other districts.[5]

[5] These estimates are based on all (91) deprived districts that had been or were in receipt of Neighbourhood Renewal Funds in 2006.

## Reasons for non-decency

12. Of the total of 7.7m non-decent homes, some 2.58 million (34%) were non-decent solely because they did not meet the HHSRS criterion, with another 1.7 million (23%) non-decent solely because they did not meet the thermal comfort standard, Figure 3.4. While 5.3 million (69%) of non-decent homes failed to meet only one of the four criteria, there was significant overlap between homes not meeting the thermal comfort and HHSRS criteria. This related to the high proportion of HHSRS Category 1 homes with excess cold (see Chapter 4).

Figure 3.4: Number of homes failing on components of the decent homes standard, 2006




Base: all non-decent dwellings

13. This overall picture varied by tenure: for example, of those homes which were non-decent, 62% failed on the HHSRS criterion, but the rate in the private sector was 65% compared with only 44% of social sector homes, Table 3.3. This equated to over 23% of all private sector homes compared with 13% of all in the social sector. Both sectors had similar proportions of non-decent homes which failed on thermal comfort. In contrast, non-decent social sector homes were more than twice as likely to be in need of modernisation as private sector homes.

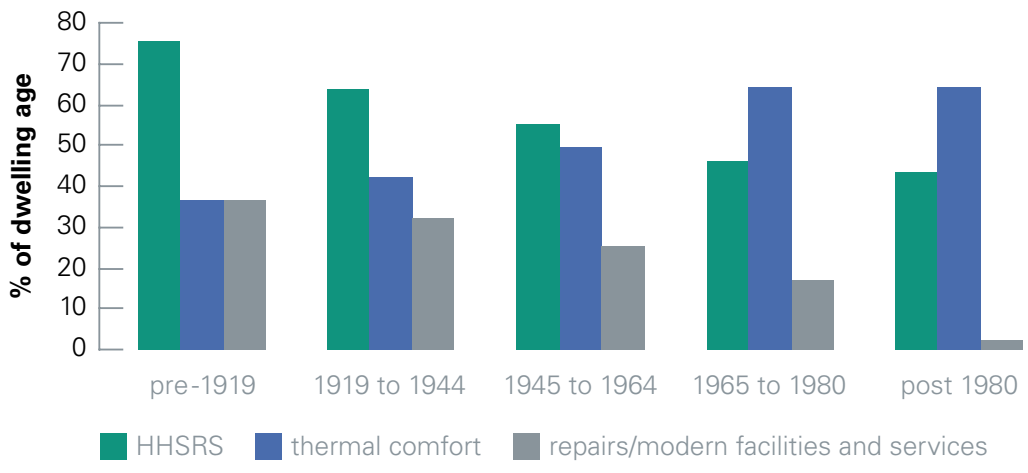
## Table 3.3: Reasons for failing decent homes, 2006

| | HHSRS Cateogry 1 hazard | repair | modern facilities and services | thermal comfort | all non decent |
|---|---|---|---|---|---|
| **numbers ('000s):** | | | | | |
| owner occupied | 3,452 | 1,117 | 277 | 2,408 | 5,335 |
| private rented | 797 | 374 | 110 | 655 | 1,223 |
| **all private** | **4,249** | **1,491** | **387** | **3,062** | **6,558** |
| LA | 297 | 141 | 118 | 302 | 676 |
| RSL | 206 | 74 | 45 | 252 | 465 |
| all social | 503 | 215 | 163 | 553 | 1,142 |
| **all tenures** | **4,752** | **1,706** | **550** | **3,616** | **7,700** |
| **percentage:** | | | | | |
| owner occupied | 64.7 | 20.9 | 5.2 | 45.1 | 100.0 |
| private rented | 65.2 | 30.6 | 9.0 | 53.5 | 100.0 |
| **all private** | **64.8** | **22.7** | **5.9** | **46.7** | **100.0** |
| LA | 43.9 | 20.9 | 17.5 | 44.6 | 100.0 |
| RSL | 44.3 | 15.9 | 9.7 | 54.1 | 100.0 |
| **all social** | **44.1** | **18.8** | **14.3** | **48.5** | **100.0** |
| **all tenures** | **61.7** | **22.2** | **7.1** | **47.0** | **100.0** |

**Base: all non-decent dwellings.**
**Note: homes may fail on more than one component of the standard.**

14. Some types of homes were more likely to fail on certain components of the standard than others. The likelihood of failing the HHSRS criterion increases the older the dwelling is: 44% of non-decent homes built since 1980 failed compared with 75% of pre-1919 non-decent homes, Figure 3.5. Older homes were also more likely to be failing on the repair or modern facilities and services criteria while amongst the post 1980 homes the proportion was negligible, 3%. However, thermal comfort showed the reverse trend with pre-1919 non-decent homes being the least likely to fail the criterion (36%) rising to 64% of homes built since 1980 (which reflects the high proportion of post-1980 homes being flats – see below).

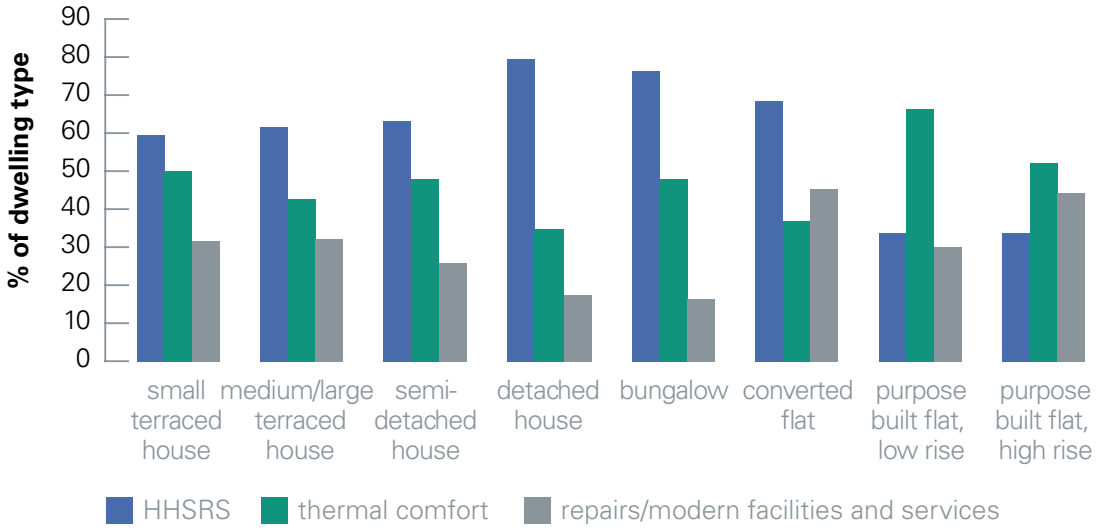
## Figure 3.5: Percentage of non-decent homes failing on each component by dwelling age, 2006




**Base: all non-decent dwellings**

15. Detached houses and bungalows were most likely to be in a good state of repair and modernisation, but were more than twice as likely to fail on the HHSRS criterion as purpose-built flats, which in turn were more likely to fail on thermal comfort than houses of any type, Figure 3.6.

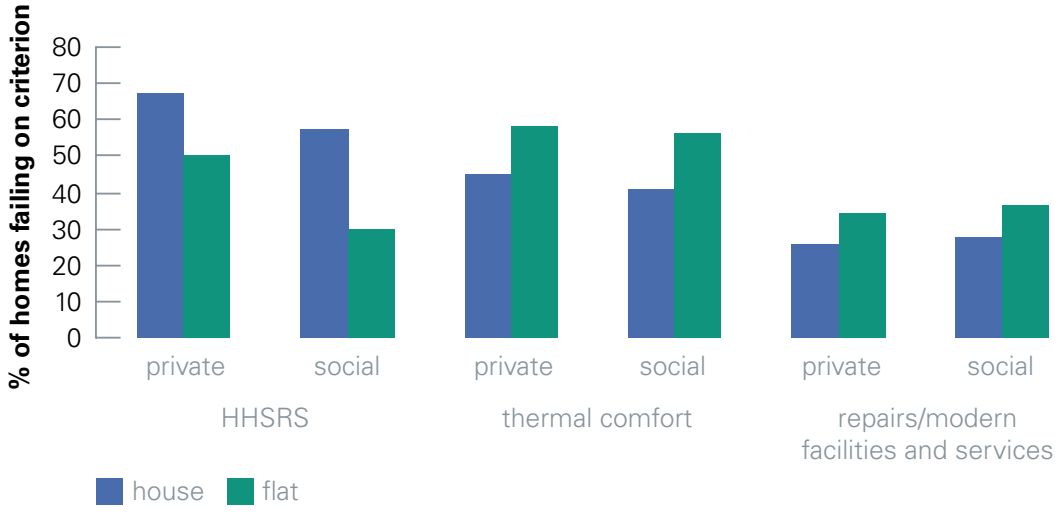
## Figure 3.6: Percentage of non-decent homes failing on each component by type of dwelling, 2006




**Base: all non-decent dwellings**

16. The most frequent reason for flats in the private and social sectors to be non-decent was inadequate thermal comfort (58% and 56% of non-decent homes respectively), Figure 3.7. For non-decent houses, failure on the HHSRS criterion was the most common reason (67% in the private sector and 57% in the social sector); however in the social sector just 30% of flats failed on this criterion. In both sectors, a higher proportion of flats than houses failed on repair and/or modern facilities and services.

## Figure 3.7: Percentage of non-decent houses and flats failing on each component by tenure, 2006

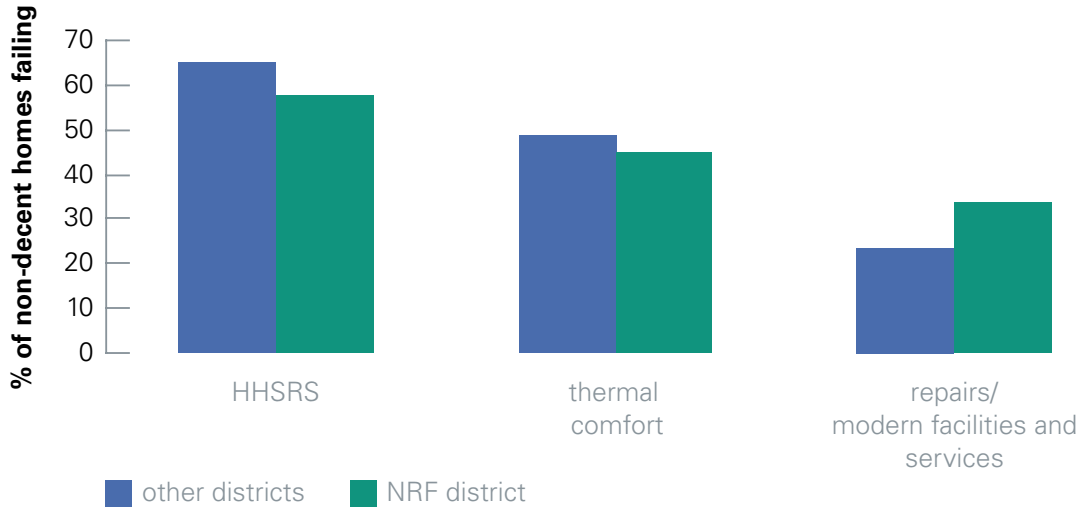



**Base: all non-decent dwellings**
**Note: homes may fail on more than one component of the standard.**

17. Overall, non-decent homes in the south east regions were least likely to fail on the HHSRS criterion, which was partly due to the concentration of flats in those regions[6], but slightly more were likely to be in a poor state of repair or modernisation compared with those in other parts of the country. Homes in the northern regions were least likely to lack thermal comfort.

18. Non-decent homes in the most deprived districts (those in receipt of Neighbourhood Renewal Funds[7]) were slightly less likely than those in other districts to fail on either HHSRS or thermal comfort criteria, but were more likely to need repairs or modernisation, Figure 3.8.

Figure 3.8: Percentage of non-decent homes by whether NRF district and reasons for non-decency, 2006



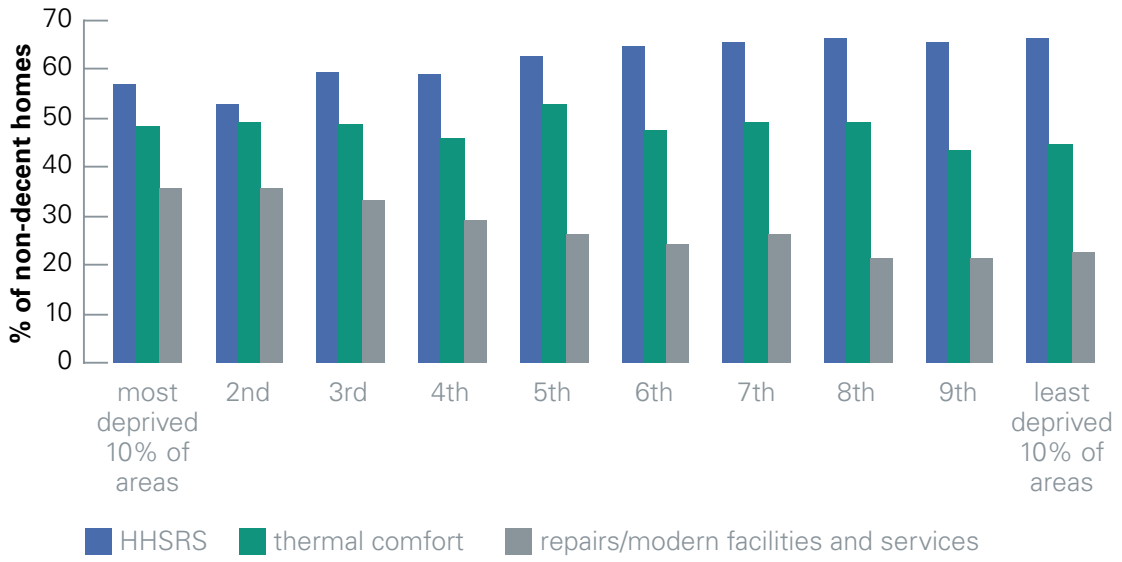

**Base: all non-decent dwellings**
**Note: homes may fail on more than one component of the standard**

19. This pattern is reflected when looking at the most deprived 10% of local areas compared to the least deprived, Figure 3.9. Just 56% of non-decent homes in the most deprived 10% of local areas failed due to the HHSRS criterion compared to 66% of non-decent homes in the 10% least deprived areas. This was partly due to the prevalence of larger houses in more affluent areas where falls on stairs and cold homes were more likely to be assessed as a hazard under the HHSRS (see Chapter 4). However, failure to meet the repair and modernisation criteria became steadily less common as the level of deprivation decreased: 36% of non-decent homes in the 10% most deprived local areas compared to 22% in the 10% least deprived local areas. The thermal comfort criterion does not appear to have a clear association with deprivation.

6 See chapter 4 'Health and Safety' for a more detailed explanation of the distribution of homes with Category 1 hazards.

7 These estimates are based on all (91) deprived districts that had been or were in receipt of Neighbourhood Renewal Funds in 2006.

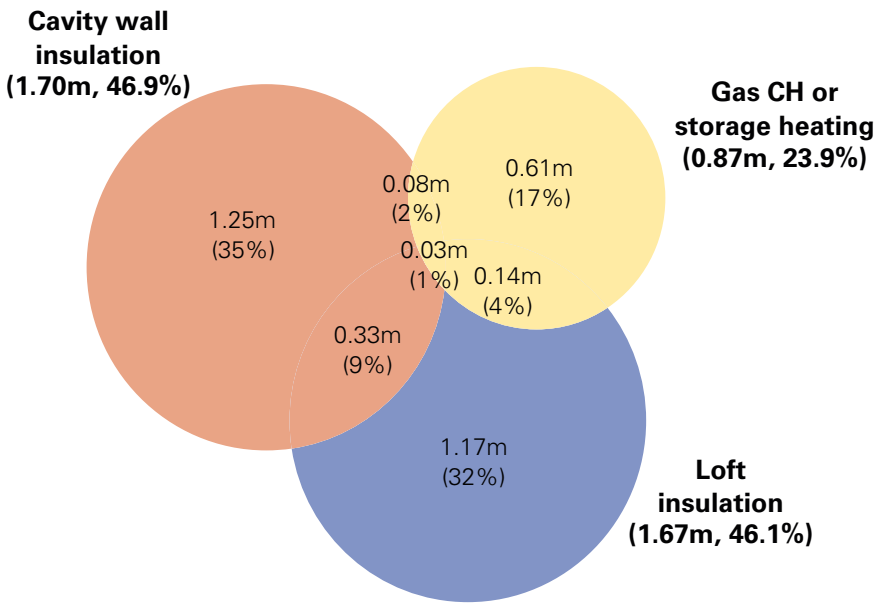
Figure 3.9: Percentage of non-decent homes failing each component by local area deprivation, 2006




**Base: all non-decent dwellings**
**Note: local areas are 2001 Census Lower Super Output Areas, ranked by the Index of Multiple Deprivation (IMD2004) and grouped into ten equal numbers of areas**

20. Of the 3.6 million homes which did not meet the thermal comfort criterion, 76% (2.75m) failed solely due to lack of adequate insulation, Figure 3.10. This proportion was slightly higher in the social sector at 82%. Only 7% of homes failing the thermal comfort criterion failed on both insulation and heating measures, and this was as low as 3% in the social sector.

Figure 3.10: Degree of overlap between reasons for failing on thermal comfort, 2006




**Base: all homes failing the thermal comfort criterion**

21. One in four (25%) private sector homes which failed the thermal comfort criterion required heating to be installed: this compared to less than one in five (18%) of homes failing in the social sector, Table 3.4. In the social sector 59% of homes (328 thousand) failing thermal comfort required cavity wall insulation and this increased to 74% when looking at social sector flats.

**Table 3.4: Reasons for homes failing thermal comfort by tenure and dwelling type, 2006**

| | private | | | social | | |
|---|---|---|---|---|---|---|
| | houses | flats | total | houses | flats | total |
| **numbers ('000s)** | | | | | | |
| heating | 591 | 176 | **767** | 50 | 48 | **99** |
| cavity wall insulation | 1,014 | 299 | **1,314** | 98 | 229 | **328** |
| loft insulation | 1,292 | 173 | **1,465** | 140 | 61 | **201** |
| **Total failing thermal comfort** | **2,528** | **534** | **3,062** | **243** | **311** | **553** |
| **% of homes failing thermal comfort** | | | | | | |
| heating | 23.4 | 32.9 | **25.0** | 20.7 | 15.6 | **17.8** |
| cavity wall insulation | 40.1 | 56.1 | **42.9** | 40.5 | 73.8 | **59.2** |
| loft insulation | 51.1 | 32.4 | **47.8** | 57.7 | 19.7 | **36.4** |
| **Total failing thermal comfort** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

**Base: dwellings failing thermal comfort**
**Note: dwellings may fail on more than one reason therefore numbers will sum to more than the total for all homes failing thermal comfort.**

## Dwellings failing on the HHSRS criterion

22. Some 22% of all homes (4.8 million) contained a Category 1 hazard. The most common such hazard was excess cold, which occurred in 2.4 million (11% of) homes, followed by falls on stairs affecting 1.8 million (11% of) homes (see Chapter 4).

## Action to make decent – treatment scale

23. Estimates of the number of non-decent homes in this report are based on whether they fail to meet any of the four criteria of the standard. However, *making* homes decent is not always straightforward. For some homes the necessary work may be practically difficult or even not feasible. For others cost considerations may suggest that improvement of the existing property is not necessarily the best solution. Finally some homes, although technically non-decent, may nevertheless be performing at a level that is acceptable in terms of what the standard is seeking to achieve.

24. Taking such considerations into account, it is possible to create a 'treatment scale'- see the text inset below. The scale begins with those homes where the work required and therefore the decision to make decent is likely to be straightforward. At the other end of the scale are homes where the work required is unlikely to be feasible or would in itself result in substantial additional problems for the home. Details of how the scale is applied to each of the four decent homes criteria are at Appendix B. It has to be emphasised that this scale does not draw a hard line on which homes should or should not be made decent – these are decisions that can only be made on a case by case basis taking all facts and

circumstances into account. The purpose of introducing the scale is to provide indicative stock estimates of non-decent homes where the course of action may be less than straightforward.

### Treatment scale for non-decent homes

In order to determine how easy it would be to make homes decent, a five point scale has been developed. The scale is based on the following, applied to each decent homes criterion:

1. **Straightforward to treat:**
   where the required treatment can be readily carried out.

2. **Inappropriate to treat:**
   where treatment would be straightforward but measurable performance is already of a good standard even though the property fails the formal decent homes criterion.

3. **Difficult to treat:**
   where the required work is subject to technical issues/difficulties and/or the cost of the work is high.

4. **Uneconomic to treat:**
   where the cost of work, in relation to the value of the property, is high.

5. **Not feasible to treat:**
   where the required treatment to make decent is not possible given the design, layout or construction of the property or where the treatment would itself create new problems.

The scale is derived by examining each criterion of decent homes individually, and then taking the worst scenario, eg if it is inappropriate to treat on thermal comfort but not feasible to treat on HHSRS, then it would be coded as 'not feasible' overall. Details of how the treatment scale is applied to each of the decent homes criteria for the EHCS are contained in Appendix B.

It must be emphasised that the most appropriate course of action for any non-decent home is a matter of professional judgement, taking all the facts and circumstances into consideration. The EHCS can not fully replicate such professional judgements as the information it collects is unlikely to be comprehensive or sensitive to individual cases. A level of simplification is therefore inevitable in using the survey in this way and the statistical results of the treatment scale should be seen as indicative.

25. Based on the above treatment scale, nearly 5.4 million homes from a total non-decent stock of 7.7 million were straightforward to make decent; that is, 70% of all non-decent homes, Table 3.5. The other 2.3 million homes, including a little over 400,000 from the social sector, were not straightforward.

## a) inappropriate to treat

26. Within those homes that are not straightforward to treat there was a relatively small number of homes (148,000 or 2% of non-decent homes) where it may be considered inappropriate to carry out the required work on the basis of their current performance level. These were all homes which, while formally not meeting the thermal comfort criterion, nevertheless achieved a level of energy performance that compared very well with similar types of homes that met the criterion. Some 62% of these properties were social sector flats with an average energy efficiency (SAP) rating of 73 (this compared to an average rating of 65 for social sector flats that met the thermal comfort criterion). The great majority (91%) of this particular group of flats did not meet the criterion because they 'needed' cavity wall insulation only. Only 2% failed the criterion because they needed central heating or storage heaters.

27. Work to further improve these homes may of course be justified in consideration of energy costs to their (potential) occupants and/or to further limit carbon emissions associated with heating requirements. However, these further considerations would equally apply to decent homes where performance could be improved further (the energy efficiency and carbon dioxide emissions associated with heating and lighting the home are addressed in Chapters 6 and 7 below).

**Table 3.5: Non decent homes by treatment category by tenure, 2006**

| | private | | | social | | | all | | |
|---|---|---|---|---|---|---|---|---|---|
| | num (000s) | % of all | % of non-decent | num (000s) | *% of all* | % of non-decent | num (000s) | % of all | % of non-decent |
| decent | 11,495 | *63.7* | - | 2,794 | *71.0* | - | 14,289 | *65.0* | - |
| non-decent | 6,558 | *36.3* | 100.0 | 1,142 | *29.0* | 100.0 | 7,700 | *35.0* | 100.0 |
| of which: | | | | | | | | | |
| straightforward to treat | 4,643 | *25.7* | 70.8 | 722 | *18.4* | 63.3 | 5,366 | *24.4* | 69.7 |
| inappropriate to treat | 52 | *0.3* | 0.8 | 97 | *2.5* | 8.5 | 148 | *0.7* | 1.9 |
| difficult to treat | 1,621 | *9.0* | 24.7 | 286 | *7.3* | 25.1 | 1,907 | *8.7* | 24.8 |
| uneconomic to treat | 57 | *0.3* | 0.9 | 9 | *0.2* | 0.8 | 66 | *0.3* | 0.9 |
| not feasible to treat | 184 | *1.0* | 2.8 | 28 | *0.7* | 2.4 | 212 | *1.0* | 2.8 |
| **all** | **18,053** | ***100.0*** | **-** | **3,936** | ***100.0*** | **-** | **21,989** | ***100.0*** | **-** |

**Base: all dwellings**

## b) difficult to treat

28. Within the overall category of properties not straightforward to treat there were also some 1.9 million homes (25% of all non-decent homes) that may be considered 'difficult' to make decent. Some 1.25 million (66%) of these failed on thermal comfort, largely because the cavity wall insulation they require (with or without additional requirements for loft insulation or heating improvement) was problematic to carry out. However half of the 1.9 million were non-decent on more than one criterion. Other key reasons why these homes were difficult to treat was because of the presence of Category 1 hazards – either because it was not feasible to adequately raise their energy performance in respect of excess cold using conventional measures or because substantial internal remodelling or a building extension was required to mitigate the Category 1 hazard (see Appendix B for more details).

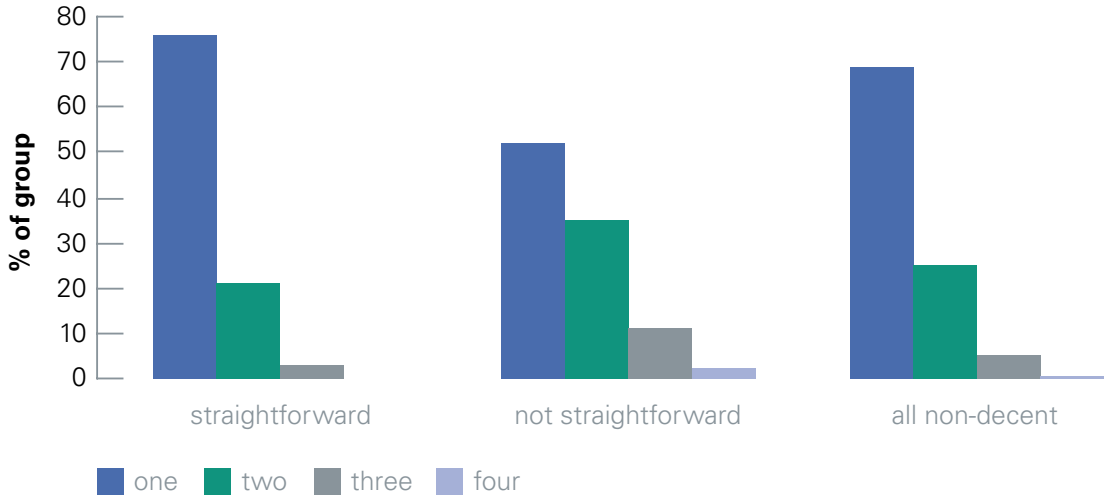
## c) uneconomic or not feasible to treat

29. A relatively small number of non-decent homes (278,000, less than 4% of all non-decent homes) could be considered not straightforward to treat on economic grounds or because it is technically not feasible to carry out the work.

## d) number and type of criteria

30. Homes that are straightforward to treat were more likely to fail on just one criterion than those that may not be straightforward (76% compared with 62%), Figure 3.11.

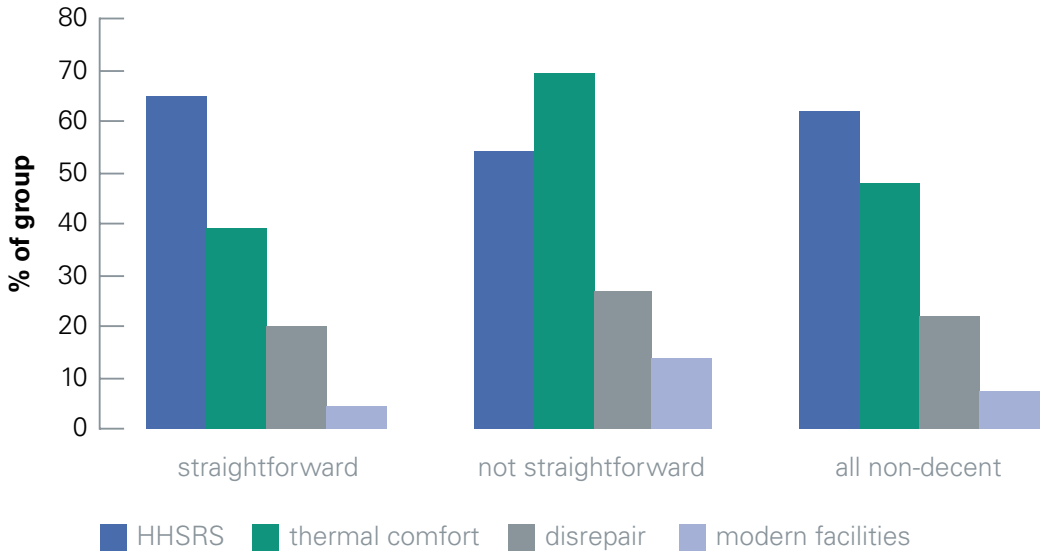
**Figure 3.11: Percentage of non-decent homes failing on one or more criteria by whether straightforward to treat, 2006**




**Base: all non-decent homes**

31. The main reasons for non-decency also varied between those that are straightforward to treat and other non-decent homes. In the former, the most common reason was the presence of Category 1 hazards under the HHSRS (65%) followed by failure due to thermal comfort (54%). For non-decent homes that are not straightforward to treat this pattern was reversed – with the most common reason for failure being thermal comfort (69%) and only 38% failing due the presence of Category 1 hazards, Figure 3.12.

Figure 3.12: Percentage of non-decent homes failing on each criterion by whether straightforward to treat, 2006

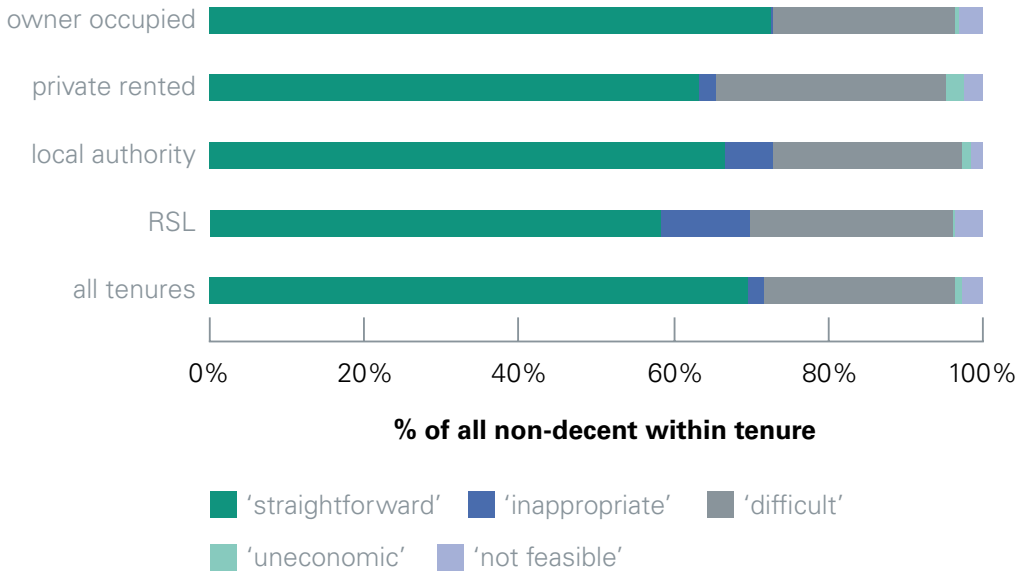



**Base: all non-decent homes**

## e) tenure

32. A key difference in the 'treatability' of non-decent homes between the two sectors was related to flats that could be considered inappropriate to treat. The proportion of non-decent homes that are inappropriate to treat was highest among the RSL housing stock – around 12% of the sector's non-decent homes, Figure 3.13.

Figure 3.13: Non-decent homes by treatment category by tenure, 2006



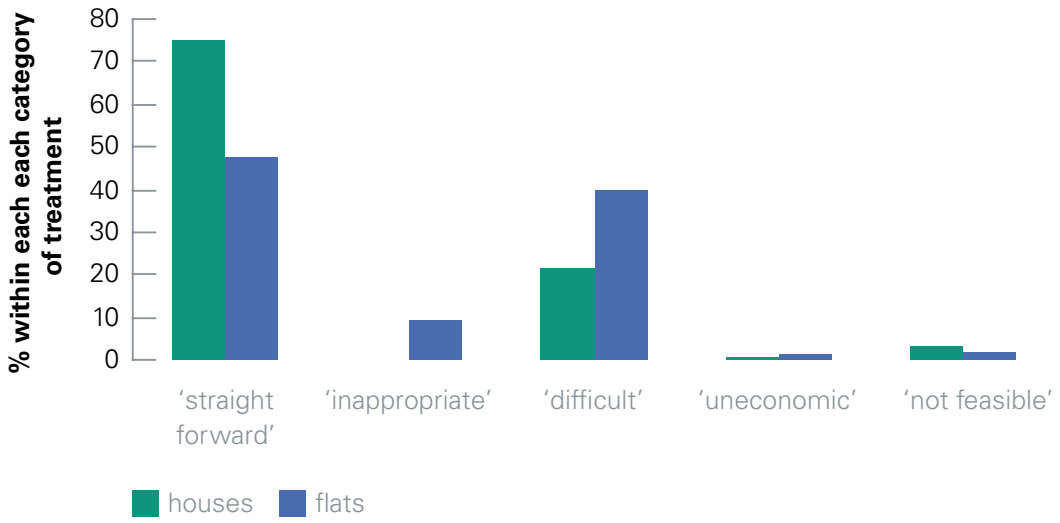

**Base: all non-decent homes**

33. In both private and social housing, some 28% of non-decent homes were not straightforward to treat because of either technical or economic considerations or because it was probably not feasible to carry out the work required, Table 3.5. However within the private sector rented homes were more likely to fall into these categories (35% of homes do so) than those in owner occupation (27%).

### f) houses and flats

34. Just under half (48%) of all non-decent flats were straightforward to treat, compared with three quarters of houses, Figure 3.14. Non-decent flats were nearly twice as likely to be 'difficult' to treat as non-decent houses (40% compared to 20%) and those homes that may be considered 'inappropriate' to treat were virtually all flats. As indicated in the section below on trends in non-decency, flats had on average made least progress since 1996.

Figure 3.14: Non-decent homes by treatment category by house or flat, 2006




Base: all non-decent homes

## Costs to make decent

35. In 2006 the mean cost to make a home decent was £6,990, Table 3.6. However the median costs indicated a very skewed distribution of costs with half of all non-decent homes costing less than £2,800 to deal with.

36. Homes in the private sector were on average more expensive to make decent than social sector homes, with a mean cost of £7,470 compared to £4,220 respectively. This is partly explained by the economies of scale gained by carrying out work on a whole estate which benefits the social sector, by private sector homes being on average bigger but also because social sector properties are less likely to fail on the more expensive types of work, such as the HHSRS.

## Table 3.6: Average costs (£) to make decent by tenure, 2006

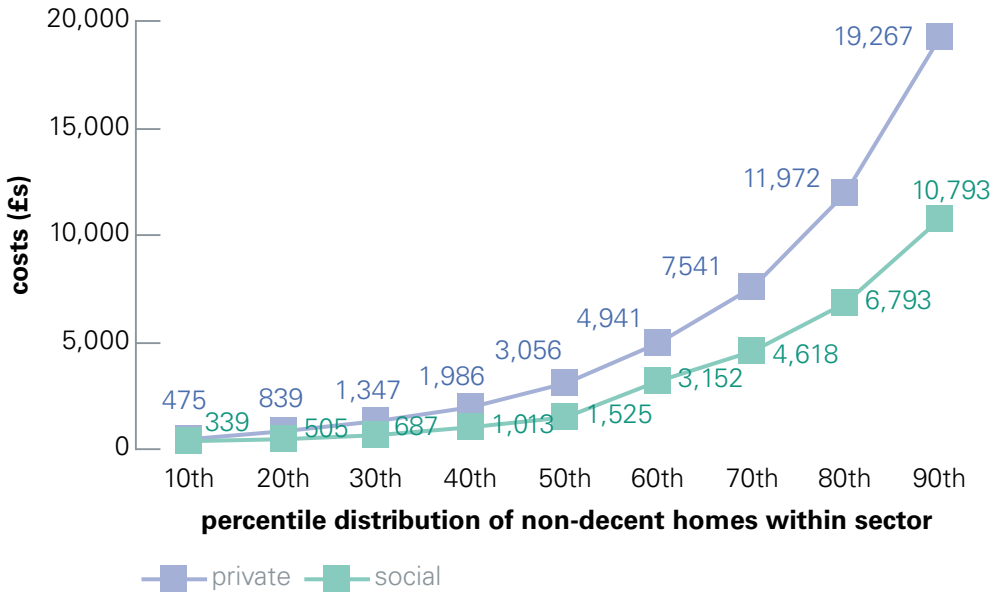
| | mean cost | median cost | no. of non-decent homes |
|---|---|---|---|
| owner occupied | 7,143 | 2,736 | 5,335 |
| private rented | 8,909 | 4,583 | 1,223 |
| **private** | **7,472** | **3,059** | **6,558** |
| local authority | 4,646 | 2,286 | 676 |
| RSL | 3,612 | 1,777 | 465 |
| **social** | **4,224** | **1,525** | **1,142** |
| **Total** | **6,990** | **2,814** | **7,700** |

**Base: all non-decent homes**

37. While the average cost to make a home decent in the private sector was £7,470, this masked the fact that the majority of non-decent homes in the private sector could be dealt with for far less. Two thirds of non-decent homes required work costing less than £7,500 while a third required less than £1,350 to be spent, Figure 3.15. The high mean cost was the result of a small proportion of homes requiring very expensive works: one in ten non-decent private sector homes required works costing more than £19,270.

38. While costs were on average less in the social sector there was a similar pattern to the distribution of costs in private sector housing. The mean cost to make decent was £4,200 for social sector homes, however around 40% of homes required works of less than £1,000. As in the private sector a small proportion of homes required more expensive works: one in ten required around £10,800 or more of work to be made decent.

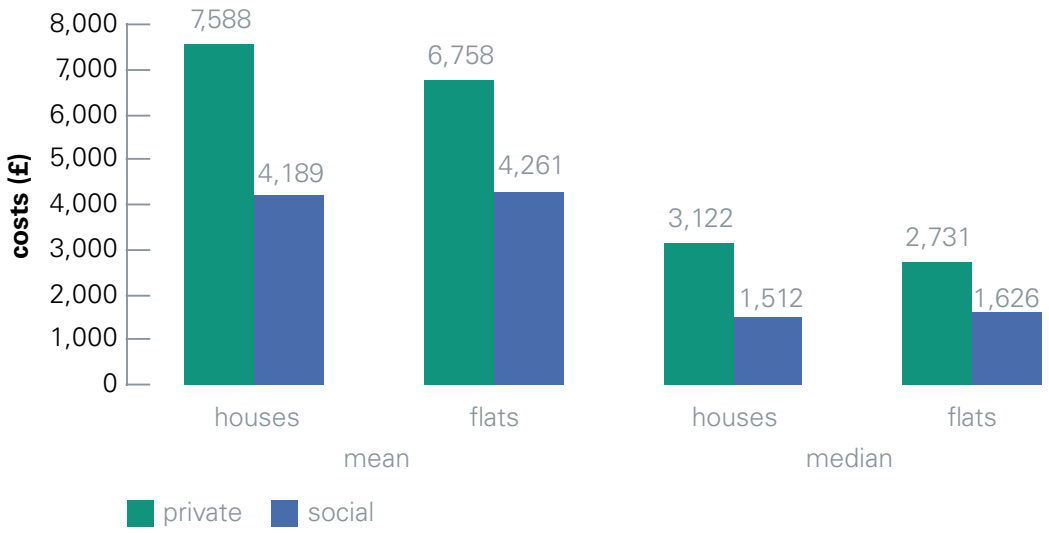
## Figure 3.15: Distribution of costs in the private and social sectors, 2006




**Base: all non-decent homes**

39. In the private sector the mean cost of making homes decent was greater for houses than flats (£7,590 compared to £6,760). However the average cost of dealing with houses and flats in the social sector was very similar. Again median costs to make decent tended to be considerably lower for both houses and flats reflecting the uneven distribution of costs, Figure 3.16.

Figure 3.16: Costs to make decent by houses and flats in each sector, 2006




Base: all non-decent homes

## Trends in Decent Homes 1996-2006

### a) progress since 1996

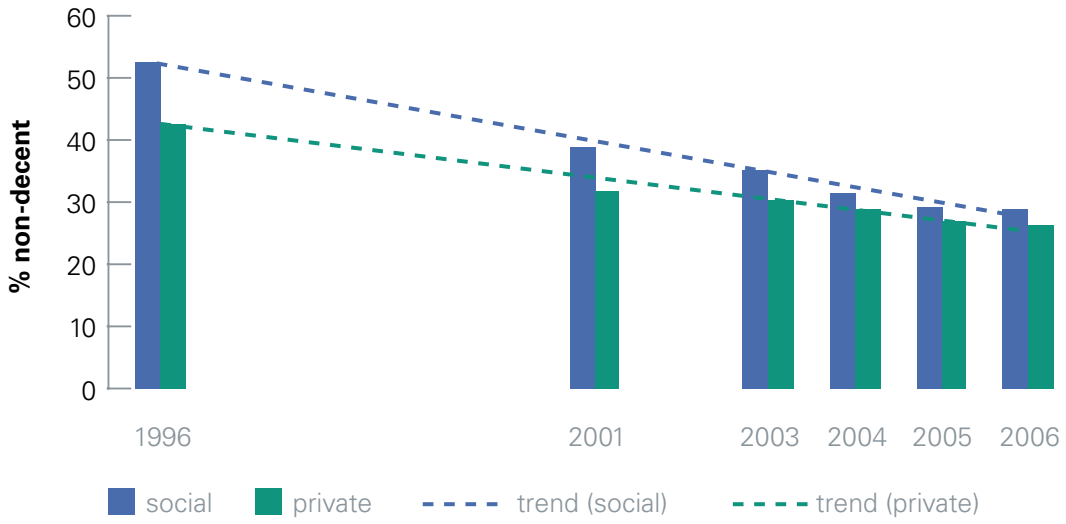
There is insufficient data to report change since 1996 (or 2001) on the *updated* definition of decent homes which includes the absence of any Category 1 hazards under the Housing Health and Safety Rating System as its criterion for meeting the statutory standard.

Trends and assessment of progress included in this section are therefore based on the *original* definition of decent homes incorporating Fitness as the statutory standard. This provides consistency and comparability in the survey estimates foor 1996-2006.

This section of the chapter therefore includes estimates for 2006 using the *original* definition which are ***not*** comparable with the 2006 estimates reported in all earlier sections of this chapter (based on the *updated* definition). Note also that estimates in this section do not include the adjustment made to the way the thermal comfort requirements are implemented in the survey (see Appendix B).

40. Since 1996 there has been a substantial reduction in the proportion of homes failing the decent homes standard across all tenures, Figure 3.17. Progress has been fastest in the social sector; the 10 percentage point gap between the social and private sectors that existed in 1996 narrowing to only 2 percentage points by 2006.

Figure 3.17: Percentage of homes non-decent by sector, 1996-2006




**Base: all dwellings**
**Note: decent homes figures based on the original definition of the standard**

## Houses and flats

41. Flats in both the social sector and the private sector were consistently more likely to be non-decent, Figure 3.18. Whilst the likelihood of non-decency for both flats and houses reduced since 1996, houses improved at a faster rate, particularly social houses where the proportion of non-decent homes more than halved since 1996.

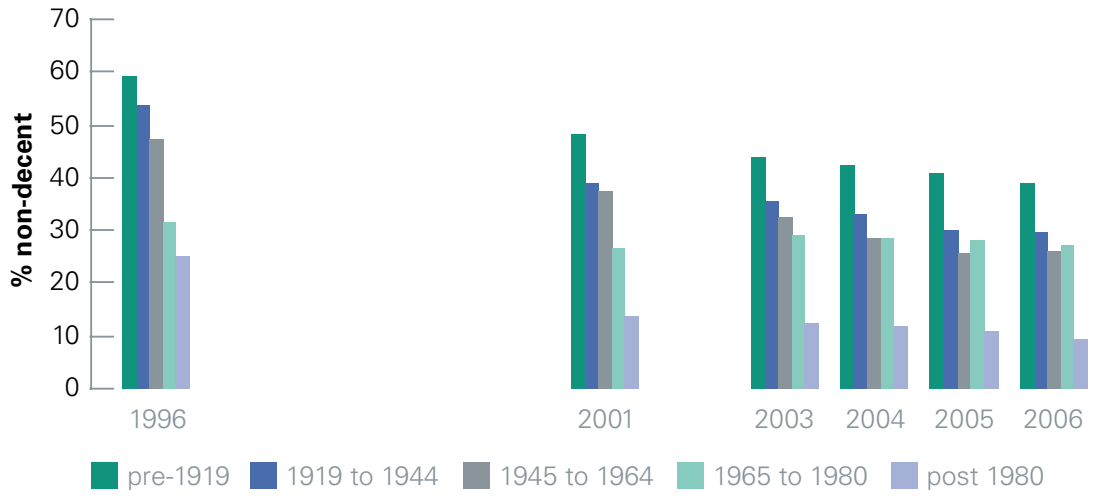
Figure 3.18: Percentage of homes non-decent by dwelling type and sector, 1996-2006


**Base: all dwellings**
**Note: Decent homes figures based on the original definition of the standard**

## Dwelling age

42. Homes built between 1919 and 1944 have seen the greatest improvements in terms of decent homes – in 1996, 54% of these homes were non-decent compared to 30% in 2006, Figure 3.19. Progress has been slowest in homes built between 1965 and 1980 which reflects in part the large proportion of flats in this age group – flats having seen relatively slow progress (see above).

Figure 3.19: Percentage of homes non-decent by dwelling age, 1996-2006




**Base: all dwellings**
**Note: decent homes figures based on the original definition of the standard**

## Progress in deprived areas since 1996

43. Since 1996 the proportion of private sector homes failing the decent homes standard in the 20% most deprived areas reduced from 54% to 33%, Table 3.7. However, private sector homes in these areas were still more likely to be non-decent than those in less deprived areas. In the social sector levels of non-decency in the 20% most deprived areas were similar to those in other areas. Furthermore, there has been steady progress in the social sector in the most deprived areas and other areas since 1996.

## Table 3.7: Non-decent homes in the 20% most deprived local areas by tenure, 1996-2006

| | | private sector | | social sector | |
|---|---|---|---|---|---|
| | | 20% most deprived | other areas | 20% most deprived | other areas |
| **number (000s):** | | | | | |
| 1996 | decent | 1,048 | 8,094 | 997 | 1,092 |
| | non-decent | 1,215 | 5,552 | 1,215 | 1,262 |
| 2001 | decent | 1,505 | 10,049 | 1,303 | 1,287 |
| | non-decent | 1,061 | 4,355 | 860 | 787 |
| 2003 | decent | 1,380 | 10,751 | 1,289 | 1,347 |
| | non-decent | 917 | 4,358 | 721 | 722 |
| 2004 | decent | 1,378 | 11,176 | 1,325 | 1,423 |
| | non-decent | 887 | 4,173 | 628 | 624 |
| 2005 | decent | 1,507 | 11,466 | 1,334 | 1,487 |
| | non-decent | 864 | 3,961 | 603 | 559 |
| 2006 | decent | 1,612 | 11,682 | 1,349 | 1,456 |
| | non-decent | 810 | 3,949 | 587 | 544 |
| **percentage:** | | | | | |
| 1996 | decent | 46.3 | 59.3 | 48.7 | 46.4 |
| | non-decent | 53.7 | 40.7 | 51.3 | 53.6 |
| 2001 | decent | 58.7 | 69.8 | 60.2 | 62.0 |
| | non-decent | 41.3 | 30.2 | 39.8 | 38.0 |
| 2003 | decent | 60.1 | 71.2 | 64.1 | 65.1 |
| | non-decent | 39.9 | 28.8 | 35.9 | 34.9 |
| 2004 | decent | 60.8 | 72.8 | 67.8 | 69.5 |
| | non-decent | 39.2 | 27.2 | 32.2 | 30.5 |
| 2005 | decent | 63.6 | 74.3 | 68.9 | 72.7 |
| | non-decent | 36.4 | 25.7 | 31.1 | 27.3 |
| 2006 | decent | 66.6 | 74.7 | 69.7 | 72.8 |
| | non-decent | 33.4 | 25.3 | 30.3 | 27.2 |

**Base: all dwellings**
**Note: decent Homes figures based on the original definition of the standard**

# Chapter 4. Health and Safety

1. In April 2006 the Housing Health and Safety Rating System (HHSRS) replaced the Fitness Standard as the statutory assessment tool for housing standards in England. For more information see Appendix A. The HHSRS represents a very different type of approach to housing standards. As described in the inset below, it is an approach that identifies any hazards present in homes and evaluates the risk they could pose to the health and safety of a vulnerable occupant, visitor, neighbour and passer-by. The HHSRS includes hazards that were not covered or inadequately covered by the Fitness Standard. This chapter focuses on the most serious ("Category 1") hazards found in homes, looking at their incidence across the housing stock, the different types of hazards found in homes, who lives in such homes and the cost of making those homes reasonably safe.

## Housing Health and Safety Rating System (HHSRS)

- The HHSRS is a **risk-based assessment** that identifies hazards in homes and evaluates the potential effect of such hazards on the health and safety of occupants, visitors, neighbours and passers-by.

- The HHSRS generates a score which represents the seriousness of any hazard. This takes into account the likelihood of an event occurring and the likely severity of its outcome. Any hazards that have a score of over 1,000 are described as **'Category 1'** for which local authorities should consider the appropriate form of enforcement action.

- The risk is assessed on the basis of a person who would be **most vulnerable** to the hazard(s) present. The presence of a Category 1 hazard in a home therefore does not necessarily mean that its current occupants are at serious risk, but that a person vulnerable to that hazard would be so. This approach works from the principle that a home that poses no unreasonable risk to the most vulnerable person poses no risk to anyone.

- Altogether **29 hazards** are included as part of the HHSRS where local authorities are carrying out a full assessment. The EHCS currently assesses the **most common ten hazards**, which will account for over 90% of all Category 1 hazards within the housing stock. See the 2006 EHCS Technical Report for the full list of hazards and details of how the survey collects and models information on the HHSRS.

- The HHSRS is radically different from the **Fitness Standard** it replaced because the latter focused on property condition and provision of amenities, rather than the potential impact of deficiencies in design or maintenance on the health and safety of the occupants. As such estimates of homes 'failing' under the HHSRS and the Fitness Standard are not comparable and do not signify any real change in condition.

## Key findings

- Some 4.8 million homes (22%) of the stock had one or more Category 1 hazards.
- About half of these homes had problems related to excess cold (homes that are expensive or difficult to heat) and a similar proportion had hazards related to falls.
- Private sector dwellings were almost twice as likely to have Category 1 hazards as social sector homes (24% compared with 13%).
- Over 40% of pre-1919 homes had Category 1 hazards and this rose to two thirds of these older homes in rural areas where the predominant reason for failure was excess cold.
- The types of hazard present varied by type of home – terraced houses had a higher proportion of homes with falls hazards than with excess cold. The reverse was true for bungalows and detached houses.
- The incidence of Category 1 hazards varied far less with household characteristics. Generally, it was the most recent movers, longest term residents and largest households who were most likely to live in these homes.
- The profile of hazards also varied for different households. Households with older people had a higher proportion of Category 1 excess cold hazards and a lower proportion of Category 1 falls hazards than the average.
- The average nominal cost to reduce Category 1 hazards to a reasonable level was around £4,000 per dwelling, although this concealed a huge variation. Half of all homes with Category 1 hazards could have been made reasonably safe by spending £1,675 or less and around one in five (22%) of homes could have been similarly tackled by spending less than £500.
- Costs of dealing with Category 1 hazards varied considerably by dwelling age, tenure and occupancy being highest for homes built before 1919, private rented dwellings and vacant dwellings generally.

## Overall incidence of Category 1 hazards

2. In 2006, 4.75 million or 22% of the housing stock had one or more Category 1 hazards. This was a very significant increase on the number that were assessed to fail the Fitness Standard (0.9 million) which the HHSRS replaced. One key reason for the substantial increase was that the HHSRS excess cold component was far more stringent than the 'heating provision' aspect of the old fitness standard which simply required a 13amp electrical socket in a room to pass. The HHSRS also included a number of hazards that were not covered at all under unfitness: those related to falls, fire safety, hot surfaces and environmental pollutants like lead and radon which affected a significant minority of dwellings. The inclusion of risks related to falls was another key reason why the number of homes with Category 1 risks was much larger than the number previously assessed as unfit.

3. The most common Category 1 hazard in the stock was excess cold; an issue in half of all homes with these hazards. The next most commonly occurring Category 1 hazards related to the three types of falls that together were found in half of all dwellings with hazards. The remaining hazards together only affected around 1 in 7 of all dwellings with Category 1 hazards.[8] For the purpose of analysis, hazards were grouped into four sets:

- Excess cold (homes that are difficult and/or expensive to keep warm)
- Falls – any of the 3 hazards related to falls (eg stairs with steep and/or winding staircases, lack of handrails, slippery steps and disrepair to stairs)
- Fires, scalds and burns – fire safety and flames and hot surfaces
- Other hazards – all other hazards measured or modelled by EHCS

A roughly equal proportion of homes had Category 1 hazards related to falls and to excess cold (both 11%), Table 4.1 and Figure 4. 1.

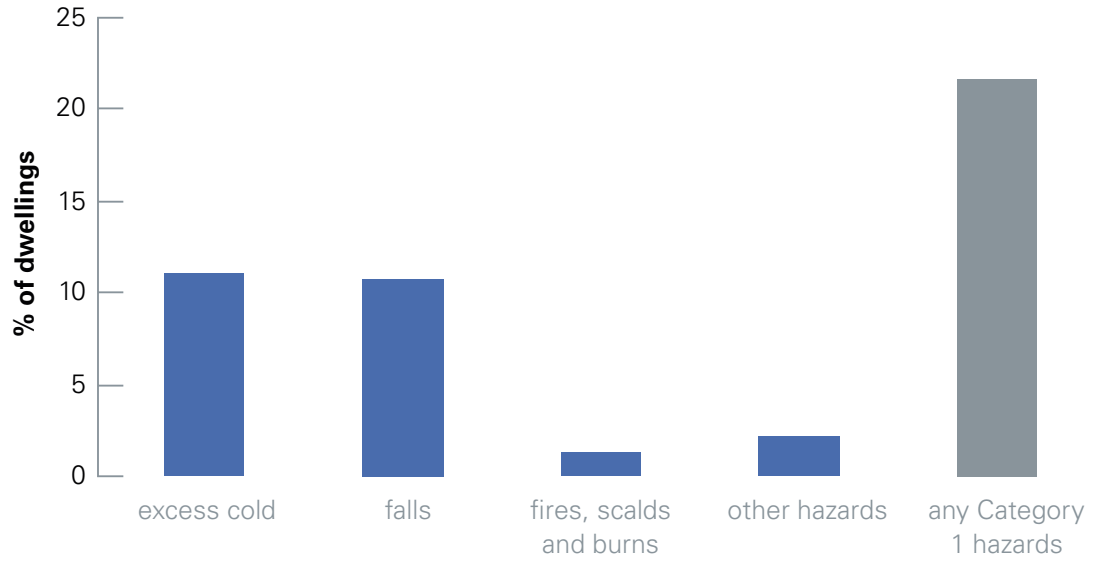
## Table 4.1: Incidence of Category 1 hazards in homes, 2006

| individual hazards | homes number (000s) | grouped hazards: | homes number (000s) | % of all |
|---|---|---|---|---|
| excess cold | 2,430 | **excess cold** | 2,430 | 11.1 |
| falls on stairs | 1,755 | | | |
| falls on the level | 607 | **falls** | 2,352 | 10.7 |
| falls between levels | 332 | | | |
| fire | 210 | **fires, scalds & burns** | 290 | 1.3 |
| flames and hot surfaces | 50-100 | | | |
| lead | 154 | | | |
| dampness | 50-100 | | | |
| radon | 50-100 | | | |
| domestic hygiene | 50-100 | | | |
| overcrowding | <50 | **other hazards** | 484 | 2.2 |
| electrical safety | <50 | | | |
| carbon monoxide | <50 | | | |
| noise | <50 | | | |
| personal hygiene | <50 | | | |
| **any hazard** | **4,752** | **any hazard** | **4,752** | **21.6** |

**Base: all dwellings**
**Note: the number of homes with individual/grouped hazards sum up to more than the total number of homes with any hazard present because some dwellings had more than one Category 1 hazard. Similarly the percentage of homes in each group of hazards added up to more than 21.6% of the whole stock because some homes had more than one type of hazard present.**

[8] Outside of excess cold, falls, fire and lead, the incidence of other hazards is too low for the sample survey to produce precise estimates of the numbers of homes with such hazards present. These have therefore been indicated as ranges.

Figure 4.1: Percentage of homes with different types of Category 1 hazards, 2006

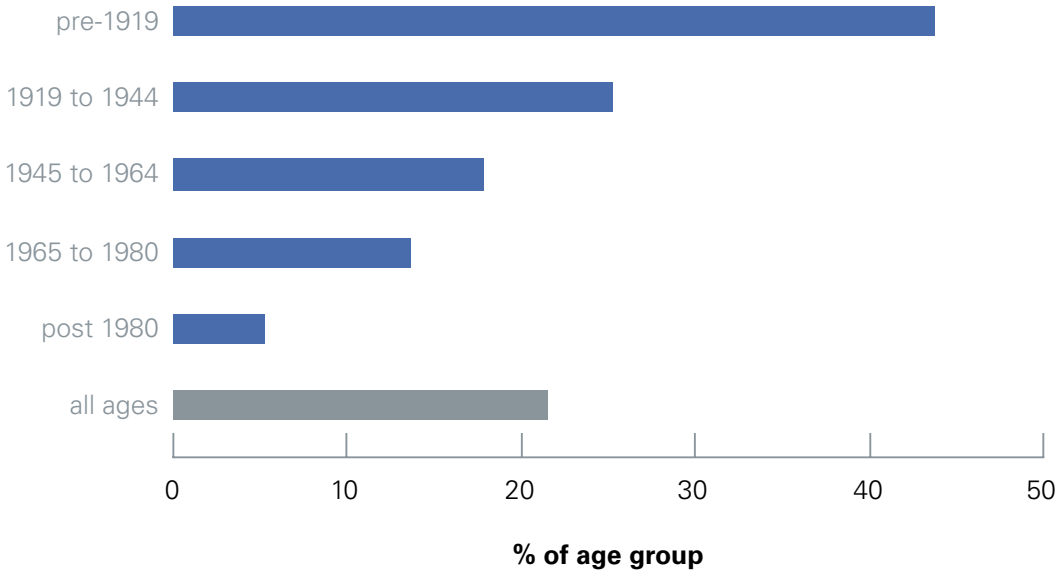



Base: all dwellings

## Homes most likely to have Category 1 hazards

4. A number of factors were closely associated with the incidence of Category 1 hazards. Older homes, particularly those built before 1919, were much more likely to have one or more Category 1 hazards than newer homes, Figure 4.2. Some 44% of pre-1919 homes had one or more Category 1 hazards compared with just 5% of those built after 1980.

Figure 4.2: Percentage of homes in each age group with any Category 1 hazards, 2006




Base: all dwellings

5. Private sector homes were almost twice as likely to have Category 1 hazards as those that were social rented (24% compare with 13%). Within the private sector, it was private rented dwellings that had the highest incidence of these hazards 31%, Table 4.2. This occurred largely because private rented dwellings tended, on average, to be older than their owner occupied counterparts. If pre and post 1919 dwellings were separated out into their two respective sectors then there was very little difference overall.

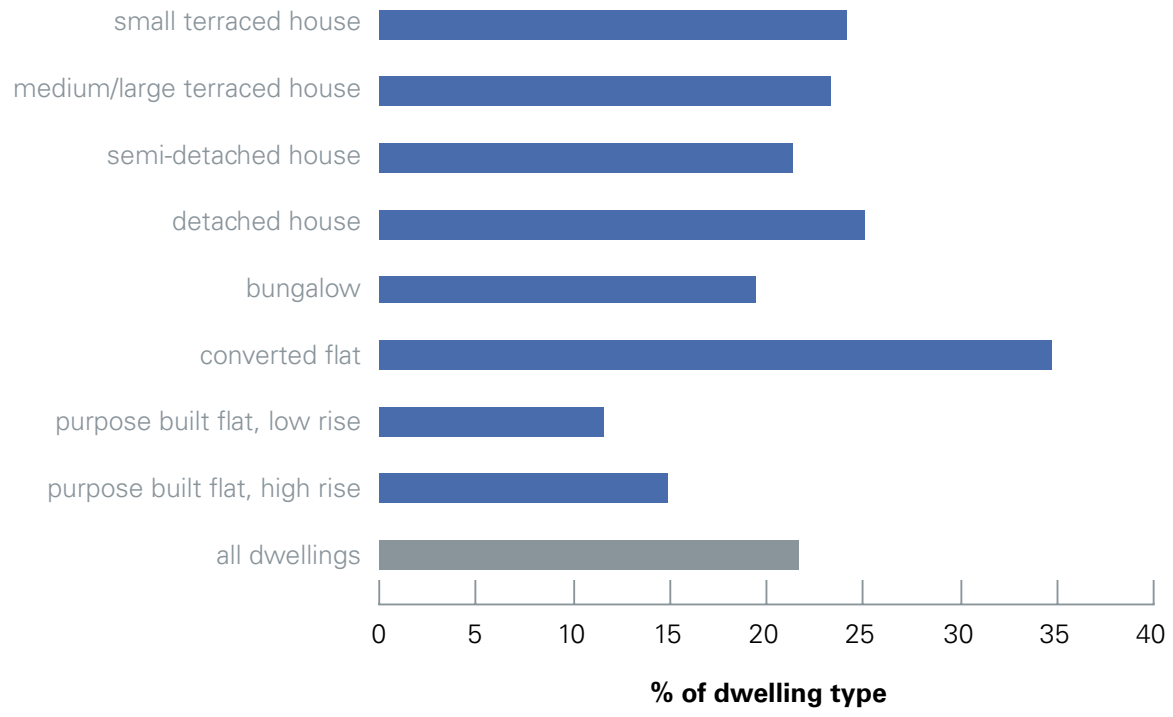
## Table 4.2: Percentage of homes with Category 1 hazards by tenure and age, 2006

| | pre-1919 | post-1919 | all ages |
|---|---|---|---|
| owner occupied | 44.2 | 16.3 | 22.4 |
| private rented | 46.0 | 18.8 | 30.5 |
| social rented | 31.1 | 11.4 | 12.8 |
| **all tenures** | **43.8** | **15.4** | **21.6** |

**Base: all dwellings**

6. Generally, houses and bungalows were much more likely to have Category 1 hazards than flats, although the highest overall incidence occurred with converted flats (35%), Figure 4.3.

## Figure 4.3: Percentage of homes with Category 1 hazards by type of home, 2006

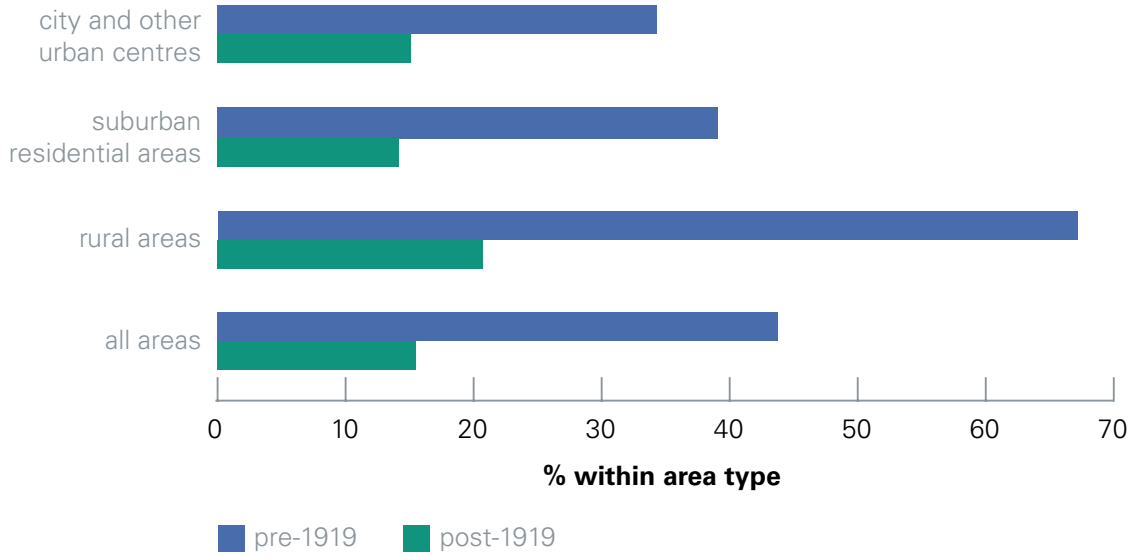



**Base: all dwellings**

7. Linked to this, the larger the home, the more likely it was to have Category 1 hazards. Some 27% of homes of 110m$^2$ floor area or more had Category 1 hazards compared with 18% of those that were less than 50m$^2$. Partly this arose because the larger the house (and associated garden) the greater the probability of any Category 1 hazard existing.

8. Homes in rural areas were much more likely to have Category 1 hazards than those located elsewhere (34%). This was not simply because rural dwellings tended, on average, to be older. Even within the oldest pre-1919 stock some two thirds (67%) of these rural dwellings had Category 1 hazards compared to the average of 44% for the oldest stock as a whole, Figure 4.4.

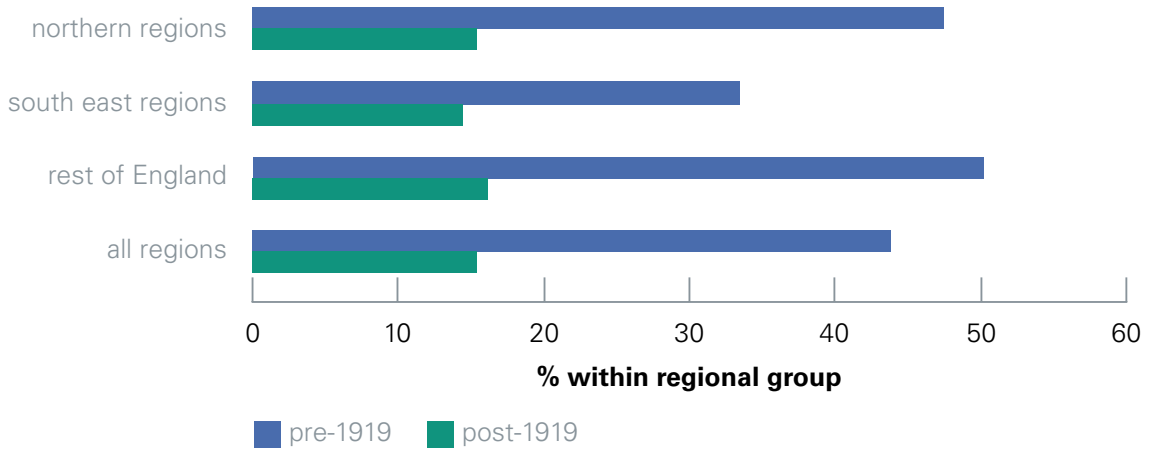
Figure 4.4: Percentage of homes with Category 1 hazards by type of area and age, 2006




Base: all dwellings

9. The south east regional group had the lowest incidence of Category 1 hazards (19%) compared with other regional groups. Similarly its oldest stock was less likely than that of other regional areas to have had Category 1 hazards, Figure 4.5. In part this reflected the high proportion of flats within the south east regions but also their higher prosperity with more private investment; particularly in pre-1919 homes.

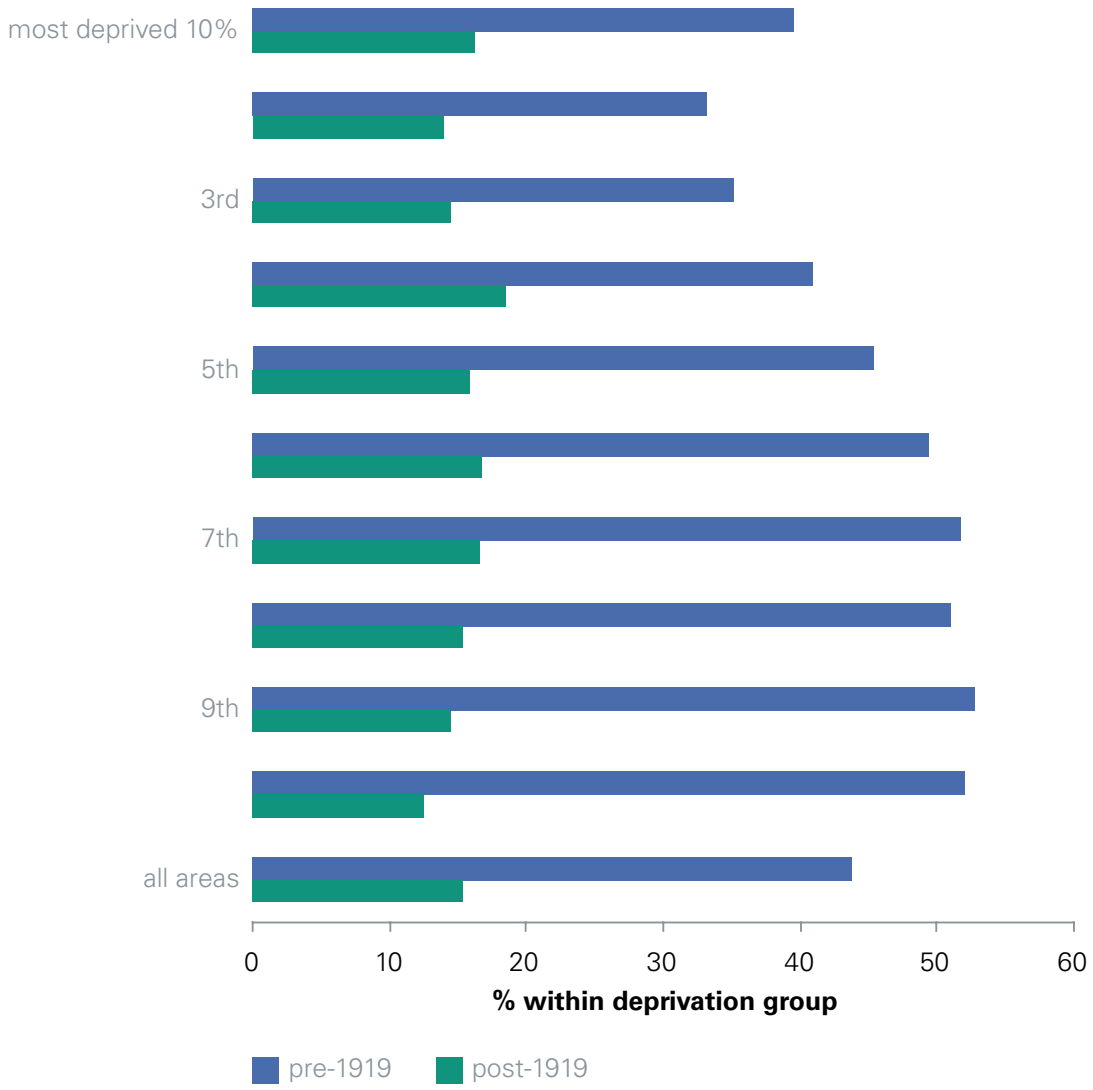
Figure 4.5: Percentage of homes with Category 1 hazards by regional group and age, 2006




**Base: all dwellings**

10. The housing stock of the most deprived local areas was no more likely than average to have Category 1 hazards. The oldest homes of the more deprived local areas were much less likely to have hazards than their counterparts in the less deprived areas, Figure 4.6. In part this reflected the high concentration of social housing in the most deprived areas with its newer stock and greater proportion of flats compared with private housing.

Figure 4.6: Percentage of homes with Category 1 hazards by local area deprivation, 2006

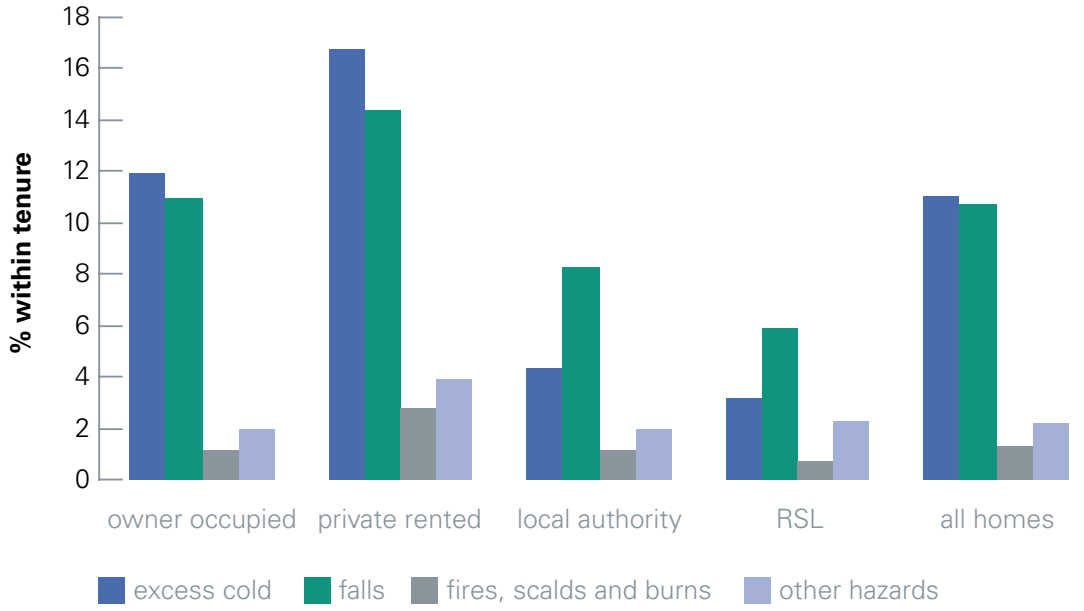



**Base: all dwellings**
**Note: local areas are ranked by the 2004 Index of Multiple Deprivation and grouped into equal numbers of areas.**

## Types of hazards

11. Where dwellings had Category 1 hazards, the profile of these hazards varied considerably by tenure, location and dwelling type. In the private sector, the most common Category 1 hazard was excess cold followed closely by falls hazards whereas falls hazards were roughly twice as prevalent as excess cold in social rented homes, reflecting higher levels of energy efficiency in this sector, Figure 4.7.

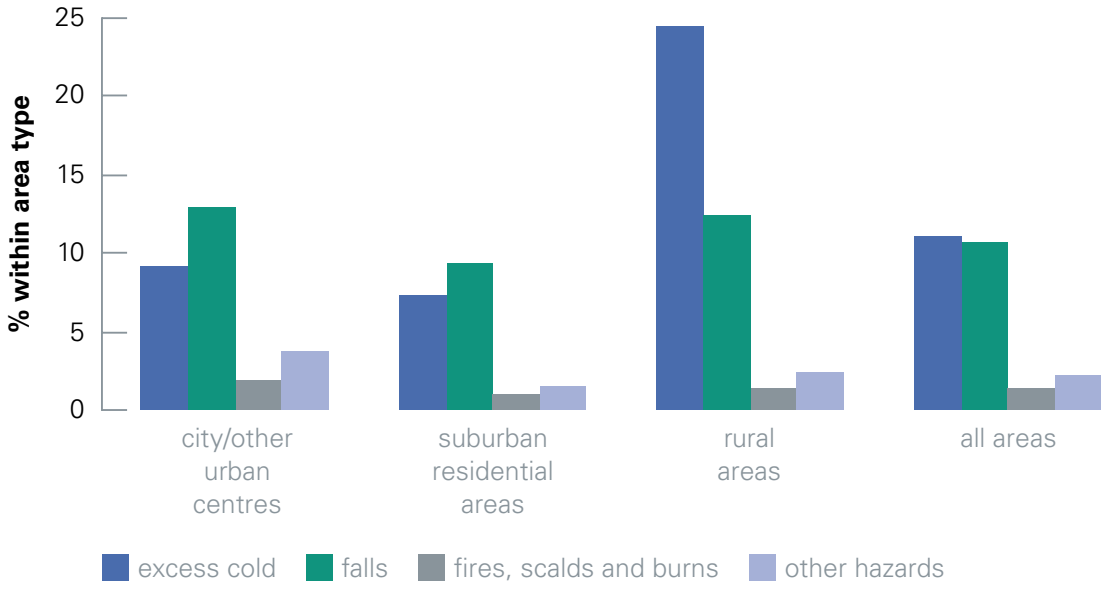
Figure 4.7: Percentage of homes with given types of Category 1 hazard by tenure, 2006




Base: all dwellings

12. In rural areas, hazards were dominated by excess cold with some 24% of these homes having Category 1 excess cold hazards compared with 9% in city and other urban centres and 7% in suburban areas, Figure 4.8.

Figure 4.8: Percentage of homes with different types of Category 1 hazard by type of area, 2006




Base: all dwellings

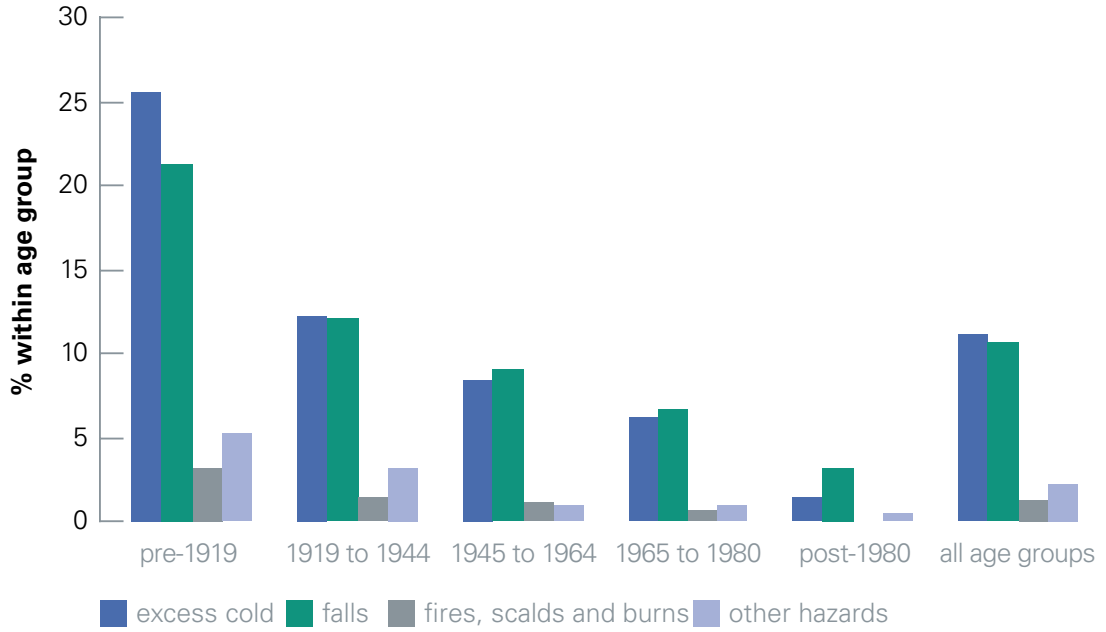
13. Terraced houses were less likely than average to have a Category 1 excess cold hazard, but more likely to have Category 1 falls hazards, Figure 4.9. The opposite was true for detached houses. Unsurprisingly, bungalows had a much lower than average proportion with Category 1 falls hazards. These falls hazards were most common in houses with 3 or more storeys where 21% had one or more Category 1 falls hazards. Converted flats had 3 times the incidence of Category 1 hazards related to fires, scalds and burns than the stock on average.

Figure 4.9: Percentage of homes with different types of Category 1 hazard by dwelling type, 2006


Base: all dwellings

14. The type of Category 1 hazards present did not vary greatly by dwelling age, although excess cold was relatively more common in pre-1919 dwellings than in newer homes, Figure 4.10.

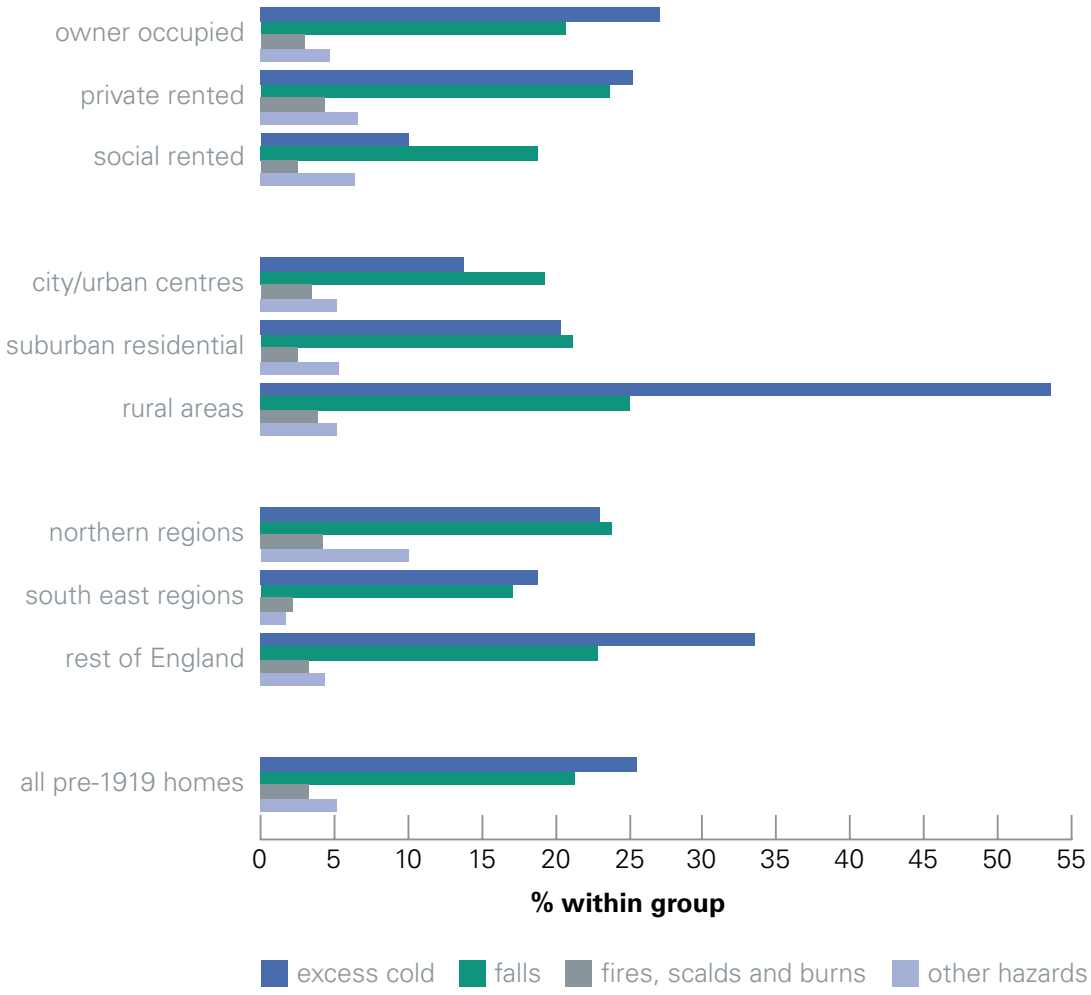
Figure 4.10: Percentage of homes with different types of Category 1 hazard by dwelling age, 2006




**Base: all dwellings**

15. However pre-1919 homes were a very diverse and varied group of properties and the relative frequency of the different types of Category 1 hazard varied by location and tenure. Pre-1919 social rented dwellings were far less likely to have excess cold hazards than private sector dwellings, although the proportion with Category 1 falls and other hazards was only slightly below that for private sector homes. Pre-1919 dwellings in rural areas and the Rest of England had a much higher proportion of homes with Category 1 excess cold hazards than in other regional groups, although the proportion with Category 1 falls hazards was similar in the different regions and types of area, Figure 4.11. Other Category 1 hazards were much more common in the North than other regions, largely because of the presence of lead piping in combination with soft water (see 2006 EHCS Technical Report).

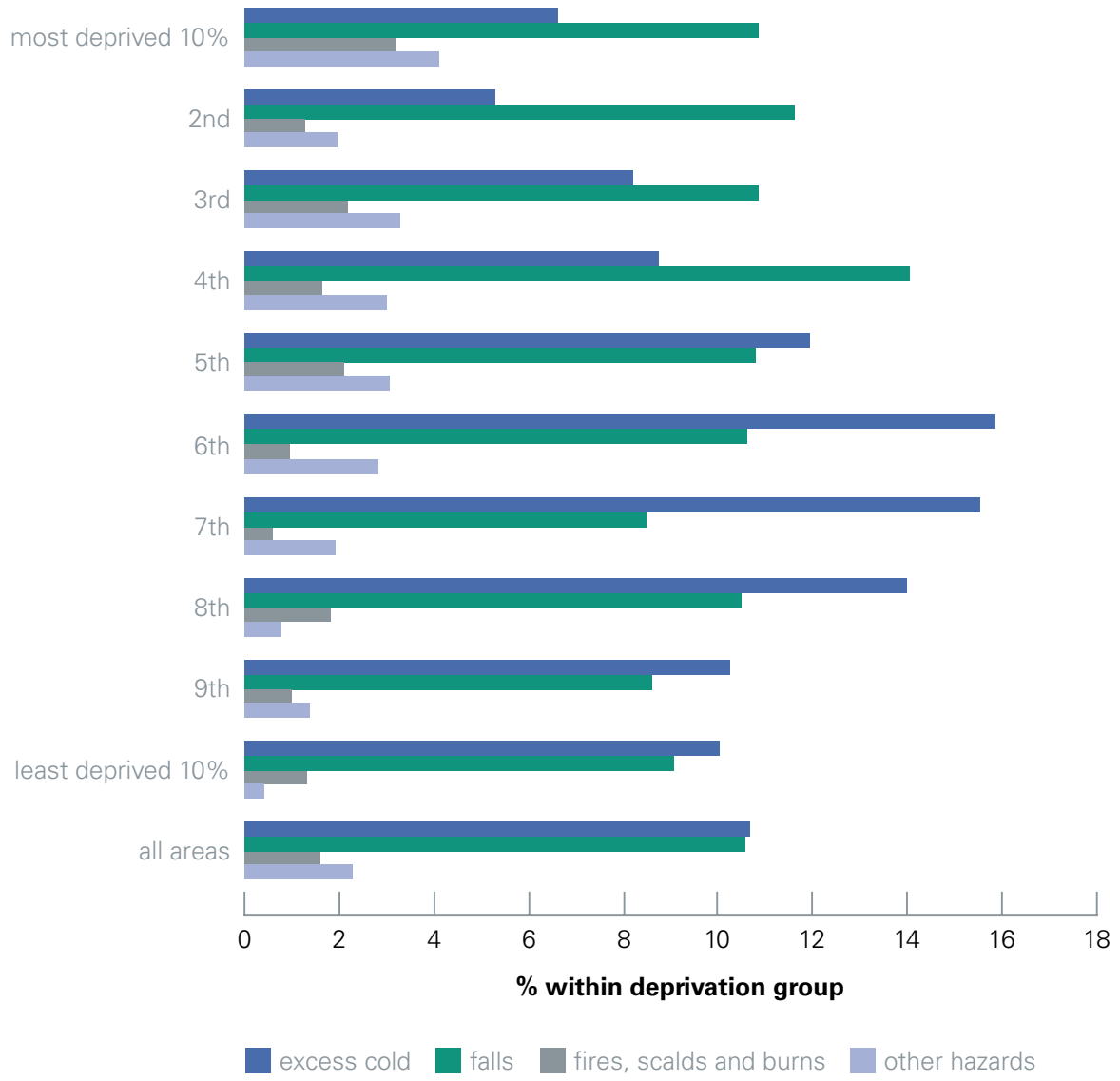
Figure 4.11: Percentage of pre-1919 homes with different types of Category 1 hazard by location and tenure, 2006




**Base: all pre-1919 dwellings**

16. Homes in the most deprived areas were less likely than average to have Category 1 excess cold hazards but had a similar level of Category 1 hazards related to falls. These homes also had a higher incidence of Category 1 hazards related to fires, scalds and burns and also other hazards than the average (Figure 4.12).

Figure 4.12: Percentage of homes with different types of Category 1 hazard by local area deprivation, 2006




Base: all dwellings

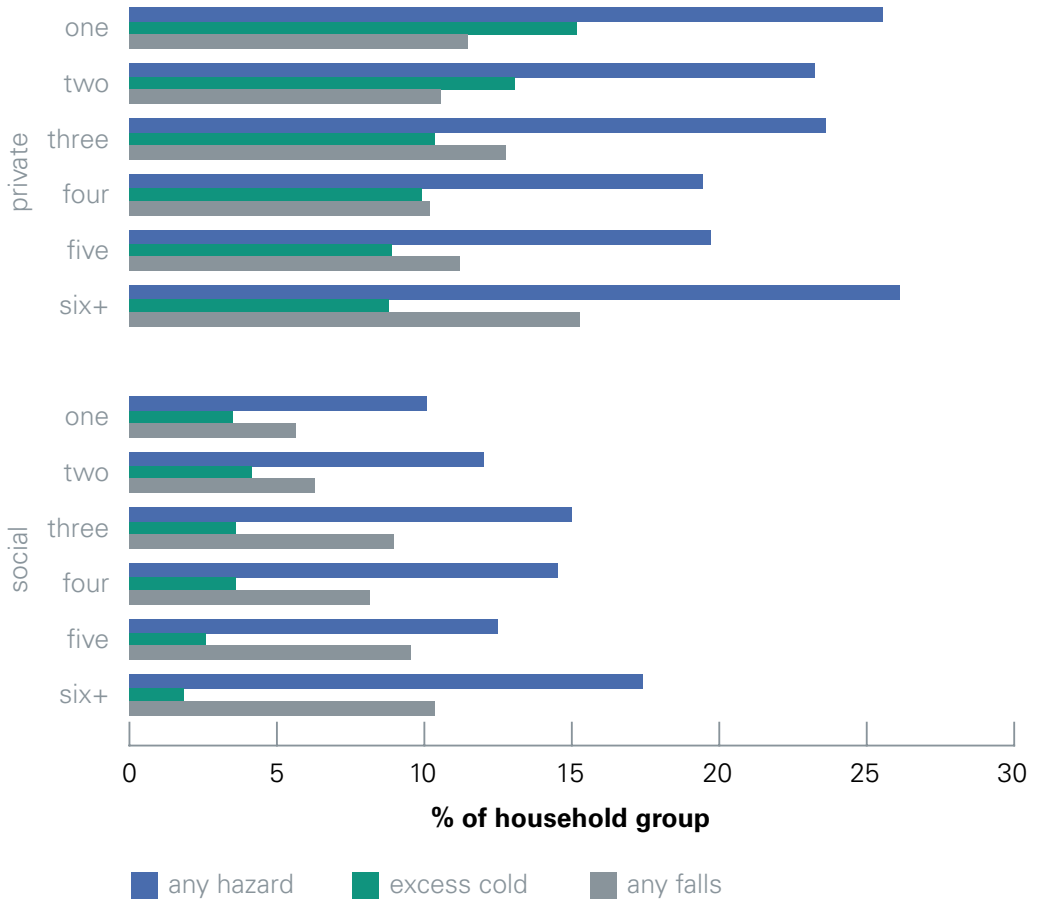
## Households living in homes with Category 1 hazards

17. Almost 4.5 million (21%) of households lived in homes where a potential Category 1 hazard was present. Over a quarter of these households (26%) were in receipt of means-tested or specific disability-related benefits, some 27% were retired and 12% were 'workless'. Over a quarter (28%) included one or more people with a long term illness or disability and 7% had a householder who was registered disabled. One in twelve (8%) were from an ethnic minority group. Almost a third (30%) of these households included one or more dependent children with 21% having at least one child under 11 and 12% with at least one child under five. Some 36% included at least one person aged 60 or over and 13% contained one or more people aged 75 or over. About a third (34%) of all households living in homes with Category 1 hazards lived in that property for at least 20 years.

18. Larger households were more likely than average to live in homes with Category 1 hazards; particularly in the private sector where some 26% of households with 6 or more people lived in homes with Category 1 hazards, Figure 4.13. In both sectors this above average risk was related to the relatively high proportion of larger households living in terraced and semi-detached houses and the above average risk of those homes having falls hazards (see Figure 4.9 above).

19. Single person households in the private sector were also more likely to have lived in homes with Category 1 hazards (26%). These households were particularly more likely than others in the sector to live in homes with excess cold. In part this was related to younger people privately renting converted flats alone which have a high incidence of Category 1 hazards (Figure 4.3); and older people living alone in homes that had not been adequately maintained and improved. In the social sector, single person households were the least likely to have lived in homes with Category 1 hazards (10%), Figure 4.13.

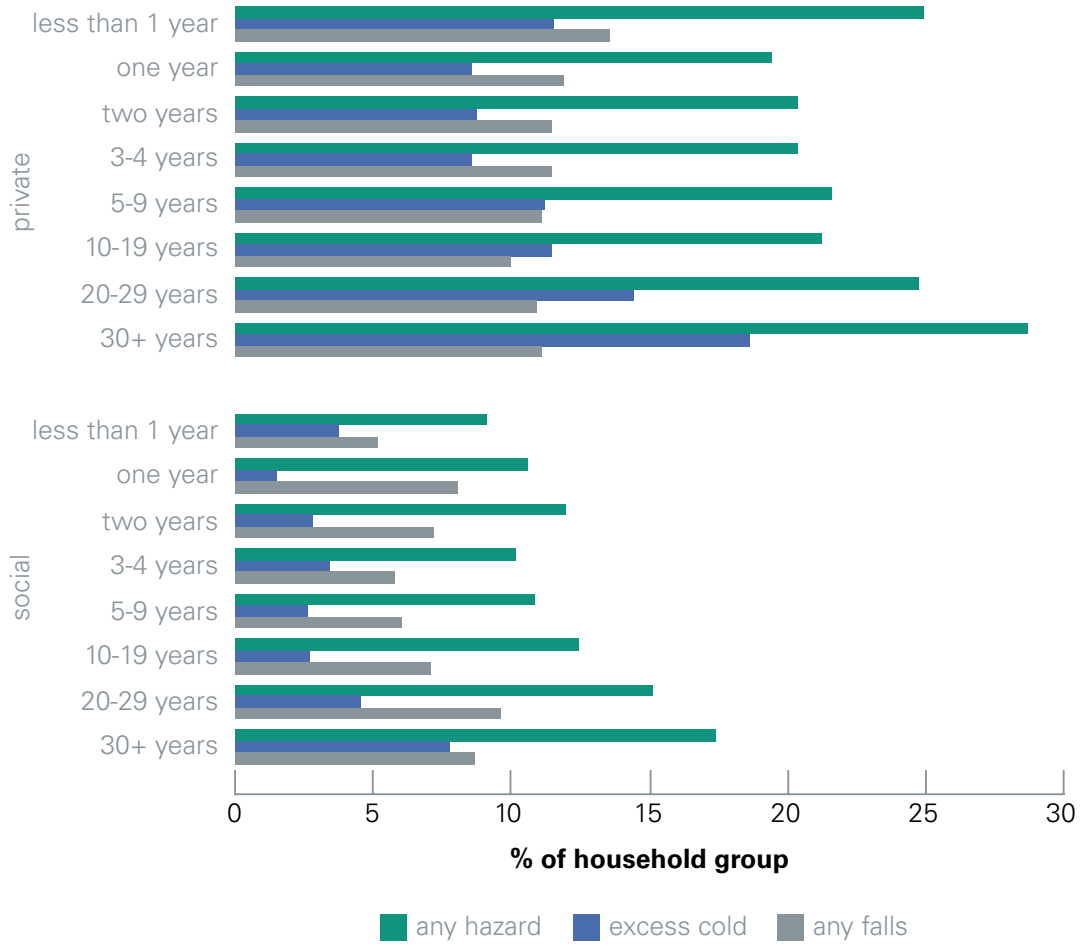
Figure 4.13: Percentage of households in homes with different types of Category 1 hazards by household size and tenure, 2006




Base: all households

20. Households resident for 30 years or longer in both the private and social sectors were more likely to live in homes with Category 1 hazards (29% and 17% respectively) than was average for their sectors. For both, it was the greater likelihood of the home being excessively cold with longer term residence that underpinned this increase. In the private sector, the most recent movers were also more likely to live in such homes (25%), Figure 4.14.

Figure 4.14: Percentage of households in homes with different types of Category 1 hazards by length of residence and tenure, 2006

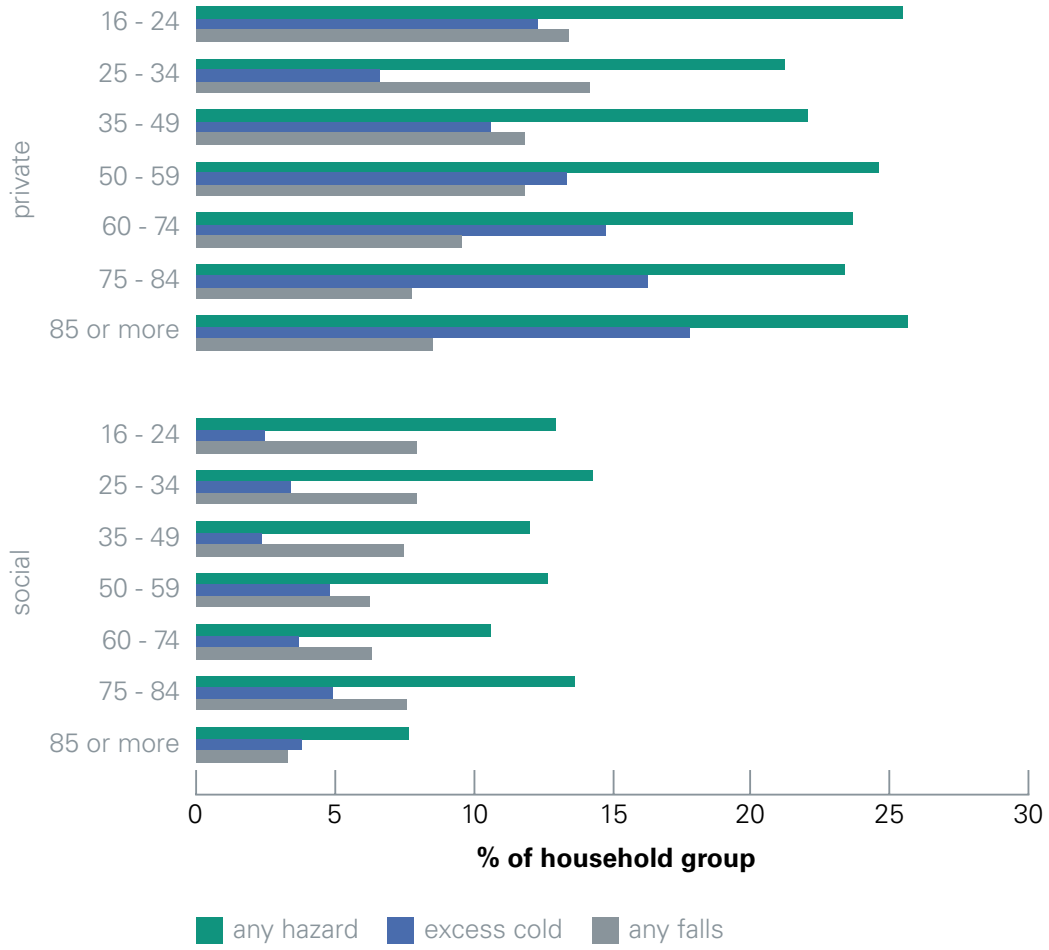



Base: all households

21. Households where the HRP or partner was registered disabled were less likely to live in homes with Category 1 hazards than other households (17% compared with 22%) reflecting the fact that a relatively high proportion of this group lived in bungalows or had adaptations and improvements carried out to make their homes more suitable for their needs which also made them generally safer.

22. Generally, the types of Category 1 hazards present did not vary as much with household characteristics as they did with dwelling characteristics or location. The exception was age of the oldest person in the household. Households containing older people were more likely than average to have Category 1 excess cold hazards but less likely to have had hazards related to falls. The disparity in relation to excess cold arose in the private housing sector, Figure 4.15. A key factor in the lower than average likelihood of living with hazards related to falls was the high proportion of older households who lived in bungalows or purpose built flats (32% compared with 17% of younger households). Houses of two or more storeys occupied by these older households had the same proportion with Category 1 falls hazards as houses occupied by younger groups (both about 11%).

Figure 4.15: Percentage of households in homes with different types of Category 1 hazards by the age of the oldest person in the household, 2006




Base: all households

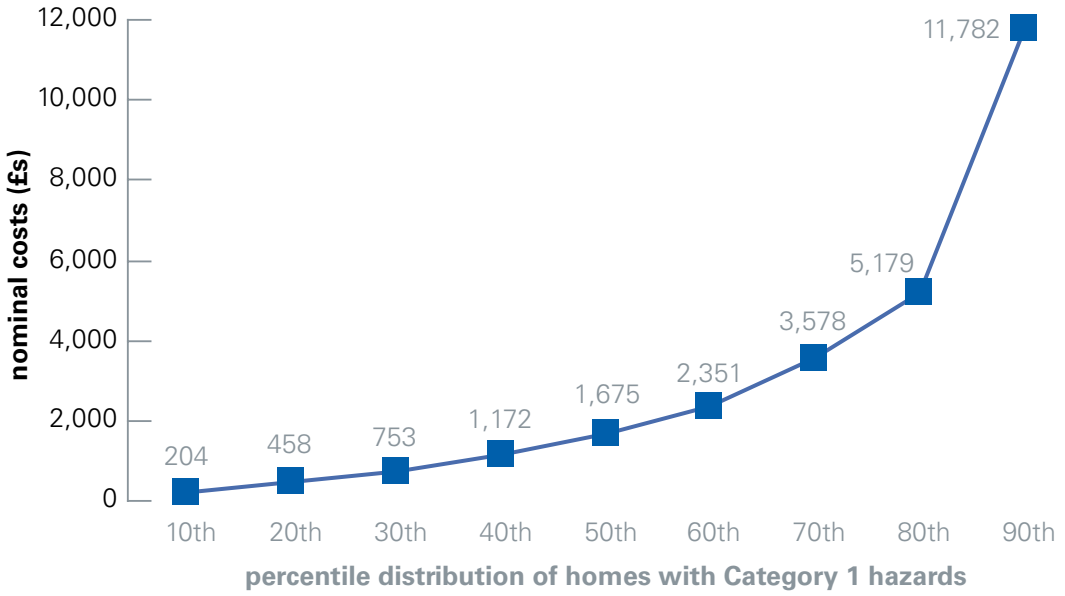
## Costs to remedy Category 1 hazards

### Costs to remedy hazards:

The costs used in the EHCS represent the nominal costs of making the dwelling reasonably safe and healthy. These costs are based on public sector prices and assume large contracts. They do not include access equipment like scaffolding or prelims (site fencing, security etc.). They also do not take into account regional variations in the price of building work (see 2006 EHCS Technical Report for more detail). With the 5 hazards that were measured, surveyors were asked to specify the type and quantity of works required to reduce the hazard to an acceptable level. An 'acceptable level' is the 'average' for the age and type of the dwelling rather than a higher or optimum standard as defined by the current Building Regulations. For other hazards that were modelled, the assumptions and level of improvement assumed are detailed in the 2006 EHCS Technical Report.

23. The average cost to improve dwellings with Category 1 hazards was £3,959 per dwelling although this concealed considerable variation, Figure 4.16. The 'typical' cost, represented by the median value, was rather lower at £1,675, which means, half of the 4.75 million homes with Category 1 hazards could have been made reasonably safe for £1,675 or less. Over one in 5 homes with Category 1 hazards (22%) could have been made reasonably safe and healthy for less than £500.

**Figure 4.16: Distribution of costs to make homes with Category 1 hazards reasonably safe and healthy, 2006**




**Base: all dwellings with Category 1 hazards**
**Note: the percentile distribution in this table ranks all homes with Category 1 hazards by their cost to remedy (low to high) and identifies the value below which 10%, 20% etc of these homes fall. For example, 10% of all homes with Category 1 hazards have a nominal cost to remedy of less than £204.**

24. Summary Statistics Tables SS4.1 and SS4.2 present costs by dwelling and household characteristics using five broad bands. Dwellings built before 1919, larger homes, detached houses, those in rural areas, those located in the 'Rest' of England had a much higher proportion of homes with Category 1 hazards needing at least £5,000 spent to remedy these hazards, Summary Table 4.3. Conversely, newer homes, social rented dwellings, purpose built flats and small terraced houses had the highest proportion of homes requiring less than £500 spent to make them reasonably healthy and safe.

25. Looking at households living in homes with Category 1 hazards, the distribution of costs shows very little variation with household characteristics apart from age of the oldest person and length of residence. The highest proportion of homes requiring at least £2,000 of work were amongst the 'extreme' groups (youngest and the oldest and also the most recent movers and longest term residents), Summary Statistics Table SS4.2.

# Chapter 5. Damp and Mould Growth

1. Untreated damp conditions and mould growth in the home can have a significant impact on the health of occupants, who will have an increased risk of developing respiratory illnesses. Damp conditions can also lead to rapid deterioration of the fabric of the dwelling, creating further problems and more expensive repairs to the property. The Housing Health and Safety Rating System assesses the health risks of damp conditions within the home and chapter 4 indicated that between 50,000 to 100,000 dwellings had damp problems that posed unacceptable risks to vulnerable people should they occupy those homes. This chapter looks in more detail at the different types of damp problems that arise in homes, which dwellings are most likely to have these problems, factors contributing to damp and mould, and who is more likely to live in a home with damp problems. The focus for this chapter is not on the severest cases of damp identified through the HHSRS but on the wider range of problems that are found in the housing stock.

2. The key findings are:

- **There has been some reduction in the proportion of homes with damp since 1996, but around 2.1 million homes (10% of all) still had problems with damp.**

- **The highest incidence of damp problems was found in homes built before 1919 (22%), the private rented sector (20%), converted flats (18%), in cities and urban centres (15%) and in the most deprived areas (15%).**

- **The majority of problems with penetrating damp were caused by disrepair to roof guttering and downpipes, waste pipes, roof covering, wall finish and chimneys.**

- **Dwellings with poor energy efficiency were more likely to have problems with all types of damp – not just condensation or mould growth. Problems of disrepair, dampness and poor thermal efficiency often occurred together.**

- **Serious condensation or mould growth was far more prevalent in rented homes; especially those owned by local authorities or private landlords where 8% had these problems. These problems were also associated with: exposed walls, floors and ceilings in bathrooms; inadequate ventilation; the absence of working extractor fans in kitchens and bathrooms; and larger households. Some 12% of households with seven or more people lived in homes with these problems.**

- **Households with children (under 16 years of age) were more likely than other households to experience serious condensation or mould in their homes, but particularly children from ethnic minority, poor and workless households. While older people were less likely than average to live with problems of condensation or mould growth, poverty and long term residence were factors significantly contributing to their risk of doing so.**

- **Around 140,000 households with infants (aged below 5) and 75,000 households with people aged 75 or more years lived in homes with serious condensation or mould problems.**

## Nature and overall incidence of damp problems

3. Damp and mould in homes falls into three main types, with distinct causes and symptoms:

- **Rising damp** – caused by water coming up from the ground into the walls or floors.
- **Penetrating damp** – caused by water coming in from leaks to the external fabric (eg roofs, gutters) or internal plumbing (eg water pipes, sinks).
- **Condensation or mould** – caused by water vapour arising from activities like cooking and bathing, which condenses on cold surfaces such as windows, and walls. Virtually all homes have some level of condensation occurring. Only *serious* levels of condensation or mould are considered as a problem in this chapter.

  These problems are identified and assessed through the detailed inspection of the home carried out by surveyors as part of the English House Condition Survey.

4. The proportion of homes with all types of damp problems has reduced slightly since 1996, Table 5.1. However some one in 10 homes (10%) still had problems with damp or mould in at least one room in 2006, with over 2.1 million homes affected.

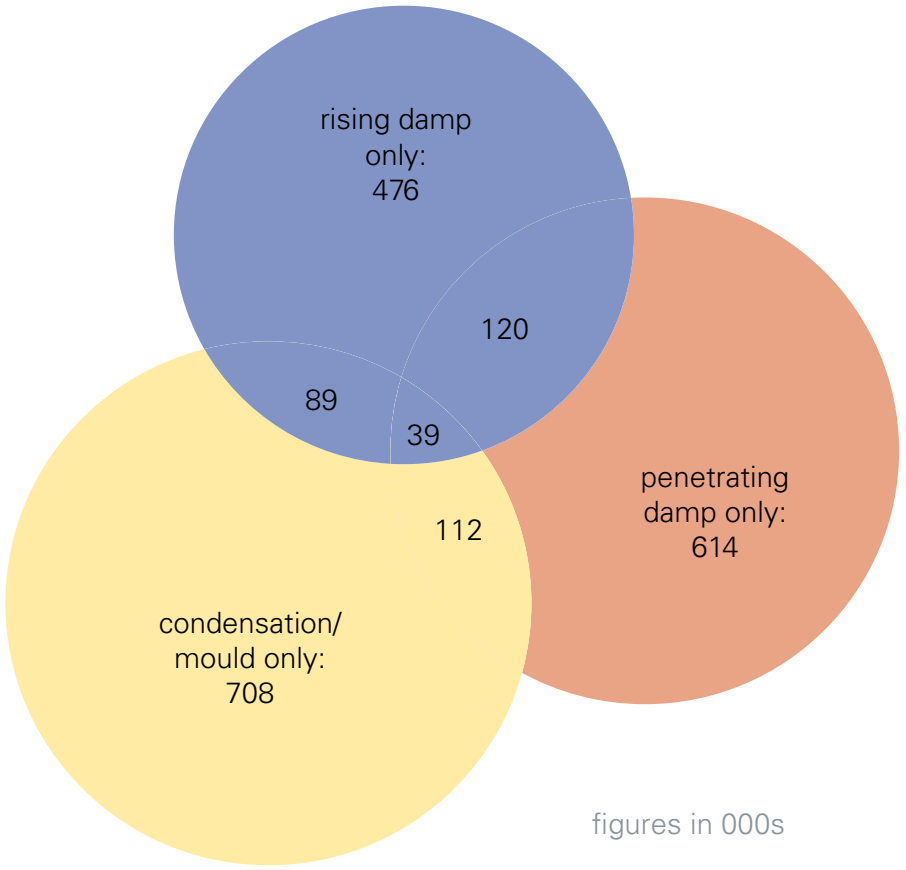
Table 5.1: Number and percentage of homes with damp in one or more rooms, 1996-2006

| | rising damp | penetrating damp | condensation/ mould | Any damp problems |
|---|---|---|---|---|
| **number (000s)** | | | | |
| 1996 | 858 | 1,271 | 1,145 | 2,601 |
| 2001 | 625 | 1,032 | 860 | 2,032 |
| 2003 | 740 | 1,066 | 1,003 | 2,283 |
| 2004 | 750 | 1,035 | 951 | 2,251 |
| 2005 | 759 | 952 | 941 | 2,210 |
| 2006 | 724 | 886 | 947 | 2,158 |
| **percentage of all stock** | | | | |
| 1996 | 4.2 | 6.3 | 5.6 | 12.8 |
| 2001 | 2.9 | 4.9 | 4.1 | 9.6 |
| 2003 | 3.4 | 5.0 | 4.7 | 10.6 |
| 2004 | 3.5 | 4.8 | 4.4 | 10.4 |
| 2005 | 3.5 | 4.4 | 4.3 | 10.1 |
| 2006 | 3.3 | 4.0 | 4.3 | 9.8 |

**Base: all dwellings in each survey.**

5. Only a minority of homes with damp problems had more than one type of problem, reflecting the different nature and causes of them, Figure 5.1. Only 17% of homes with damp problems (360,000) had more than one type of problem.

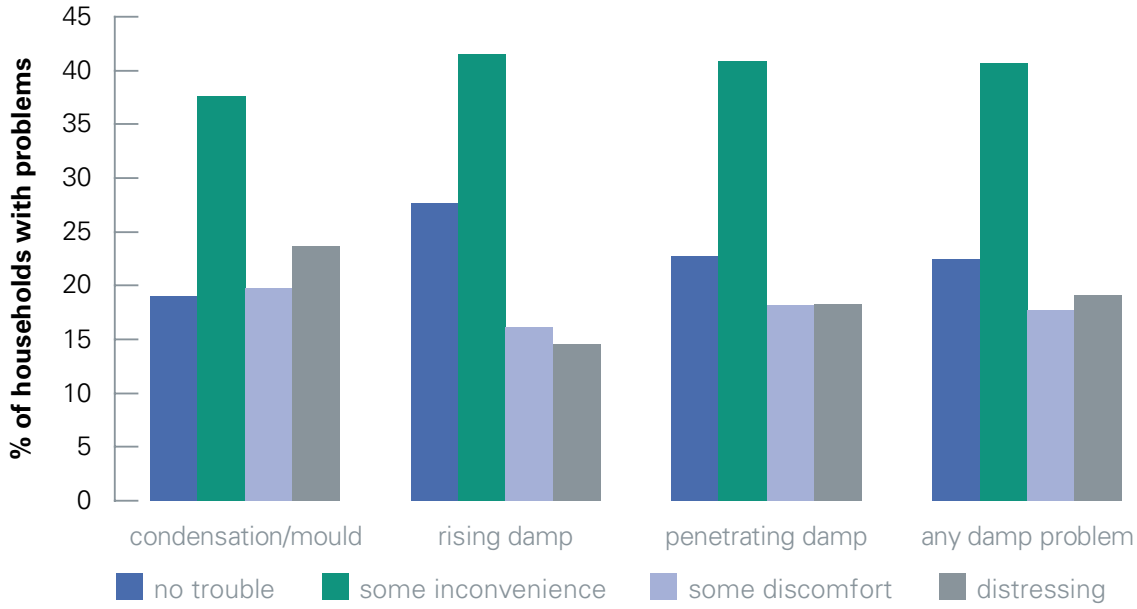
Figure 5.1: Homes with damp problems by type of problem, 2006




**Base: all stock with damp problems. The area of each circle and its overlap with others are proportionate to the total number of homes with the given type(s) of damp problem.**

6. Households living in homes with damp problems had a varied awareness and reaction to the problem. When asked how much these problems affected them, only a minority (around 20 to 25%) said that they caused no trouble, while around 15 to 25% found the problem distressing, Figure 5.2. Households living in homes with serious condensation or mould problems were most likely to find the conditions distressing.

Figure 5.2: How people felt they were affected by damp problems, 2006



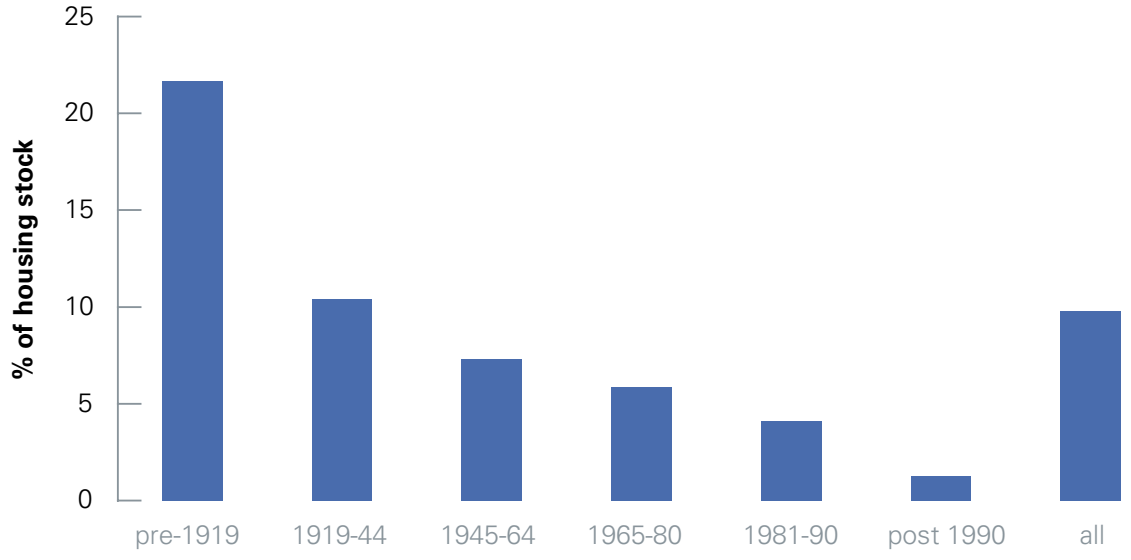

**Base: all households with types of damp present who indicated they had a problem.**

**Note: there is no perfect agreement between surveyor assessment and household perception. Some occupants reported problems that were not evident as significant problems at the time the surveyor made an assessment and conversely some occupants were not aware they had a significant problem. The results for this diagram are based on occupied homes were there is agreement from the two sources.**

## Which properties had damp problems

7. The incidence of damp problems is strongly related to dwelling age, Figure 5.3. Some 22% of pre-1919 dwellings had problems with damp compared with just 1% of those built after 1990.

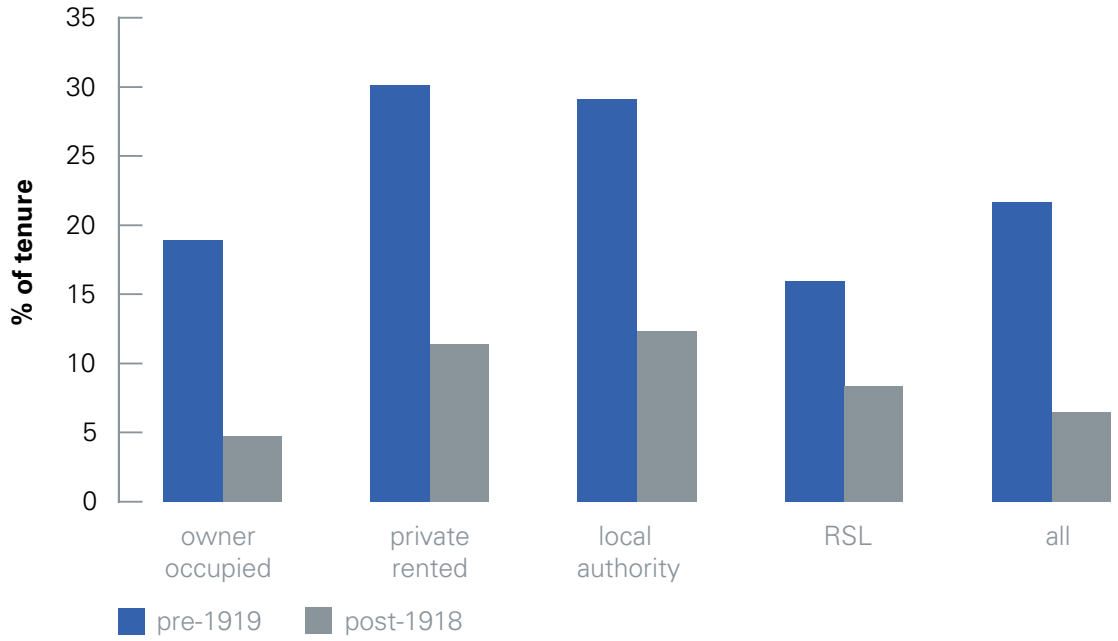
Figure 5.3: Incidence of any damp problem by dwelling age, 2006




**Base: all dwellings.**

8. The incidence of damp problems also varies by tenure. Some 20% of private rented homes and 13% of local authority homes had damp in at least one room compared with just 9% of housing association and 8% of owner occupied homes. Only part of this arose because of the different age profile of the stock within these tenures. Looking at older properties only, private rented and local authority homes had a higher incidence of damp problems than owner occupied and RSL dwellings, Figure 5.4.

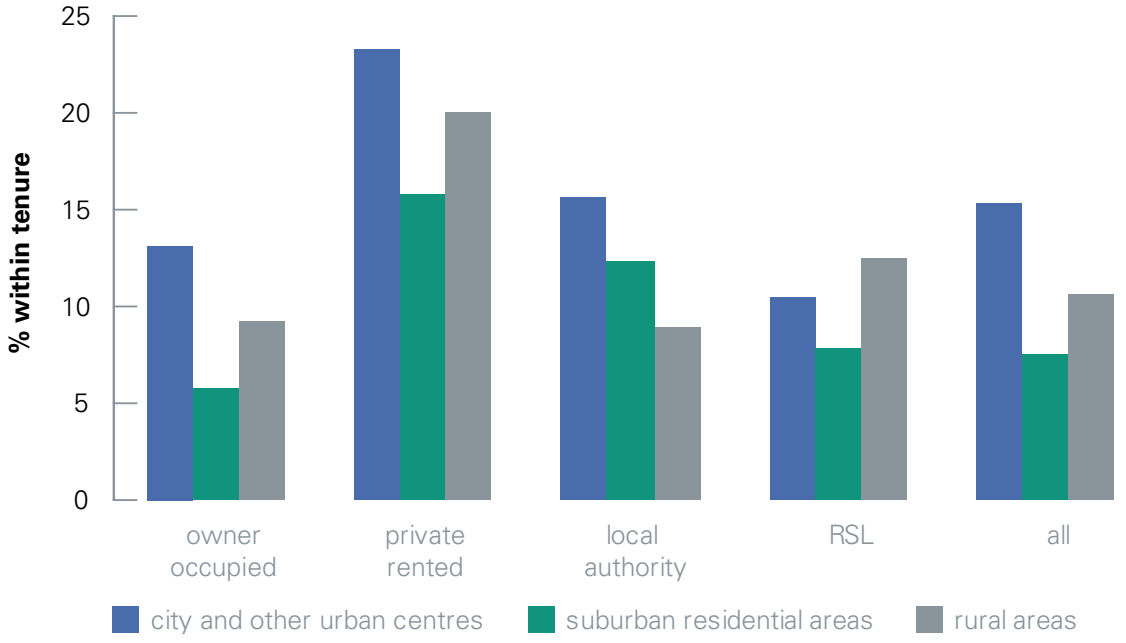
Figure 5.4: Incidence of any damp problem by tenure and dwelling age, 2006




Base: all dwellings.

9. The incidence of problems also varied by type of dwelling. Some 18% of converted flats had damp problems compared with 6% of detached houses and 7% of bungalows (see summary statistics). Dwellings located in city and other urban centres were also more likely to have had problems with damp than those located in other areas (15% compared with 11% in rural areas and 7% in suburban areas). The highest incidence (23%) was seen for private rented dwellings in city and other urban centres and the lowest (6%) for owner occupied homes in suburban areas, Figure 5.5. However there was a relatively high incidence of problems within local authority stock located in suburban areas where the difference compared to the tenure's urban centre housing was much less pronounced than in other sectors.

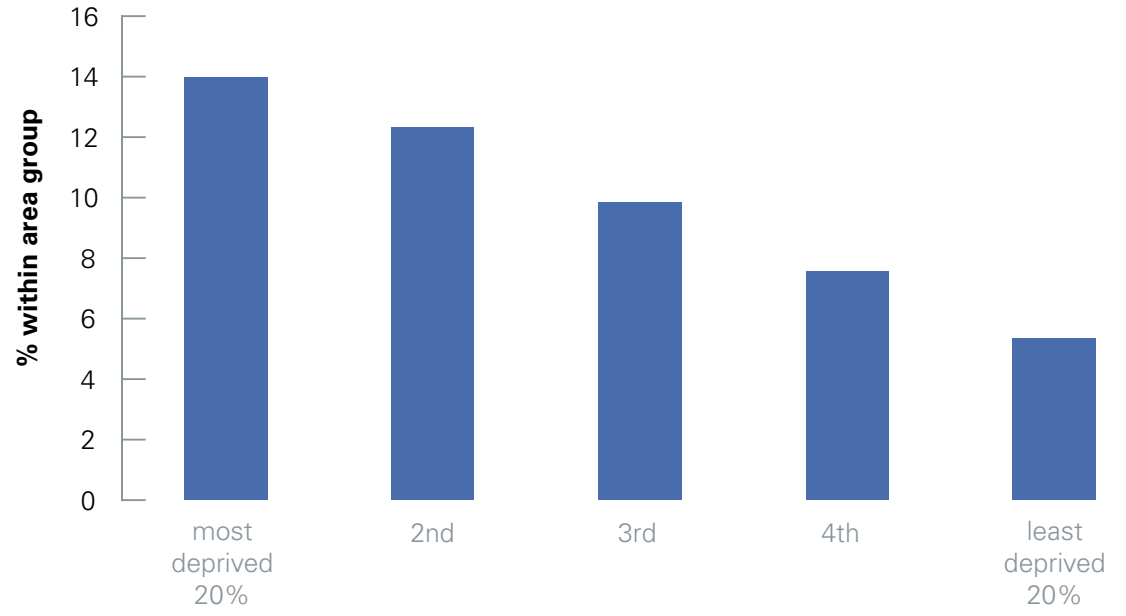
Figure 5.5: Incidence of any damp problem by tenure and type of area, 2006




**Base: all dwellings.**

10. There was a clear relationship between the incidence of problems and area deprivation, Figure 5.6. Households in the most deprived areas were nearly three times more likely to live in homes with damp problems compared with those living in the least deprived.

Figure 5.6: Incidence of any damp problems by level of area deprivation, 2006

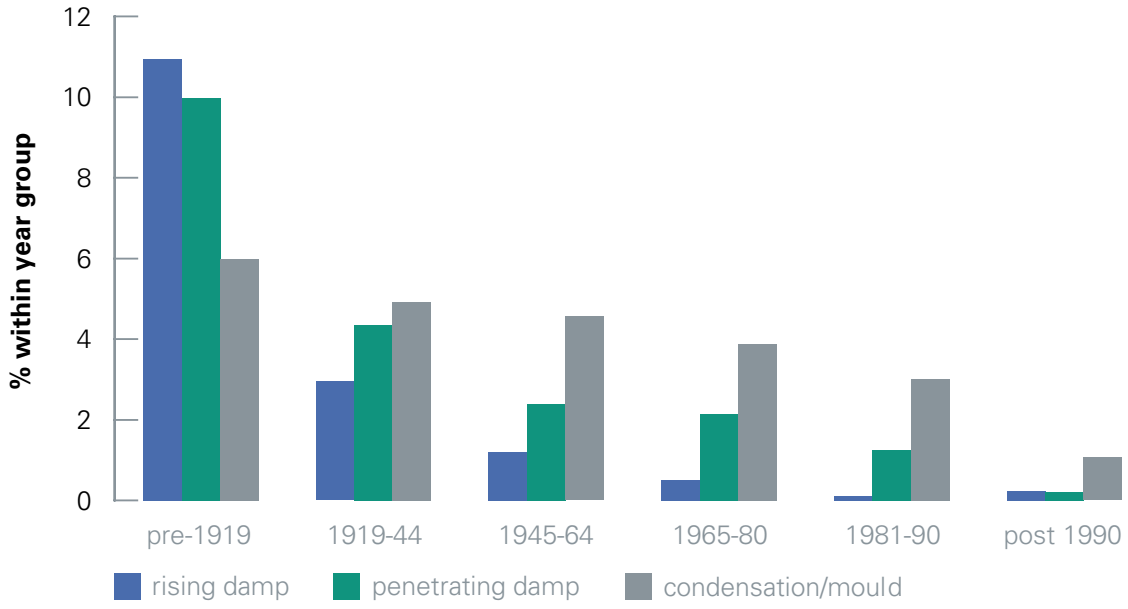



**Base: all dwellings.**

## Type of damp problem

11. The different types of damp problems also varied with dwelling age, tenure and location. Dwellings built before 1919 had a significantly higher incidence of problems with penetrating or rising damp than newer homes, Figure 5.7. Around one in ten pre-1919 homes had problems with rising or penetrating damp and this reduced sharply for those built more recently. The incidence of condensation or mould also declined as dwellings became newer, but not as rapidly. This is the main cause of damp in newer homes, accounting for over half of all problems in homes built since 1945.

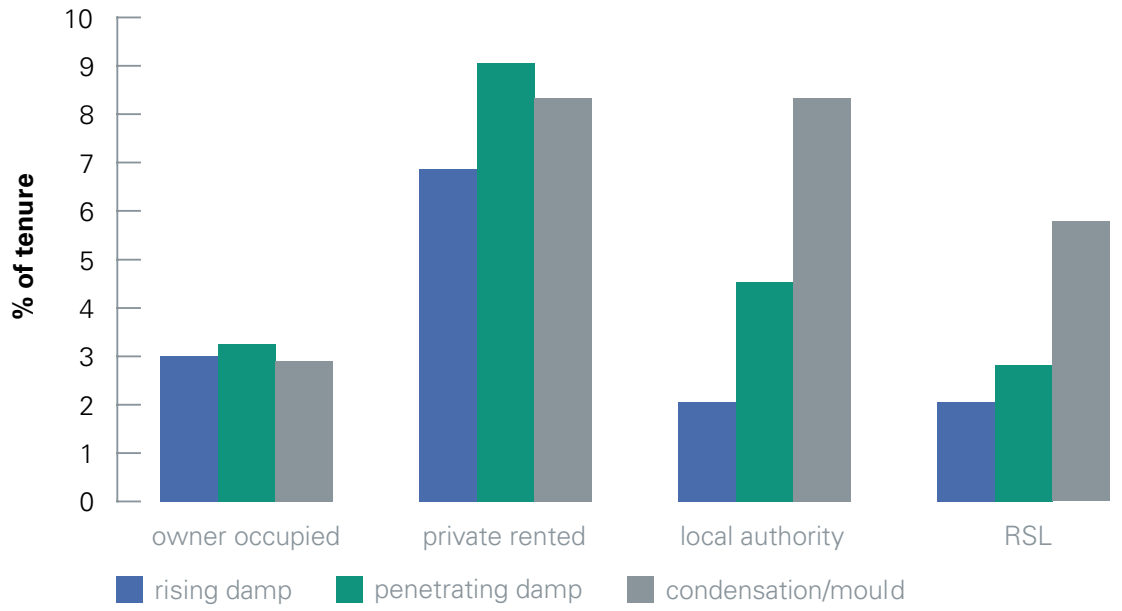
Figure 5.7: Type of damp problem by dwelling age, 2006




Base: all dwellings.

12. Private rented dwellings had the highest proportion of all types of damp problems: 9% had problems with penetrating damp, 8% with serious condensation/mould and 7% with rising damp, Figure 5.8. Rented homes were much more likely to have problems with condensation or mould and these were by far the most common type of problem in the social sector. In contrast, social sector housing was less likely than average to have problems of rising damp.

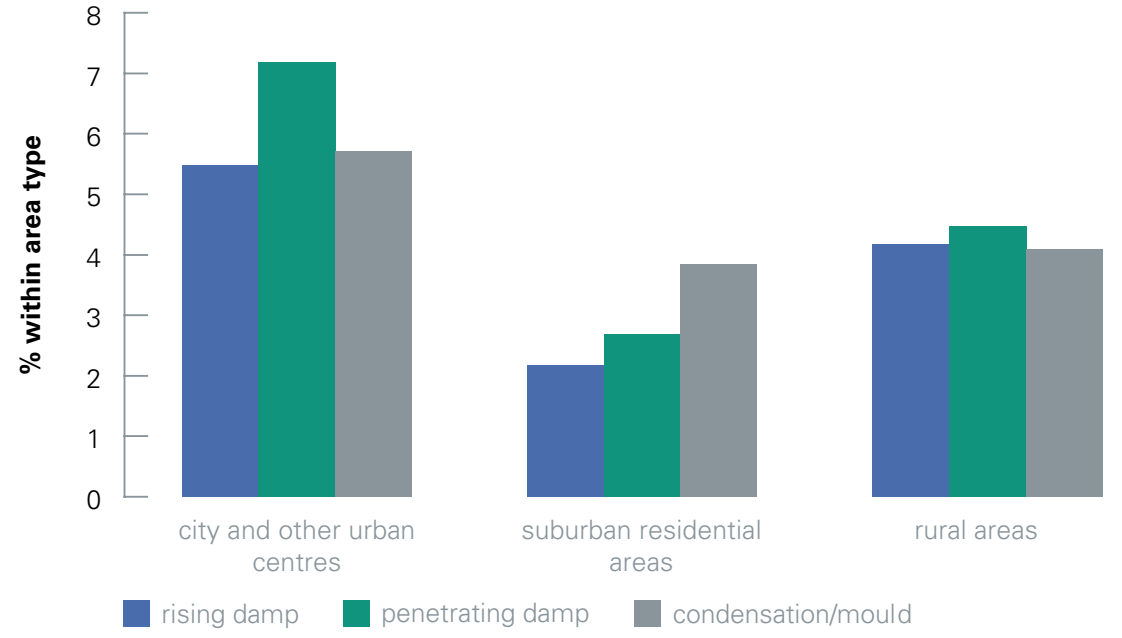
Figure 5.8: Type of damp problem by tenure, 2006




Base: all dwellings.

13. Dwellings in city and other urban centres had the highest proportion of all types of damp problems, particularly rising or penetrating damp, Figure 5.9. In suburban residential areas, serious condensation or mould were more prevalent than the other two types whereas in rural areas there was roughly the same proportion with the different types of problem.

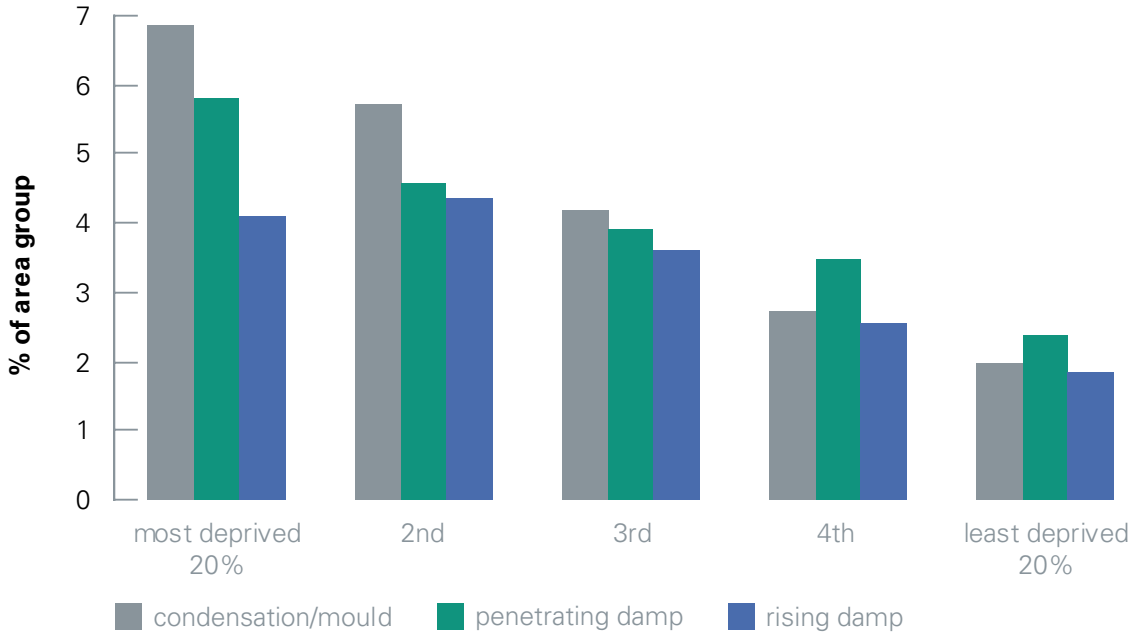
Figure 5.9: Type of damp problem by type of area, 2006




Base: all dwellings.

14. Homes in the most deprived areas were more likely to have problems with condensation or mould and with penetrating damp, Figure 5.10. The incidence of rising damp did not follow this pattern primarily because of the concentration of social housing in the most deprived areas. Social housing was less likely than average to have had problems of rising damp (see Figure 5.8 above). Problems of condensation or mould were more common than other types in the more deprived areas, while problems of rising damp were the most common in more affluent areas (but at lower levels of incidence compared to elsewhere).

Figure 5.10: Type of damp problem by level of area deprivation, 2006




Base: all dwellings.

## Factors contributing to damp problems

### a) inadequate ventilation

15. Damp problems were more common in the main rooms (living rooms, kitchens, bedrooms and bathrooms) than in circulation space, Table 5.2. All types of room were more likely to have had problems with damp if they had inadequate ventilation. For example: overall 3% of kitchens had problems with damp, but if the kitchen had inadequate ventilation this increased to 11%.

Table 5.2: Number and proportion of homes with damp in each room and by whether adequate ventilation was present, 2006

| | all homes with damp problems in given room | room has adequate ventilation | room has inadequate ventilation |
|---|---|---|---|
| **number (000s)** | | | |
| living room | 645 | 554 | 91 |
| kitchen | 630 | 523 | 107 |
| bedroom | 693 | 591 | 103 |
| bathroom | 800 | 701 | 99 |
| circulation space | 391 | 332 | 59 |
| **% of homes in group** | | | |
| living room | 2.9 | 2.6 | 9.4 |
| kitchen | 2.9 | 2.5 | 11.1 |
| bedroom | 3.2 | 2.8 | 10.6 |
| bathroom | 3.6 | 3.3 | 10.2 |
| circulation space | 1.8 | 1.7 | 6.3 |

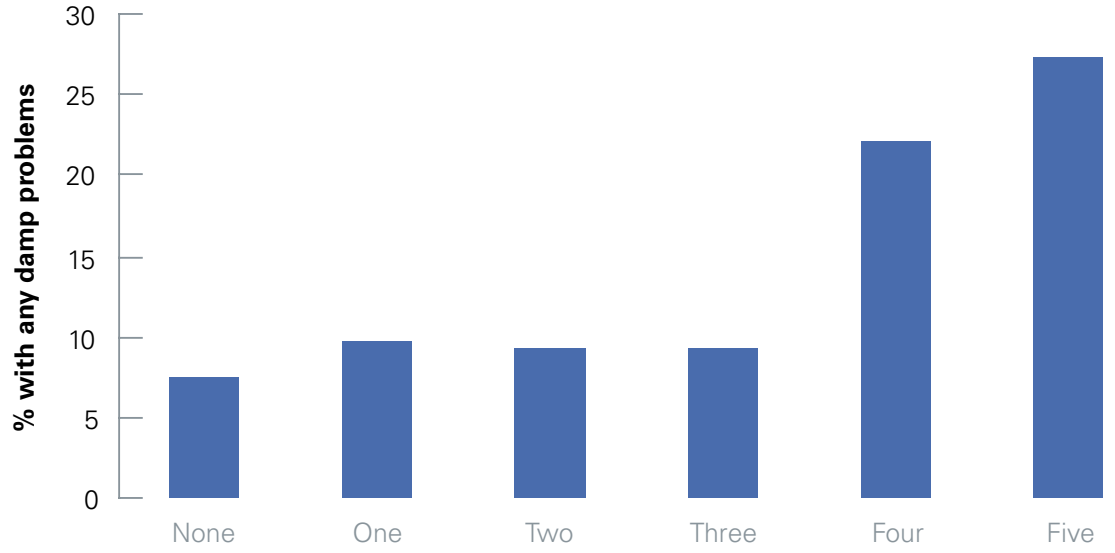
**Base: all dwellings with any damp problem.**

16. Bathrooms and kitchens with working extractor fans were less likely to have problems with serious condensation or mould than those without. Almost three quarters, 73.0%, of all kitchens or bathrooms with serious condensation or mould did not have a working extractor fan.

## b) external surfaces

17. Bathrooms with four or five external surfaces (external walls, roof space above or void below) were twice as likely to have serious condensation/mould than those with fewer exposed surfaces, Figure 5.11. Around 4% of bathrooms with fewer than four external surfaces had these problems compared with 8% of those with four or five external surfaces.

Figure 5.11: Condensation or mould by the number of external surfaces in the bathroom, 2006

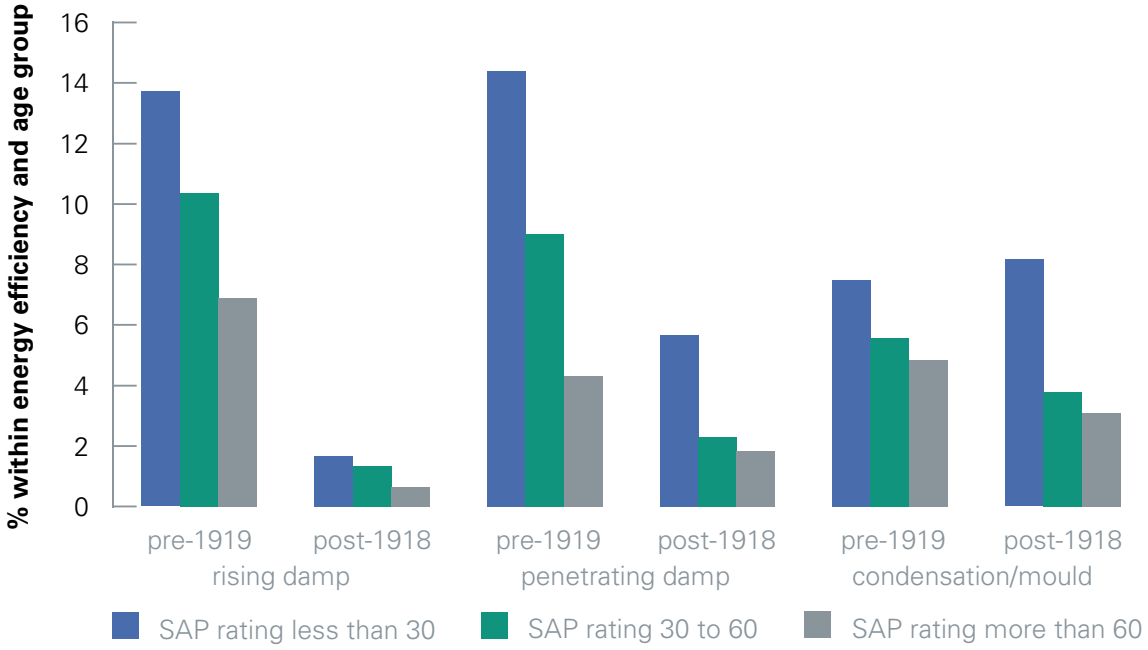



Base: all dwellings.

## c) poor energy efficiency

18. As might be expected, homes with low energy efficiency ratings were much more likely to have had problems with serious condensation or mould growth than those that were more energy efficient, Figure 5.12. However, problems with both penetrating and rising damp were also far more prevalent in these homes with poor energy efficiency characteristics.

Figure 5.12: Type of damp problems by ranked energy efficiency rating (SAP) and dwelling age, 2006




**Base: all dwellings.**

**Note: energy efficiency of each home is given a Standard Assessment Procedure (SAP) rating on a scale 1 to 100 where 1 is least efficient and 100 most efficient. For this diagram the rating scale is banded into three groups ranging from the least energy efficient group (SAP rating less than 30) to the most efficient (SAP rating more than 60).**

19. This is not simply because homes with poor energy efficiency were more likely to be older. Looking separately at pre and post-1919 dwellings, those that were least efficient (properties with an energy efficiency rating of less than 30) were more likely to have had all types of damp problem than more energy efficient properties for a given age group. The energy efficiency of the home was a particularly important factor for problems of serious condensation of mould. For example, post-1919 dwellings in the lowest energy efficiency band were more likely to have had problems with serious condensation or mould than pre-1919 dwellings that were more energy efficient.

## d) external faults to the dwelling

20. Where homes had problems with penetrating damp, the external elements most commonly causing the problem were roof features and drainage (guttering, downpipes and waste pipes), roof covering, wall finish (pointing, rendering or cladding) and chimneys, Table 5.3.

Table 5.3: Number and percentage of homes with penetrating damp by associated faults with the dwelling, 2006

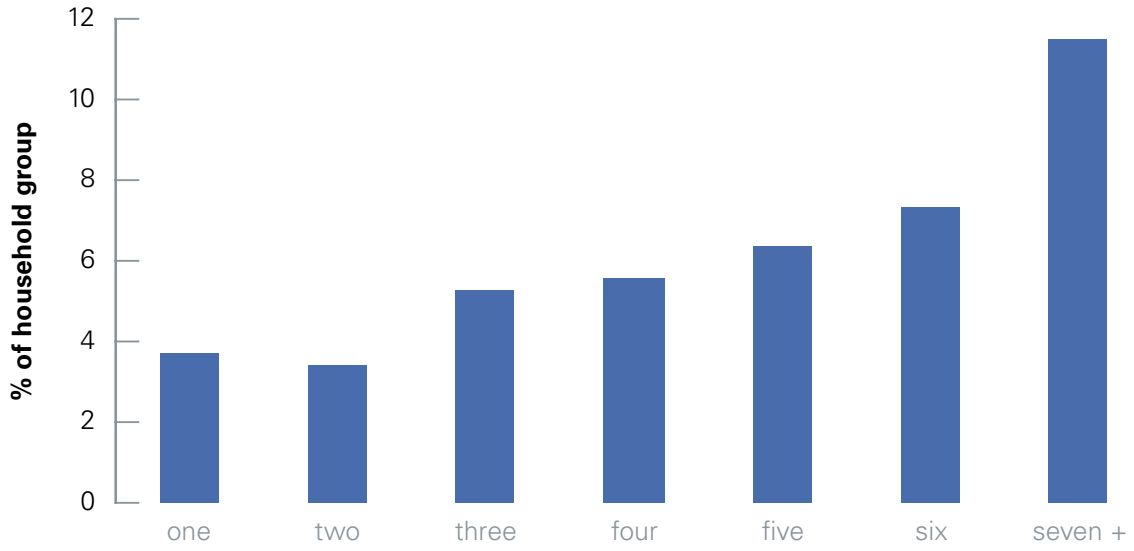
| | number (000s) | % |
|---|---|---|
| **dwelling has faults with:** | | |
| roof features and drainage | 561 | 63.4 |
| wall finish | 514 | 58.1 |
| roof covering | 412 | 46.6 |
| chimneys | 365 | 41.2 |
| all with penetrating damp | 885 | 100.0 |

**Base: all homes with penetrating damp.**

## f) larger households and overcrowding

21. Not surprisingly the number of people in the household was directly related to the prevalence of problems with serious condensation or mould. Around 3-4% of households with one or two people lived in homes with these problems, compared with 12% of households containing seven or more people, Figure 5.13.

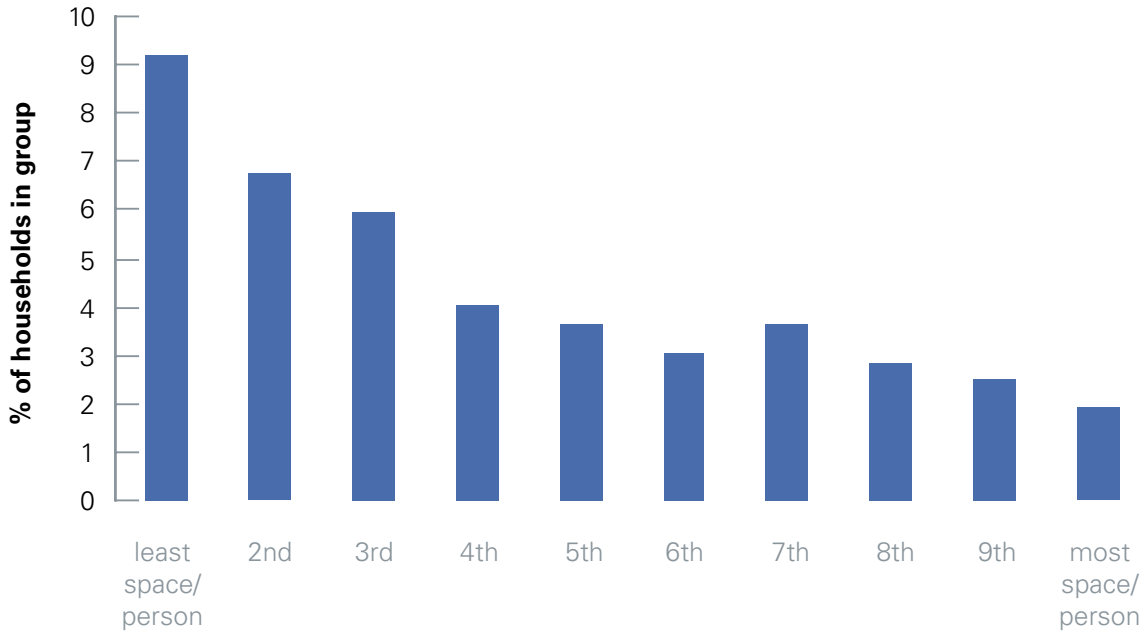
Figure 5.13: Incidence of serious condensation or mould by size of household, 2006




**Base: all households.**

22. Problems for larger households were exacerbated when living in overcrowded conditions. Some 11% of households of 5 or more persons and living below the bedroom standard had problems with serious condensation or mould, compared with only 2% of homes which were above the bedroom standard. More generally the ten per cent of households with the least space per person were over four times more likely to live in homes with serious condensation or mould, Figure 5.14.

Figure 5.14: Incidence of serious condensation or mould by amount of floor area per person available to the household, 2006



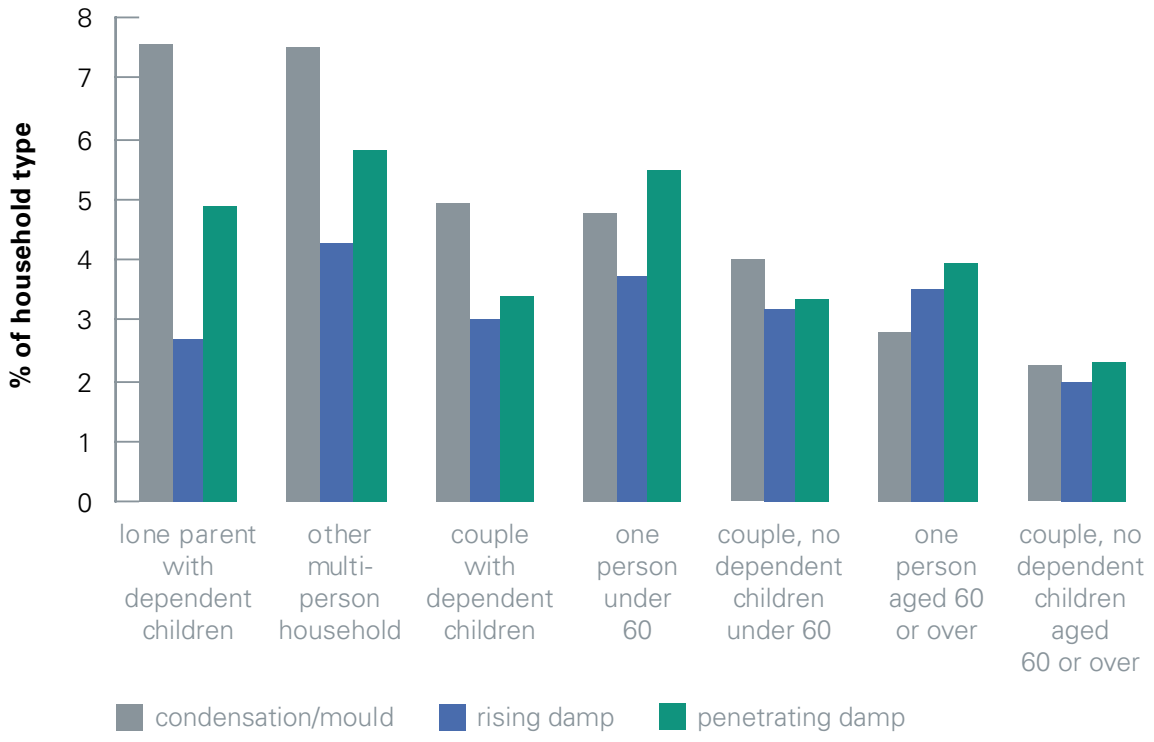

**Base: all households.**

**Note: The amount of space per person is calculated by dividing the total floor area of the dwelling by the number of people occupying it. Households have been ranked and banded into ten equal sized groups, from those with least space (less and 19m$^2$/person) to those with most space (81m$^2$/person or more).**

## Who was more likely to live in homes with damp problems

23. Unsurprisingly particular groups of households who were on average likely to be larger and/or have less space than average were also more likely to live in homes with problems of serious condensation or mould, Figure 5.15. People living alone or as couples were generally least likely to have problems of serious condensation or mould, and for these households problems of rising and penetrating damp were roughly equally likely. However children, but particularly those of lone parents, along with households comprising more than one family or groups of unrelated individuals, were more likely than average to live with problems of serious condensation or mould, and this was the most prevalent type of damp problem for such households.

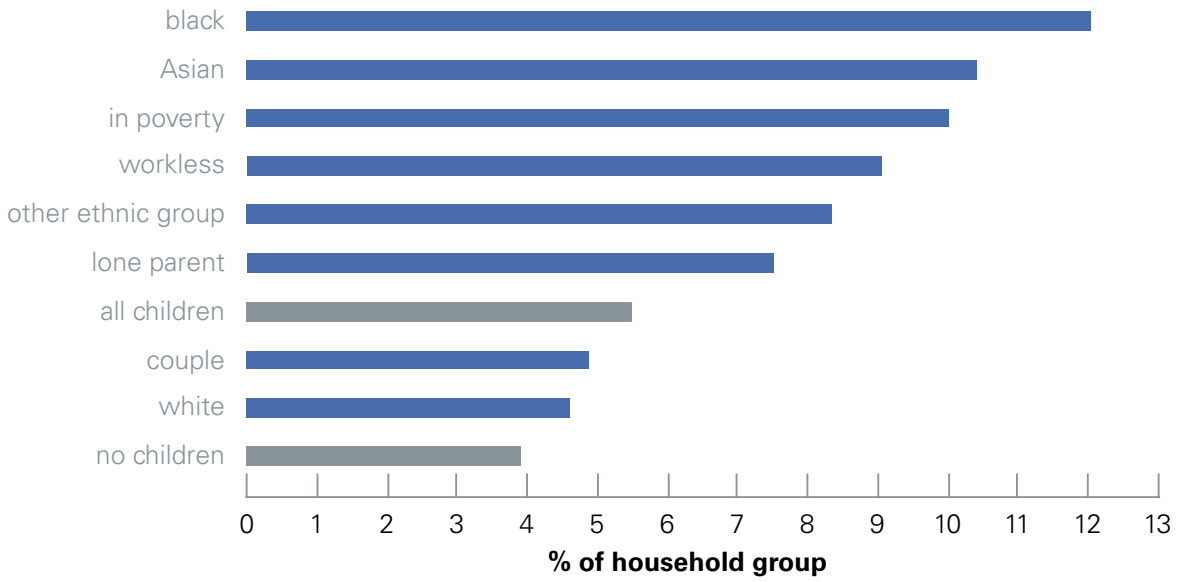
Figure 5.15: Types of damp problems by household type, 2006




**Base: all households.**

24. Overall, children were more likely than adults to live in homes with serious problems of condensation or mould, and, along with elderly people, were also more likely to be vulnerable to such conditions. Around 345,000 households with children lived in homes with these problems, including around 140,000 households with infants (below 5 years of age). It was the children of ethnic minority, poor and workless households who were most at risk of being exposed to such housing conditions, Figure 5.16.

Figure 5.16: Incidence of condensation or mould by categories of household with children, 2006




**Base: all households with children (aged below 16), and all households without children are used as reference points (represented by highlighted bars). All other bars represent subgroups of households with children. Some subgroups overlap (eg, lone parents, black and workless households).**

**Note: households living in poverty are those whose equivalised income is less than 60% of the median income calculated before housing costs are deducted.**

25. Older people were generally least likely to live in homes with serious problems of condensation or mould (less than 3% do so). Nevertheless around 200,000 households with someone aged 60 or more years were exposed to such conditions, and this included around 75,000 households with someone who was aged 75 years or more. Poverty and long term residence in their home were key factors increasing the likelihood of older people being exposed to these problems. Chapter 9 provides further information on the types of vulnerable or disadvantaged households who are more likely than average to live in homes with damp and related problems such as poor energy efficiency standards and disrepair.

# Chapter 6. Heating and Insulation

1. The energy performance of the housing stock is a critical issue for the health of occupants and for climate change. People need to be able to heat their homes for their comfort and be able to do so in both a cost effective and sustainable way. This is the first of two chapters looking at the energy-related characteristics and performance of the housing stock.

2. While the energy efficiency of homes depends on a wide range of factors, this chapter focuses on the heating and insulation-related characteristics of the housing stock. These are factors where significant improvement measures can be carried out in many existing homes. There are three sections to this chapter. The first section looks at heating and water systems: the prevalence of different types of system; how this has changed since 1996; and how the types of heating system are distributed about the housing stock. The second section looks at the insulation of homes within a similar approach. The third section of the chapter looks at the potential for heating and insulation improvements that can readily be carried out, using the methodology developed for the Energy Performance Certificate.

## Key Findings

- **In 2006 89% of all homes had central heating, with the greatest increase since 1996 occurring in social housing (increasing from 74% in 1996 to 87% in 2006). However in 2006 the majority (56%) of cavity walls remained un-insulated.**

- **Almost a quarter of all social sector *houses* had heating systems installed in the last three years, a higher proportion than social sector *flats* (18%) and higher than houses or flats that are owner occupied or privately rented.**

- **Social sector houses and flats were better insulated than other tenures, with the greatest proportions of homes with: insulated cavity walls (53%), lofts with 200mm or more of insulation (29%); and full double glazing (35%).**

- **Some 48% of all flats built since 1980 used electrical heating systems (mainly storage heaters) compared to only 22% of older flats which were much more likely to use gas fired and central heating systems.**

- **The oldest (pre-1919) housing was most likely to be dependent on inefficient room heaters, but such systems are prevalent in only 4% of homes. Setting aside new construction, older housing was *more* likely to have had new heating systems installed within the last three years, but was *least* likely to have cavity walls insulated and has the poorest levels of loft insulation.**

- **Some 17.0 million homes could have significantly improved their energy performance by upgrading to a Class A condensing boiler, 11.0 million by topping up their loft insulation and 8.5 million by having their cavity walls insulated.**

# Heating systems

## Types and their use

### Heating systems:

### a) main space heating type:

**central heating:** this is most commonly a boiler fired system with radiators which distribute heat throughout the dwelling (but also included in this definition are warm air systems, electric ceiling or underfloor and communal heating). It is generally considered to be a cost effective and relatively efficient method of heating a dwelling.

**storage heating:** these are predominantly used in dwellings that have an off-peak electricity tariff. Storage heaters use off-peak electricity to store heat in clay bricks or a ceramic material, this heat is then released throughout the day. However, storage heating can prove expensive if too much on-peak electricity is used to provide extra heat during the day.

**room heaters:** this category includes all other types of heater such as fixed gas, fixed electric or portable electric heaters, this type of heating is generally considered to be the least cost effective of the main systems and produces more carbon dioxide emissions per kWh of energy used.

### b) heating fuel:

**gas:** the heating fuel is the key factor in both fuel costs and $CO_2$ emissions. Mains gas is relatively inexpensive and produces lower emissions per unit of energy than most other commonly used fuels. Liquefied Petroleum gas and bottles gas are still associated with slightly higher costs and emissions.

**electricity:** standard rate electricity has the highest costs and $CO_2$ emissions associated with the main fuels, but is used in dwellings without a viable alternative or as a back-up supply to mains gas. An off-peak tariff, such as economy 7, is cheaper than bottled gas but with the same emissions as standard electricity.

**oil:** in terms of both costs and emissions, oil lies between mains gas and electricity.

**solid fuel:** these have similar costs to oil, with the exception of processed wood which can be more expensive than off-peak electricity. Fuels included are: coal and anthracite, with $CO_2$ emissions above those of gas and oil; wood, which has the lowest emissions of the main fuels; and smokeless fuel, whose emissions are close to those of electricity. By law some areas (usually towns or cities) are designated as smoke control areas where solid fuels emitting smoke are illegal.

### c) water heating system:

**combined:** many central heating systems also provide heat to supply hot water for the dwelling. This produces less carbon emissions than separate water heating systems as it is more efficient.

**separate:** dwellings which have electrical space heating systems often use electric immersion heaters to heat water, which can prove expensive unless only off-peak electricity is used. Other dwellings may be fitted with dedicated water heating boilers or instantaneous water heaters, such as electric showers, which are generally less efficient than other water heating types so producing more carbon emissions.

**Heating systems: (continued)**

**d) boiler type:**

| | |
|---|---|
| **standard:** | provide hot water or warm air for space heating, the former also providing hot water via a separate storage cylinder. |
| **back:** | located behind a room heater and feeds hot water to a separate storage cylinder. They are generally less efficient than other boiler types. These generally produce the most carbon emissions, partly due to them being older than most boilers. |
| **combination:** | provide hot water or warm air for space heating and can provide hot water on demand negating the need for a storage cylinder, therefore requiring less room. They are more carbon efficient than standard boilers but not as efficient as condensing boilers. |
| **condensing:** | standard and combination boilers can also be condensing. A condensing boiler uses a larger, or dual, heat exchanger to obtain more heat from burning fuel than an ordinary boiler, and is generally the most efficient boiler type so producing the lowest carbon emissions of all boilers. |

3. The presence of an efficient and responsive heating system is key to providing effective warmth in dwellings. This section looks at the main heating system and fuel type, the water heating system and type of boiler used across the stock as a whole and against other dwellings characteristics. With newer technologies, heating systems are becoming increasingly diverse. The general classification of heating systems used in this chapter is set out in the inset above and their incidence across the housing stock is summarised in Table 6.1.

4. The predominant form of space heating was central heating, Table 6.1. The most common fuel type used for space heating was gas (this was mostly mains gas, but also included LPG and bottled gas). Most central heating systems with boilers also heat water for use in the dwelling and therefore this type of water heating was predominant. Around three quarters of dwellings without a boiler used an electric immersion for hot water, with a minority using instantaneous electric water heaters. Central heating was more common in houses than flats and the same was true for gas fired heating systems and centrally heated water. While standard boilers remain more prevalent than others, flats were more likely to either have no boiler (because storage heaters and room heaters were more common in flats) or used a combination boiler.

Table 6.1: Types of heating systems and fuels by dwelling type, 2006

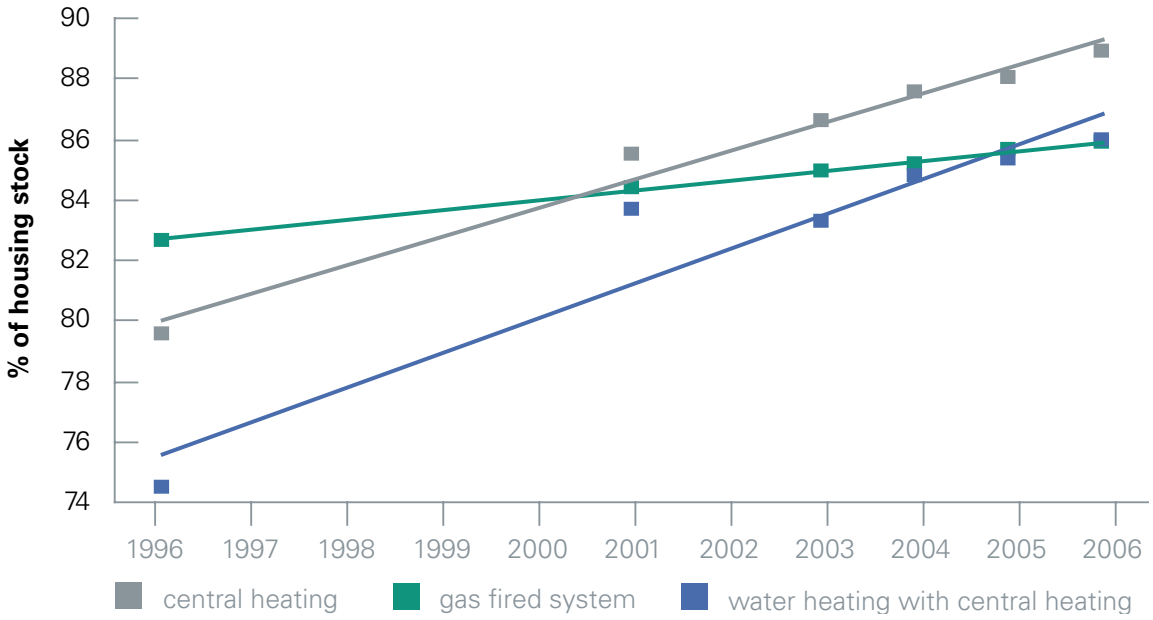
| | number (000s) | | | percentage of all (%) | | |
|---|---|---|---|---|---|---|
| | houses | flats | all | houses | flats | all |
| **main heating type:** | | | | | | |
| central heating | 16,783 | 2,770 | 19,553 | 92.4 | 72.4 | 88.9 |
| storage radiators | 707 | 825 | 1,532 | 3.9 | 21.6 | 7.0 |
| room heater | 671 | 233 | 904 | 3.7 | 6.1 | 4.1 |
| **main heating fuel:** | | | | | | |
| gas fired system | 16,094 | 2,790 | 18,883 | 88.6 | 71.6 | 85.9 |
| oil fired system | 912 | 19 | 931 | 5.0 | 0.1 | 4.2 |
| solid fuel fired system | 305 | 26 | 331 | 1.7 | 0.6 | 1.5 |
| electrical system | 850 | 994 | 1,844 | 4.7 | 27.7 | 8.4 |
| **water heating system:** | | | | | | |
| with central heating | 16,312 | 2,593 | 18,904 | 89.8 | 67.7 | 86.0 |
| dedicated boiler | 231 | 58 | 289 | 1.3 | 1.5 | 1.3 |
| electric immersion | 1,205 | 1,055 | 2,260 | 6.6 | 27.6 | 10.3 |
| instantaneous | 412 | 123 | 536 | 2.3 | 3.2 | 2.4 |
| **boiler type:** | | | | | | |
| standard boiler | 8,170 | 843 | 9,014 | 45.0 | 22.0 | 41.0 |
| back boiler | 1,919 | 212 | 2,131 | 10.6 | 5.5 | 9.7 |
| combination boiler | 5,141 | 1,172 | 6,312 | 28.3 | 30.6 | 28.7 |
| condensing boiler | 430 | 30 | 460 | 2.4 | 0.8 | 2.1 |
| condensing-combi | 1,076 | 221 | 1,297 | 5.9 | 5.8 | 5.9 |
| no boiler | 1,424 | 1,351 | 2,775 | 7.8 | 35.3 | 12.6 |
| **all dwellings** | 18,160 | 3,829 | 21,989 | 100.0 | 100.0 | 100.0 |

**Base: all dwellings**

## Trends since 1996

5. The most substantial change in the heating systems of homes that has occurred in the last ten years has been the increase in central heating, driven largely by the installation of gas fired systems, Figure 6.1. The percentage of homes that had central heating rose from 80% in 1996 to 89% in 2006. The percentage of water heating systems that work with the central heating system also rose substantially, reflecting the trend in the main heating system. Related to these trends has been a reduction in the percentage of gas fired room heaters from 9% of all heating systems in 1996 to only 3% in 2006.

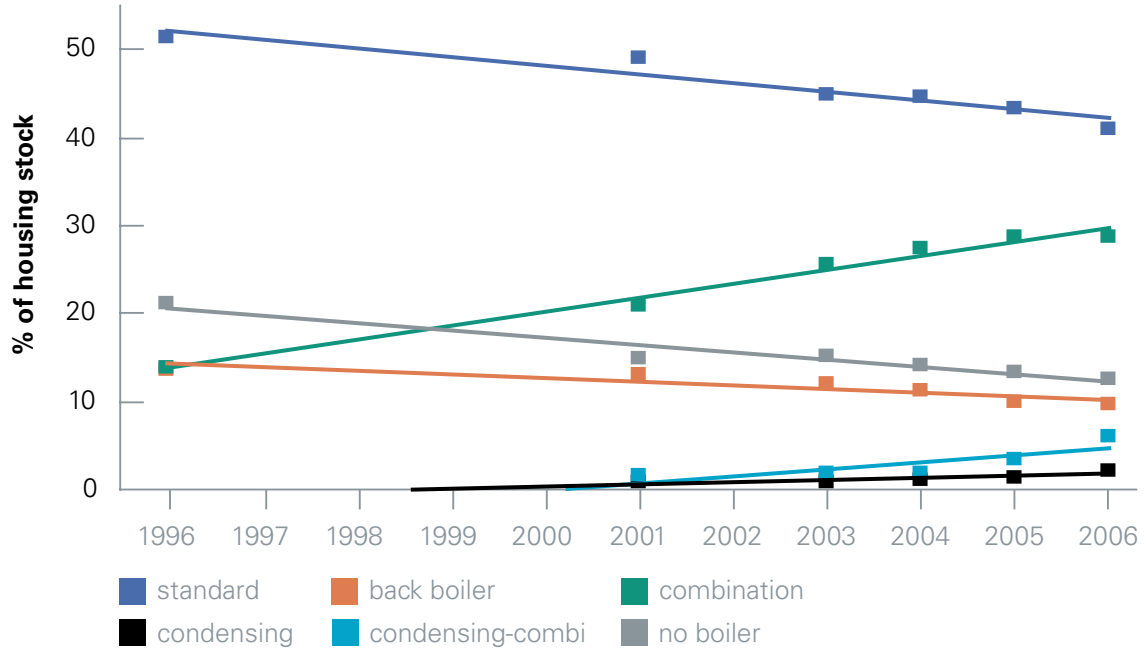
Figure 6.1: Percentage of central heating systems, gas fired heating systems and water heating systems that work with the central heating, 1996 to 2006.




Base: all housing stock

6. Standard boilers remained the most common type of boiler found in homes, despite a decline in their use since 1996 (from 51% to 41% of all housing), Figure 6.2. The combination boiler had become more common during this period (rising from 14% in 1996 to 29% in 2006). Consequently 88% of the combination boilers present within the stock in 2006 were less than twelve years old. In comparison over two thirds of back boilers were over twelve years old. The proportion of back boilers decreased from 14% in 1996 to 10% in 2006. In 2006 around 8% of dwellings were fitted with a condensing boiler. Following the introduction of new building regulations in 2005 this type of boiler is likely to become much more common. Current trends suggest condensing-combination boilers are more popular than standard condensing boilers.

Figure 6.2: Percentage of different boiler types in use, 1996 to 2006




**Base: all dwellings**

**Note: Information on condensing boilers was not collected before 2001, although the incidence would have been negligible.**

## Tenure

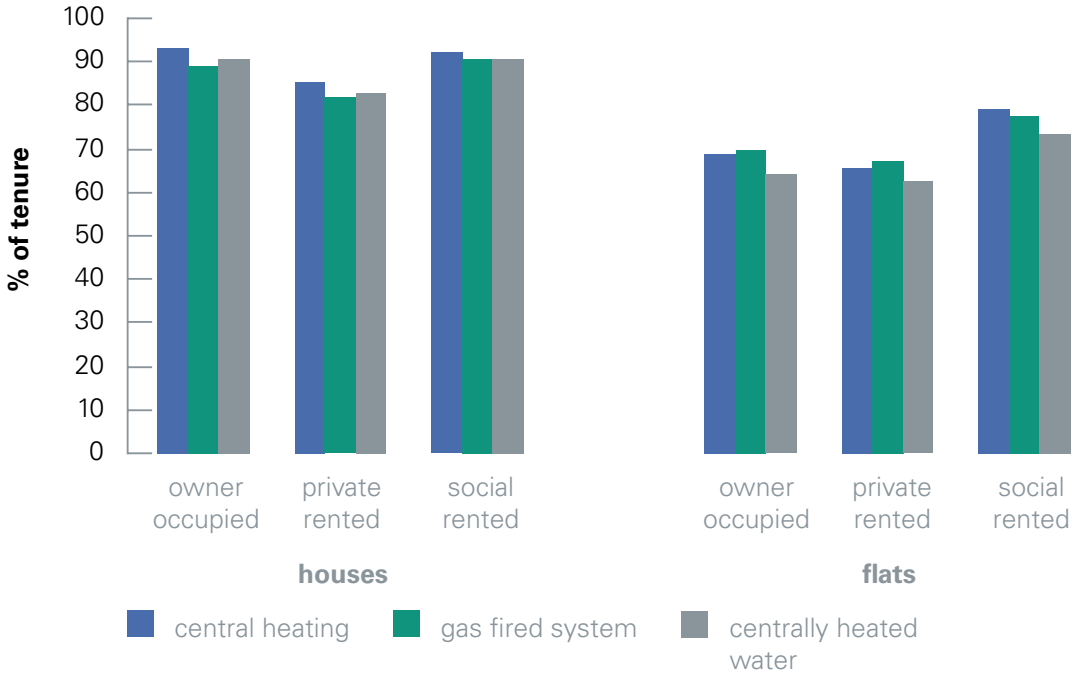
7. There was little difference in the proportion of owner occupied and social sector *houses* with central heating, gas fired heating and centrally heated water, while private rented houses had the lowest incidence of all these generally more efficient measures, Table 6.2 and Figure 6.3. However these types of heating systems were more common in social sector *flats* than owner occupied or privately rented flats.

## Table 6.2: Types of heating systems and fuels by housing sector and dwelling type, 2006

| | owner occupied (%) | | | private rented (%) | | | social rented (%) | | |
|---|---|---|---|---|---|---|---|---|---|
| | houses | flats | all | houses | flats | all | houses | flats | all |
| **main heating type:** | | | | | | | | | |
| central heating | 93.2 | 68.7 | 91.3 | 85.5 | 65.8 | 78.1 | 92.3 | 79.0 | 86.8 |
| storage radiators | 3.3 | 24.3 | 4.9 | 7.1 | 23.9 | 13.4 | 5.5 | 18.1 | 10.7 |
| room heater | 3.5 | 7.0 | 3.8 | 7.4 | 10.2 | 8.5 | 2.2 | 3.0 | 2.5 |
| **main heating fuel:** | | | | | | | | | |
| gas fired system | 89.1 | 70.0 | 87.6 | 81.9 | 67.2 | 76.4 | 90.5 | 77.8 | 85.3 |
| oil fired system | 5.6 | 0.4 | 5.2 | 5.6 | 0.3 | 3.6 | 1.2 | 0.1 | 0.7 |
| solid fuel fired system | 1.3 | 1.0 | 1.3 | 4.1 | 0.9 | 2.9 | 2.2 | 0.4 | 1.4 |
| electrical system | 4.0 | 28.5 | 6.0 | 8.4 | 31.6 | 17.1 | 6.1 | 21.7 | 12.6 |
| **water heating system:** | | | | | | | | | |
| with central heating | 90.5 | 64.3 | 88.5 | 83.0 | 62.6 | 75.3 | 90.4 | 73.3 | 83.3 |
| dedicated boiler | 1.3 | 1.8 | 1.3 | 2.3 | 2.0 | 2.2 | 0.6 | 1.0 | 0.8 |
| electric immersion | 5.9 | 31.1 | 7.8 | 11.1 | 31.0 | 18.6 | 8.2 | 22.9 | 14.3 |
| instantaneous | 2.4 | 2.8 | 2.4 | 3.6 | 4.3 | 3.9 | 0.8 | 2.8 | 1.6 |
| **boiler type:** | | | | | | | | | |
| standard boiler | 47.4 | 23.1 | 45.5 | 36.0 | 17.2 | 29.0 | 36.2 | 24.2 | 31.2 |
| back boiler | 8.8 | 3.9 | 8.4 | 9.7 | 3.7 | 7.5 | 22.2 | 7.8 | 16.2 |
| combination boiler | 28.5 | 34.0 | 28.9 | 33.7 | 32.4 | 33.2 | 23.4 | 27.0 | 24.9 |
| condensing boiler | 2.4 | 0.2 | 2.3 | 0.8 | 0.5 | 0.7 | 3.0 | 1.4 | 2.3 |
| condensing-combi | 6.0 | 5.9 | 6.0 | 4.9 | 6.0 | 5.3 | 6.5 | 5.5 | 6.1 |
| no boiler | 6.9 | 32.9 | 8.9 | 14.9 | 40.2 | 24.4 | 8.7 | 34.1 | 19.2 |
| **all dwellings** | 92.1 | 7.9 | 100.0 | 62.4 | 37.6 | 100.0 | 58.5 | 41.5 | 100.0 |

**Base: all dwellings**

Figure 6.3: Percentage of homes with central heating, gas fired heating or centrally heated water, by tenure, 2006

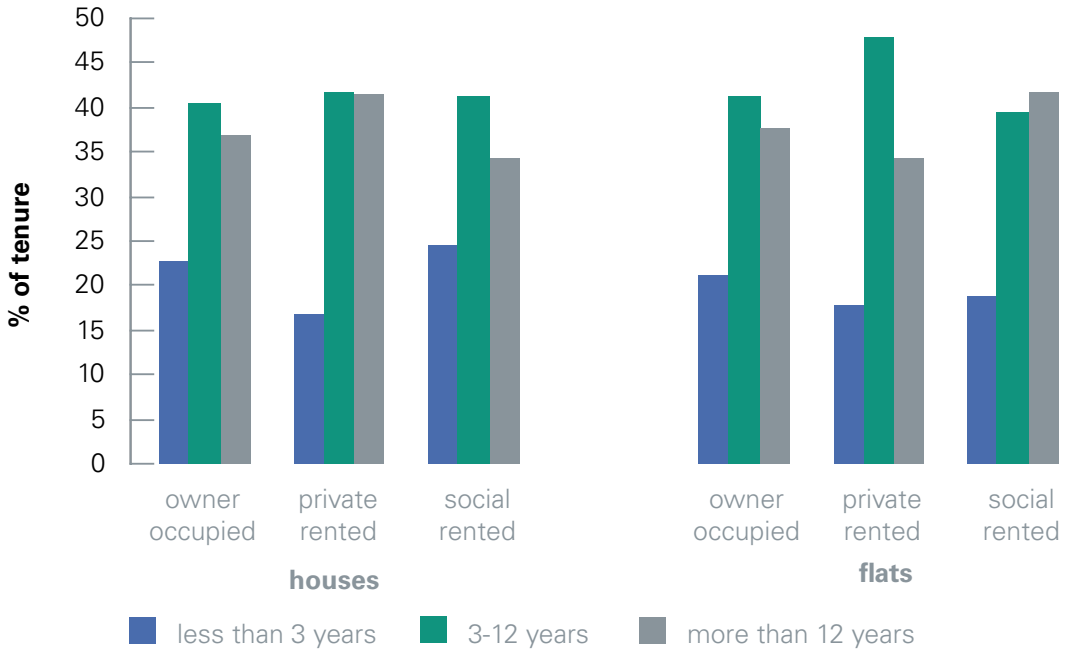



Base: all dwellings

8. Between 1996 and 2006 the overall proportion of social sector dwellings with central heating rose considerably: from 74% to 87%, compared to 81% to 89% for the private sector. This improvement in the social sector was greater within social sector *houses* where the percentage that were centrally heated rose from 75% in 1996 to 92% in 2006, and where the percentage dependent on room heaters dropped dramatically from 17% to 2% over this period.

9. In consequence, the heating systems of social sector *houses* were generally newer than those of the two private sector tenures (owner occupied and private rented). While social sector *flats* were more likely to have more effective heating systems these tended to be older, with some 42% being more than twelve years old, Figure 6.4.

## Figure 6.4: Age of heating system by tenure, 2006




Base: all dwellings

10. Standard boilers and combination boilers were more common in private than social housing, with 22% of the social sector *houses* using back boilers, Figure 6.5. In line with the relative age of heating systems, social sector *flats* were proportionately more likely to be using standard boilers than private sector flats.

## Figure 6.5: Type of boiler by tenure, 2006


Base: all dwellings

11. The greater reliance of *flats* on non-central heating clearly showed in the proportion of dwellings without a boiler, with the highest incidence in private rented flats. Social sector *houses* showed a polarisation in boiler types, with a high proportion of less efficient back boilers being found in typically older houses and condensing boilers in the newer stock. Non-condensing combination boilers were more prevalent in private rented than owner occupied houses – the smaller size of the rented homes make these space saving models more appropriate.

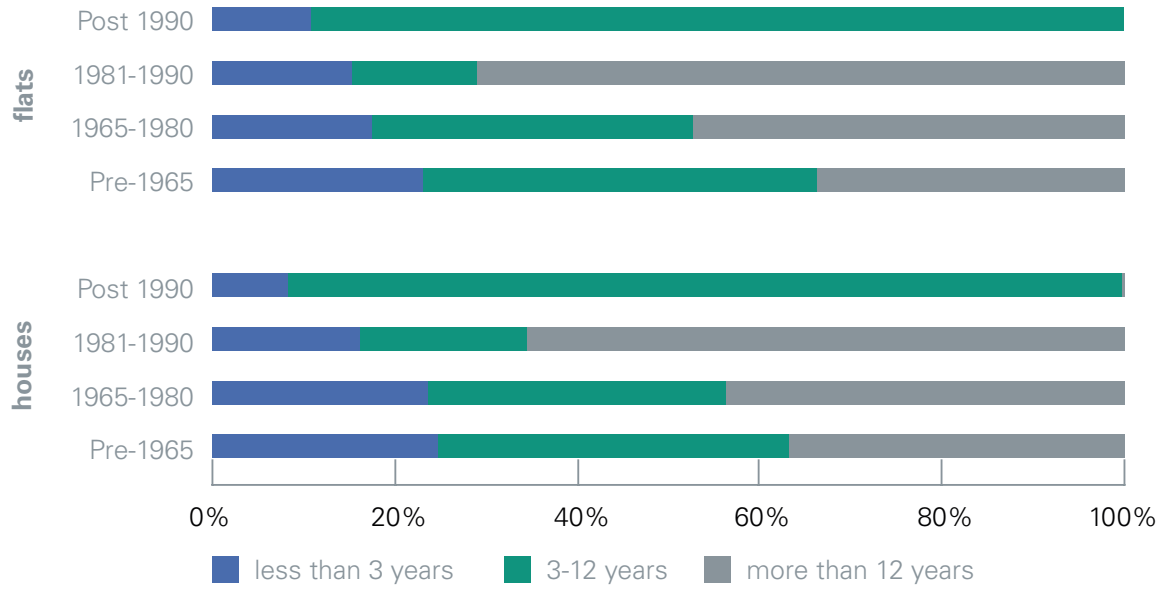
## Dwelling age, type and size

12. The heating systems of the housing stock are generally subject to widespread improvement (and re-improvement) over time. In fact the older housing stock was *least* likely to have heating systems more than twelve years old, Figure 6.6.[1] Heating systems need periodic replacement during the lifespan of a dwelling and consequently the older a home the more likely its original heating system will have been replaced. In addition, the oldest (pre-1919) homes were more likely than other to be occupied by households (primarily home owners) with higher average incomes and who were therefore better placed to install more modern heating systems. Homes built during the 1980s were most likely to have had heating systems more than twelve years old because of the preponderance of such systems in this age group remaining in (good) working order.

13. Nevertheless some 7% of houses and 11% of flats built before 1919 remained dependent on room heaters. Older flats were also much less likely to use storage heaters and other electrical heating systems compared to newer flats – nearly half of all flats built since 1980 used electrical systems with around 40% having storage heaters. This is in part a reflection of changes in building legislation during the 1970's, to improve safety in high rise blocks by removing the risk of a gas explosion, but also the more widespread introduction of more efficient modern storage heater systems rather than gas central heating by developers. Apart from flats built after 1980 central heating was predominant in properties of all ages.

[1] There is little difference in the incidence of new and older heating systems in homes built before 1919 compared with those built during the inter-war (1919-44) and post-war (1945-65) periods.

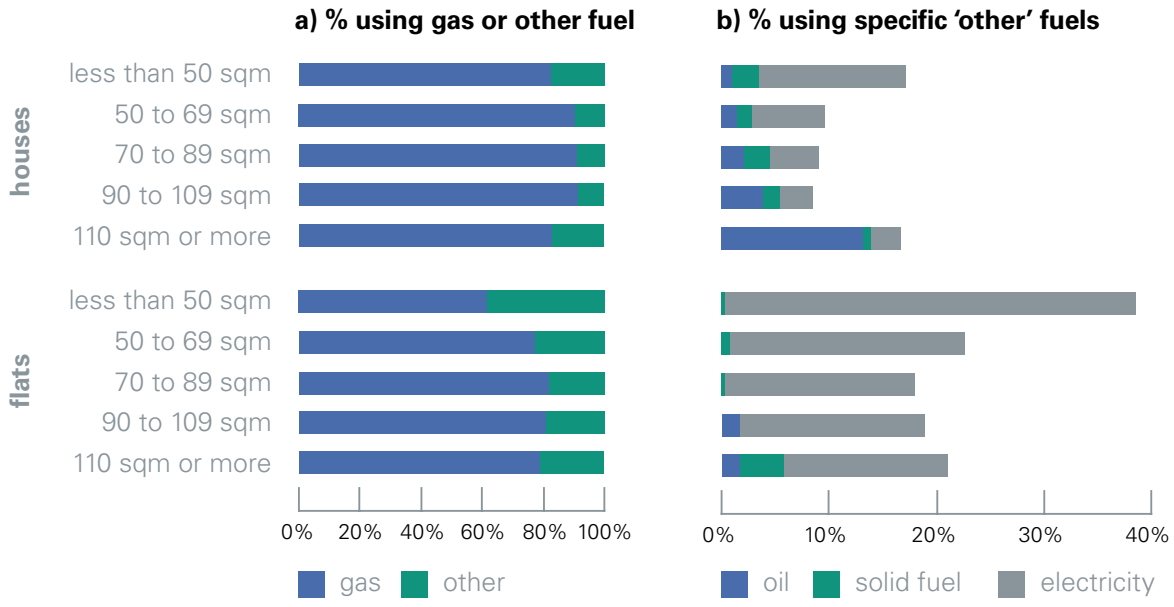
## Figure 6.6: Age of heating system by age of property and type of home, 2006




**Base: all dwellings**

14. Generally gas heating systems were least likely to be present in the smallest houses and flats, Figure 6.7a. These types of homes were the most likely to be using electric heating systems and in particular storage heaters, Figure 6.7b. Large houses were also less likely than average to be gas fuelled, with 13% of all houses over 110m$^2$ in size using oil fired systems. These were typically detached and rural properties, which were least likely to have a mains gas supply (see below).

## Figure 6.7: Heating fuel used by size and type of home, 2006

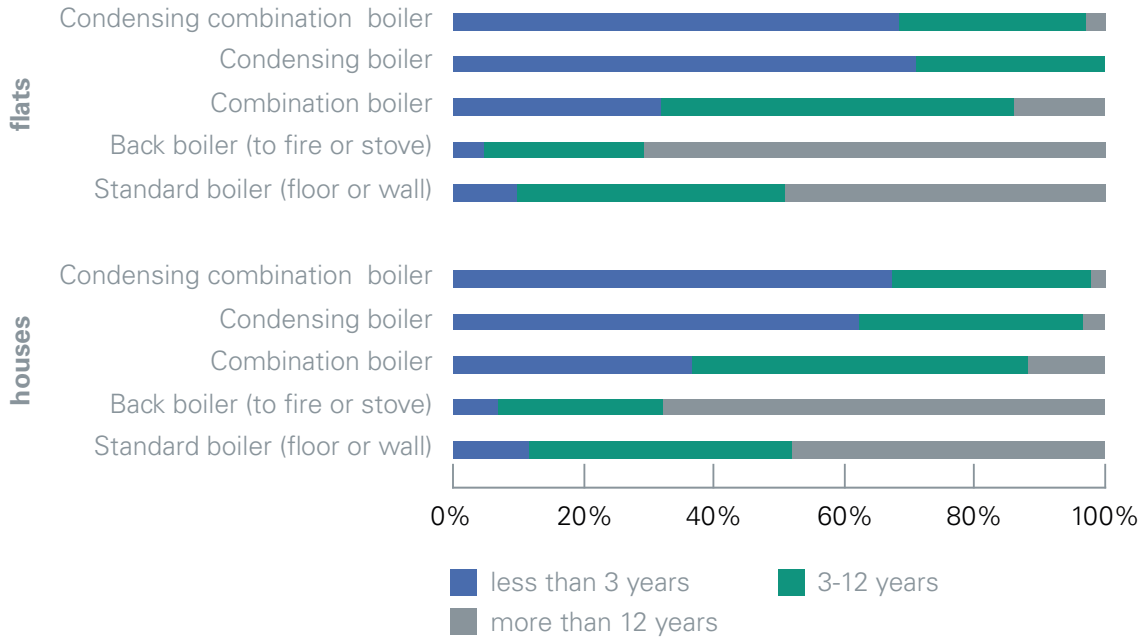



**Base: all dwellings**

15. Standard boilers were most common in large dwellings such as detached houses (69%) and least common in flats (22%), (see Figure 6.5 above). Combination boilers were most prevalent in converted flats (45%), this was primarily due to an issue of space and because converted flats were more likely to be connected to the mains gas network (82%) than purpose built flats (69%). Since 1996 the proportion of combination boilers increased significantly in all types of home except high rise purpose-built flats. Condensing combination boilers were also most common in converted flats (8%).

16. Around 70% of condensing boilers in flats and 65% of condensing boilers in houses were less than three years old, reflecting recent changes in building regulations, Figure 6.8. Inversely, back boilers were shown to be the least frequently replaced boiler type, with around 70% of these being over 12 years old in both houses and flats.

**Figure 6.8: Type of boiler by boiler age and type of home, 2006**

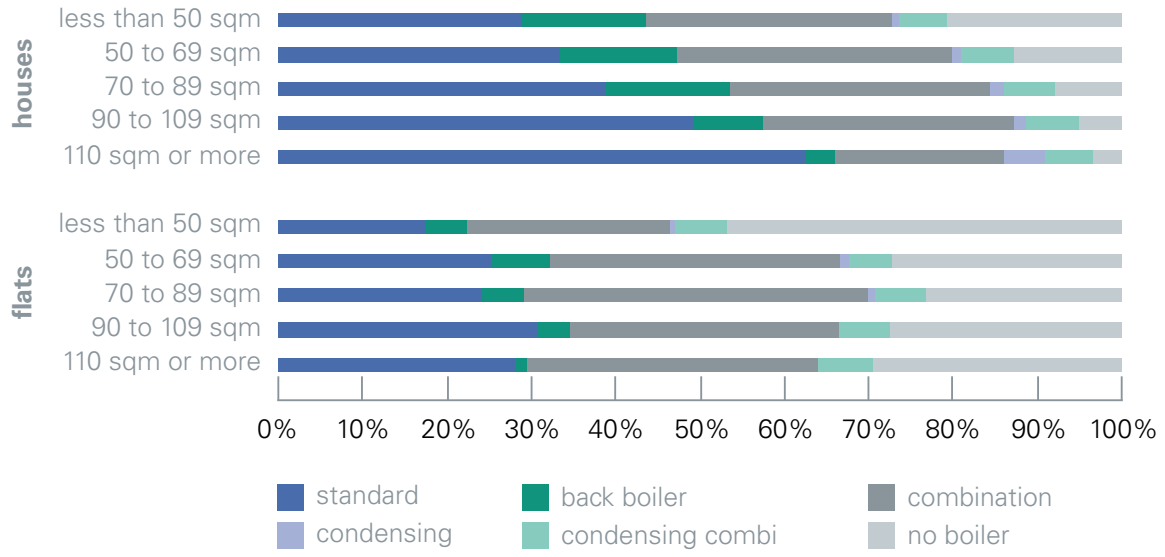



**Base: dwellings with boiler driven heating**

17. Standard boilers were most common in more recent stock, present in over 50% of homes built since 1990. Combination boilers were most prevalent in older housing with some 13% of pre-1919 homes being converted flats, where this boiler type was most common. Since 1996 the proportion of combination boilers in pre-1919 homes rose from 20% to 38%.

18. In general, the larger a house the more likely it was to have had a standard boiler, with back boilers and combination boilers being more prevalent in smaller houses (terraced houses and bungalows), Figure 6.9. Smaller flats were also less likely to have standard boilers than larger ones, although there was no clear trend of smaller flats making use of combination boiler types. The reliance of the smallest flats on storage or direct acting electric heaters was reflected in the 46% of the flats less than 50m$^2$ in size with no boiler.

Figure 6.9: Type of boiler by size and type of home, 2006



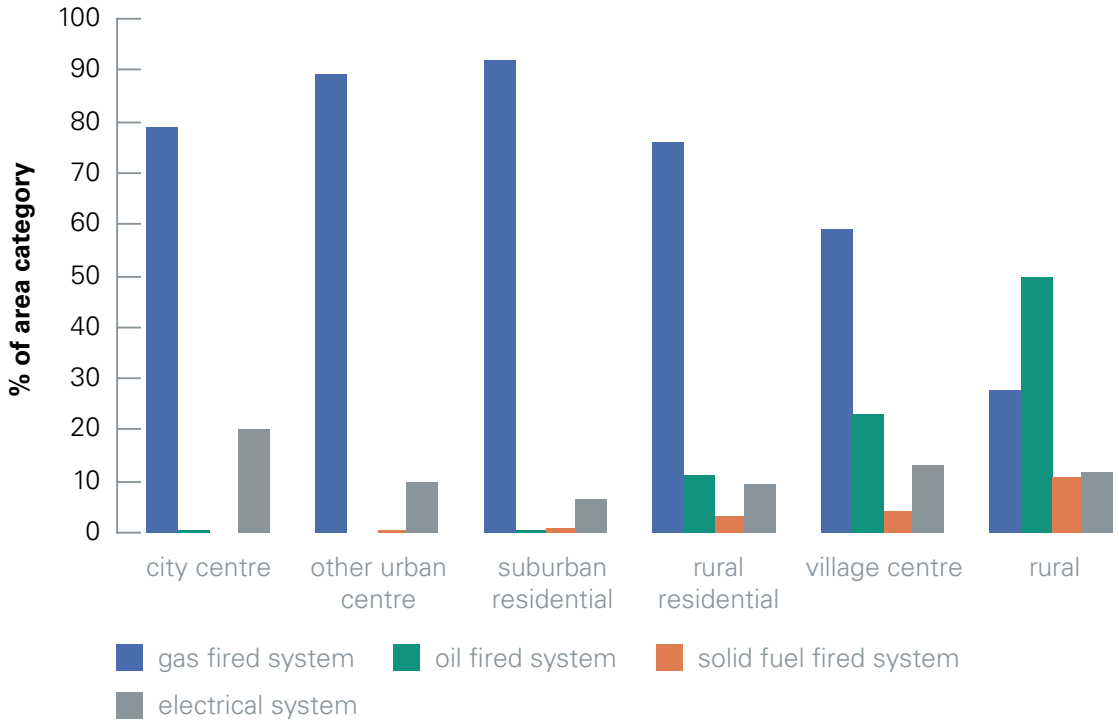

**Base: dwellings with boiler driven heating**

## Location

19. Suburban residential areas had the highest proportions of central heating (91%), gas fired heating systems (92%) and centrally heated water (88%). These systems were less common in the housing stock of city and other urban centres, primarily because of the higher proportion of flats and smaller homes. The housing stock of these centres also had the largest proportion of combination boilers (37% compared to 20% in rural areas) for similar reasons. The proportion of dwellings with room heaters as the main heating system in city and urban areas had significantly decreased since 1996 (from 20% to 6%, compared to a decrease from 11% to 3% in rural areas).

20. Rural areas had a relatively high proportion of homes with oil fired heating systems because access to mains gas was less common in rural areas, Figure 6.10. Some 23% of heating systems in village centres and half of those in isolated rural homes were oil fired. In contrast urban and suburban areas were dominated by gas fired systems, with electrical systems providing the alternative and largely reflecting the high concentration of flats in city centres. The distinctive characteristics of rural heating systems also accounted for much of the differences between the broad regional groups, with rural housing being less prevalent in northern and south east regions relative to the rest of England (see Summary Statistics, Table SS6.2).

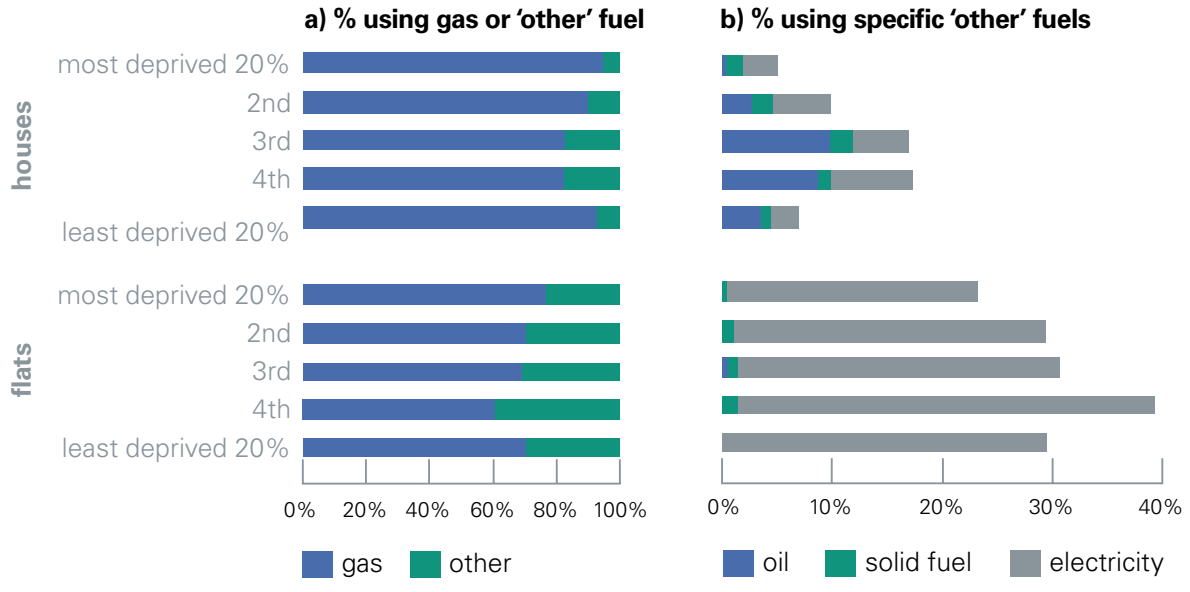
## Figure 6.10: Heating fuel by type of location, 2006




**Base: all dwellings**

21. Taking houses and flats (with their distinctive heating characteristics) separately, gas fired systems were generally more prevalent in the *most* deprived areas, with electric and oil fired systems more likely to be used in homes in *less* deprived areas, Figure 6.11a. Reflecting these differences, houses and flats in the most deprived areas were more likely to have central heating, with storage heaters being more common in less deprived areas. However 5% of houses in the most deprived 10% of areas were dependent on room heaters compared to the average of 3% for all houses, Figure 6.11b.

## Figure 6.11: Heating fuel by deprivation of area and dwelling type, 2006




**Base: all dwellings**

22. Standard boilers (and standard condensing boilers) were much more common in houses in the least deprived areas; this was because larger houses such as detached houses were more likely to be found in these areas. Consequently combination (and condensing combination) boilers were more likely to be found in houses in the most deprived areas. Standard (26%) and back boilers (9%) were more common in flats in the most deprived areas (compared to 16% and 1% in the least deprived areas) – in part related to the higher proportion of social rented flats in the most deprived areas, where these boiler types were more common.

## Insulation

### Types and trends

23. For a home to provide optimum energy efficiency performance, a high level of thermal insulation needs to be present alongside an efficient heating system. This section examines insulation measures across the housing stock as a whole and against dwelling and household characteristics considered in the preceding section on heating systems.

#### Insulation Types:

**a) cavity walls:** an external wall constructed of two brick or block walls separated by a cavity of at least 50mm. By reducing heat loss this is more energy efficient than other types of walls including solid and timber walls. Cavity walls are generally found in housing from the 1930's onwards.

**b) cavity insulation:** in addition to a cavity wall, this can reduce fuel costs by up to 15%. This involves an insulating material in the gap within the external wall of a dwelling, either during construction or retrospectively as injected foam. This helps to stop the heated air escaping the dwelling to be replaced by cold air.

**c) loft insulation:** adequate loft insulation can make significant savings to both heating costs and $CO_2$ emissions, making this a cost effective method of insulation. It involves fitting insulating foam between the joists of rafters in a loft, which prevents the rising heated air from escaping through the roof.

**d) double glazing:** works by using two panes of glass instead of one. This causes air to be trapped in between the panes, creating an insulating barrier that reduces heat loss and condensation, as well as noise. This is much more effective than single glazed windows, with triple glazing more efficient again.

24. In 2006 around 15.1 million homes (69% of the housing stock), had external walls of cavity construction, Table 6.3. The remaining homes predominantly had solid walls of masonry construction, (along with a minority using timber, concrete and metal frames and modular construction). As new cavity walled homes have been built, the total number of these dwellings has grown by 1.9 million since 1996, with the proportion increasing by around 4%.

25. Of those dwellings with cavity walls, 6.6 million contained cavity wall insulation. This is an increase of 3.7 million homes since 1996 and a rise of 22% in the proportion of insulated cavities, from 22% to 44%. Given that the vast majority of housing built during the last decade will be of insulated cavity construction, this suggests around 2.0 million existing homes had cavity wall insulation installed over this period. However the remaining 56% of homes (8.5 million) with unfilled cavities indicates the considerable scope that remains for this important insulation measure, although a relatively small number of these may be unsuitable for cavity wall insulation.[2]

## Table 6.3: Insulation measures by houses and flats, 2006

| | number (000s) | | | percentage of group (%) | | |
|---|---|---|---|---|---|---|
| | houses | flats | all | houses | flats | all |
| **cavity wall insulation:** | | | | | | |
| non cavity wall | 5,479 | 1,369 | 6,848 | 30.2 | 35.8 | 31.1 |
| cavity wall | 12,681 | 2,459 | 15,141 | 69.8 | 64.2 | 68.9 |
| of which insulated | 5,697 | 947 | 6,644 | 31.4 | 24.7 | 30.2 |
| *cavity wall uninsulation:* | *6,985* | *1,512* | *8,497* | *55.1* | *61.5* | *56.1* |
| *cavity wall insulation:* | *5,697* | *947* | *6,644* | *44.9* | *38.5* | *43.9* |
| **loft insulation:** | | | | | | |
| no loft | 0 | 2,368 | 2,368 | 0.0 | 61.8 | 10.8 |
| with loft | 18,160 | 1,461 | 19,621 | 100.0 | 38.2 | 89.2 |
| of which: | | | | | | |
| *no insulation* | *731* | *88* | *819* | *4.0* | *6.0* | *4.2* |
| *less than 50mm* | *607* | *26* | *633* | *3.3* | *1.8* | *3.2* |
| *50 up to 99mm* | *4,054* | *358* | *4,412* | *22.3* | *24.5* | *22.5* |
| *100 up to 199mm* | *9,458* | *624* | *10,238* | *52.1* | *53.4* | *52.2* |
| *200mm or more* | *3,309* | *210* | *3,520* | *18.2* | *14.4* | *17.9* |
| **double glazing:** | | | | | | |
| no double glazing | 1,895 | 1,043 | 2,938 | 10.4 | 27.2 | 13.4 |
| less than half | 1,435 | 199 | 1,634 | 7.9 | 5.2 | 7.4 |
| more than half | 9,231 | 1,358 | 10,590 | 50.8 | 35.5 | 48.2 |
| entire house | 5,599 | 1,229 | 6,828 | 30.8 | 32.1 | 31.1 |
| **all** | 18,160 | 3,829 | 21,989 | 100.0 | 100.0 | 100.0 |

**Base: all dwellings**

**Notes: Solid wall type includes walls of solid masonry construction (brick, stone) but also a small proportion of homes of timber, concrete and metal frames and modular construction.**

**Percentages in italics are not based on all homes but rather on all homes with cavity walls or all homes with lofts respectively.**

26. A further measure to reduce heat losses in a dwelling is to install an adequate amount of loft insulation. For a new house the current building regulations set this at 270mm of mineral wool (although other materials exist, mineral wool was still used in the vast majority of cases), but most existing houses fell short of this standard. Of homes with a loft space, there were still around 0.8 million (4%) with no insulation, with only 18% having at least 200mm. Just over half of the measurable stock had between 100mm and 200mm, most of which would have been considered adequate at the time of construction, but would now

[2] The survey can not provide a precise estimate of homes that are unsuitable for cavity wall insulation, but a model has been developed (see Appendix C) which suggests that around 830,000 homes (including 153,000 in the social sector) may fall into this category. It also suggests however that cavity wall insulation may be feasible but more problematic in a further 3 million homes.

benefit from additional insulation. Since 1996, the proportion of un-insulated lofts has not changed, suggesting that many of these lofts may be difficult to reach for insulation purposes. The proportion of lofts with less than 100mm halved, falling from 52% to 26%. The most notable change was in those with 200mm or more – from 0.6 million in 1996 to 3.5 million homes in 2006.

27. A less cost-effective but very popular insulation measure is the installation of double glazing. In 2006, 63% of the housing stock contained full double glazing, with 13% of homes having none. This represents a change from 1996 when 30% had full double glazing and 40% had none. This type of window unit is fitted as standard in new homes, but the conversion of the remaining single glazed homes is not straightforward due to factors such as expense, homeowner preference for original features or the listed or conservation area status of older dwellings.

## Tenure

28. In general, the social sector had higher levels of insulation measures, with over half of homes with cavity walls being insulated, Table 6.4 and Figure 6.12. Social houses also had the highest proportion of homes with at least 200mm of loft insulation and 72% with full double glazing.

### Table 6.4: Insulation measures by tenure and dwelling type, 2006

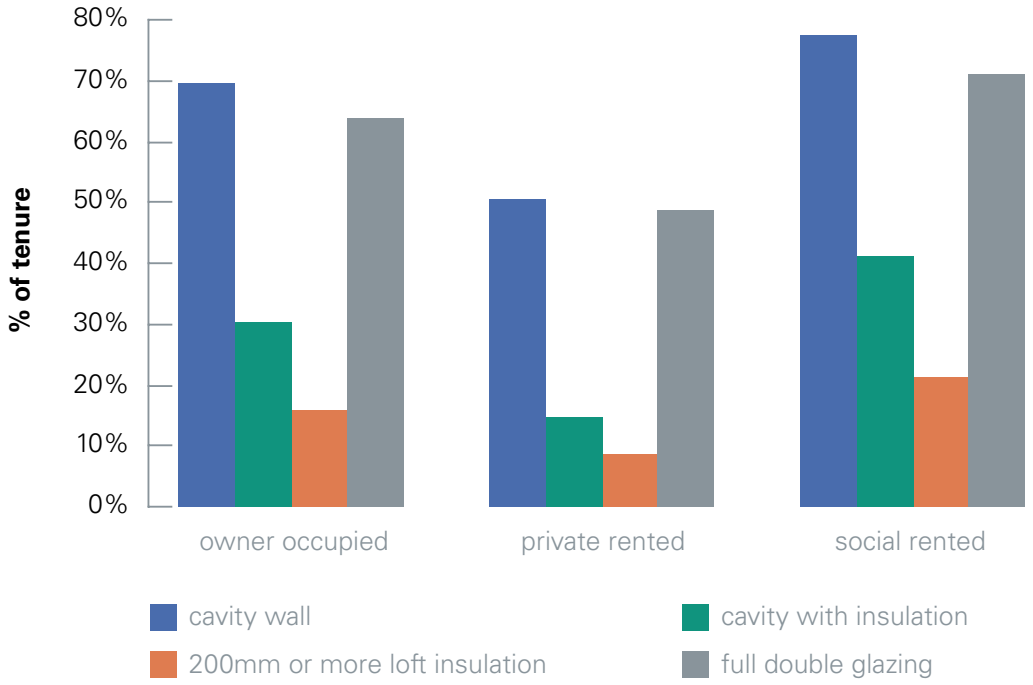
| | owner occupied | | | private rented | | | social rented | | |
|---|---|---|---|---|---|---|---|---|---|
| | houses | flats | all | houses | flats | all | houses | flats | all |
| **cavity wall insulation**: | | | | | | | | | |
| non cavity wall | 29.7 | 37.3 | 30.3 | 48.6 | 51.2 | 49.5 | 20.3 | 25.4 | 22.4 |
| cavity wall | 70.3 | 62.7 | 69.7 | 51.4 | 48.8 | 50.5 | 79.7 | 74.6 | 77.6 |
| *of which:* | | | | | | | | | |
| *cavity wall uninsulated* | *56.2* | *65.1* | *56.8* | *70.6* | *71.9* | *71.1* | *41.9* | *55.1* | *47.2* |
| *cavity wall insulated* | *43.8* | *34.9* | *43.2* | *29.4* | *28.1* | *28.9* | *58.1* | *44.9* | *52.8* |
| **loft insulation:** | | | | | | | | | |
| no loft | 0.0 | 60.6 | 4.8 | 0.0 | 59.3 | 22.3 | 0.0 | 64.3 | 26.7 |
| with loft | 100.0 | 39.4 | 95.2 | 100.0 | 40.7 | 77.7 | 100.0 | 35.7 | 73.3 |
| *of which:* | | | | | | | | | |
| *no insulation in loft* | *3.9* | *9.0* | *4.0* | *7.6* | *9.2* | *7.9* | *2.4* | *1.4* | *2.2* |
| *less than 50mm* | *3.6* | *1.2* | *3.5* | *3.7* | *2.8* | *3.5* | *1.7* | *1.5* | *1.7* |
| *50 up to 99mm* | *22.5* | *31.6* | *22.8* | *33.6* | *37.5* | *34.4* | *13.3* | *9.8* | *12.6* |
| *100 up to 199mm* | *53.3* | *43.6* | *52.9* | *43.2* | *43.8* | *43.3* | *51.1* | *67.9* | *54.5* |
| *200mm or more* | *16.8* | *14.7* | *16.7* | *11.9* | *6.7* | *10.9* | *31.5* | *19.4* | *29.1* |
| **double glazing:** | | | | | | | | | |
| no double glazing | 8.0 | 27.3 | 9.5 | 24.4 | 34.6 | 28.2 | 15.7 | 22.8 | 18.7 |
| less than half | 7.8 | 6.3 | 7.7 | 11.8 | 6.9 | 10.0 | 5.7 | 3.4 | 4.7 |
| more than half | 20.0 | 7.5 | 19.0 | 15.5 | 9.0 | 13.0 | 6.8 | 4.0 | 5.6 |
| entire house | 64.3 | 58.8 | 63.8 | 48.3 | 49.6 | 48.8 | 71.8 | 69.8 | 71.0 |
| **all** | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

**Base: all dwellings**

**Note: Solid wall type includes walls of solid masonry construction (brick, stone) but also a small proportion of homes of timber, concrete and metal frames and modular construction.**

**Percentages in italics are not based on all homes but rather on all homes with cavity walls or all homes with lofts respectively.**

Figure 6.12: Percentage of homes with efficient insulation measures by tenure, 2006

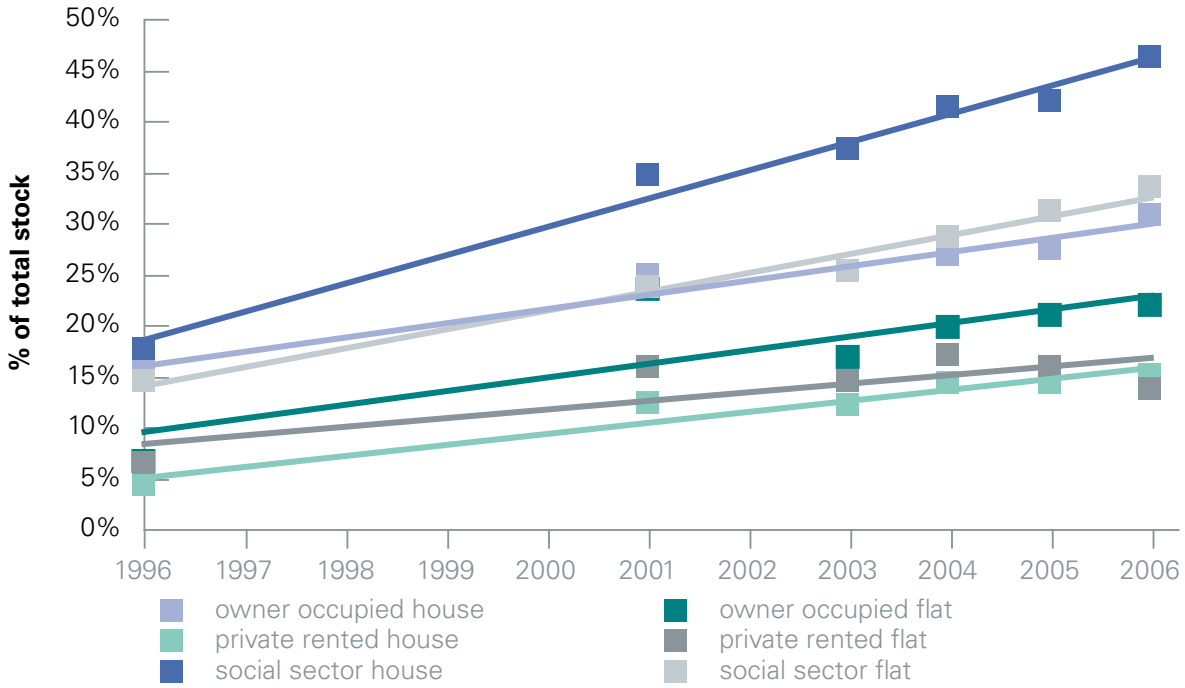



**Base: all dwellings**

**Note: the percentage of homes with cavity wall insulation is based on all homes in the tenure group.**

29. Since 1996, houses in the social sector saw the largest increases in homes with insulated cavity walls and with lofts having 200mm or more insulation, and with full double-glazing, Figures 6.13 to 6.15. Improvement occurred in all tenures, but in private rented flats the least. Where both private and social flats reduced their numbers of low level loft insulation, the general result was to top the thickness up to 100mm or 150mm rather than the 200mm or more seen in both social and private houses.

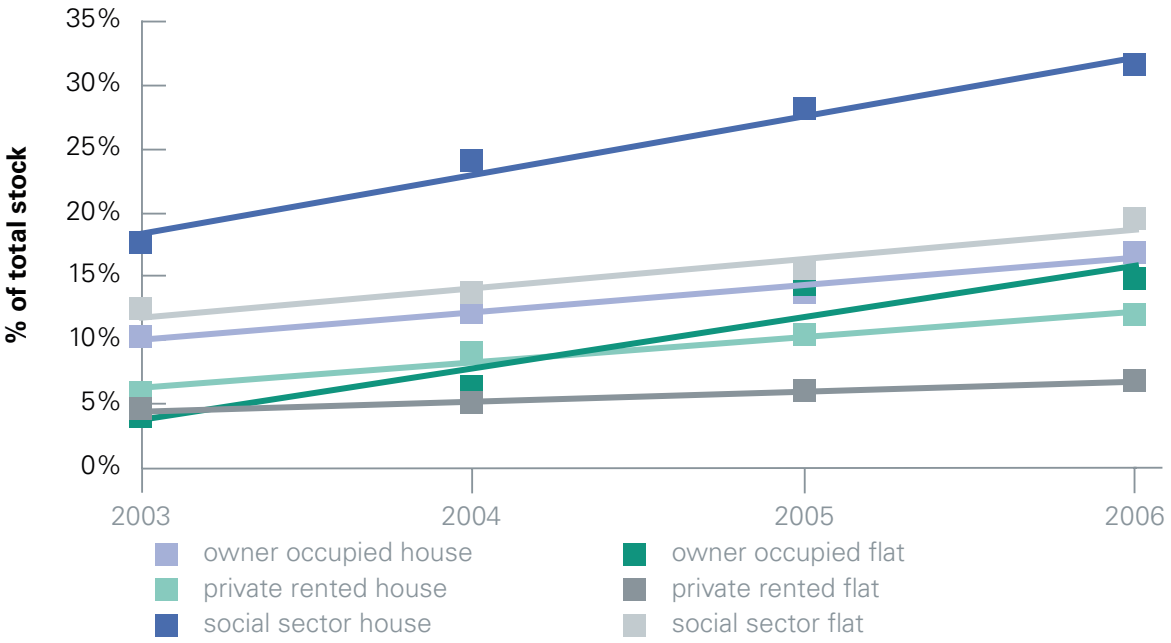
Figure 6.13: Percentage of stock with cavity wall insulation by tenure and dwelling type, 1996 to 2006




**Base: all dwellings with cavity walls**

**Note: percentages are based on homes with cavity walls only (ie excluding those of solid wall construction)**

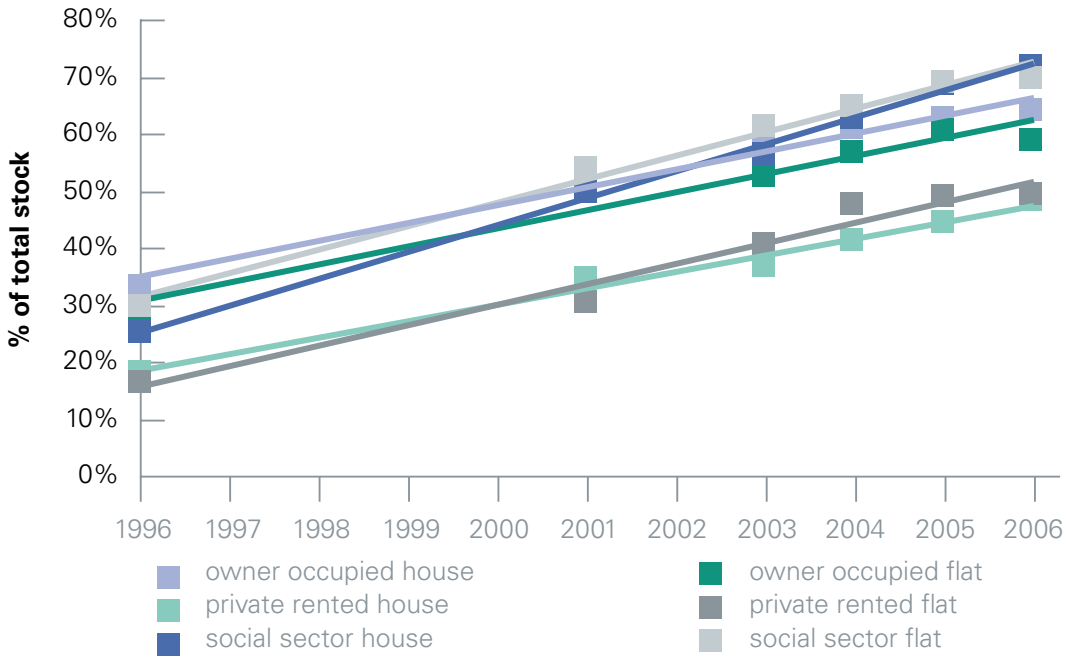
Figure 6.14: Percentage of stock with at least 200mm of loft insulation by tenure and dwelling type, 2003 to 2006




**Base: all dwellings with lofts**

**Note: accurate comparisons can only be made from 2003 due to the way in which this data was collected in previous surveys**

Figure 6.15: Percentage of stock with full double glazing by tenure and dwelling type, 1996 to 2006




Base: all dwellings

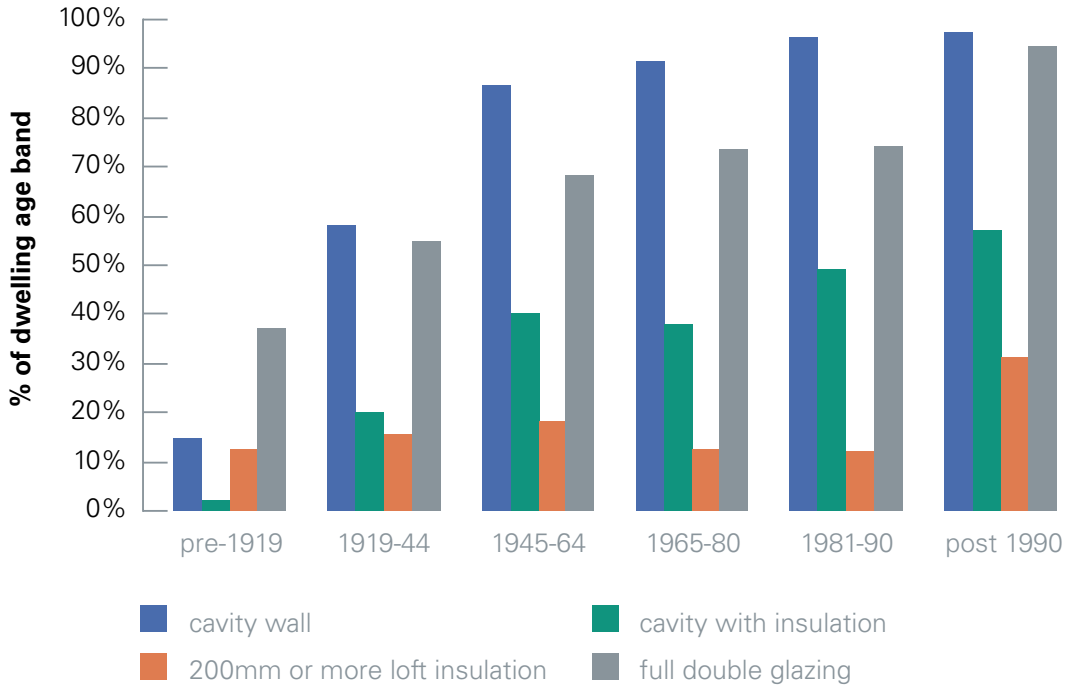
30. Private rented accommodation provides the greatest scope for insulation improvements, with the proportions of un-insulated lofts and non-double glazed homes in the sector being twice the average for the whole stock. Only 29% of cavity walls in the private rented sector were insulated, 24 percentage points below the social sector. Since 1996, the private rented sector improved at a similar rate to the owner occupied tenure, but still remained significantly behind social housing.

## Dwelling age and type

31. The age of a property can have a strong influence on its insulation measures, with design and construction methods for the older housing stock often restricting the practical improvements that can subsequently be made before more expensive renewable measures need to be deployed. The historical switch from solid to cavity wall construction, followed by the more recent installation of cavity wall insulation as standard, has left a clear footprint on the existing stock, Figure 6.16.

32. Although many homes benefited from retrospective insulation, a substantial number of cavity walls remained uninsulated. However, because the majority of older homes were of solid wall construction (with generally poor thermal performance), homes built since 1945 constitute 75% of all housing stock with uninsulated cavity walls – that is, those whose walls can be more readily and cost effectively insulated.

Figure 6.16: Percentage of homes with efficient insulation measures by dwelling age, 2006



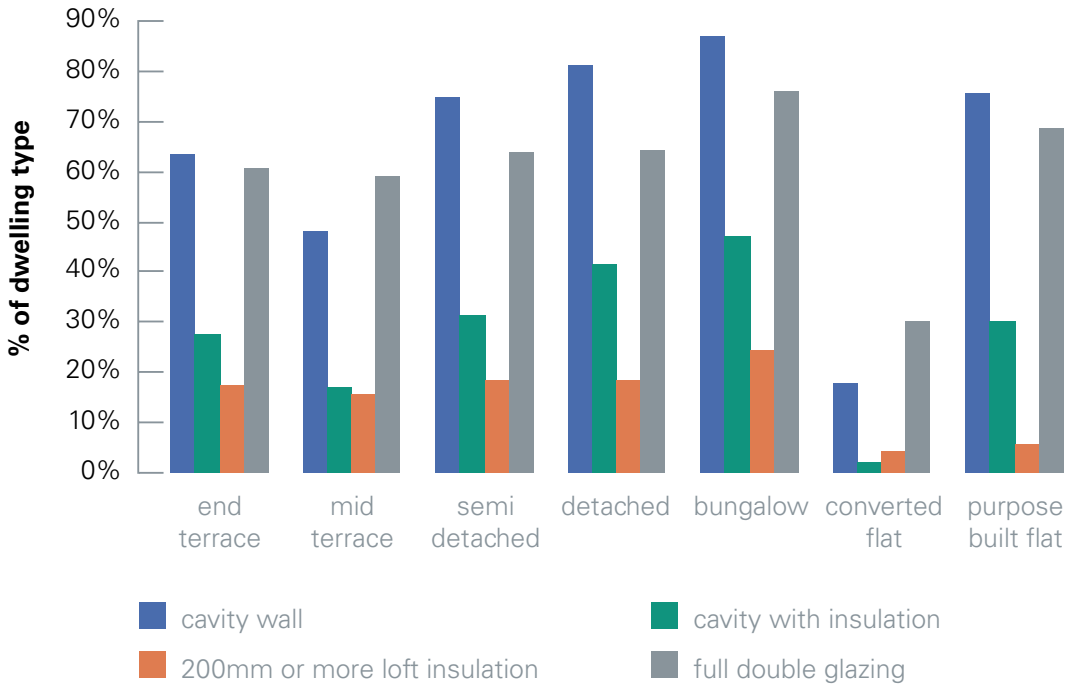

**Base: all dwellings**

**Note: the percentage of homes with cavity wall insulation is based on *all homes* in the age group.**

33. A little fewer than 6 million homes had less than 100mm of loft insulation or none at all, and almost 50% of these were built before 1945. Only in homes built since 1990 was there a substantial proportion (31%) of homes with 200mm or more of loft insulation. Even among the post-1990 housing stock the majority were still below current building regulation standards. A similar pattern was seen in levels of window glazing, with only 37% of pre-1919 homes compared to 95% of post-1990 stock, fully double glazed.

34. Detached houses and bungalows, followed by semi-detached and purpose built flats were on average more likely to have had efficient insulation measures than other dwelling types, Figure 6.17. Converted flats were least likely to have efficient insulation measures. These differences in part reflected age, methods of construction and the quality of any conversion (with high rise purpose built flats comprising special cases in methods of construction) but also tenure differences in maintenance and improvement activity. A high proportion of converted flats was from the oldest stock and also privately rented – factors which combined to produce a high incidence of poor insulation levels.

Figure 6.17: Percentage of homes with efficient insulation measures by dwelling type, 2006



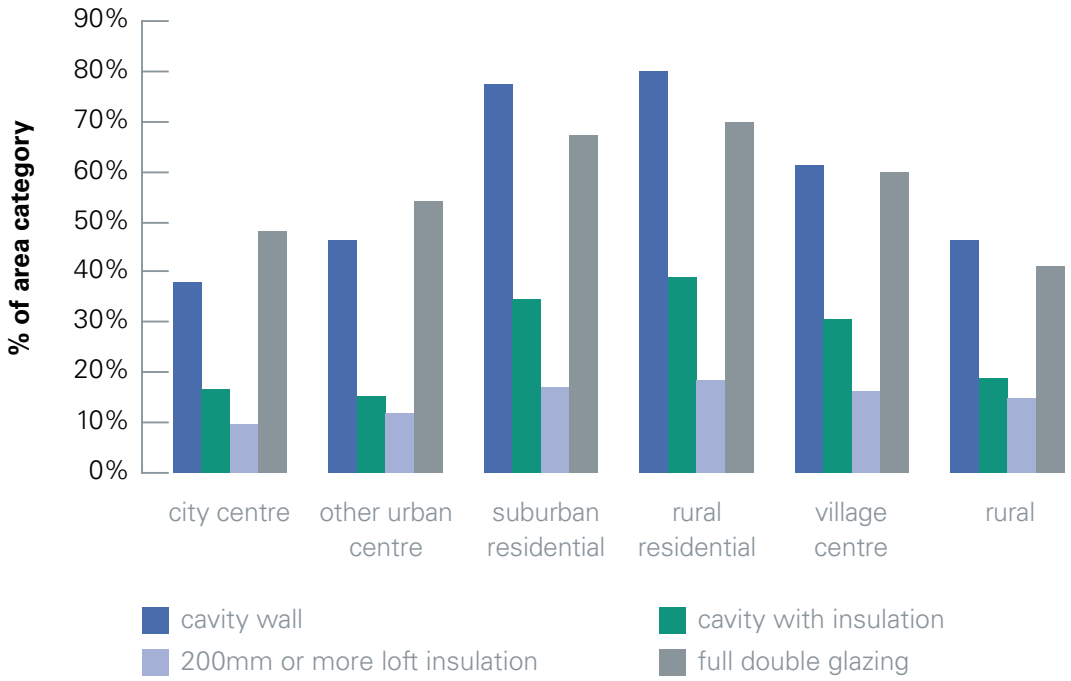

**Base: all dwellings**

**Note: the percentage of homes with cavity wall insulation is based on *all homes* in the dwelling type group.**

## Location

35. As might be expected, the overall degree of insulation of homes in urban, suburban and rural areas was strongly influenced by the age, type and ownership of housing characterising them, Figure 6.18. Newer suburban and rural residential areas had a much higher proportion of homes with cavity walls in comparison to urban areas and traditional rural areas where there were much higher proportions of older housing. However these age based differences were not strongly reflected in the incidence of insulation in these types of area. This is because the level of insulation was also affected by other factors such as the high concentration of social housing in urban areas with its relatively well insulated stock (see Table 6.4 above).

Figure 6.18: Percentage of homes with efficient insulation measures by type of location, 2006




**Base: all dwellings**

**Note: the percentage of homes with cavity wall insulation is based on all homes irrespective of whether cavity or solid wall construction.**

36. The level of insulation in the housing stock within broad regional groups also reflects their respective tenure, type and age profiles (see Summary Statistics Table SS6.5). South east regions, with their higher than average concentrations of older and of private rented stock (particularly in London) had the lowest levels of all efficient thermal insulation measures. Outside the south east there was little difference between northern regions and the rest of England.

37. The insulation characteristics of the stock in the most deprived areas reflected their rather polarised mix of social and old privately owned housing. Thus while a much higher proportion of homes were of solid wall construction in more deprived areas compared with elsewhere, those homes of cavity wall construction were more likely to be insulated, see Summary Statistics Table SS6.5. Homes with lofts in the more deprived areas were similarly more likely to have the thickest loft insulation than elsewhere, but were also more likely to have no loft insulation. The low levels of double glazing in flats and private rented houses in more deprived areas also contributed to the above average proportion of single glazing in the most deprived areas.

## EPC improvement measures

38. Following the European Energy Performance of Buildings Directive, all homes are required to have an Energy Performance Certificate (EPC). Since December 2007 all private sector homes put up for sale are required to have a Certificate as part of a Home Information Pack and this will be extended during 2008 to include rented homes. The

Certificate provides an overall assessment of the current energy performance of the property (see Chapter 7) and makes recommendations regarding a range of lower and higher cost heating, insulation and lighting upgrades that would improve its energy performance. The English House Condition Survey is able to provide a whole stock assessment of homes that would benefit from a subset of these measures, as detailed below:[3]

### Energy Performance Certificate improvement measures

**The certificate covers a number of practical improvements to current heating systems and insulation levels that would benefit a home in terms of improved energy performance. The suggested measures do not necessarily imply that current measures in place in the home are defective or 'deficient' (in terms of a standard). Nor do they consider any radical change in the type of heating system (which may be subject to fuel supply, planning or other constraints).**

**a) higher cost measures (more than £500):**

| | |
|---|---|
| **boiler upgrade:** | install a class A condensing boiler using the same fuel (mains gas, LPG or fuel oil). |
| **electric heating:** | install fan assisted storage heaters with an additional secondary heating system if not present. |
| **solid fuel heating:** | install a biomass (wood burning) boiler. |
| **warm air heating:** | install a warm air system, using the same fuel, with controls and a fan assisted flue. |

**b) lower cost measures (less than £500):**

| | |
|---|---|
| **cavity wall insulation:** | installation where none present. |
| **loft insulation:** | install/top up existing insulation less than or equal to 150mm to 250mm. |

The EPC covers some additional heating and insulation measures (**hot water cylinder insulation, heating system controls** and **draught proofing**) and also the installation of **low energy lighting** for which there is currently insufficient information in the EHCS to assess their benefits on a dwelling by dwelling basis. These measures are excluded from the findings below.

39. Table 6.5 indicates where these EPC based heating and insulation improvements would be recommended across the whole stock.

[3] The EHCS approach to including EPC indicators and recommended improvements is detailed in the 2006 EHCS Technical Report. This differs in detail to the approach used in the EPC. On the latter see Appendix T of the SAP2005 specification. This is available at: http://projects.bre.co.uk/sap2005/

Table 6.5: EPC based recommended heating and insulation improvements, 2006

| | house | flat | owner occupied | private rented | social rented | all |
|---|---|---|---|---|---|---|
| **number (000s)** | | | | | | |
| **a) higher cost:** | | | | | | |
| boiler | 14,867 | 2,153 | 12,524 | 1,749 | 2,748 | 17,020 |
| electric heating | 566 | 799 | 654 | 336 | 375 | 1,365 |
| solid fuel | 205 | 17 | 133 | 51 | 38 | 222 |
| warm air system | 173 | 44 | 146 | 19 | 52 | 217 |
| **b) low cost:** | | | | | | |
| cavity wall insulation | 6,985 | 1,512 | 6,118 | 936 | 1,442 | 8,497 |
| loft insulation | 10,142 | 834 | 8,395 | 1,165 | 1,416 | 10,976 |
| **all stock** | **18,160** | **3,829** | **15,442** | **2,611** | **3,936** | **21,989** |
| **percentage of group** | | | | | | |
| **a) higher cost:** | | | | | | |
| boiler | 81.9 | 56.2 | 81.1 | 67.0 | 69.8 | 77.4 |
| electric heating | 3.1 | 20.9 | 4.2 | 12.9 | 9.5 | 6.2 |
| solid fuel | 1.1 | 0.4 | 0.9 | 1.9 | 1.0 | 1.0 |
| warm air system | 1.0 | 1.1 | 0.9 | 0.7 | 1.3 | 1.0 |
| **b) low cost:** | | | | | | |
| cavity wall insulation | 38.5 | 39.5 | 39.6 | 35.9 | 36.6 | 38.6 |
| loft insulation | 55.8 | 21.8 | 54.4 | 44.6 | 36.0 | 49.9 |
| **all stock** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

**Base: all dwellings**

**Note: the improvements are based wholly on EPC recommended measures. Not all EPC measures are covered (see the text box above).**

40. Some 17.0 million (77% of all) homes would benefit from a boiler upgrade under EPC recommended improvements, entailing the installation of a Band A condensing boiler. The scale of this potential improvement reflects the predominant use of non-condensing boilers in central and other heating systems across the housing stock. Only 8% of homes used condensing boilers in 2006 (see Table 6.1), although this is likely to increase quickly following the building regulations' requirement for condensing boilers to be used for installation or replacement needs in gas fuelled systems from 2005 and oil fuelled systems from 2007. Proportionately more houses than flats, and owner occupied rather than rented homes, are likely to be recommended this upgrade simply because of the higher percentage of heating systems using boilers in these parts of the housing stock.

41. Nearly 1.4 million homes currently using non-fan assisted storage heaters, electric room heaters or ceiling heating would benefit from the installation of fan assisted storage heaters (along with a secondary heating system if none is present). Some 21% of all flats would benefit from this improvement. The relatively small number of homes with recommendations to upgrade to their solid fuel or warm air heating systems reflects the low incidence of such systems within the housing stock – the respective upgrades would be recommended to the majority of homes with these systems.

42. Nearly 8.5 million homes would benefit from cavity wall insulation – a measure that would improve the energy performance of similar proportions of houses and flats and of each housing sector. Half of all dwellings (almost 11.0 million) would also benefit from a top up to their loft insulation. Both measures (cavity wall and loft insulation) are low cost upgrades.

# Chapter 7: Energy Performance

1. The previous chapter focused on heating and insulation-related characteristics of the housing stock where improvement can secure better energy performance. The overall energy performance of housing is however influenced by a wider range of characteristics including design and construction features.

2. The Energy Performance Certificate (EPC) has introduced a range of indicators for assessing energy performance which, in addition to the energy efficiency (SAP) rating, include energy use and cost and carbon dioxide ($CO_2$) emissions associated with the heating and lighting of the home. This chapter assesses the current performance of the housing stock using the energy efficiency rating and $CO_2$ emissions. A fuller range of EPC based indicators are provided in the Summary Statistics Tables at the end of this report.

3. The survey uses an approach similar to the EPC of using standard assumptions regarding the level of occupancy and heating patterns of homes. This provides a measure of ***housing stock*** performance that is independent of the energy consumption behaviour of individual households. The indicators are therefore based on the energy consumption required to maintain a decent level of comfort in a fully occupied home regularly heated. They are not based on actual energy consumption (and do not take into account energy used for cooking, washing and other appliances).

4. This chapter follows a similar approach to the previous in focusing on how the performance of the housing stock varies across different types of homes, tenures, types of areas and locations. The broader set of EPC related indicators are not retrospectively available for earlier survey results and therefore trends are limited to the energy efficiency (SAP) rating used in previous EHCS reports.

## Key Findings

- **The energy efficiency rating of the stock as a whole was 49, up from 42 in 1996. Over the same period, the proportion of homes achieving Band A-C (rating 69 or higher) increased from 2% to 7%, while those in the lowest Band G (rating 20 or less) fell from 9% to 4%.**

- **While $CO_2$ emissions associated with heating and lighting requirements averaged 6.7 tonnes/year for each home, some 2 million homes emitted less than 3 tonnes/year while a 2.8 million emitted more than 10 tonnes/year. High emissions were associated with homes that were both energy inefficient and large.**

- **Social housing was substantially more energy efficient than the privately owned stock. Some 34% of social sector flats achieved Band A-C ratings. The higher level of energy efficiency of the sector, along with the typically smaller size of its homes, resulted in it performing much better than other sectors in terms of $CO_2$ emissions: the social sector comprised 18% of all homes and houses 16% of the population but accounted for only 11% of the total $CO_2$ emissions associated with heating, ventilation and lighting requirements.**

- **With half of all social housing located in the fifth of areas that were most deprived, the housing of those areas tended to be relatively more energy efficient and emitted lower levels of carbon dioxide than elsewhere.**

- **While the private rented sector proportionately had the most homes that were very energy inefficient (Band G), its housing was polarised relative to other sectors, with proportionately more homes achieving Bands A-C than in the owner occupied sector.**

- **Owner occupied homes improved the least since 1996. The level of improvement of the private rented sector was significantly better, but not comparable with that of social housing. The latter had an 11 point energy efficiency rating improvement since 1996 to take it to an average of over 57, some 10 points higher than either of the private sectors.**

- **The relatively poor improvement of owner occupied homes was in part related to a widening gap between housing built pre-1919 and the rest of the stock. This is a consequence of poorer levels of insulation in the oldest stock combined with limitations on the improvements that are more readily achievable.**

- **Traditional large and detached rural houses tended to be the least energy efficient, which, combined with average size of such homes, made them typically high $CO_2$ emitters. Nevertheless, suburban areas remained responsible for the majority of $CO_2$ emissions arising from the heating, ventilation and lighting requirements of homes – simply because most homes were located in such areas.**

## Energy Performance indicators

5. The two indicators this chapter focuses on to assess the energy performance of the housing stock are detailed below. Illustrative examples of these indicators and their relation to property types and heating and insulation measures are provided on the next page.

## Energy Performance indicators

**Energy Efficiency Rating:**

This is based on a homes' energy costs per square metre and is calculated using a simplified form of the Standard Assessment Procedure (SAP). The energy costs take into account the costs of space and water heating, ventilation and lighting, less cost savings from energy generation technologies. The rating is expressed on a scale of 1-100 where a dwelling with a rating of 1 has poor energy efficiency (high costs) and a dwelling with a rating of 100 represents a completely energy efficient dwelling (zero net energy costs per year).

The break points used for the energy efficiency (SAP) rating bands are: Band G (1–20); Band F (21–38); Band E (39–54); Band D (55-68); Band C (69-80); Band B (81-91); Band A (92-100) with Band G the worst performers and Band A the best.

**Carbon Dioxide ($CO_2$) Emissions:**

Total carbon dioxide emissions are derived from space heating, water heating, ventilation and lighting, less the emissions saved by energy generation as derived from SAP calculations and assumptions, and are measured in tonnes per year.

The highest and lowest emitting performers have also been grouped with cut-off points set at 3 tonnes per year for the low emitters and 10 tonnes per year for the highest. Pie charts are also used to show a percentage break down of total carbon dioxide contributions from each housing stock category analysed.

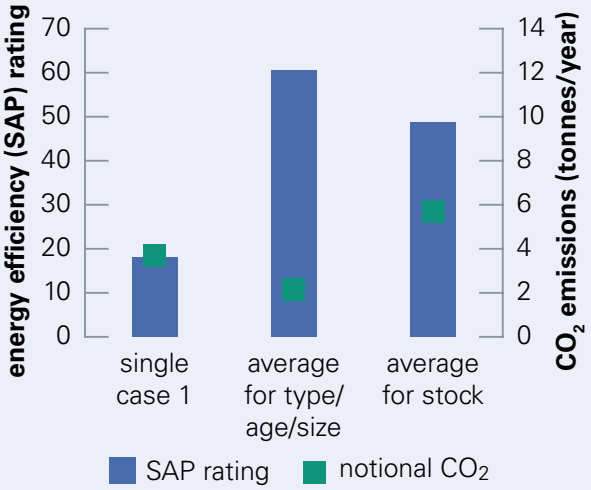
The Summary Statistics Tables include a wider range of EPC-related indicators: including the Energy Impact Rating, energy used and costs. All indicators are based on **standard assumptions regarding the level of occupancy and heating patterns for each dwelling**, and not actual occupancy and heating behaviour. These indicators therefore provide a measure of ***housing stock*** performance that is independent of the variable energy consumption behaviour of individual households.

The EPC energy efficiency rating is based on 'Reduced Data SAP', a method which allows rapid but accurate assessment of the energy performance of an existing home based on a site survey of the property. Key data items (defined in the SAP methodology) relating to the dwelling are collected and used in conjunction with defaults and inference procedures (defined in the SAP methodology) to generate a complete set of input data for the SAP calculation. The EHCS uses a parallel approach, collecting key data through its assessment of sample dwellings. The EPC and EHCS approaches are not identical but will produce results for the housing stock and its sub-sections that are not significantly different. See the 2006 EHCS Technical Report for details.

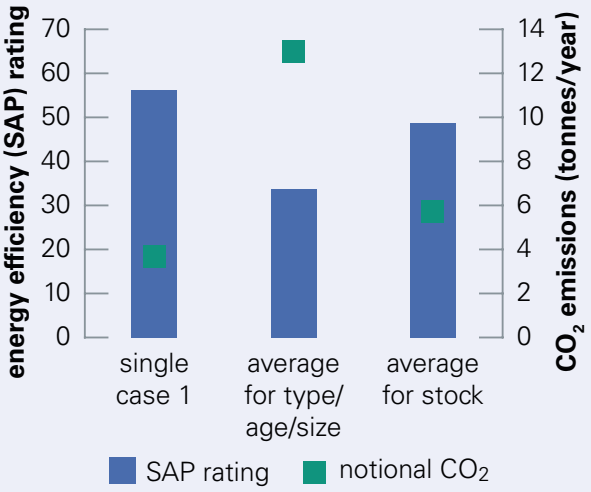
## Illustrative Case Studies

The example below illustrates homes with very similar $CO_2$ emissions (at 4.2 tonnes/year around 2 tonnes below the stock average), but quite different energy efficiency ratings. Case 1 has a lower than average energy efficiency rating and under-performs for a property of its type, age and size. Case 2 achieves a higher than average energy efficiency rating and substantially over-performs for a property of its type, age and size. Each case briefly looks at the characteristics that give each home its energy efficiency and $CO_2$ performance.

**Case 1:**
A privately rented, mid-floor purpose built small (39m$^2$) flat, of late-1960's construction in a city centre. Although of cavity wall construction the energy efficiency (SAP) rating is only 18 due to the use of portable electric heaters for main space heating, electric immersion heater for water heating, lack of cavity wall insulation and single-glazed windows. The energy efficiency of this home is far below the national average, the disparity being all the more marked for a purpose built flat. With appropriate improvement measures its $CO_2$ emissions could be much lower, particularly given its size.




**Case 2:**
A converted pre-1919, owner occupied, very large (307m$^2$) semi-detached house in a rural location. Although this house uses an oil-fuelled boiler (there is no mains gas supply to the property), it has internally insulated solid walls, 250mm of loft insulation and full double glazing. These measures, along with the centrally heated space and water heating systems, lead to an energy efficiency (SAP) rating of 56 which is substantially above the national average. They also underpin the very low $CO_2$ emissions achieved for a property of this type, age and size.




These cases are not typical of homes of their age, size and property types but illustrate the impact of poor heating and insulation measures and what can be achieved with effective improvements.

## Overall energy performance of the housing stock

6. The energy performance indicators for the housing stock as a whole are summarized in Table 7.1. These are provided in more detail and for different sections of the housing stock at Summary Statistics Tables at the end of this report. The energy efficiency (SAP) rating at 2006 was 49 and on average 6.7 tonnes of carbon dioxide per dwelling were emitted annually. These averages were based on standardising assumptions regarding the level of occupancy and heating patterns of homes and excluded energy used for purposes other than heating, ventilation and lighting.

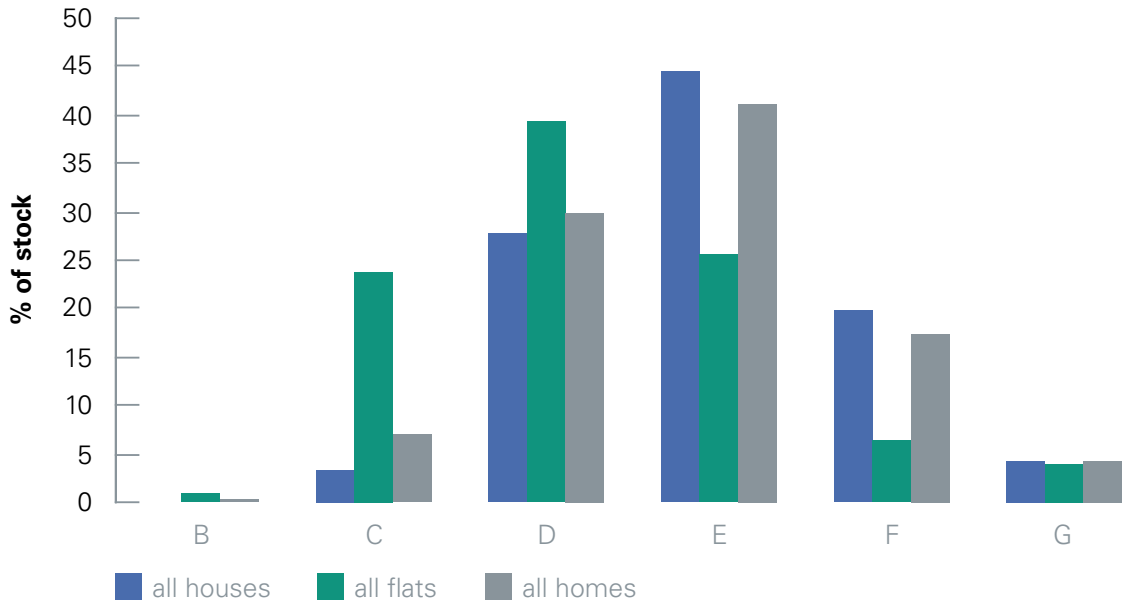
Table 7.1: Energy performance indicators for houses and flats, 2006

| | energy efficiency (SAP) rating | | | $CO_2$ emissions (tonnes/year) | | |
|---|---|---|---|---|---|---|
| | average SAP rating | % Bands A-C | % Band G | average $CO_2$ | % low $CO_2$ (below 3 tonnes) | % high $CO_2$ (10+ tonnes) |
| houses | 46.9 | 3.5 | 4.3 | 7.3 | 3.2 | 15.3 |
| flats | 57.1 | 24.6 | 4.0 | 3.8 | 37.1 | 1.5 |
| all | 48.7 | 7.2 | 4.3 | 6.7 | 9.1 | 12.9 |

**Base: all dwellings**

7. Underlying the national averages there were substantial differences across the housing stock. Only a tiny proportion of homes achieved a Band A or B energy efficiency rating (the most efficient homes) in 2006, and these properties were largely flats, Figure 7.1. Some 41% of all homes were currently rated Band E (SAP rating 39 to 54) although flats had a more efficient profile than houses, 24% of flats achieved Band C (SAP rating 69 to 80) and a further 39% achieved Band D (SAP rating 55 to 68).

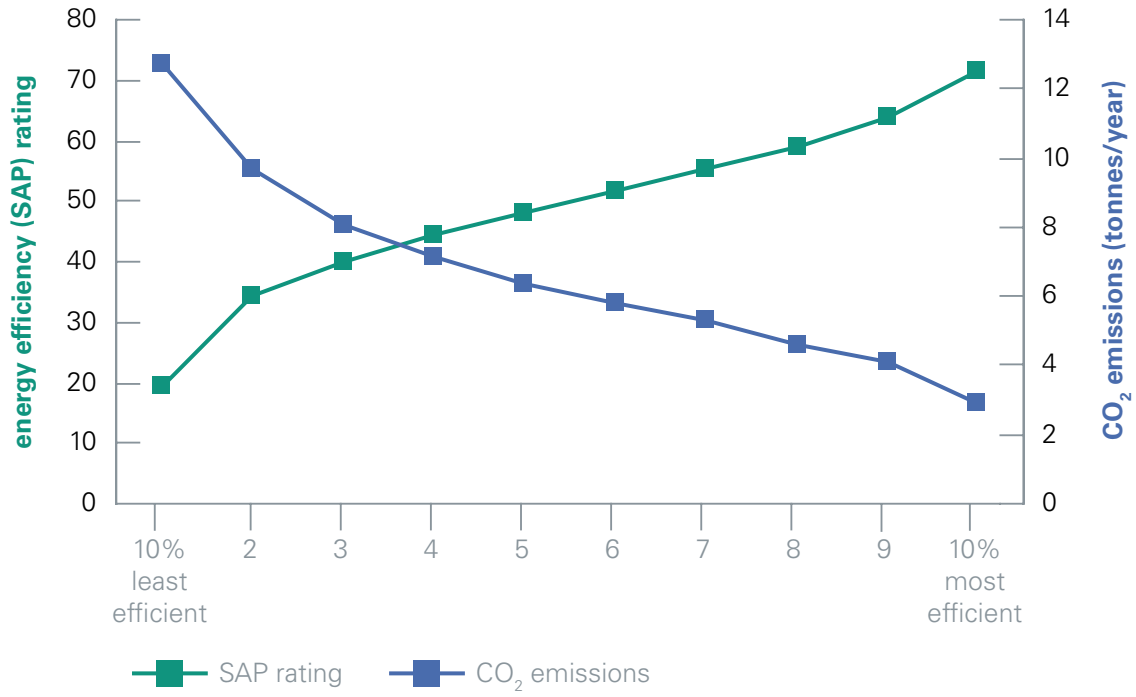
Figure 7.1: Banded energy efficiency (SAP) rating by houses and flats, 2006




**Base: all dwellings**

8. Homes with poor energy efficiency ratings tended to have high $CO_2$ emissions and vice versa, Figure 7.2. Thus the 10% of the stock that was most energy efficient (averaging 71 SAP points) had notional $CO_2$ emissions averaging just 2.9 tonnes/year; whilst the least efficient stock (average SAP of 19 points) had notional emissions of 12.7 tonnes/year.

Figure 7.2: Average $CO_2$ emissions and energy efficiency (SAP) rating of homes by energy efficiency decile groups, 2006

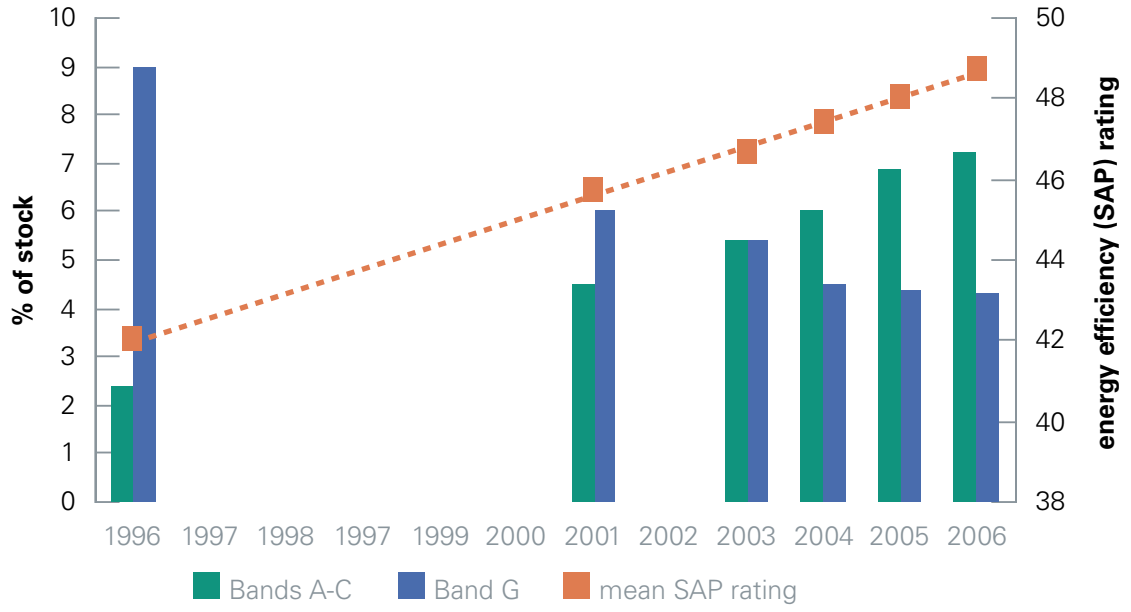



**Base: all dwellings**
**Note: Homes are ranked by their energy efficiency (SAP) rating and put into 10 equal sized groups, from the least to the most efficient along the horizontal axis**

## Trends since 1996

9. Carbon dioxide emissions for homes are not retrospectively available for earlier survey results and therefore trends are limited to the established EHCS energy efficiency (SAP) rating. The average energy efficiency rating for the housing stock as a whole was 49 in 2006, a rise of around 7 points since 1996, Figure 7.3.

Figure 7.3: Energy efficiency (SAP) rating, 1996-2006.




Base: all dwellings

10. The increase in the average energy efficiency of the housing stock was reflected in an increase in the proportion of homes in the more efficient bands and a steady decline in the percentage of homes in the least efficient bands, Figure 7.3 and Table 7.2.

Table 7.2: Average energy efficiency (SAP) rating and distribution by EPC bands, 1996-2006

| | Bands A-C | Bands D | Bands E | Bands F | Bands G | mean SAP rating |
|---|---|---|---|---|---|---|
| **1996** | 2.4 | 17.1 | 44.4 | 27.2 | 9.0 | 42.1 |
| **2001** | 4.5 | 23.0 | 45.7 | 20.8 | 6.0 | 45.7 |
| **2003** | 5.4 | 25.2 | 44.1 | 19.9 | 5.4 | 46.4 |
| **2004** | 6.0 | 26.7 | 42.9 | 19.8 | 4.5 | 47.4 |
| **2005** | 6.9 | 27.7 | 41.7 | 19.3 | 4.4 | 48.1 |
| **2006** | 7.2 | 29.8 | 41.3 | 17.5 | 4.3 | 48.7 |

Base: all dwellings

## Tenure

11. Chapter 6 indicated that social housing was proportionately more likely to have new heating systems and be effectively insulated than privately rented or owner occupied homes. This was reflected in energy efficiency ratings where social sector flats and houses on average had higher ratings than their counterparts in the other housing sectors, Table 7.2. Social sector houses (9%) and flats (34%) were also much more likely to achieve the more efficient (A to C) bands than privately owned homes.

Table 7.3: Energy performance indicators by tenure and by houses and flats, 2006

| | mean SAP rating | SAP Bands A-C (%) | SAP Band G (%) | mean $CO_2$ emissions | low $CO_2$ (% < 3 tonnes) | high $CO_2$ (% > 10 tonnes) |
|---|---|---|---|---|---|---|
| **Houses:** | | | | | | |
| Owner Occupied | 46.2 | 2.5 | 4.1 | 7.6 | 2.1 | 17.2 |
| Private Rented | 43.7 | 4.4 | 9.8 | 7.4 | 5.0 | 16.6 |
| Social Rented | 54.0 | 9.3 | 1.8 | 5.0 | 8.9 | 2.6 |
| **Flats:** | | | | | | |
| Owner Occupied | 54.9 | 17.1 | 3.4 | 4.4 | 26.4 | 2.5 |
| Private Rented | 51.4 | 17.6 | 9.5 | 4.3 | 27.0 | 2.2 |
| Social Rented | 62.2 | 34.4 | 1.3 | 3.1 | 51.1 | 0.3 |
| **Total:** | | | | | | |
| Owner Occupied | 46.9 | 3.6 | 4.1 | 7.4 | 4.0 | 16.1 |
| Private Rented | 46.6 | 9.3 | 9.7 | 6.2 | 13.2 | 11.2 |
| Social Rented | 57.4 | 19.7 | 1.6 | 4.2 | 26.4 | 1.6 |

**Base: all dwellings**

12. The privately rented sector on average had the lowest energy efficiency rating and had greater proportions of its houses (10%) and flats (9%) in the poorest energy efficiency band G. However there was a greater degree of polarisation in this sector's stock relative to the other tenures. A higher proportion of its houses (4%) achieved Band A/C ratings than owner occupied houses and a similar proportion – around 18% – of their respective flat properties achieved these higher energy efficiency bands. This polarisation of privately rented accommodation was epitomised by the presence of high proportions of typically newer purpose built flats (24% of the sector) and old houses converted into flats (13%).

13. Since 1996 there has been greater progress in the social and private rented sectors compared with owner occupied housing, Table 7.4. The owner occupied sector has increased by only 6 SAP points over this period, compared with 11 points for social and 9 points for private rented homes. The energy efficiency rating of social sector ***houses*** has increased by some 13 SAP points.

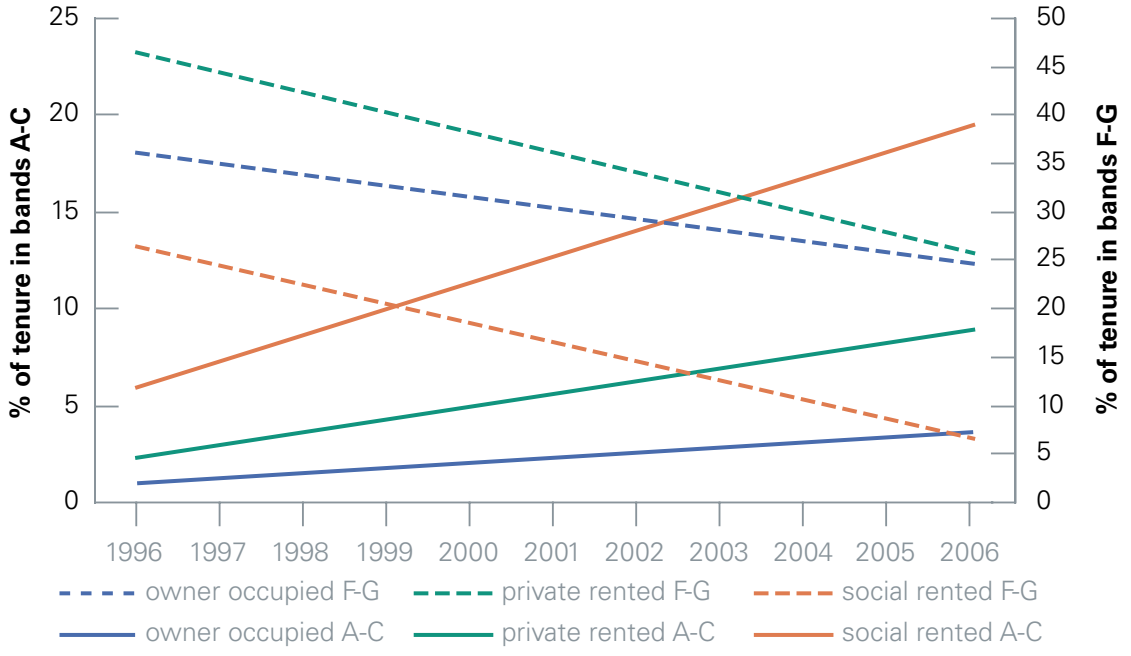
## Table 7.4: Average energy efficiency rating by tenure and by houses and flats, 1996-2006

| | houses | | | flats | | | all stock | | |
|---|---|---|---|---|---|---|---|---|---|
| | owner occupied | private rented | social rented | owner occupied | private rented | social rented | owner occupied | private rented | social rented |
| 1996 | 40.3 | 33.6 | 40.6 | 50.1 | 45.1 | 54.4 | 41.1 | 37.9 | 46.8 |
| 2001 | 43.5 | 38.7 | 47.0 | 53.6 | 47.0 | 57.9 | 44.4 | 41.9 | 51.9 |
| 2003 | 44.3 | 40.4 | 49.7 | 53.2 | 50.3 | 59.5 | 45.0 | 44.4 | 53.9 |
| 2004 | 44.9 | 42.0 | 51.4 | 55.0 | 52.3 | 60.7 | 45.6 | 45.7 | 55.3 |
| 2005 | 45.2 | 42.6 | 53.1 | 56.0 | 52.1 | 62.0 | 46.1 | 46.0 | 56.9 |
| 2006 | 46.2 | 43.7 | 54.0 | 54.9 | 51.4 | 62.2 | 46.9 | 46.6 | 57.4 |

**Base: all dwellings**

14. The tenure differences are highlighted by the increase in the proportion of 'energy efficient' homes (Bands A/C) and the reduction in proportion of 'energy inefficient' homes (Bands F/G) in the rented sectors compared with the owner occupied sector, Figure 7.4. The owner occupied sector had the smallest proportion of Band A/C homes in 1996 and this gap has grown in respect of both rented sectors, but particularly with social housing. The owner occupied sector also had the smallest reduction in the proportion of homes in Bands F/G, with the gap between it and the historically poor private rented sector narrowing.

## Figure 7.4: Percentage of homes in higher (A-C) and lower (F-G) energy efficiency (SAP) bands by tenure, 1996-2006

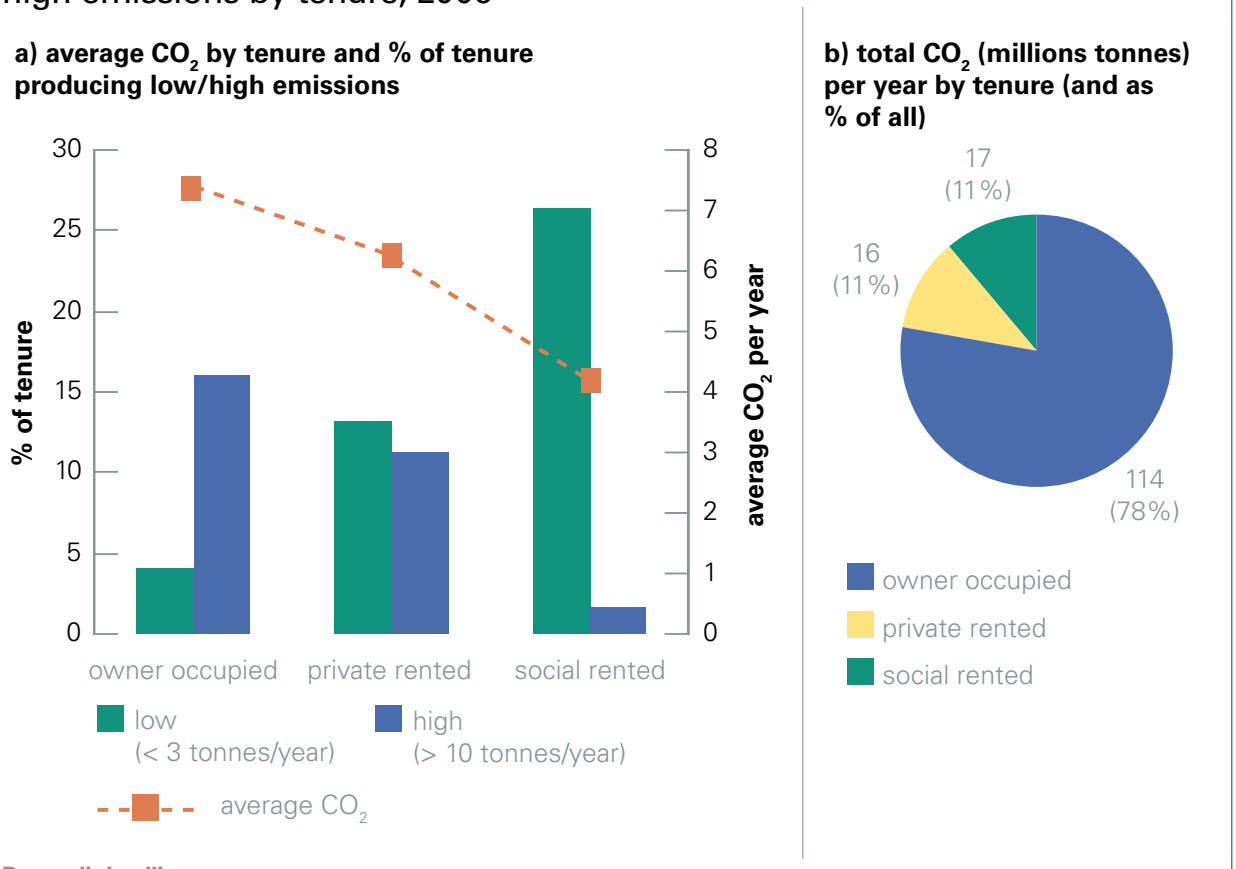



**Base: all dwellings**

**Note: for clarity, regression 'best fit' results only are presented.**

15. The higher level of energy efficiency of social housing resulted in part from the heating and insulation improvements carried out in the sector, but also from an advantageous profile regarding the age of its homes and the high proportion of flats and terraced accommodation in the sector. Social sector houses and flats were also on average smaller than privately owned houses and flats. As a result of both its energy efficiency advantages and its typically smaller sized homes, carbon dioxide emissions were substantially lower for social housing than for the other housing sectors, Figure 7.5.

Figure 7.5: Average and total $CO_2$ and percentage of homes with low and high emissions by tenure, 2006




Base: all dwellings

16. The social sector comprised 18% of the housing stock, providing homes for 16% of the population but, in terms of heating and lighting, accounted for only 11% of total carbon dioxide emissions related to these energy requirements. The owner occupied sector comprised 70% of the housing stock, housing 73% of the population but accounted for 78% of emissions based on these requirements.

## Dwelling type and age

17. Purpose built flats on average were substantially more energy efficient than other housing types, with mid-terraced properties being the most efficient types of ***houses***, Figure 7.6 and Summary Statistics Table SS7.1. Some 30% of purpose built flats achieved Bands A-C ratings (SAP 69 or higher) compared with an overall stock average of 7%. There was no substantial difference in the average energy efficiency ratings of other types of homes, although converted flats were on average the least efficient and had much the highest proportion (12%) of homes in the lowest Band G (SAP 20 or less) – three times the

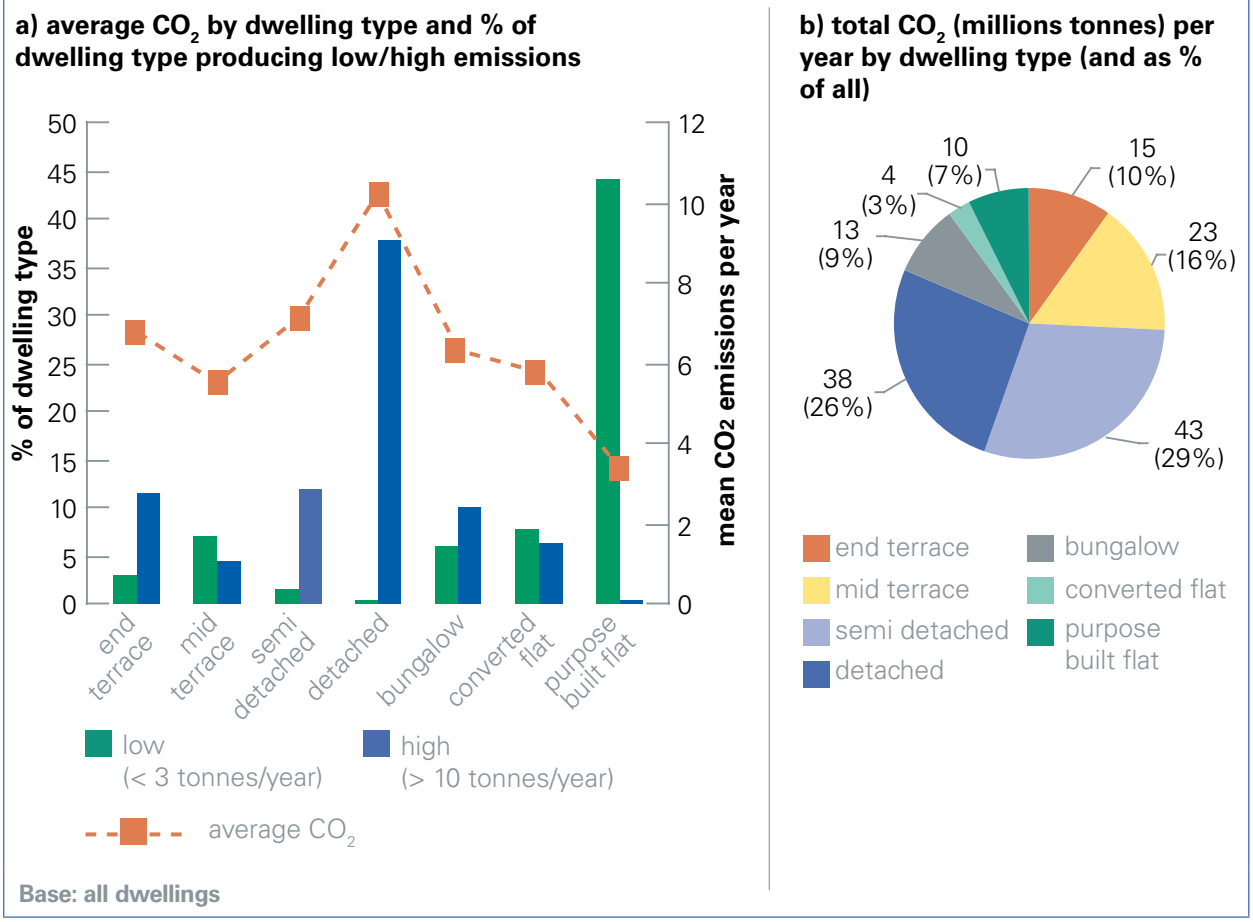
rate found in the stock as a whole. Converted flats were the least likely of all the property types to have had cavity walls and effective insulation (see Chapter 6).

Figure 7.6: Average and banded energy efficiency (SAP) rating by dwelling type, 2006


Base: all dwellings

18. Purpose built flats on average had by far the lowest level of $CO_2$ emissions (3.4 tonnes/year) – half the average for the stock as a whole, Figure 7.7 and Summary Statistics Table SS7.1. This resulted from a combination of the typically small size of these dwellings and their good energy efficiency. Despite being of a similar size, converted flats had annual emissions comparable to many houses due to their relative lack of energy efficiency measures. Detached houses stood out with substantially the highest emissions, again due to the large floor areas of these dwellings, along with the higher use of oil and non-mains gas in this category of houses.

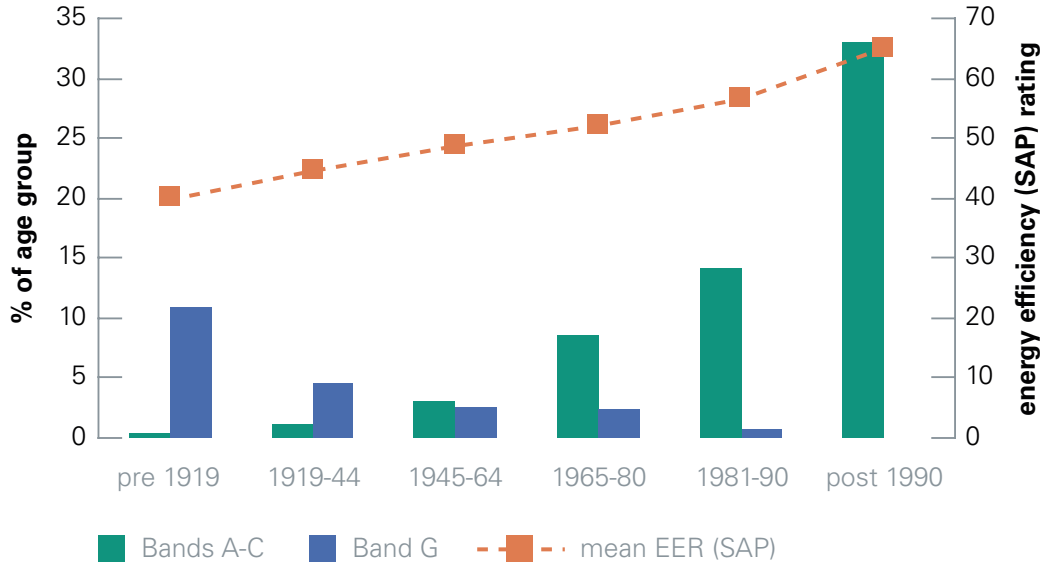
Figure 7.7: Average carbon dioxide emissions by dwelling type, 2006




Base: all dwellings

19. Not unexpectedly, the older a home the less likely it was to be energy efficient, Figure 7.8. At an average energy efficiency rating of 65, homes built since 1990 were typically 25 points higher on the scale than those built before 1919. One third of homes built after 1990 achieved the higher energy efficiency bands A-C (SAP rating of 69 of higher). This proportion is more than twice that of homes built in the 1980s and more than four times that of homes built between 1965 and 1980. This proportion was also likely to grow as a consequence of more demanding building regulations for new construction.

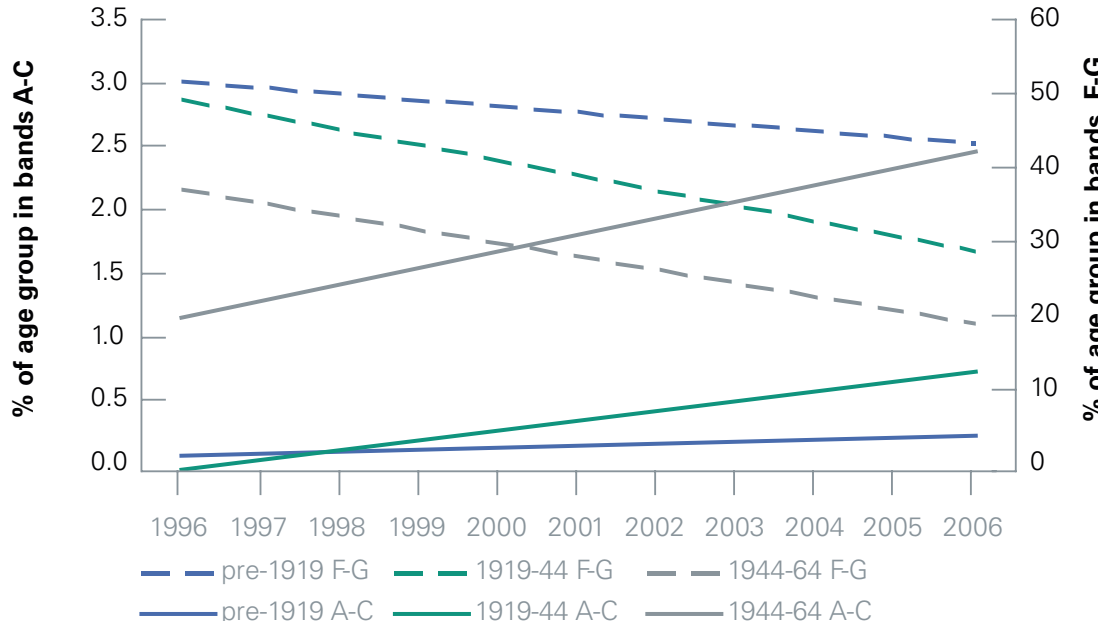
Figure 7.8: Average and banded energy efficiency (SAP) rating by dwelling age, 2006




**Base: all dwellings**

20. Some 11% of the oldest (pre-1919) housing fell within the lowest energy efficiency band G (SAP rating of 20 or less) and the indications were that the gap between this and other older housing grew, Figure 7.9. Chapter 6 indicated that while the oldest homes appeared to suffer no neglect in terms of periodic replacement of heating systems, nevertheless their levels of wall and loft insulation continued to lag behind those of newer properties. However a key issue for many homes built before 1919 may have been inherent difficulties (high costs or other limitations) in the types of improvement measures that could be carried out.

Figure 7.9: Percentage of older homes in higher (A-C) and lower (F-G) energy efficiency (SAP) bands by age group, 1996-2006

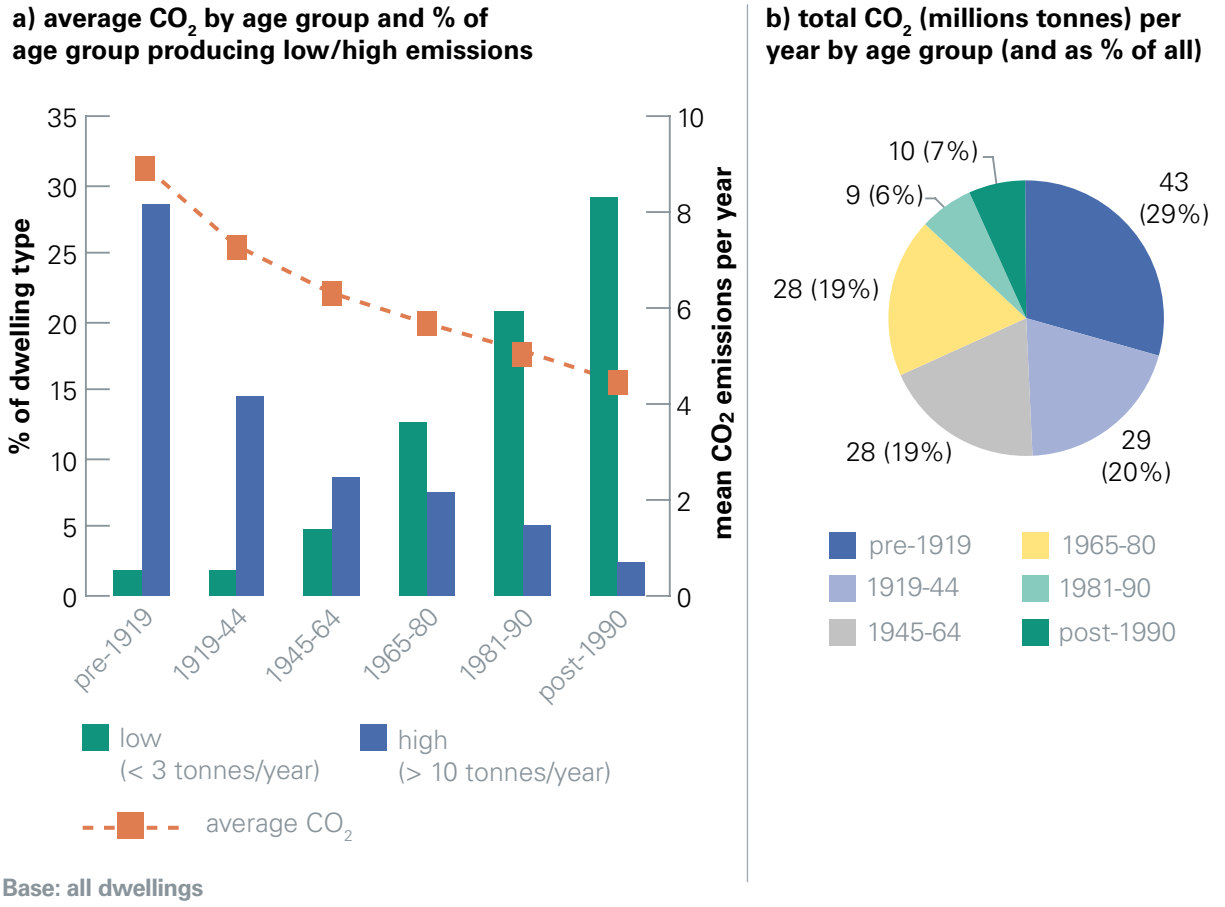



**Base: all dwellings**

**Note: to clarify, regression 'best fit' results only are presented.**

21. Older homes were on average larger, had more of their external surfaces exposed to the external elements (on account of older properties being more likely than other to be detached and semi detached houses), of solid wall construction and with poorer levels of wall and loft insulation. The combined effects of such factors was that the older the stock, the more polluting it was in terms of $CO_2$ emissions, Figure 7.10. The pre-1919 stock accounted for almost half (48%) of all homes with emissions greater than 10 tonnes/year.

Figure 7.10: Average carbon dioxide emissions by dwelling age, 2006




Base: all dwellings

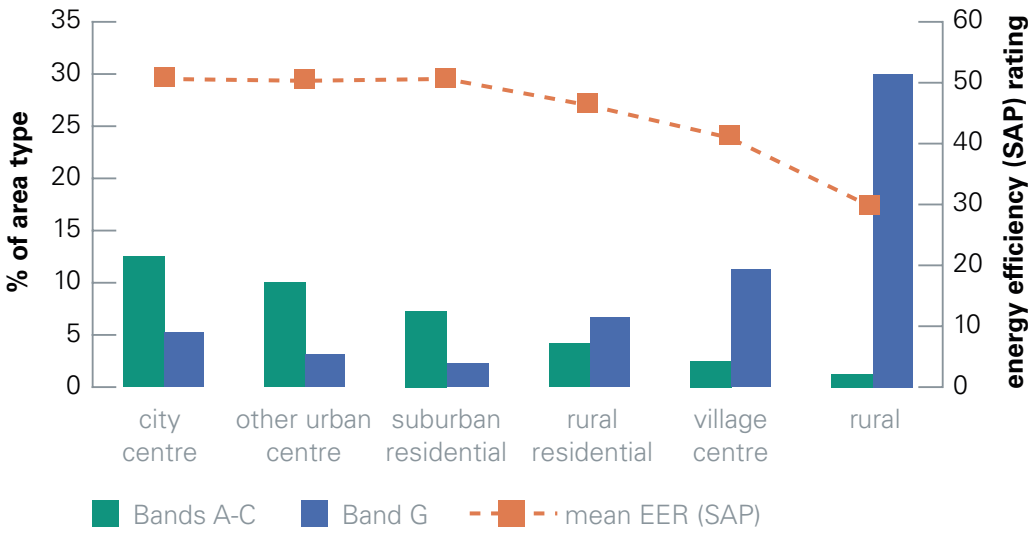
## Location

### a) area type

22. Homes in rural areas, and particularly the 675,000 dwellings situated outside of village centres and residential rural developments, were on average the least energy efficient, Figure 7.11. These areas had a high concentration of older properties – the majority were built before 1919, of solid wall construction, large and detached, and were most likely compared with other areas to be reliant on oil or electricity fuelled heating systems because of a lack of gas supply. Some 30% of homes in these more isolated rural areas were in the lowest energy efficiency band G (SAP rating of 20 or less).

23. While city and other urban centres also had high concentrations of older homes, such properties were much more likely to be smaller, terraced, and with gas fired heating. Moreover the older private stock within these centres was offset by concentrations of collocated and relatively efficient social housing and flats, which largely accounted for the higher than average proportions of homes achieving the higher energy efficiency bands A-C (SAP rating of 69 or more) in city (13%) and other (10%) urban centres.

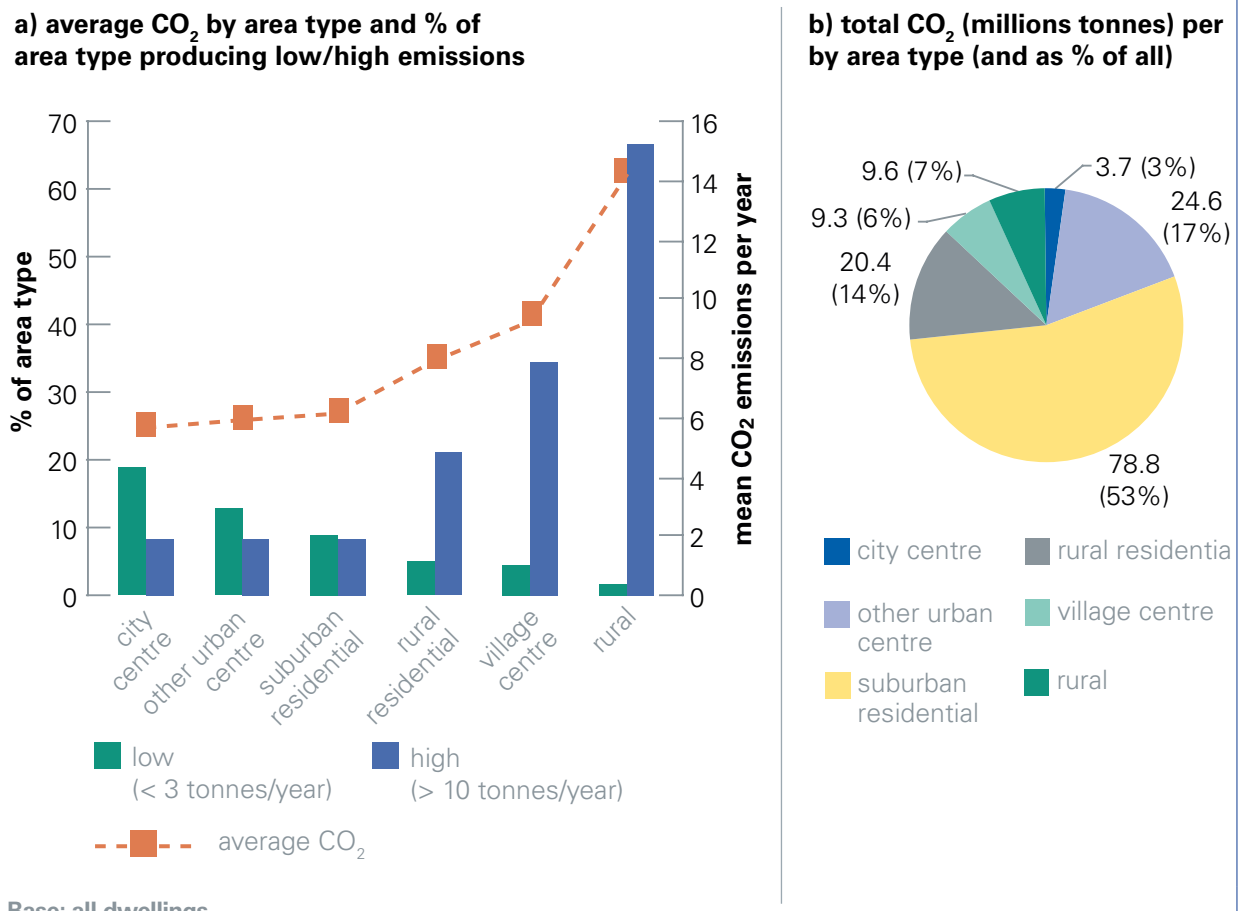
Figure 7.11: Average and banded energy efficiency (SAP) rating by area type, 2006




Base: all dwellings

24. The distinct housing profile and circumstances of the rural stock resulted in around twice the national average of $CO_2$ emissions, Figure 7.12. Similar but less pronounced effects were seen in villages and more rural residential developments. In contrast and due to higher levels of newer building, more flats and social housing, urban areas released a relatively small amount of $CO_2$. Nevertheless the presence of older housing in these centres was also responsible for some high $CO_2$ emitting stock as well. In terms of total $CO_2$ emissions, while traditional and other rural areas accounted for a disproportionate share, the majority (53%) of emissions arose from suburban residential areas (which accounted for around 58% of all homes).

Figure 7.12: Average carbon dioxide emissions by dwelling age, 2006



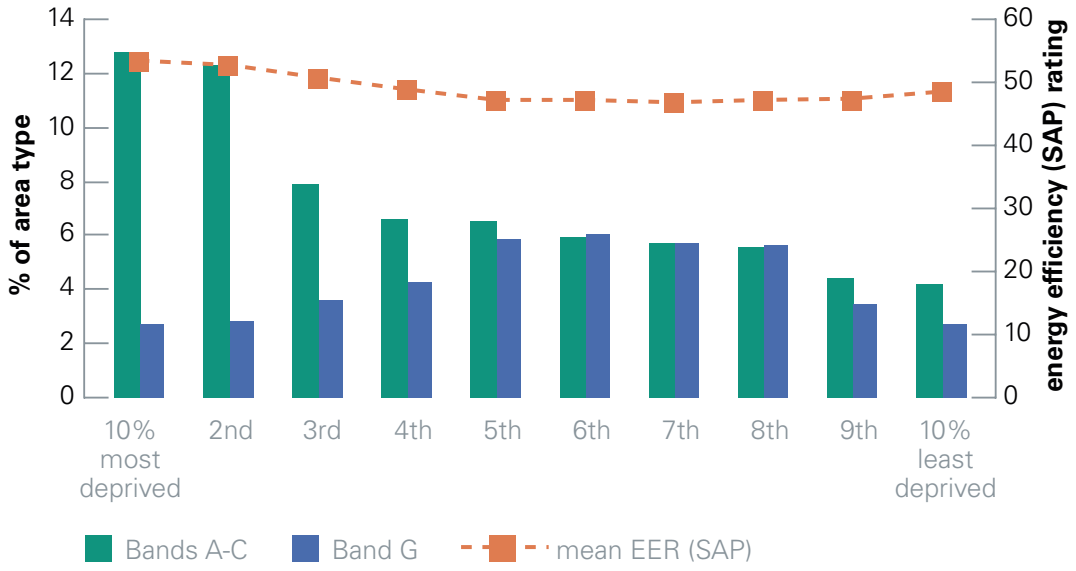

Base: all dwellings

**Base: all dwellings**

## b) area deprivation

25. Housing was on average more energy efficient in the ***more*** deprived areas, largely as a result of higher concentrations of social housing in these (urban) locations, Figure 7.13. Almost half of all social housing was located in the most deprived fifth of areas of the country and an effect of this concentration was the relatively high proportion of homes (13%) in these areas achieving the higher energy efficiency bands A-C (SAP rating 69 or higher). In contrast homes in the more affluent (overwhelmingly suburban and rural residential) areas were least likely to achieve these high ratings, although the least deprived fifth also had a lower than average incidence of the worst band G ratings. Traditional rural housing with its high incidence of band G (SAP 20 or less) homes (see Figure 7.10 above) was over-represented in the mid-ranking areas of the deprivation range.

Figure 7.13: Average and banded energy efficiency (SAP) rating by area deprivation, 2006

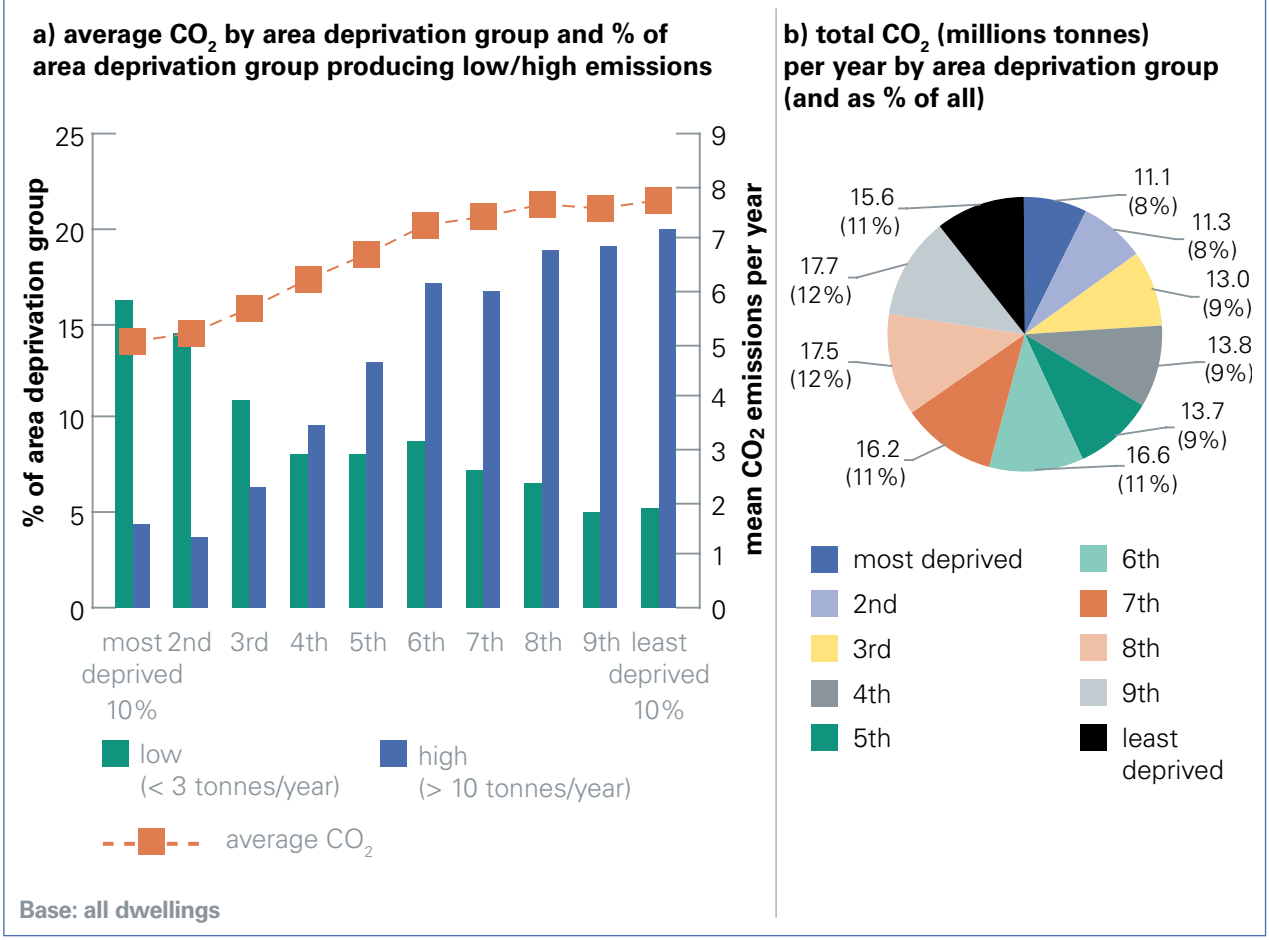



**Base: all dwellings**

**Note: Areas are defined by lower super output areas, which are ranked by the 2004 Index of Multiple Deprivation and put into groups of areas of equal number.**

26. Homes in the ***least*** deprived areas on average emitted around 55% more carbon dioxide emissions than those in the ***most*** deprived areas, Figure 7.14. This reflected both the higher than average energy efficiency of housing in the most deprived areas but also the smaller than average size of their housing stock. However these factors were tempered to an extent by the more carbon intensive electric heating found in the flats and smaller terraces of the most deprived areas set against the high use of mains gas in the least deprived areas.

Figure 7.14: Average carbon dioxide emissions by area deprivation, 2006




Base: all dwellings

## c) regional group

27. The regions of the south east were on average a little more energy efficient than northern regions, with the rest of England being the least efficient, Summary Statistics Table SS7.2. These differences were overwhelmingly compositional effects arising from the age, type tenure and local area characteristics of their housing stocks. For example, the south eastern regions had over twice the proportion of privately and socially owned purpose built flats than elsewhere, while northern regions had the highest proportion of social housing. Both factors contributed to raising their average efficiency relative to the rest of England. The latter in contrast had the highest proportions of detached and rural housing which were associated with below average levels of energy efficiency and greater carbon dioxide emissions.

# Chapter 8. Neighbourhood Problems

1. The quality of the neighbourhood people live in affects their quality of life, general health and sense of wellbeing. This chapter explores the prevalence of different types of neighbourhood problems and what types of neighbourhoods have the 'worst' problems in terms of the upkeep of their private and public space and buildings and behaviours of people in them. It then examines how these problems are associated with residents' views regarding their perceived safety, their trust in other people living in the area and their overall satisfaction with their neighbourhood as a place to live in order to indicate something of the impact of living in worst neighbourhoods.

## Key Findings

- **Overall transport related problems (heavy traffic, street parking and intrusive noise and other forms of pollution) were the most common neighbourhood problems observed by surveyors.**

- **However, while predominantly privately built areas had relatively high incidences of problems relating to traffic and parking, areas of predominantly local authority built housing were much more likely than elsewhere to exhibit serious problems relating to anti-social behaviours such as litter, vandalism and graffiti. Households resident in local authority built areas were similarly much more likely to report serious problems related to drug use, troublesome youth, vandalism and burglary.**

- **Households within predominantly local authority built areas (whatever their current tenure) were three times more likely to reside in neighbourhoods with 'worst' problems regarding the upkeep of the area and to report serious problems regarding anti-social and criminal behaviours.**

- **Nevertheless, because the majority of housing is located in privately built areas, the number of households living in neighbourhoods with 'worst' problems was approximately equally divided between those residing in predominantly local authority built areas and those living in predominantly privately built areas.**

- **Within local authority built areas, 'worst' problems were more likely to arise in large estates and in areas dominated by flats, or a mixture of houses and flats. Within privately built areas, 'worst' problems were more likely in older housing and particularly in areas dominated by terraced houses.**

- **In both local authority and privately developed housing areas, 'worst' problems are most likely found in the most deprived localities.**

- **Households with 'worst' problems in their neighbourhoods were much more likely to feel unsafe alone in their homes or walking in the area, to distrust other people living in their local community, and to express dissatisfaction with the neighbourhood as a place to live.**

## Neighbourhood problems

Two sources of information on the quality of the local environment are available from the survey:

- **surveyors observations** and rating of problems in the neighbourhood, alongside provision of wider characteristics (including any predominant built type, age and tenure of housing used to classify neighbourhoods in this chapter). This source provides an impartial and sufficiently reliable measure of problems which can be readily observed at the time of the survey.

- **interview respondents' views** of whether the neighbourhood suffers from serious problems that might undermine their quality of living there. Used as statistical aggregates, these views reflect residents' experiences of living in different types of neighbourhood.

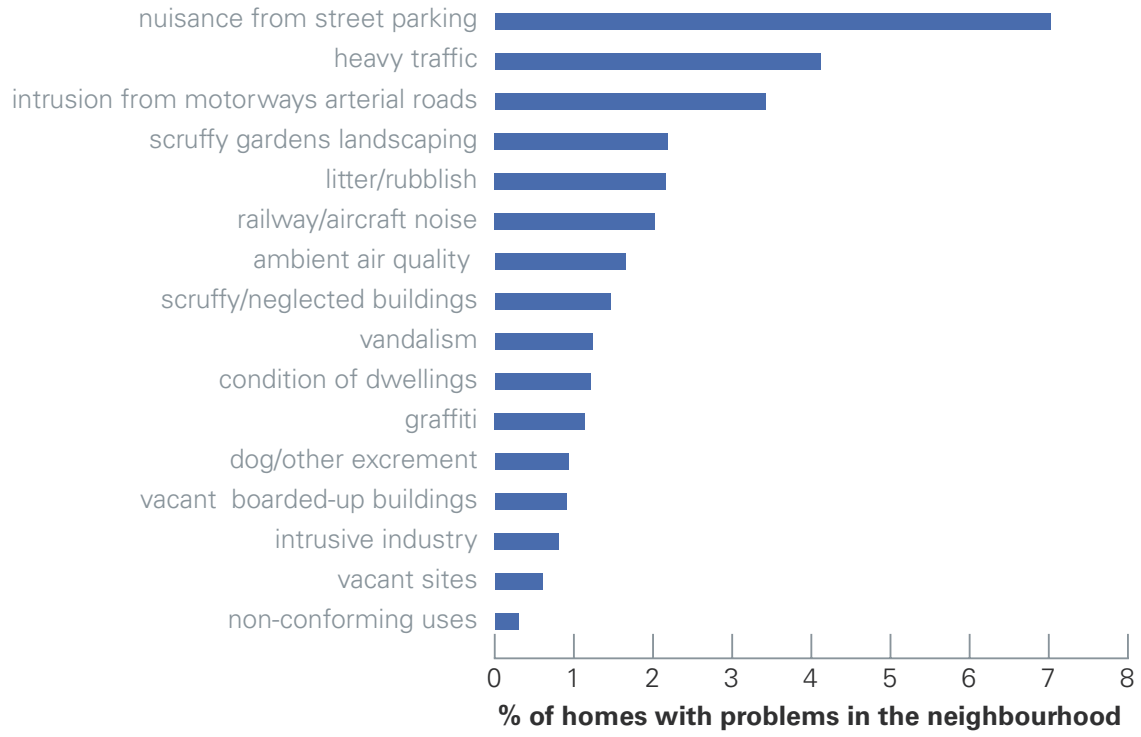
Surveyors' observations and interview respondents' views address distinct but overlapping issues – with respondents, as residents, also making assessments of problems that are not immediately observable. The range of problems considered by surveyors and by residents respectively is shown in Figures 1 and 3 below. Further details are provided in the 2006 EHCS Technical Report.

While the report generally provides '2006' estimates using data collected for 2005/06 and 2006/07, this chapter uses data collected for 2004/05 to 2006/07 presented here as a mid-point 'average' position for 2005. The reasons for this include the need to use sufficient sample numbers for some relatively infrequent problems, but also methodological issues related to the clustered nature of the sample design of the survey and the tendency for neighbourhood problems to be geographically clustered at local levels. See the 2006 EHCS Technical Report for general consideration of survey design and data quality.

### Surveyor observed problems

2. Neighbourhoods can be affected by a range of problems in the local area. The most common problem identified by surveyors was nuisance from street parking: some 7% of homes had substantial or major problems caused by the volume of parked vehicles, Figure 8.1. Other problems relating to traffic were among the most common issues too, including heavy traffic and intrusion of motorways and arterial roads.

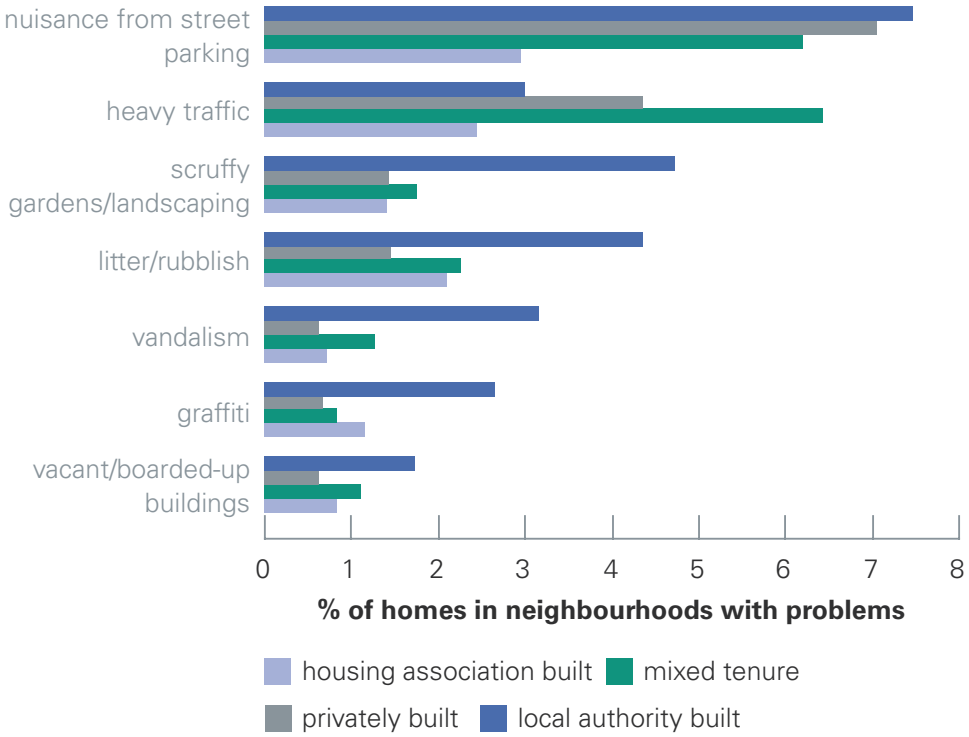
Figure 8.1: Problems in the neighbourhood observed by surveyors, 2005




Base: all dwellings

3. Some types of areas were more likely to be assessed as having these problems. Surveyors classify the area surrounding the home they are assessing in a number of ways, including whether its housing stock predominantly reflects any built (rather than current) tenure. Areas where the majority of homes were built as local-authority housing tended to be more likely to have problems, especially those relating to anti-social behaviour such as litter, vandalism and graffiti, Figure 8.2. Areas which were predominantly privately built or those which had mixed built tenures had relatively high incidences of problems related to traffic and parking compared to other types of problems.

Figure 8.2: Surveyor observed neighbourhood problems by predominant built tenure, 2005

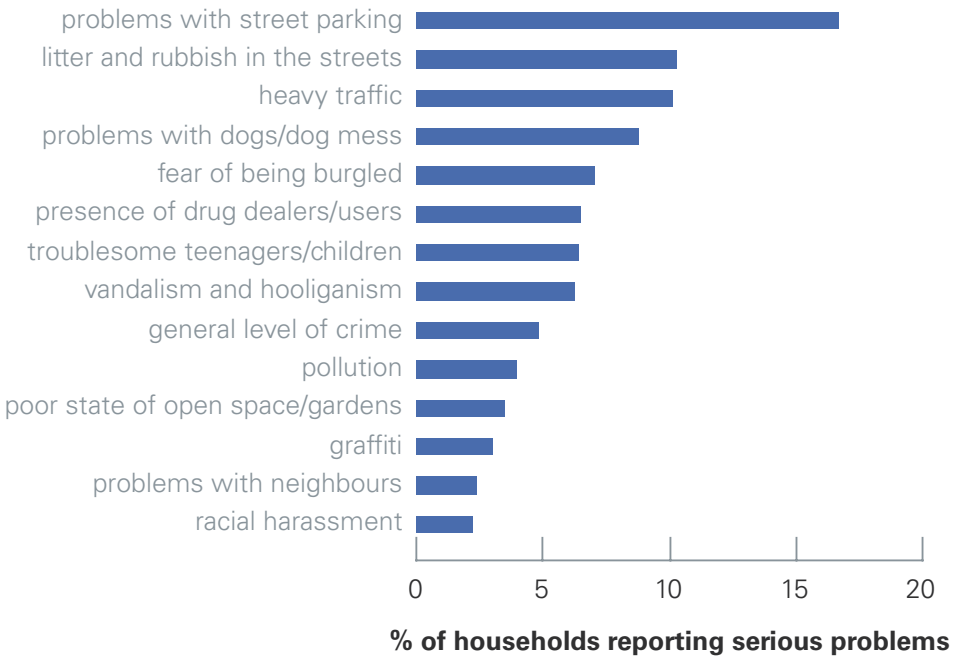



Base: all dwellings

## Resident views

4. Household respondents were asked to assess the presence and seriousness of a number of problems in their neighbourhoods. Like the surveyor assessments the most common issue was street parking, identified as a serious problem by 17% of households. Similarly heavy traffic was also identified as a serious problem in 10% of cases, Figure 8.3.

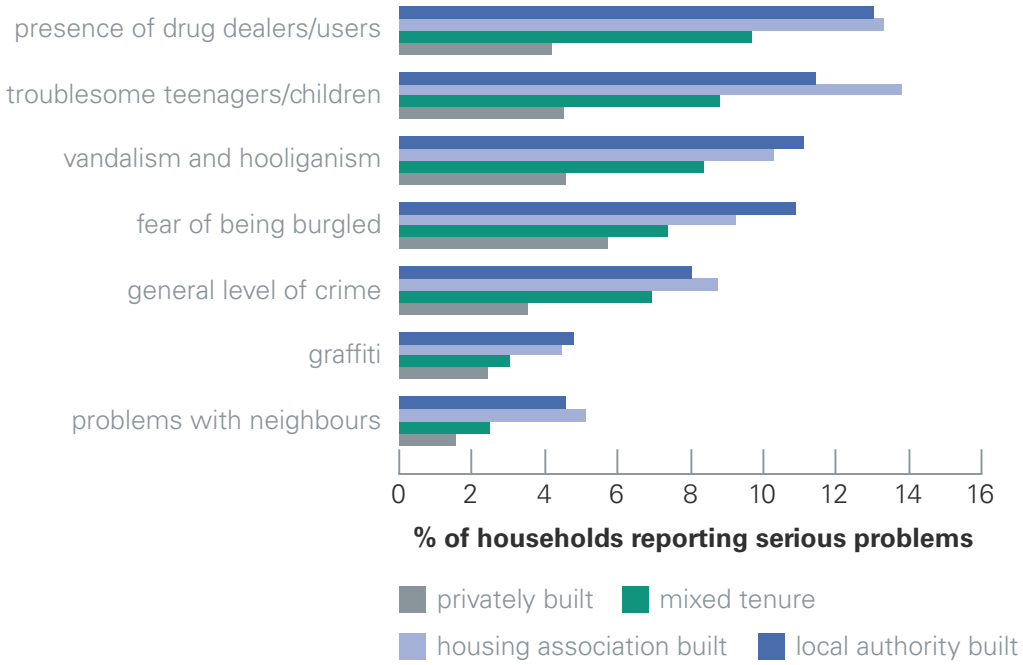
Figure 8.3: Household views of serious problems in the neighbourhood, 2005




Base: all households

5. As with the surveyors' observations, residents' views vary according to the characteristics of the area. Residents living in mostly local authority built and housing association built areas tended to report a higher incidence of serious problems, particularly those related to anti-social behaviour, than those in other areas. Residents living in mixed tenure areas also reported above average incidences of problems. Residents reported the lowest levels of these problems in privately built areas, Figure 8.4.

Figure 8.4: Household views of neighbourhood problems by predominant built tenure, 2005




**Base: all households**

## 'Worst' problems

6. To focus on neighbourhoods with the 'worst' problems, two summary indicators of distinct but related types of problems have been developed (see the text inset below). These summary indicators focus on those 10% of households living in neighbourhoods with the highest scores on two scales reflecting: surveyor observed problems related to the upkeep/condition of the neighbourhood; and householder views of the seriousness of any problems related to anti-social and criminal behaviours within the neighbourhood. The neighbourhoods represented by the 10% of homes on each indicator overlap but do diverge in some respects (see the analysis in later sections of this chapter).

## 'Worst' neighbourhood problems

To focus on neighbourhoods with the most serious problems two distinct but related indicators have been developed from overall scores created respectively from surveyor and respondent assessments of problems in the neighbourhood. Together these indicators provide complementary information about the neighbourhood. The indicators are based on the 10% of households living in neighbourhoods with the highest (= 'worst') scores. The two indicators are neighbourhoods with:

**'worst' *upkeep* problems**, based on surveyors observations of the presence of neglected, poorly maintained and vandalised public and private space/buildings at the time of their visit. The particular problems the score reflects (in order of their relative weighting) are:

- scruffy gardens/landscaping
- scruffy/neglected buildings
- litter and rubbish
- poor condition of homes
- dog and other excrement
- nuisance from street parking
- graffiti
- vandalism.

**'worst' *behavioural* problems**, based on respondent views of whether any anti-social and criminal behaviours pose serious problems for the neighbourhood. The particular problems reflected in the score (in order of their relative weighting) are:

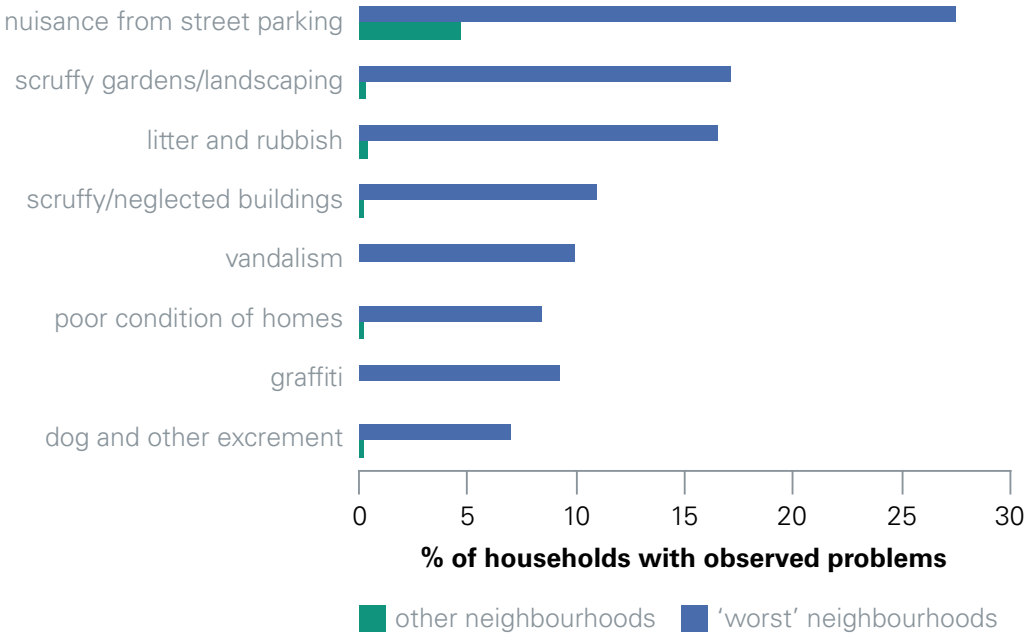
- troublesome teenagers/children
- presence of drug dealers/users
- vandalism and hooliganism
- racial harassment
- problems with neighbours
- fear of being burgled
- general level of crime
- poor state of open spaces/gardens
- presence of graffiti.

Details of the scores and their construction (using factor analysis) are provided in the 2006 EHCS Technical Report. The scores reflect the number and seriousness of problems observed/reported.

The focus on the *10%* of households in neighbourhoods with the highest scores (= 'worst') is a nominal cut off and does not indicate an absolute measure as such. The indicators are used to identify where problems are likely to be most acute rather than to present definitive counts of how many households live in neighbourhoods with severe problems.

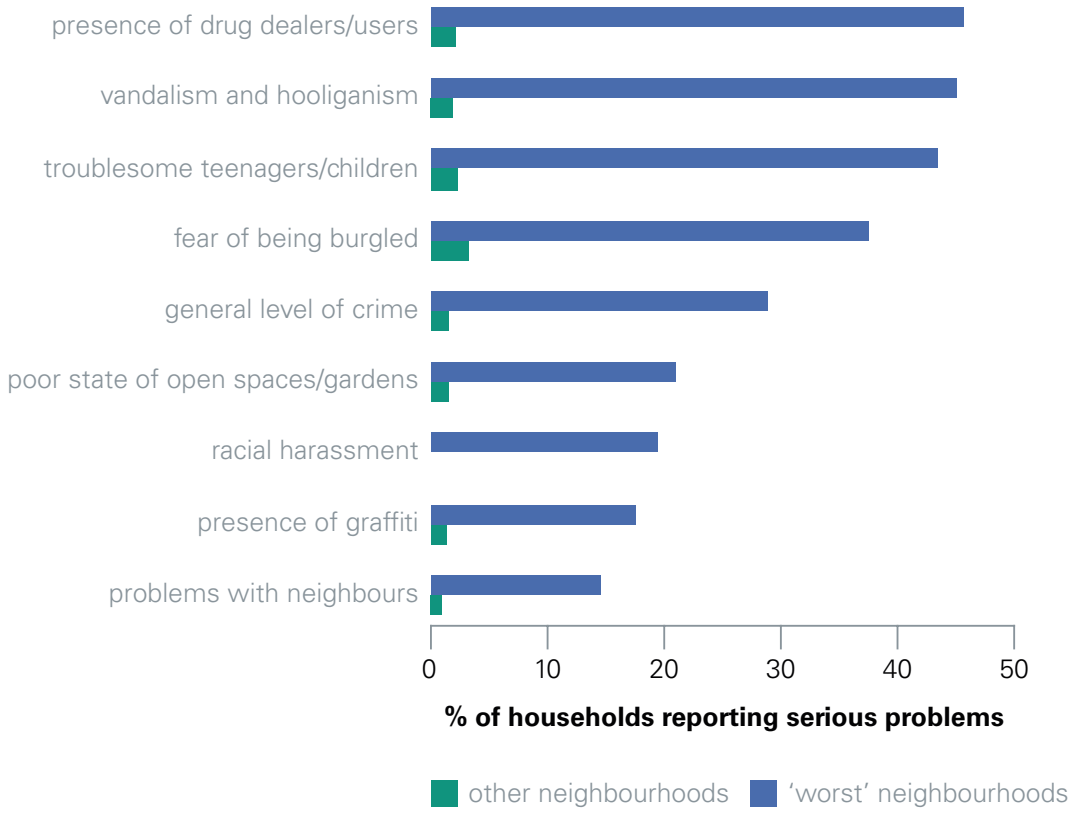
7. Figures 8.5 and 8.6 below illustrate what the focus on those 10% of households with 'worst' problems means in terms of the surveyor observed/respondent reported incidence of specific problems in the neighbourhood. In both cases the likelihood of specific *upkeep* and *behavioural* problems is greater within 'worst' neighbourhoods by an order of magnitude compared with other neighbourhoods.

**Figure 8.5: Percentage of households with surveyor observed upkeep problems by neighbourhoods with 'worst' problems and elsewhere, 2005**




**Base: all households**

Figure 8.6: Percentage of households reporting serious behavioural problems by neighbourhoods with 'worst' problems and elsewhere, 2005




Base: all households

## Built tenure

8. Households living in areas where the majority of housing is local authority built were much more likely to have "worst" upkeep and behavioural problems in their neighbourhoods than those living in other areas, Table 8.1 and Figure 8.7. Households in local authority built areas were three times more likely to have 'worst' neighbourhood problems of either type compared with those living in predominantly privately built areas.

9. Nevertheless, and reflecting the preponderance of privately built housing in the country as a whole, there was an approximate parity in the numbers of households living in 'worst' neighbourhoods from predominantly local authority and privately built areas, Table 8.1.

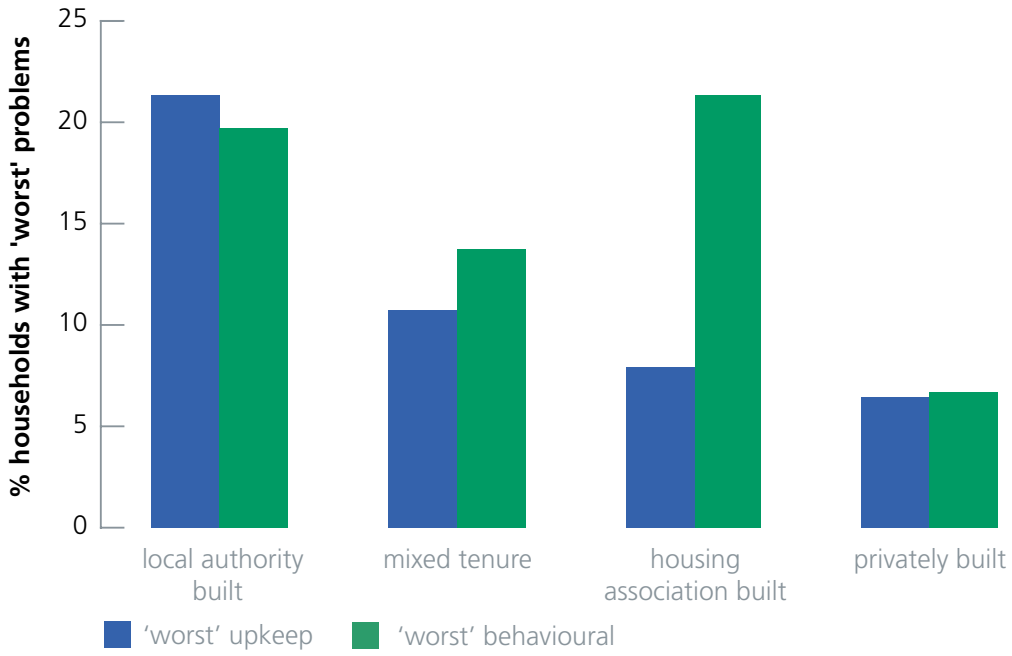
## Table 8.1: Households living in neighbourhoods with 'worst' problems, by the predominant built tenure of the area, 2005

| | households with "worst' neighbourhood problems | | | | all households |
|---|---|---|---|---|---|
| | upkeep | | behavioural | | |
| predominant built tenure: | % within area | % of all 'worst' | % within area | % of all 'worst' | (000s) |
| private | 6.5 | 46.0 | 6.6 | 47.0 | 15,008 |
| local authority | 21.3 | 48.0 | 19.7 | 44.3 | 4,764 |
| housing association | 7.9 | 1.7 | 21.3 | 4.5 | 445 |
| no predominant tenure | 10.8 | 5.0 | 13.8 | 6.3 | 975 |
| **all** | 10.0 | 100.0 | 10.0 | 100.0 | 21,193 |

**Base: all households**

**Note: the predominant built tenure of the area does not mean that all properties in the area were so built, nor does it necessarily reflect current tenure. A substantial proportion of local authority built housing in particular will have changed ownership.**

## Figure 8.7: Households with 'worst' upkeep and behavioural problems in their neighbourhoods by predominant built tenure of the area, 2005




**Base: all households**

10. In general the incidence of 'worst' behavioural problems tended to mirror that for upkeep problems in different types of areas. However there was a striking discrepancy between the upkeep problems observed by surveyors and serious behavioural problems reported by interviewed households in neighbourhoods where housing association built stock predominated. 'Worst' upkeep problems were less likely than average to be present in areas of housing association estates, which may reflect to some extent their age with half of homes in these areas being built after 1980. However the residents of such areas were just as likely to report serious problems related to anti-social and criminal behaviours as those living in neighbourhoods characterised by local authority built estates.

11. Together, local authority built and privately built areas accounted for 90% or more of all households with 'worst' upkeep and behavioural problems in their neighbourhoods, with an approximately even split between the two tenures. However there were important differences between local authority and privately built areas in terms of the types of neighbourhoods affected by these problems. The following two sections look at which types of neighbourhoods have 'worst' problems in each of the two main built tenures.

## Local authority built areas

### a) type of housing

12. There were nearly 4.9 million households located within predominantly local authority built areas. Among these areas it was those characterised by flats or by a mix of flats and houses that were most likely to have 'worst' neighbourhood problems of both types, Figure 8.8. The incidence of such problems was similar for households living in neighbourhoods characterised by high and low rise flats. These areas comprised just under one third (32%) of all households residing in predominantly local authority built areas. Local authority areas that were least likely to have 'worst' neighbourhood problems comprised houses only.

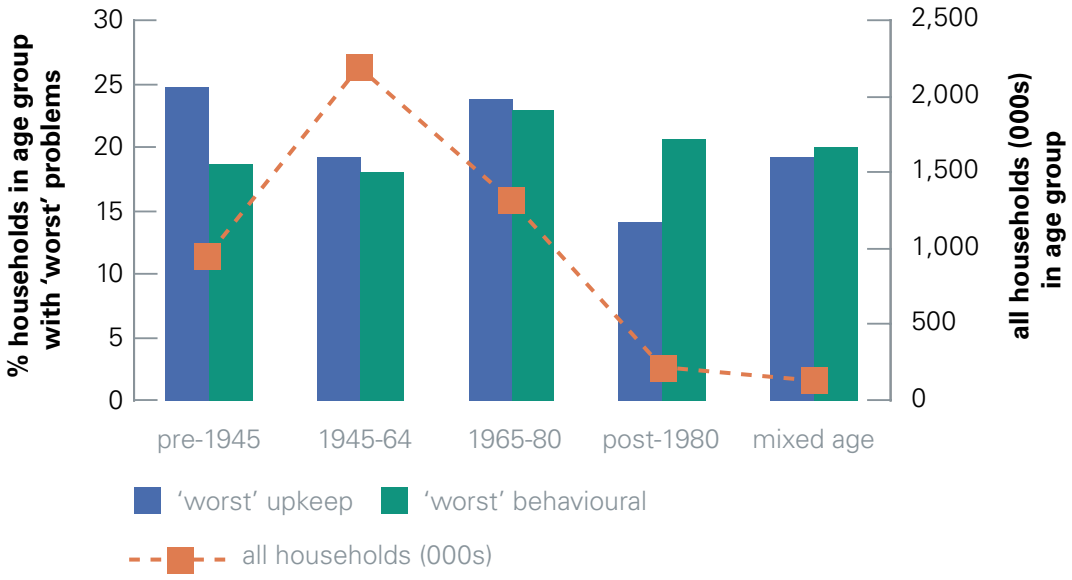
Figure 8.8: Predominantly local authority built areas – households living with 'worst' upkeep and behavioural problems in their neighbourhoods by main type of housing in the area, 2005


Base: all households

## b) age of housing

13. Setting aside those areas where there was no defining age of the housing stock (which made up a very small proportion of all homes in predominantly local authority built areas), it was areas built between 1965 and 1980 that were most likely to have 'worst' neighbourhood problems (ie from the most recent period of large scale public housing construction), Figure 8.9. These areas were also most likely to comprise flats or a mix of flats and houses.

**Figure 8.9: Predominantly local authority built areas – households living with 'worst' upkeep and behavioural problems in their neighbourhoods by main age of housing in the area, 2005**

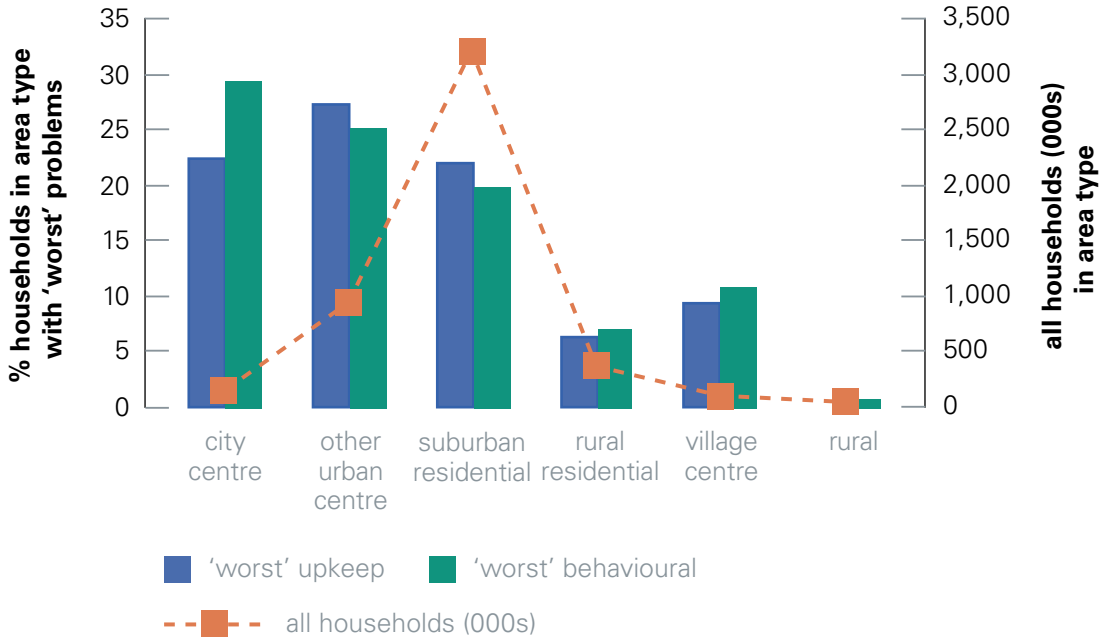



**Base: all households in predominantly local authority built areas**

## c) area type

14. Worst neighbourhood problems were most likely in those local authority built areas located in city or other urban centres, compared to those elsewhere, Figure 8.10. These areas accounted for just over 1.1 million households in all – nearly a quarter of all households living in predominantly local authority built areas. Flats predominated in such areas. They contrasted sharply with those local authority areas (overwhelmingly comprising houses only) located in rural locations.

Figure 8.10: Predominantly local authority built areas – households living with 'worst' upkeep and behavioural problems in their neighbourhoods by area type, 2005




**Base: all households in predominantly local authority built areas**

## d) estate size

15. Local authority built areas comprising large estates, particularly those which are predominantly flats or a mixture of houses and flats had the highest likelihood of having 'worst' neighbourhood problems, Figure 8.11. The size and type of estate appears to have most impact on upkeep problems with the neighbourhood. Local authority built areas made up of mostly houses tended to have fewer serious problems although their size still had an impact.

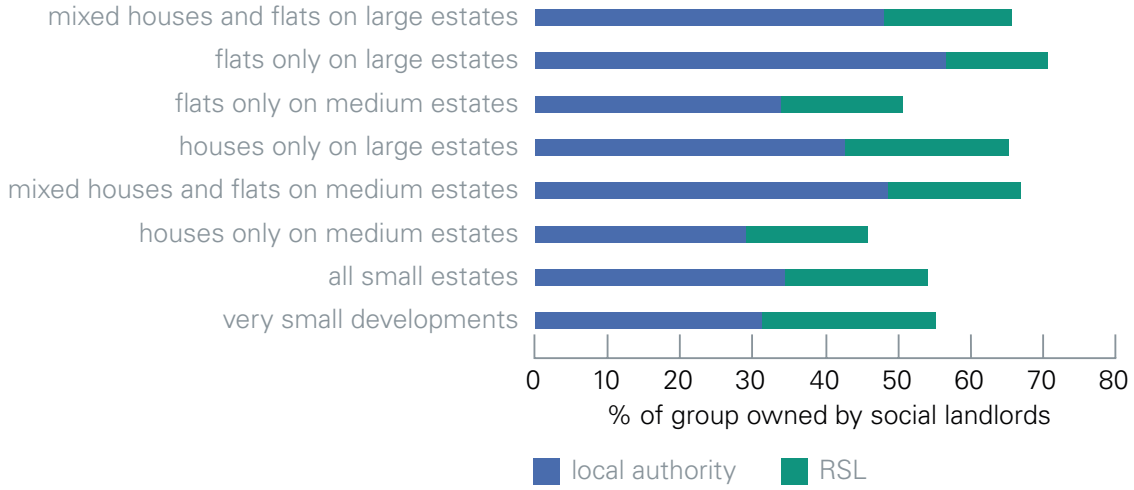
Figure 8.11: Predominantly local authority built areas – households living with 'worst' upkeep and behavioural problems in their neighbourhoods by estate type and size, 2005


**Base: all households**

**Notes: large estates are those comprising more than 300 homes; medium estates: 100-300 homes, small estates: 25-100 homes; very small developments: less than 25 homes.**

16. More than half of residents living in areas where local authority built housing predominates were social tenants and the proportion of social tenants was highest in such areas characterised by flats, Figure 8.12. Some 70% of residents living on 'large' local authority built flatted estates (comprising more than 300 homes) were currently renting from social landlords, with less than half of residents living on medium sized estates (100 to 300 homes) of houses currently renting as social tenants.

Figure 8.12: Predominantly local authority built areas – current ownership of homes by estate type and size, 2005




**Base: all dwellings in predominantly local authority built areas.**

**Notes:**

**a) large estates are those comprising more than 300 homes; medium estates: 100-300 homes, small estates: 25-100 homes; very small developments: less than 25 homes.**

**b) homes currently in private ownership have not necessarily been bought from local authorities as the area may encompass some homes that were originally privately built.**

## Privately built areas

### a) type of housing

17. Of the 15 million households living in predominantly privately built areas almost a quarter were resident in areas of predominantly terraced housing and these were much more likely to have 'worst' neighbourhood problems compared with areas of other types of housing, Figure 8.13. Areas characterised by flats or a mix or houses and flats were also more likely than average for privately built areas to have neighbourhood problems, but (and in comparison to local authority built areas) these comprised less than 10% of all homes in privately built areas. As might be expected, areas characterised by detached houses were least likely to have 'worst' neighbourhood problems.

Figure 8.13: Predominantly privately built areas – households living with 'worst' upkeep and behavioural problems in their neighbourhoods by main type of housing in the area, 2005

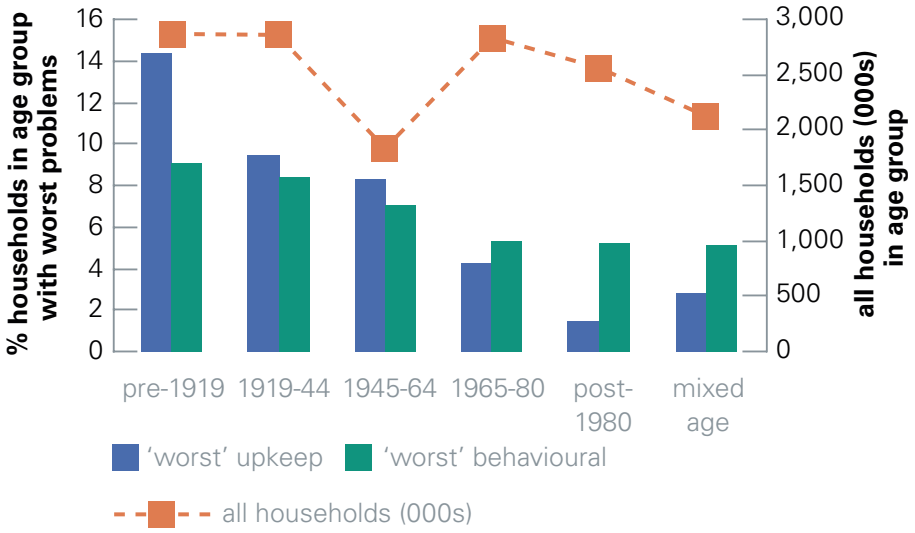

**Base: all households in predominantly privately built areas**

18. The higher incidence of 'worst' problems in areas of terraced housing was most marked in respect of observed upkeep rather than household reported behavioural problems, reflecting the high concentration of older properties in such areas (see below).

## b) age of housing

19. Nearly one fifth (19%) of all households in predominantly privately built areas were in areas characterised by the oldest (pre-1919) housing stock and these were much more likely to have 'worst' upkeep problems in their neighbourhoods than households resident in areas characterised by more recently built housing, Figure 8.14. Although neighbourhoods characterised by older homes (pre-1945) were also more likely to have 'worst' social behaviours reported by households, this difference was much less pronounced.

Figure 8.14: Predominantly privately built areas – households living with 'worst' upkeep and behavioural problems in their neighbourhoods by main age of housing in the area, 2005

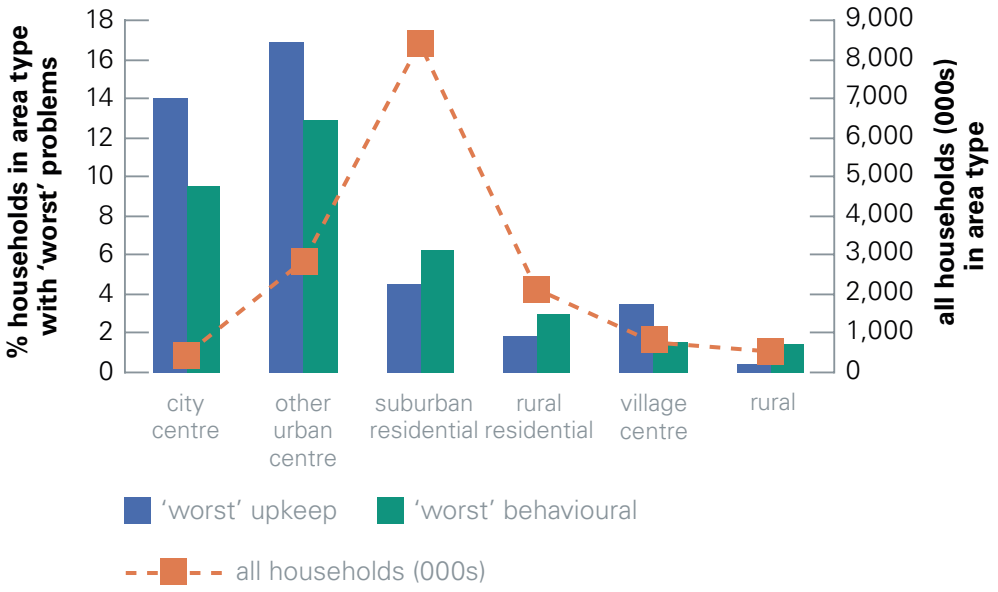



**Base: all households in predominantly privately built areas**

## c) area type

20. The majority (56%) of households in privately built neighbourhoods lived in suburban residential areas. However it was areas of privately built housing in city and other urban centres (comprising 22% of all homes in predominantly privately built areas) that were most likely to have 'worst' neighbourhood problems, Figure 8.15. While the greater likelihood of upkeep problems in city and other urban centres was more pronounced, households in these areas were also more likely than elsewhere to report serious behavioural problems. In sharp contrast privately built areas in the rural areas (rural residential, village centre and smaller rural developments) were least likely to have either type of neighbourhood problems.

Figure 8.15: Predominantly privately built areas – households living with 'worst' upkeep and behavioural problems in their neighbourhoods by area type, 2005



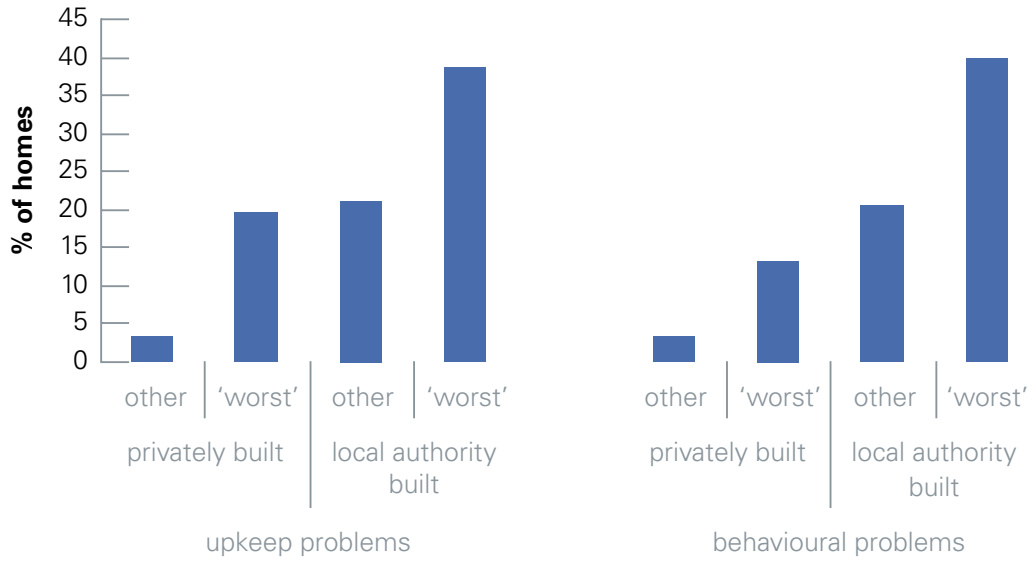

**Base: all households in predominantly local authority built areas**

## Deprivation

21. Local authority built areas are very concentrated in the most deprived areas: some 25% of households living in local authority built areas were also living the most deprived tenth of local areas, compared to only 4% of households living in privately built areas. However within both types of built tenure households with 'worst' neighbourhood problems were much more likely to be located in the most deprived areas, Figure 8.16.

22. Within predominantly privately built areas the link between neighbourhood problems and deprivation appeared to be stronger for observed upkeep problems than for household reported serious behavioural problems.

Figure 8.16: Percentage of homes in the most deprived 10% of local areas by 'worst' and other neighbourhoods and predominant built tenure, 2005




Base: all households

## Resident experience of the neighbourhood

23. Neighbourhood problems can impact in many ways on the well being of residents. This section looks at the relationship between such problems and the extent to which residents felt safe in their homes and outside, the extent to which they thought they could trust other people in their neighbourhood and their overall satisfaction with the neighbourhood as a place to live.

### a) feeling safe

24. Households living in 'worst' neighbourhoods were much more likely to feel unsafe in their homes or walking around their neighbourhood than those living elsewhere, Figure 8.17. This was particularly so in neighbourhoods with 'worst' behavioural problems reported by these respondents themselves. Three quarters of all living in neighbourhoods with 'worst' behavioural problems felt unsafe out alone at night, compared to just under one third (32%) of those living elsewhere. Nearly a quarter (24%) living in neighbourhoods with 'worst' behavioural problems felt unsafe in their own homes alone, compared to around 3% of those living elsewhere.

Figure 8.17: Percentage of households who feel unsafe alone in or around their home by 'worst' and other neighbourhoods, 2005


**Base: all households**

**Notes:**

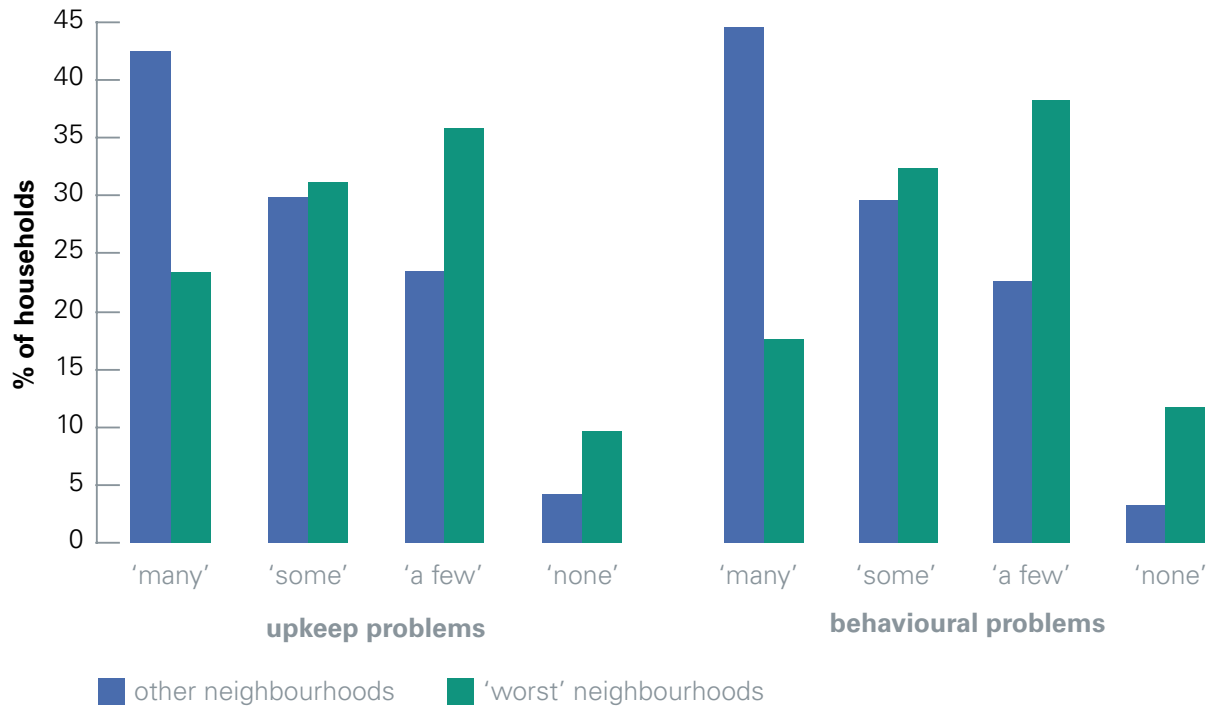
**a) the respondent is used as a proxy for the household. While responses will vary by factors such as the sex and age of the respondent and how long they have lived in the area, very little of the increased insecurity of respondents living in neighbourhoods with 'worst' problems can be attributed to any differences in their profile compared to that of respondents living in other neighbourhoods.**

**b) figures include respondents who said they felt 'a bit' and 'very' unsafe alone in the home or out in their neighbourhood by day and by night.**

## b) trust

25. Households resident in neighbourhoods with 'worst' upkeep and behavioural problems were much less likely to trust people living in the area, Figure 8.18. Around half of households living in neighbourhoods with either of these 'worst' problems trusted 'many' or 'some' people in their neighbourhood but this rose to around three quarters of those households living elsewhere. Around one in ten households in these 'worst' neighbourhoods said they could trust no one in their area (compared to around one in twenty five of those households living elsewhere).

Figure 8.18: Level of trust in others living in the area by 'worst' and other neighbourhoods, 2005



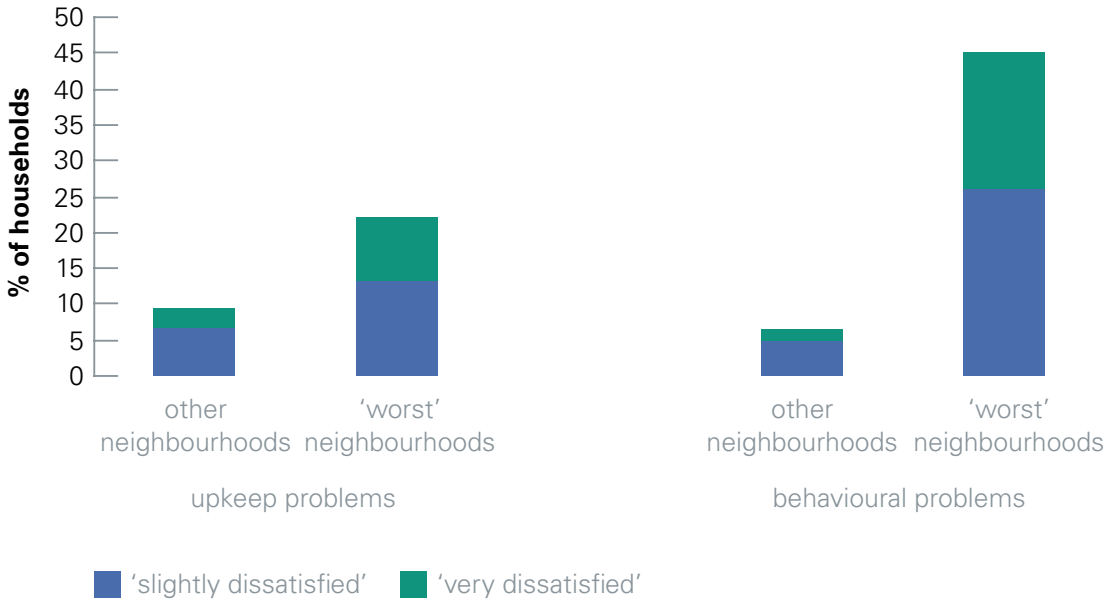

**Base: all households**

**Note: the respondent is used as a proxy for the household. While responses will vary by factors such as the sex and age of the respondent and how long they have lived in the area, very little of the lower level of trust exhibited by respondents living in neighbourhoods with 'worst' problems can be attributed to any differences in their profile compared to that of respondents living in other neighbourhoods.**

## c) satisfaction

26. Households resident in the neighbourhoods with 'worst' physical and social behaviours were also much more likely to be dissatisfied with their area as a place to live, Figure 8.19. More than a fifth (22%) of households in neighbourhoods with the 'worst' physical conditions were likely to express some level of dissatisfaction and this rose to 45% of those living in neighbourhoods with 'worst' social behaviours. The latter were seven times more likely to express a level of dissatisfaction with where they live than households living in other neighbourhoods.

Figure 8.19: Percentage of households dissatisfied with their area as a place to live by whether living in 'worst' or other neighbourhoods, 2005

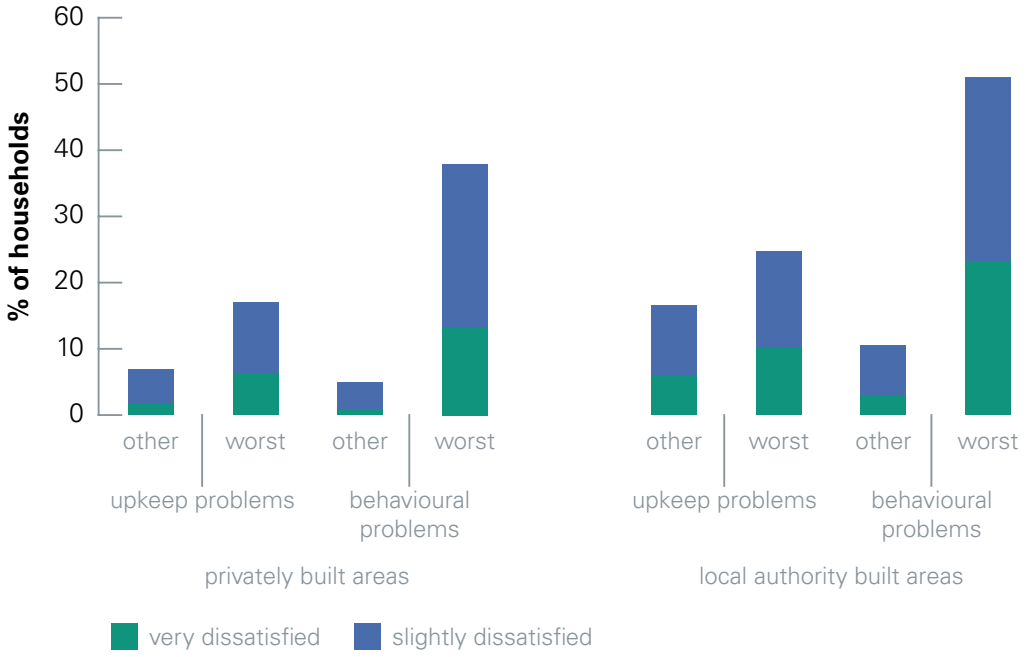



**Base: all households**

**Notes: the respondent is used as a proxy for the household. While responses will vary by factors such as the sex and age of the respondent and how long they have lived in the area, very little of the lower level of satisfaction exhibited by respondents living in neighbourhoods with 'worst' problems can be attributed to any differences in their profile compared to that of respondents living in other neighbourhoods.**

27. Households resident in neighbourhoods with 'worst' problems were twice as likely to express a level of dissatisfaction with their neighbourhood as a place to live compared to those living elsewhere, whether the area in which they lived was predominantly privately or local authority built, Figure 8.20. However it was those living in 'worst' neighbourhoods in predominantly local authority built areas that were most likely to express dissatisfaction.

Figure 8.20: Percentage of households dissatisfied with their area as a place to live by whether living in 'worst' or other neighbourhoods and by whether areas predominantly local authority or privately built, 2005




**Base: all households**

**Note: the respondent is used as a proxy for the household. While responses will vary by factors such as the sex and age of the respondent and how long they have lived in the area, very little of the lower level of satisfaction exhibited by respondents living in neighbourhoods with 'worst' problems can be attributed to any differences in their profile compared to that of respondents living in other neighbourhoods.**

# Chapter 9. Disparities in Living Conditions

1. While the links between poor living conditions and the mental and physical well being of people are complex, there is a wide range of evidence associating them. Moreover, poor living conditions are both symptoms of, and contributory factors towards, wider processes in which inequalities and exclusion are generated.

2. This chapter looks at the extent to which poor living conditions are experienced by a range of household groups, the extent to which those groups are more likely than others to experience such conditions, and whether (those) disparities are reducing over time. The groups focused on are: firstly those with resource and other constraints that limit their capacity or opportunity to affect their housing circumstances (including households in poverty or are 'workless' but also ethnic minority households); and secondly households with people who may be more at risk from poor conditions due to their age or to long term illness or disability. Of particular interest and concern are households who are both at risk from poor living conditions ***and*** have limited resources and opportunities to affect their circumstances: households with children or elderly people who are also 'vulnerable' (in receipt of means tested and disability related benefits).

## Key findings:

- **Specific problems in living conditions affect disadvantaged or vulnerable household groups in different ways depending on the extent to which they are concentrated in particular sectors or types of housing or locations such as urban centres.**

- **As might be expected, poorest households (those in poverty and/or workless) were found to disproportionately live in neighbourhoods with the worst problems related to the upkeep/condition of private and public space and buildings. Vulnerable households with children and lone parents were similarly around twice as likely as average to live in those neighbourhoods.**

- **In consequence, the homes of these households were also much more likely than average to be in serious disrepair and they were also more likely to have problems of serious mould and condensation.**

- **Older people were more likely than average to live in homes that are expensive to heat, with around one in seven of households with someone aged 75 years or more living in homes that comprised a Category 1 hazard under the Housing Health and Safety Rating System.**

- **Many of these disparities arose primarily from private sector housing circumstances (and particularly to vulnerable households in the private sector). The homes of social tenants on average were among the least likely to be hard to heat, in disrepair or more generally non-decent (under the *updated* definition of the Decent Homes standard). The main disparities affecting social tenants relate to neighbourhood and to serious mould and condensation problems.**

- **Over the decade since 1996 there was substantial progress in reducing the proportion of social tenants and private sector vulnerable households living in non-decent homes (under the *original* definition of the Decent Homes standard). The rate of improvement for these households was greater than for more affluent households and consequently disparities were reduced over this period. This reduction benefited vulnerable households with children and older people.**

- **Despite these improvements the introduction of the Housing Health and Safety Rating (HHSRS) from 2006 impacted disproportionately on assessments of older and primarily private sector housing. The homes of vulnerable private sector households were more than twice as likely to have a Category 1 hazards present as those of social tenants (26% compared to 12%).**

- **With the incorporation of the HHSRS into the Decent Homes standard vulnerable households in the private sector were more likely to live in non-decent homes (41%) than other private sector households (35%) and social tenants (28%).**

The living conditions of the following household groups are looked at in this chapter.

**children 0-15**: households that include at least one person aged under 16.

**elderly 75+**: households that include at least one person aged 75 or over.

**ethnic minorities**: households where the respondent defines their ethnicity as something other than white.

**illness or disability**: households where the respondent defines a least one person as having a long-term illness or disability.

**in poverty**: households with equivalised income below 60% of the median household income (BHC – before housing costs).

**lone parents**: lone parent households with at least one 'dependent' child (ie one or more children aged under 16, or single persons aged 16 to 18 and in full-time education).

**older people 60+**: households that include at least one person aged 60 or over.

**vulnerable**: vulnerable households are those in receipt of at least one of the principle means tested or disability related benefits/tax credits. This applies to households of any tenure, unless specific reference is being made to Communities and Local Government's DSO indicator group, which relates to private sector vulnerable households only.

The detailed definition of vulnerable households is provided in the glossary.

**Note: see Glossary for detailed definitions of groups and terms used.**

## Disparities in living conditions 2006

3. The range of living conditions looked at in this section are set out below. More details are available in the Glossary.

**Decent Homes**: A decent home meets all of the following four criteria:

- **Meets the statutory minimum standard** in April 2006, the Housing Health Safety Rating System (HHSRS) replaced the fitness standard as the new statutory minimum standard. A homes fails this criterion if a category 1 hazard is present. For the purposes of the EHCS this assessment is based on the risk to a potential occupant who is most vulnerable to that hazard not on the actual occupant.
- **Is in a reasonable state of repair**
- **Has reasonably modern facilities and services**
- **Provides a reasonable degree of thermal comfort**

**Energy inefficient/excess cold**: households living in homes with a category 1 hazard relating to excess cold under the HHSRS. This is the equivalent to a SAP rating of 31 or less.

**Worst neighbourhoods**: households living in the 10% of homes in the worst neighbourhoods (based on a surveyor's assessment of the neighbourhood)

**Homes in serious disrepair**: the 10% of occupied homes with the highest repair costs per square metre of floor area.

**Homes with serious condensation or mould growth**: this is based on an assessment made by a surveyor following a physical inspection. This does not focus on the severest cases of damp identified through the HHSRS but on the wider range of problems that are found in the housing stock.

4. This section reports on disparities in living conditions in 2006 using the updated version of the decent homes definition. The introduction of the HHSRS as the statutory component of the decent homes standard has seen an increase in the number of homes classed as non-decent. This was a result of the change in definition and how it is measured and did not mean that there was a deterioration of the housing stock. The evidence from 2005 to 2006 suggests that the housing stock as a whole has improved. (See Summary Statistics Table SS3.1)

5. Overall, the different types of problems in living conditions differentially affected people of vulnerable or disadvantaged household groups, according to their relative concentrations in particular housing sectors and in locations with distinctive housing stock and local environments. These are considered in more detail in the section below, and in Table 9.1.

6. Under the updated definition of decent homes, those who were elderly and vulnerable, households in poverty and ethnic minorities were more likely to live in non-decent homes compared to all other households. Workless households experience poor living conditions, but to a lesser degree.

7. Households containing elderly people were more likely to live in energy inefficient homes with (problems related to excess cold) compared to households with children (14% and 8% respectively), and to live in homes in serious disrepair (11% compared to 8% of households containing children).

## Table 9.1: Household groups by poor living conditions, 2006

| | non-decent homes | | homes in serious disrepair | | serious mould and condensation | | excess cold | | 10% worst neighbourhoods | | all homes | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | no. (000s) | % | no. (000s) | % | no. (000s) | % | no. (000s) | % | no. (000s) | % | no. (000s) | % |
| **ethnicity** | | | | | | | | | | | | |
| all ethnic minorities | 665 | 35.8 | 242 | 13.0 | 179 | 9.6 | 95 | 5.1 | 383 | 20.6 | 1,858 | *100.0* |
| white | 6,648 | 34.3 | 1,726 | 8.9 | 747 | 3.9 | 2,199 | 11.4 | 1,734 | 9.0 | 19,363 | *100.0* |
| black | 226 | 37.9 | 74 | 12.5 | 57 | 9.6 | 34 | 5.7 | 108 | 18.2 | 596 | *100.0* |
| Asian | 285 | 33.4 | 103 | 12.1 | 93 | 10.9 | 37 | 4.3 | 185 | 21.7 | 853 | *100.0* |
| other | 155 | 37.9 | 65 | 15.8 | 28 | 7.0 | 25 | 6.1 | 90 | 21.9 | 409 | *100.0* |
| **disadvantaged** | | | | | | | | | | | | |
| in poverty | 1,283 | 37.4 | 439 | 12.8 | 262 | 7.6 | 383 | 11.1 | 563 | 16.4 | 1,989 | *100.0* |
| workless | 948 | 35.3 | 319 | 11.9 | 206 | 7.7 | 229 | 8.5 | 494 | 18.4 | 925 | *100.0* |
| illness or disability | 2,113 | 34.1 | 632 | 10.2 | 302 | 4.9 | 663 | 10.7 | 675 | 10.9 | 6,198 | *100.0* |
| **households with children** | | | | | | | | | | | | |
| all with children 0-15 | 1,978 | 31.3 | 532 | 8.4 | 345 | 5.5 | 525 | 8.3 | 791 | 12.6 | 6,310 | *100.0* |
| children vulnerable | 657 | 33.9 | 227 | 11.7 | 161 | 8.3 | 124 | 6.4 | 429 | 22.1 | 1,939 | *100.0* |
| children non-vulnerable | 1,320 | 30.2 | 305 | 7.0 | 184 | 4.2 | 401 | 9.2 | 363 | 8.3 | 4,371 | *100.0* |
| lone parents | 504 | 33.0 | 184 | 12.1 | 115 | 7.5 | 106 | 6.9 | 284 | 18.6 | 1,527 | *100.0* |
| **households with older people** | | | | | | | | | | | | |
| all older people 60+ | 2,667 | 35.4 | 739 | 9.8 | 209 | 2.8 | 994 | 13.2 | 578 | 7.7 | 7,538 | *100.0* |
| older vulnerable | 1,054 | 35.3 | 367 | 12.3 | 113 | 3.8 | 345 | 11.6 | 331 | 11.1 | 2,983 | *100.0* |
| older non-vulnerable | 1,612 | 35.4 | 372 | 8.2 | 96 | 2.1 | 649 | 14.3 | 246 | 5.4 | 4,554 | *100.0* |
| all elderly 75+ | 1,036 | 36.7 | 314 | 11.1 | 74 | 2.6 | 390 | 13.8 | 199 | 7.0 | 2,824 | *100.0* |
| elderly vulnerable | 538 | 37.9 | 192 | 13.6 | 37 | 2.6 | 193 | 13.6 | 133 | 9.4 | 1,417 | *100.0* |
| elderly non-vulnerable | 499 | 35.4 | 122 | 8.6 | 37 | 2.6 | 197 | 14.0 | 66 | 4.7 | 1,407 | *100.0* |
| non vulnerable private households | 4,966 | 34.7 | 1,188 | 8.3 | 487 | 3.4 | 1,694 | 11.8 | 978 | 6.9 | 14,269 | *100.0* |
| vulnerable private | 1,313 | 41.2 | 494 | 15.5 | 170 | 5.3 | 467 | 14.6 | 374 | 11.7 | 3,185 | *100.0* |
| social tenants | 1,034 | 27.8 | 285 | 7.6 | 269 | 7.2 | 134 | 3.6 | 765 | 20.6 | 3,716 | *100.0* |
| **all households** | **7,313** | **34.5** | **1,967** | **9.3** | **925** | **4.4** | **2,294** | **10.8** | **2,117** | **10.0** | **21,221** | ***100.0*** |

**Base: each household group**

**Notes:**

**1. decent Homes incorporating the HHSRS as the statutory component.**

**2. vulnerable households are those in receipt of means tested and disability related benefits/tax credits.**

8. Ethnic minority households were more likely to live in non-decent homes and were twice as likely compared to the average household to have lived in homes in the worst neighbourhood (21% compared 10% respectively). However, they were the least likely to live in a home that failed on excess cold (5% compared to 11% of all households). Asian and black households were more likely to live in homes with serious condensation or mould (11% and 10% respectively) compared to white households (4%).

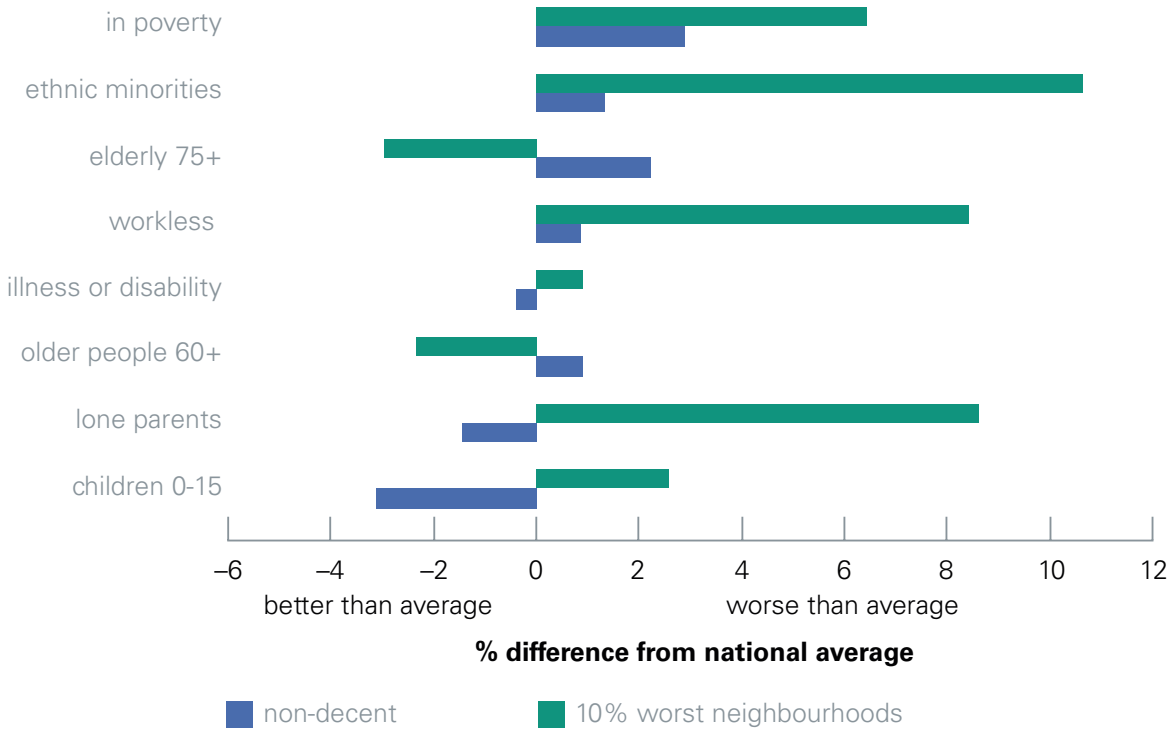
9. Living in homes with serious condensation and mould growth was far more prevalent in ethnic minority households (10%) and to lesser degree vulnerable children, lone parent, those who lived in poverty and workless households (8% respectively). Those groups were also more likely to have lived in homes in serious disrepair compared to other household groups. Table 9.1.

10. Overall, older and elderly people were the least likely of all household groups to live in homes that contained damp and mould.

11. Chapter 8 looked in more detail at homes in the worst 10% of neighbourhoods. Using surveyors physical inspection of a neighbourhood, overall Asian households were more concentrated in homes in the worst 10% of neighbourhoods (22%) compared to black and white households (18% and 9% respectively).

12. Overall, households in poverty were more likely than average to live in non-decent homes. Workless households were also more likely than average to experience poor living conditions (although to a lesser degree), Figure 9.1.

Figure 9.1: Household groups, non-decent homes and homes in 10% worst neighbourhoods, percentage difference from the national average, 2006




**Base: each household group**

**Note: decent homes figures based on HHSRS fitness as the statutory component Note: 0 represents the average position of all households living in non-decent homes (34.5%) and those living in the 10% worst neighbourhoods (10.0%).**

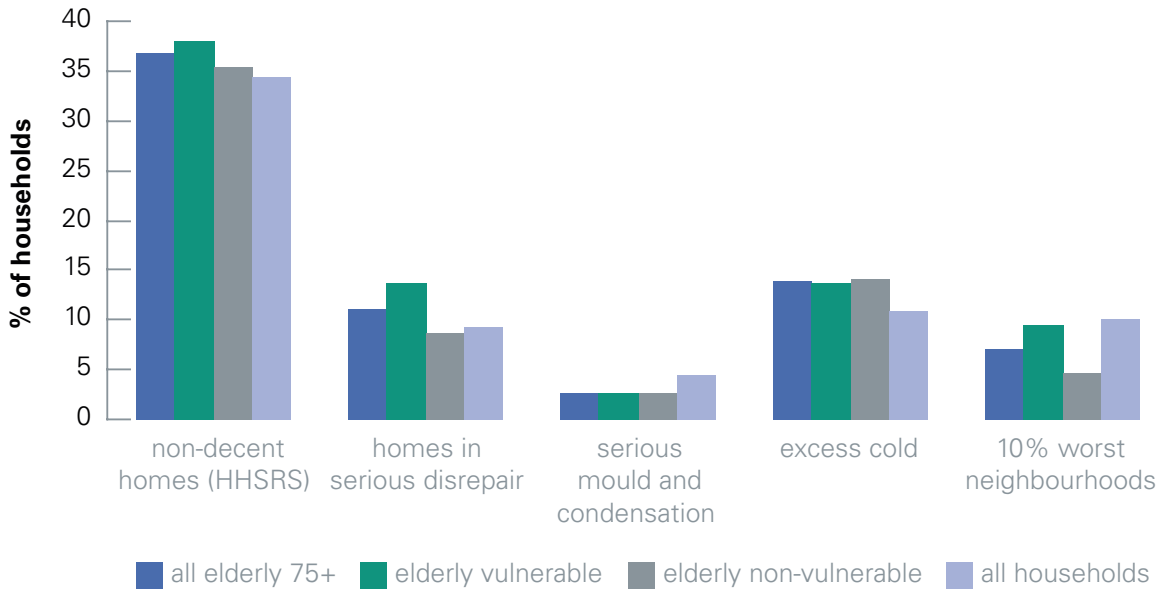
## Age-related household groups

13. The living conditions of age-related household groups are of particular interest, especially as elderly people and households with children were more likely, than other groups, to be exposed to poor housing conditions. The problem was more severe if 'at risk' households suffered from resource and other constraints, which limited their ability to improve their housing circumstances.

14. Overall older (60+) and elderly (75+) households groups were more like than average to have been living in non-decent homes and energy inefficient homes (as measured by excess cold). However, these same groups were less likely than average to be living in homes in the worst neighbourhoods, Figure 9.2.

15. Elderly vulnerable households were most at risk of poor living conditions. These households were more likely to be living in non-decent homes (38%) and homes that were in serious disrepair (14%), compared to non-vulnerable elderly households, (35% and 9% respectively).

Figure 9.2: Living conditions of elderly households (containing 75+), 2006




**Base: each household group**

**Note: Decent Homes figures based on HHSRS as the statutory component**

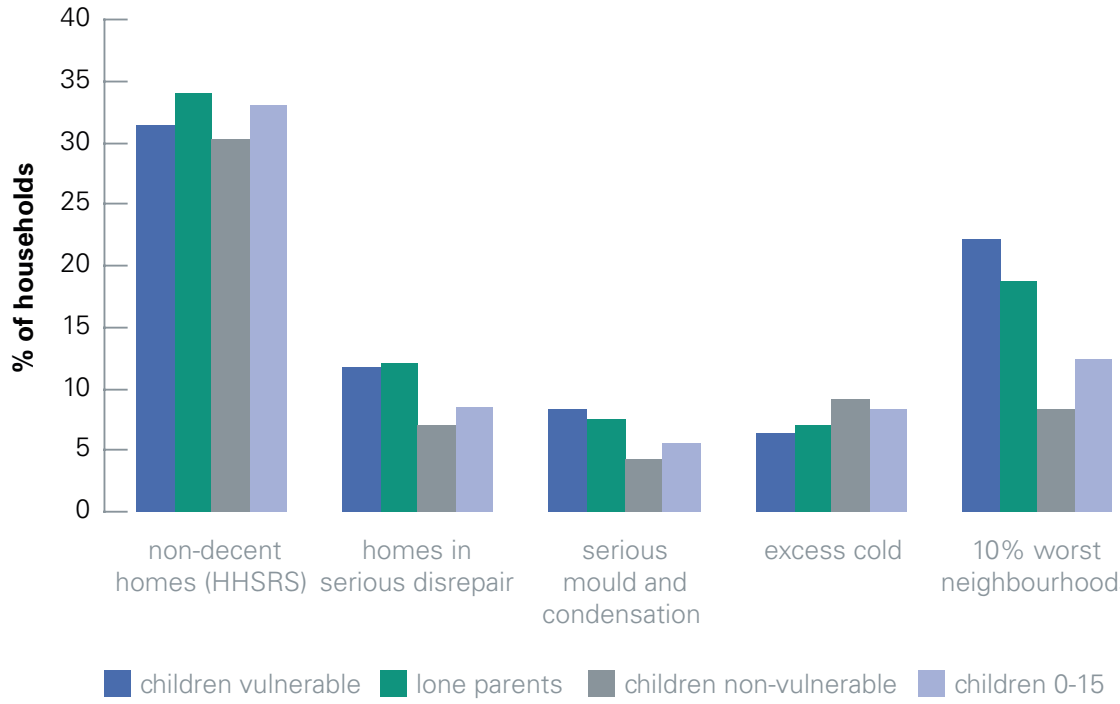
16. Households containing children[1] experienced better housing conditions compared to older and elderly groups. They were less likely than average to live in non-decent homes (31% compared to 34%) or in energy inefficient homes (8% compared to 11%), Figure 9.3.

[1] Separate figures have not been included for households containing infants (aged less than 5 years) because the pattern is similar to that of households containing any children.

17. However, vulnerable households with children, and lone parent households were much more likely to live in non-decent homes, homes in serious disrepair and homes in the worst neighbourhoods, than other households with children, Figure 9.3.

18. Vulnerable households with children were more susceptible to poor living conditions, as these households were highly concentrated in deprived neighbourhoods – over 40% of all such households resided in the 20% most deprived local areas.[2] In addition, where vulnerable households with children lived in private sector housing, these homes were more likely to be non-decent and in serious disrepair compared to elsewhere. However, these areas were more likely to have a high concentration of social sector housing, and if vulnerable households with children lived in these homes in particular larger estates, these homes tend to be more energy efficient compared to housing sectors elsewhere.

Figure 9.3: Living conditions of household groups with children, 2006




**Base: each household group.**

**Note: decent homes figures based on HHSRS as the statutory component.**

## Housing Health and Safety

19. Under the Housing Health and Safety Rating (HHSRS), a Category 1 hazard poses the most severe risk to a potential occupant who is the most 'vulnerable' to that hazard. The property is not assessed based on the actual occupancy (also see chapter 4), and therefore these properties may or may not be posing a serious risk to the households actually occupying them at the time of the survey.

[2] The local areas referred to are the Lower Layer Super Output Areas ranked by the 2004 Index of Multiple Deprivation.

20. Chapter 3 indicated that older properties were much more likely than average to have Category 1 hazards present and such homes were disproportionately in private ownership. In consequence, vulnerable private households (those in receipt of means tested and disability related benefits and tax credits) were more likely to live in homes where Category 1 hazards were present compared to social sector tenants (26% and 12% respectively), Table 9.2. Vulnerable households in the private sector were also more likely to live in homes with Category 1 hazards present then other private sector households, primarily because they were more likely to live in homes with excess cold.

Table 9.2: Vulnerable groups by Category 1 hazards, 2006

| | category 1 hazards | | excess cold | | any falls | | other hazards | | all | |
|---|---|---|---|---|---|---|---|---|---|---|
| | no. (000s) | % | no. (000s) | % | no. (000s) | % | no. (000s) | % | no. (000s) | % |
| non vulnerable private | 3,214 | 22.5 | 1,694 | 11.8 | 1,598 | 11.2 | 429 | 3.0 | 14,269 | *100.0* |
| vulnerable private | 826 | 25.9 | 467 | 14.6 | 357 | 11.2 | 147 | 4.6 | 3,185 | *100.0* |
| social tenants | 453 | 12.2 | 134 | 3.6 | 259 | 6.9 | 94 | 2.5 | 3,716 | *100.0* |
| **all households** | **4,493** | **21.2** | **2,294** | **10.8** | **2,214** | **10.4** | **671** | **3.2** | **21,221** | *100.0* |

**Base: each household group**

**Notes:**

1. **other hazards includes all other hazards measured or modelled by the EHCS, for example fire safety, flames and hot surfaces, dampness, radon, lead and domestic hygiene. The sample numbers in the survey are too small to examine how these other hazards are distributed in different parts of the stock and amongst different groups of households. Some homes may have more than one hazard, therefore the percentage failing on excess cold, any falls and other hazards will not sum to the percentage with a category 1 hazard.**

## Progress in narrowing disparities in decent homes since 1996

21. There is insufficient data to report change since 1996 (or 2001) on the updated definition of decent homes.[3] Therefore, trends and assessment of progress are based on the original definition of decent homes (which incorporates the Fitness Standard as the statutory component).

22. Regression analysis was used to model trends and the disparities between different groups and forms the basis of the figures presented in this section, Table 9.3. There were differences between the modelled figures and the survey based findings reported earlier in this chapter. Details of the modelling and the reasons for this approach can be found in the 2006 EHCS technical report.

[3] In April 2006, the HHSRS replaced the fitness standard as the statutory element of the decent homes standard. See chapter 4 for more details.

23. In general, housing conditions improved substantially for all types of households since 1996. On average the incidence of non-decency across all households fell from 45% in 1996 to 27% a decade later (based on the original definition of decent homes). Disparities remained, with poorer and minority households continuing to be more likely to live in non-decent homes than more affluent and white households. Nevertheless, these disparities have been significantly reduced for vulnerable groups of households, the only exception being ethnic minority households. For these households what appears to be a reduction in the disparities with white households is not (yet) statistically significant (see below).

24. The two groups of households who formed the target population of programmes to provide support to decent homes, private sector vulnerable households and all social sector tenants – saw larger falls in the proportion living in non-decent homes than other (private sector non-vulnerable) households, Table 9.3.

## Table 9.3: Disparities in living conditions (non-decent homes), 1996 to 2006 – modelled results

| | percentage of group living in non decent homes | | | | | | difference from reference group | | ratio to reference group | | difference from 1996 | ratio to 1996 | annual rate of progress |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1996 | 2001 | 2003 | 2004 | 2005 | 2006 | 1996 | 2006 | 1996 | 2006 | 2006 | ***2006*** | 1996 -2006 |
| ***children (0-15) non-vulnerable*** | ***34.2*** | ***26.7*** | ***23.7*** | ***22.1*** | ***20.6*** | ***19.1*** | 0.0 | 0.0 | ***1.00*** | ***1.00*** | ***-15.1*** | ***0.56*** | ***-1.7*** |
| children vulnerable | 51.6 | 38.5 | 33.3 | 30.7 | 28.1 | 25.5 | 17.4 | 6.4 | 1.51 | 1.33 | -26.1 | ***0.49*** | ***-2.9*** |
| ***older (60+) non-vulnerable*** | ***41.8*** | ***33.5*** | ***30.2*** | ***28.6*** | ***26.9*** | ***25.3*** | 0.0 | 0.0 | ***1.00*** | ***1.00*** | ***-16.5*** | ***0.61*** | ***-1.8*** |
| older vulnerable | 54.9 | 42.1 | 37.0 | 34.4 | 31.9 | 29.3 | 13.2 | 4.0 | 1.31 | 1.16 | -25.6 | ***0.53*** | ***-2.8*** |
| ***elderly (75+) non-vulnerable*** | ***44.0*** | ***35.5*** | ***33.2*** | ***31.7*** | ***30.2*** | ***28.6*** | 0.0 | 0.0 | ***1.00*** | ***1.00*** | ***-15.4*** | ***0.65*** | ***-1.7*** |
| elderly vulnerable | 54.8 | 42.1 | 38.6 | 36.3 | 34.0 | 31.7 | 10.8 | 3.1 | 1.25 | 1.11 | -23.0 | ***0.58*** | ***-2.6*** |
| ***white households*** | ***42.7*** | ***33.7*** | ***30.1*** | ***28.3*** | ***26.5*** | ***24.7*** | 0.0 | 0.0 | ***1.00*** | ***1.00*** | ***-18.0*** | ***0.58*** | ***-2.0*** |
| ethnic minority households | 51.1 | 40.0 | 35.6 | 33.3 | 31.1 | 28.9 | 8.4 | 4.2 | 1.20 | 1.17 | -22.3 | ***0.56*** | ***-2.5*** |
| ***households not in poverty*** | ***40.5*** | ***32.3*** | ***29.0*** | ***27.4*** | ***25.8*** | ***24.1*** | ***0.0*** | ***0.0*** | ***1.00*** | ***1.00*** | -16.3 | ***0.60*** | ***-1.8*** |
| households in poverty | 54.6 | 41.9 | 36.8 | 34.3 | 31.7 | 29.2 | 14.2 | 6.0 | 1.35 | 1.23 | -25.4 | ***0.53*** | ***-2.8*** |
| ***non vulnerable private*** | ***37.8*** | ***30.7*** | ***27.8*** | ***26.4*** | ***25.0*** | ***23.6*** | ***0.0*** | ***0.0*** | ***1.00*** | ***1.00*** | ***-14.2*** | ***0.62*** | ***-1.4*** |
| vulnerable private | 56.1 | 43.5 | 38.4 | 35.8 | 33.3 | 30.8 | 18.3 | 7.2 | 1.49 | 1.31 | -25.4 | ***0.55*** | ***-2.5*** |
| social tenants | 52.0 | 40.0 | 35.2 | 32.8 | 30.4 | 28.0 | 14.2 | 4.4 | 1.38 | 1.19 | -24.1 | ***0.54*** | ***-2.4*** |

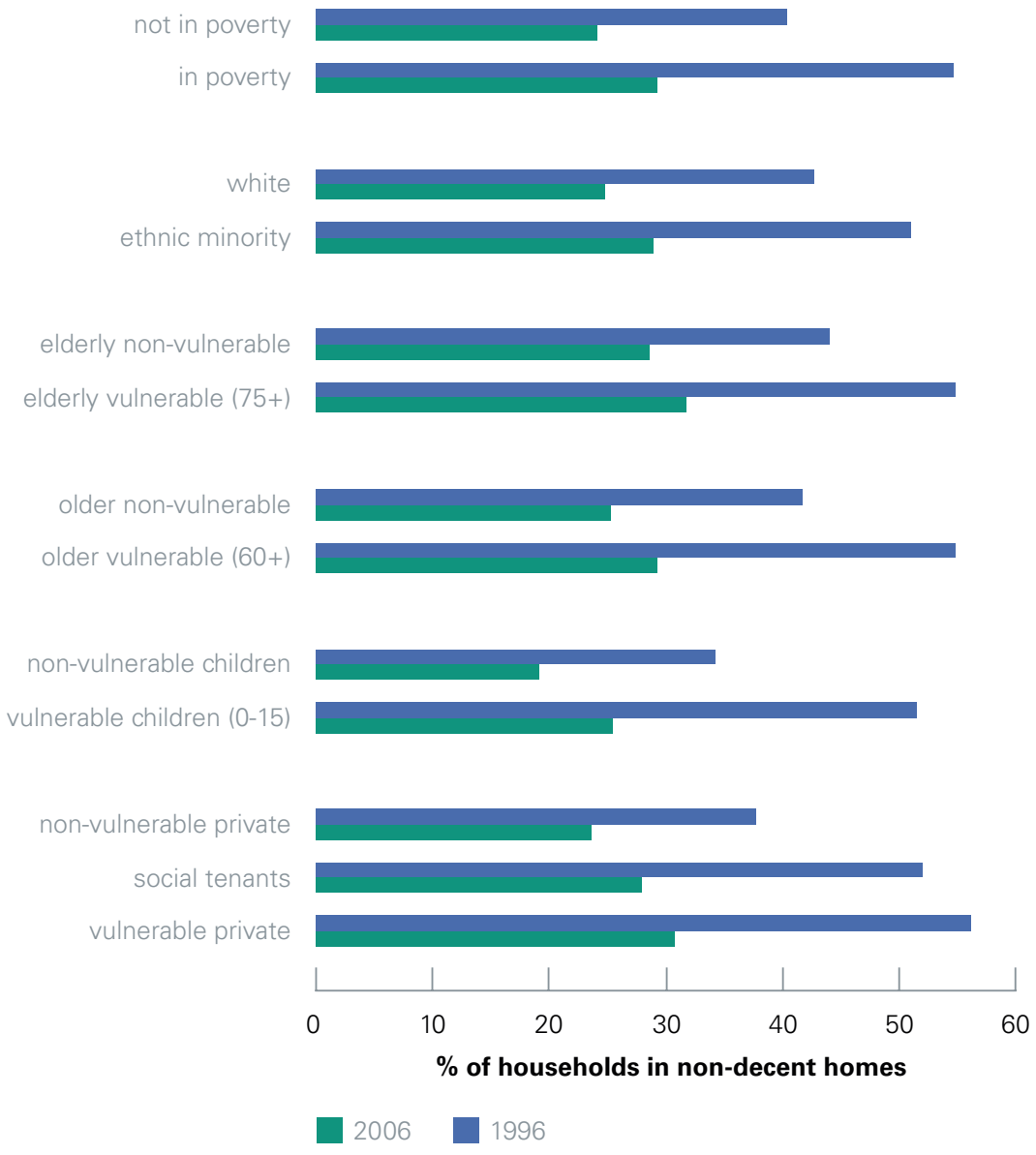
**Base: each household group**

**Notes:**

1. **private vulnerable households are those in receipt of means tested or disability related benefits/tax credits.**
2. **decent homes based on Fitness as the statutory component.**
3. **private households include both owner occupiers and private rented tenants.**
4. **these figures are modelled results and will therefore differ from Decent Home figures quoted in Table 9.2 and elsewhere in this report.**

25. The modelled results indicate a 25 percentage point reduction for the proportion of private sector vulnerable households (56% to 31%) and a 24 percentage point reduction for social sector (52% to 28%) households living in non decent homes, compared to a 14 percentage point reduction for other (private sector non vulnerable) households (38% to 24%), Figure 9.4. These results underlined that there had been a clear narrowing of disparity between the two target groups and more affluent households.

## Figure 9.4: Change in percentage of households living in non-decent homes, 1996 and 2006 – modelled results



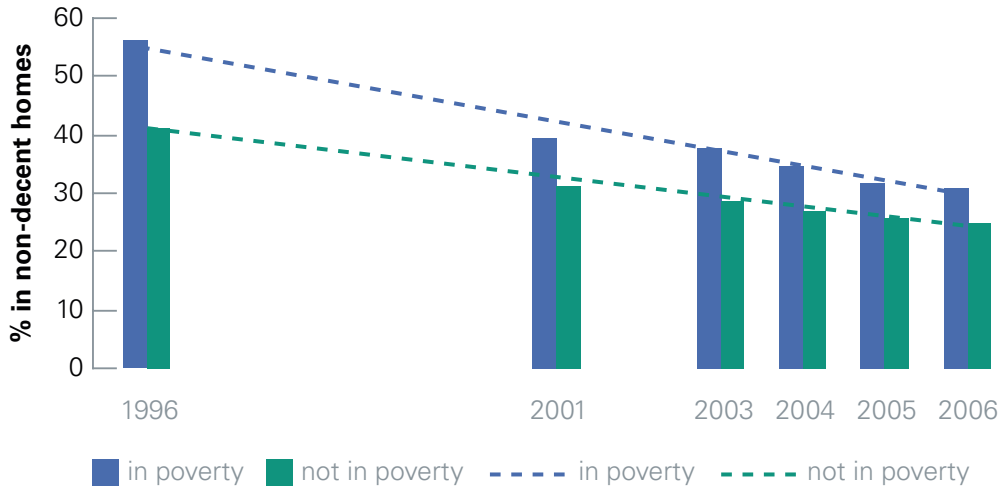

**Base: each household group, 1996 and 2006**

**Notes:**

1. **private households include both owner-occupiers and private rented tenants.**
2. **decent home figures are based on fitness as the statutory component.**
3. **these figures are modelled results and will therefore differ from Decent Home figures quoted elsewhere in the report.**

26. Progress in improving housing conditions for households in poverty was greater than for more affluent households since 1996, and consequently the 'gap' between these two groups has narrowed, Figure 9.5. The modelled percentage point reduction, between 1996 and 2006, for households in poverty in non-decent homes was 25, while the corresponding fall for more affluent households was only 16. Therefore, while disparity remained (of 5 percentage points) between these groups this has been getting progressively smaller since 1996.

Figure 9.5: Percentage of households in poverty in non-decent homes, 1996 to 2006



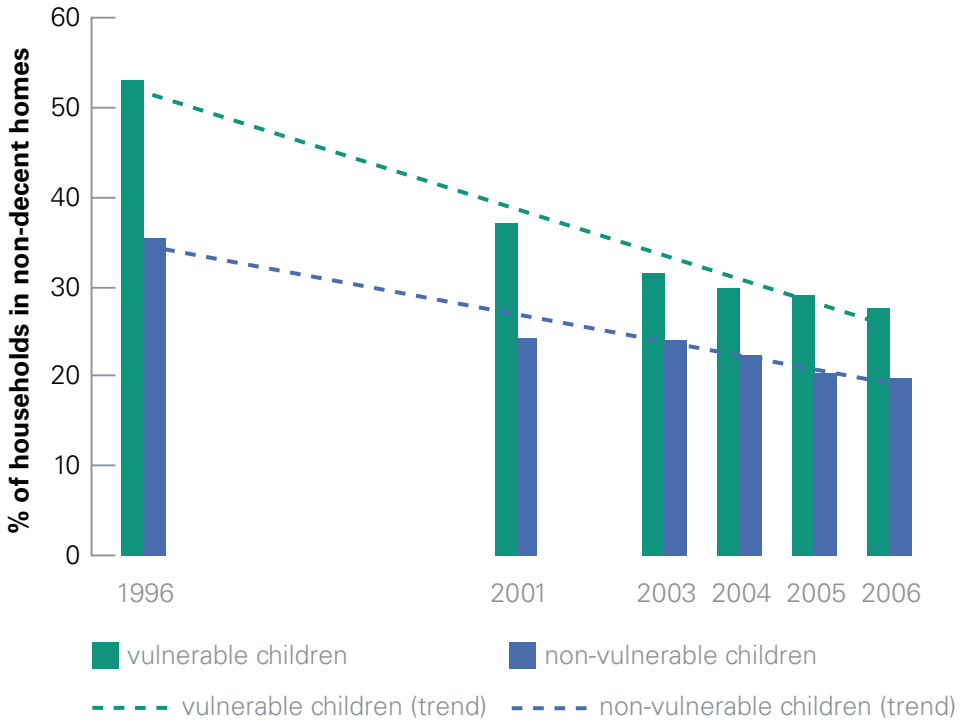

**Base: each household group**

**Note: decent home figures based on fitness as the statutory component. The bars show survey results, lines show modelled trend (the latter based on Table 9.3).**

27. Those most at risk from living in poor housing conditions are households that contain either older people or children. However, since 1996, results showed a narrowing of the gap between the proportion of vulnerable and non-vulnerable households living in non-decent homes within these groups.

28. Between 1996 and 2006, vulnerable households containing children showed a modelled percentage point reduction of 26 (52% to 26%) while the reduction for non-vulnerable households with children was 15 (34% to 19%), Figure 9.6.

Figure 9.6: Percentage of vulnerable and non-vulnerable households with children in non-decent homes, 1996 to 2006



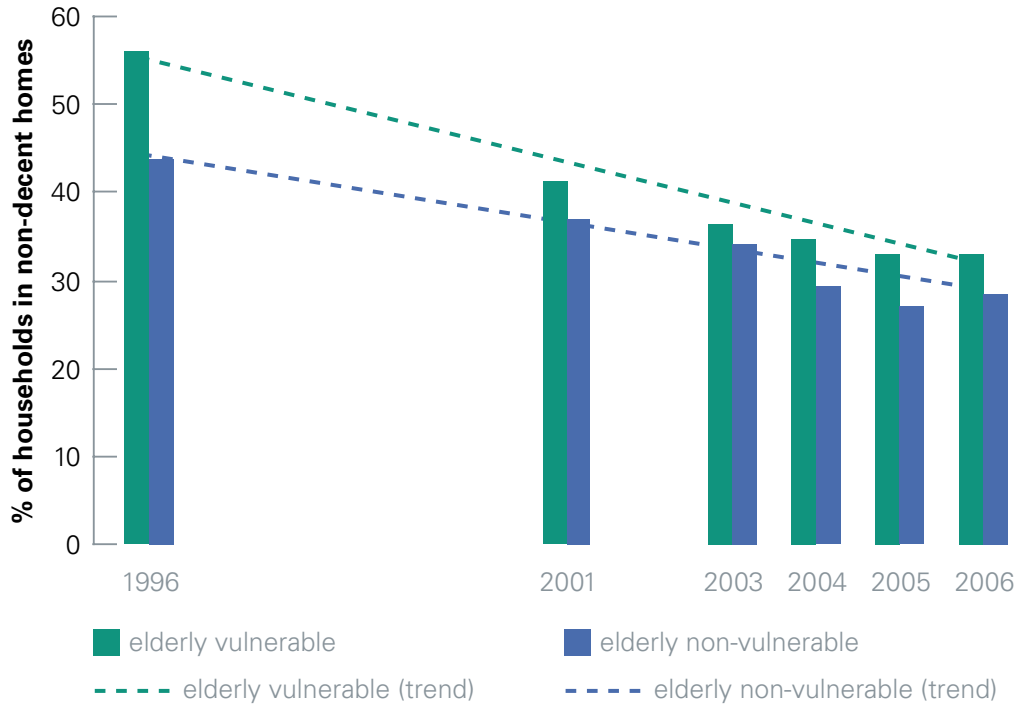

**Base: each household group**

**Note: decent homes figures based on fitness as the statutory component. The bars represent the survey results, lines show modelled trend (the latter based on Table 9.3)**

29. For older (60+) and elderly (75+) vulnerable households, trends showed a continual fall in the numbers living in non-decent homes.

30. Between 1996 and 2006, older vulnerable households saw a 26-percentage point reduction (from 55% to 29%) and elderly (75+) vulnerable households saw a 23-percentage point reduction (55% to 32%). The gap between non-vulnerable and vulnerable older households narrowed from 13 to 4 percentage points, whilst for the elderly households this fell from 11 to 3 percentage points, Figure 9.7.

Figure 9.7: Percentage of vulnerable and non-vulnerable elderly households in non-decent homes, 1996 to 2006

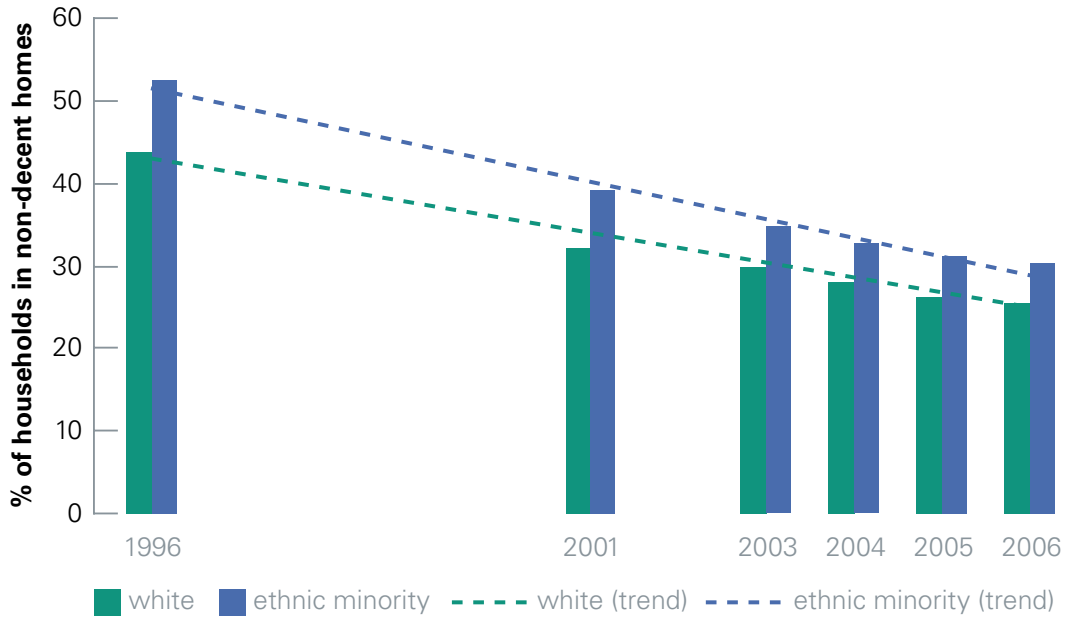



**Base: each household group**

**Note: decent homes figures based on fitness as the statutory component. The bars represent survey results, lines show modelled trend (the latter based on Table 9.3).**

31. The proportion of white and ethnic minority households in non-decent homes continued to fall. However, whilst results suggest the gap between the groups was narrowing, sample limitations mean that the difference in the rate of progress of the two groups was not yet statistically significant, Figure 9.8.

Figure 9.8: Percentage of white and ethnic minority households in non-decent homes, 1996 to 2006




**Base: each household group**

**Note: decent homes figures based on fitness as the statutory component. The bars represent survey results, lines show modelled trend (the latter based on Table 9.3).**

# Summary Statistics

## Contents

## Using the Summary Statistics Tables

The Summary Statistics tables provide breakdowns of key **descriptors** of the housing stock or **measures** of housing conditions and energy performance (eg dwelling size, tenure, decent homes, and energy efficiency).

Most of the tables are organised to provide breakdowns of these key descriptors/measures by a range of classifications of either **homes** (eg tenure, type, age of dwelling), **areas** (eg urban/rural, level of deprivation, broad regional groups), or **households** (eg type, age of oldest person, income, length of residence). Where there is additional value or interest some additional types of breakdowns are provided.

For the most part, the tables provide in the right hand column an overall total number of dwellings or households (rounded to thousands) for each classifying group. For example, in Table SS7.1 there are 15,442,000 dwellings in the owner occupied group. This figure acts as the denominator for all others statistics for this group: eg in 2006 there were 20.3% (3,137,000) owner occupied homes with a Band F energy efficiency rating; the average (mean) energy efficiency rating for all owner occupied homes was 46.9, and the average (mean) CO2 emissions resulting from the heating and lighting requirements for each owner occupied home was 7.2 tonnes per year (totalling 113.7 million tonnes for the owner occupied stock as a whole).

These tables are also available in spreadsheet form to facilitate the derivation of additional statistics. See
http://www.communities.gov.uk/housing/housingresearch/housingsurveys/englishhousecondition/

### Further notes on using the tables

1) All statistics from this sample survey have a margin of error associated with them (arising from sample, design and measurement error). Indicators of the likely level of error are provided in the EHCS 2006 Technical Report. These need to be taken into account when interpreting the results of the survey.

2) For the most part missing data for key descriptors and measures used in the survey are attributed during the detailed programming required to produce them. See the EHCS 2006 Technical report for details of how key measures are produced.

3) Each classificatory variable (eg tenure, age of property, age of oldest person in the household) generally included exhaustive and exclusive categories and will therefore sum to the total number of dwellings or households. However in a minority some additional composite categories are added. The following sets out the structure of the categories. Detailed definitions of categories are provided in the Glossary of Terms used in the report.

## Homes

### tenure

owner occupied
private rented
local authority
RSL
all private

**all dwellings**

all social

categories sum to all dwellings. 'All private' includes owner occupied and private rented, 'all social' include local authority and RSL

### vacant

occupied
vacant

**all dwellings**

### dwelling age

pre-1919
1919-44
1945-64
1965-80
1981-90
post 1990

**all dwellings**

### dwelling type

end terrace
mid terrace

categories sum to 'all terrace'.

small terrace
medium/large terrace

alternative categories that sum to 'all terrace'

## Areas

### area type:

city centre
other urban centre
suburban residential
rural residential
village centre
rural

**all dwellings**

all city and urban centres
suburban residential
all rural

categories sum to all dwellings. 'All rural' includes rural residential, village centre and other rural

### deprived local areas:

10% most deprived
2nd
3rd
4th
5th
6th
7th
8th
9th
10% least deprived

**all dwellings** (local areas are lower level super output areas, ranked and grouped into ten equal numbers of areas from the most to the least deprived)

## Homes (cont.)

| | |
|---|---|
| all terrace<br>semi detached<br>detached<br>bungalow<br>converted flat<br>purpose built flat, low rise<br>purpose built flat, high rise | **all dwellings** |
| all houses<br>all flats | categories sum to all dwellings. 'All houses' include all terraced, semi-detached, detached and bungalows; 'all flats' include converted and purpose built flats |

### size

| | |
|---|---|
| less than $50m^2$<br>50 to $69m^2$<br>70 to $89m^2$<br>90 to $109m^2$<br>$110m^2$ or more | **all dwellings** |

## Areas (cont.)

### deprived districts:

| | |
|---|---|
| deprived<br>other districts | **all dwellings** (the 91 deprived local authority administrative areas are those in receipt of Neighbourhood Renewal Funds either in 2001/06 or 2006/08) |

### regional groups:

| | |
|---|---|
| northern regions<br>south east regions<br>rest of England | **all dwellings** ('northern' includes North West, North East and Yorshire and the Humber; 'south east' includes South East and London; 'rest of country' includes Eastern, East Midlands, West Midlands and South West) |

## Households

| | |
|---|---|
| **composition** | |
| couple under 60<br>couple 60 or over<br>couple with children<br>lone parent<br>multi-person household<br>one person under 60<br>one person 60 or over | **all households** |
| **age of oldest** | |
| under 60 years<br>all over 60 years | **all households** |
| all over 75 years | sub-group only |
| **age of youngest** | |
| under 5 years | sub group only |
| under 16 years<br>16 years or more | **all households** |
| **income groups** | |
| 1st quintile (lowest)<br>2nd quintile<br>3rd quintile<br>4th quintile<br>5th quintile (highest) | **all households** (households are ranked on equivalised household income before housing costs and ordered into five equal sized groups) |
| **living in poverty** | |
| in poverty<br>not in poverty | **all households** (households in poverty are those below 60% of median income before housing costs) |
| **workless households** | |
| workless<br>not workless | categories sum to all households where one or more persons is of working age |
| **long term ill/disability** | |
| yes<br>no | **all households** |
| **ethnicity of HRP** | |
| white<br>all minority | **all households** |
| black<br>Asian<br>other | categories sum to all ethnic minority households |

## Households *(Cont.)*

| length of residence | |
|---|---|
| less than 1 year<br>1-4 years<br>5-9 years<br>10-19 years<br>20-29 years<br>30 or more years | **all households** |

## Summary Statistics Table SS2.0: Stock profile, 2006

| | tenure | | | | | | total stock | | |
|---|---|---|---|---|---|---|---|---|---|
| | owner occupied | private rented | all private | local authority | RSL | all social | floor area ($m^2$)[1] | market value (£) | total stock (000s) |
| **vacant** | | | | | | | | | |
| occupied | 15,097 | 2,250 | 17,348 | 1,973 | 1,732 | 3,707 | 91 | £196,155 | **21,055** |
| vacant | 344 | 360 | 705 | 112 | 117 | 229 | 77 | £168,917 | **934** |
| **dwelling age** | | | | | | | | | |
| pre 1919 | 3,369 | 1,129 | 4,498 | 96 | 182 | 278 | 102 | £225,616 | **4,776** |
| 1919 to 1944 | 3,078 | 395 | 3,473 | 344 | 185 | 496 | 91 | £206,539 | **4,002** |
| 1945 to 1964 | 2,819 | 277 | 3,096 | 812 | 454 | 1,266 | 85 | £169,124 | **4,362** |
| 1965 to 1980 | 3,301 | 368 | 3,669 | 703 | 467 | 1,170 | 84 | £172,003 | **4,838** |
| 1981-1990 | 1,303 | 214 | 1,517 | 111 | 208 | 319 | 83 | £186,117 | **1,836** |
| post 1990 | 1,571 | 229 | 1,800 | 20 | 354 | 374 | 98 | £217,072 | **2,174** |
| **dwelling type** | | | | | | | | | |
| end terrace | 1,415 | 291 | 1,706 | 239 | 204 | 443 | 86 | £163,760 | **2,149** |
| mid terrace | 2,928 | 608 | 3,536 | 348 | 369 | 716 | 79 | £162,902 | **4,253** |
| small terraced house | 1,396 | 398 | 1,795 | 213 | 213 | 426 | 59 | £131,357 | **2,221** |
| medium/large terraced house | 2,945 | 501 | 3,447 | 373 | 359 | 733 | 94 | £180,107 | **4,180** |
| all terrace | 4,343 | 899 | 5,242 | 587 | 573 | 1,159 | 165 | £163,190 | **6,401** |
| semi-detached | 4,862 | 441 | 5,304 | 399 | 335 | 735 | 91 | £182,829 | **6,039** |
| detached house | 3,526 | 192 | 3,718 | 9 | 6 | 16 | 146 | £321,144 | **3,734** |
| bungalow | 1,497 | 97 | 1,595 | 195 | 195 | 391 | 76 | £180,339 | **1,987** |
| converted flat | 276 | 355 | 633 | 30 | 80 | 111 | 65 | £173,657 | **744** |
| pb flat, low rise | 865 | 564 | 1,430 | 720 | 611 | 1,332 | 55 | £138,376 | **2,762** |
| pb flat, high rise | 70 | 60 | 131 | 143 | 48 | 191 | 65 | £218,234 | **322** |
| **size** | | | | | | | | | |
| less than $50m^2$ | 807 | 529 | 1,337 | 544 | 579 | 1,124 | 41 | £118,885 | **2,462** |
| 50 to $69m^2$ | 3,022 | 814 | 3,837 | 746 | 582 | 1,329 | 61 | £140,895 | **5,165** |
| 70 to $89m^2$ | 4,634 | 715 | 5,350 | 647 | 538 | 1,186 | 79 | £160,705 | **6,535** |
| 90 to $109m^2$ | 2,601 | 249 | 2,851 | 116 | 103 | 220 | 99 | £204,881 | **3,071** |
| $110m^2$ or more | 4,376 | 301 | 4,678 | 31 | 46 | 77 | 158 | £333,904 | **4,756** |

## Summary Statistics Table SS2.0: Stock profile, 2006 *(Cont.)*

| | tenure | | | | | | total stock | | |
|---|---|---|---|---|---|---|---|---|---|
| | owner occupied | private rented | all private | local authority | RSL | all social | floor area ($m^2$)[1] | market value (£) | total stock (000s) |
| **type** | | | | | | | | | |
| city centre | 293 | 205 | 497 | 75 | 88 | 163 | 76 | £212,598 | **660** |
| other urban centre | 2,377 | 840 | 3,217 | 567 | 421 | 989 | 80 | £182,574 | **4,206** |
| suburban residential | 9,362 | 1,109 | 10,471 | 1,282 | 1,107 | 2,389 | 87 | £180,733 | **12,859** |
| rural residential | 2,078 | 216 | 2,294 | 117 | 173 | 289 | 106 | £231,929 | **2,584** |
| village centre | 816 | 98 | 915 | 39 | 50 | 89 | 111 | £236,272 | **1,004** |
| rural | 516 | 143 | 659 | 7 | 10 | 17 | 148 | £324,026 | **676** |
| **deprived local areas** | | | | | | | | | |
| most deprived 10% | 789 | 289 | 1,078 | 642 | 464 | 1,106 | 72 | £107,127 | **2,184** |
| 2-5th | 5,452 | 1,175 | 6,627 | 1,145 | 941 | 2,086 | 80 | £161,631 | **8,713** |
| 6-9th | 7,410 | 987 | 8,397 | 279 | 405 | 684 | 100 | £227,835 | **9,081** |
| least deprived | 1,791 | 160 | 1,951 | 20 | 40 | 60 | 113 | £286,689 | **2,011** |
| **deprived districts** | | | | | | | | | |
| deprived | 9,737 | 1,449 | 6,866 | 793 | 978 | 2,164 | 83 | £171,280 | **9,030** |
| other districts | 5,704 | 1,161 | 11,187 | 1,292 | 871 | 1,772 | 96 | £211,524 | **12,959** |
| **regional group** | | | | | | | | | |
| northern regions | 4,472 | 626 | 5,099 | 668 | 614 | 1,284 | 88 | £141,857 | **6,383** |
| south east regions | 4,475 | 1,029 | 5,505 | 659 | 564 | 1,223 | 90 | £261,982 | **6,728** |
| rest of England | 6,492 | 956 | 7,449 | 757 | 671 | 1,429 | 93 | £182,439 | **8,878** |
| average floor area ($m^2$) | 100 | 76 | 96 | 65 | 63 | 64 | n/a | n/a | **91** |
| average property value (£) | £215,570 | £180,173 | £210,451 | £120,895 | £127,751 | £124,117 | n/a | n/a | **£194,997** |
| **all dwellings (000s)** | **15,442** | **2,611** | **18,053** | **2,086** | **1,850** | **3,936** | **91** | **£194,997** | **21,989** |

**note:**
**1 A revised approach has been used to calculate floor areas and these estimates are not directly comparable with those of previous EHCS Reports**

## Summary Statistics Table SS2.1: Stock and amenities-secondary amenities and age/size of WC – homes

| | 2nd WC | | 2nd bath/shower Room | | age and size of WC cistern | | | | water meter present | All dwellings in group ('000s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | Not-ensuite | Ensuite | Not-ensuite | Ensuite | Pre-1960 (13 litres) | 1960 to 1987 (9 litres) | 1988 to 1998 (7 litres) | 1999 and later (6.5 litres) | | |
| **tenure** | | | | | | | | | | |
| owner occupied | 30.0 | 16.4 | 8.3 | 16.9 | 3.2 | 31.7 | 26.3 | 38.8 | 30.8 | **15,442** |
| private rented | 17.2 | 5.7 | 4.8 | 5.7 | 3.6 | 44.3 | 25.8 | 26.4 | 23.0 | **2,611** |
| private sector | 28.2 | 14.9 | 7.8 | 15.3 | 3.2 | 33.6 | 26.2 | 27.0 | 29.8 | **18,053** |
| local authority | 15.9 | 0.6 | 1.2 | 0.3 | 9.2 | 54.5 | 14.6 | 21.7 | 9.5 | **2,086** |
| RSL | 20.1 | 0.8 | 1.5 | 0.4 | 4.6 | 41.8 | 22.9 | 30.7 | 27.5 | **1,850** |
| all private | | | | | | | | | | |
| all social | 17.9 | 0.7 | 1.4 | 0.3 | 7.0 | 48.5 | 18.5 | 25.9 | 17.9 | **3,936** |
| **dwelling age** | | | | | | | | | | |
| pre-1919 | 24.1 | 10.2 | 10.2 | 10.1 | 2.6 | 37.5 | 24.2 | 35.7 | 15.3 | **4,776** |
| 1919-1944 | 30.1 | 6.7 | 8.8 | 6.8 | 4.1 | 35.6 | 24.2 | 36.2 | 16.0 | **4,002** |
| 1945-1964 | 27.7 | 4.2 | 5.7 | 4.0 | 13.1 | 33.0 | 21.2 | 32.7 | 20.4 | **4,362** |
| 1965-1980 | 29.6 | 7.7 | 5.2 | 8.3 | n/a | 49.0 | 19.5 | 31.5 | 26.2 | **4,838** |
| 1981-1990 | 20.3 | 21.8 | 3.6 | 23.7 | n/a | 51.9 | 24.3 | 23.8 | 43.0 | **1,836** |
| post 1990 | 19.5 | 45.9 | 2.3 | 46.7 | n/a | n/a | 47.0 | 52.0 | 80.7 | **2,174** |
| **dwelling type** | | | | | | | | | | |
| end terrace | 30.1 | 5.9 | 6.4 | 5.7 | 3.2 | 38.3 | 22.0 | 36.4 | 21.9 | **2,149** |
| mid terrace | 24.9 | 4.0 | 5.0 | 3.9 | 3.0 | 39.2 | 24.3 | 33.5 | 15.8 | **4,253** |
| small terraced house | 10.5 | 1.4 | 1.1 | 1.4 | 2.6 | 40.2 | 24.3 | 32.9 | 20.2 | **2,221** |
| medium/large terraced house | 35.3 | 6.3 | 7.8 | 6.1 | 3.3 | 38.2 | 23.2 | 35.3 | 16.6 | **4,180** |

## Summary Statistics Table SS2.1: Stock and amenities-secondary amenities and age/size of WC – homes *(Cont.)*

| | 2nd WC | | 2nd bath/shower Room | | age and size of WC cistern | | | | water meter present | All dwellings in group ('000s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | Not-ensuite | Ensuite | Not-ensuite | Ensuite | Pre-1960 (13 litres) | 1960 to 1987 (9 litres) | 1988 to 1998 (7 litres) | 1999 and later (6.5 litres) | | |
| all terrace | 26.6 | 4.6 | 5.5 | 4.5 | 3.1 | 38.9 | 23.5 | 34.5 | 17.8 | **6,401** |
| semi-detached | 35.6 | 7.1 | 7.9 | 4.7 | 4.0 | 32.8 | 25.1 | 37.7 | 22.1 | **6,039** |
| detached house | 43.2 | 42.9 | 12.8 | 46.2 | 2.6 | 27.4 | 39.8 | 40.2 | 49.9 | **3,734** |
| bungalow | 9.2 | 10.9 | 4.6 | 10.0 | 6.1 | 37.8 | 24.7 | 31.4 | 43.5 | **1,987** |
| converted flat | 7.3 | 6.1 | 3.5 | 6.0 | 1.7 | 38.3 | 22.1 | 37.9 | 20.3 | **744** |
| purpose built flat, low rise | 2.7 | 3.6 | 0.9 | 3.3 | 5.0 | 46.6 | 22.3 | 26.1 | 25.0 | **2,762** |
| purpose built flat, high rise | 6.1 | 8.0 | 3.9 | 9.4 | 10.8 | 46.2 | 17.7 | 25.3 | 6.1 | **322** |
| **size** | | | | | | | | | | |
| less than 50m$^2$ | 0.9 | 0.6 | 0.1 | 0.6 | 4.4 | 48.2 | 21.4 | 26.0 | 26.9 | **2,462** |
| 50 to 69m$^2$ | 8.4 | 1.9 | 1.0 | 2.0 | 4.6 | 38.5 | 24.4 | 32.5 | 23.9 | **5,165** |
| 70 to 89m$^2$ | 28.1 | 4.7 | 3.2 | 4.4 | 4.3 | 37.4 | 23.8 | 34.6 | 21.1 | **6,535** |
| 90 to 109m$^2$ | 43.0 | 14.3 | 9.7 | 14.7 | 3.7 | 32.6 | 27.4 | 36.4 | 28.7 | **3,071** |
| 110m$^2$ or more | 46.1 | 39.1 | 18.9 | 40.5 | 2.8 | 28.3 | 27.0 | 42.0 | 40.5 | **4,756** |
| **all dwellings** | **26.3** | **12.3** | **6.6** | **12.6** | **3.9** | **36.2** | **24.9** | **35.0** | **27.7** | **21,989** |

**Base: all dwellings**

## Summary Statistics Table SS2.2: Stock and amenities-secondary amenities and age/size of WC – area

*percentage of dwellings within group*

| | 2nd WC | | 2nd bath/shower Room | | age and size of WC cistern | | | | water meter present | All dwellings in group ('000s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | Not-ensuite | Ensuite | Not-ensuite | Ensuite | Pre-1960 (13 litres) | 1960 to 1987 (9 litres) | 1988 to 1998 (7 litres) | 1999 and later (6.5 litres) | | |
| **type** | | | | | | | | | | |
| city centre | 16.2 | 6.8 | 5.1 | 7.3 | 4.3 | 40.0 | 23.6 | 32.1 | 22.5 | **660** |
| other urban centre | 20.8 | 5.4 | 6.3 | 5.0 | 3.7 | 40.0 | 23.5 | 32.8 | 17.1 | **4,206** |
| suburban residential | 27.0 | 11.8 | 5.6 | 12.2 | 4.0 | 35.5 | 24.6 | 35.9 | 28.5 | **12,859** |
| rural residential | 31.5 | 21.3 | 9.2 | 21.3 | 3.5 | 32.2 | 27.3 | 37.1 | 39.0 | **2,584** |
| village centre | 27.4 | 22.0 | 10.7 | 23.0 | 3.6 | 35.3 | 28.2 | 32.9 | 33.4 | **1,004** |
| rural | 37.2 | 22.8 | 14.6 | 23.5 | 5.9 | 40.0 | 25.0 | 29.1 | 30.0 | **676** |
| all city/urban centres | 20.2 | 5.6 | 6.2 | 5.3 | 3.8 | 40.0 | 23.5 | 32.7 | 17.8 | **4,866** |
| suburban | 27.0 | 11.8 | 5.6 | 12.2 | 4.0 | 35.5 | 24.6 | 35.9 | 28.5 | **12,859** |
| all rural areas | 31.5 | 21.7 | 10.4 | 22.0 | 3.9 | 34.2 | 27.1 | 34.8 | 36.3 | **4,263** |
| **deprived local areas** | | | | | | | | | | |
| most deprived 10% | 17.2 | 1.2 | 2.7 | 1.6 | 5.4 | 44.1 | 20.1 | 30.5 | 13.3 | **2,184** |
| 2nd | 22.1 | 2.4 | 4.8 | 2.0 | 5.0 | 42.3 | 20.9 | 31.8 | 15.8 | **2,174** |
| 3rd | 22.3 | 5.1 | 5.2 | 5.6 | 3.4 | 38.6 | 23.5 | 34.4 | 20.1 | **2,286** |
| 4th | 22.7 | 7.6 | 4.4 | 7.5 | 3.4 | 35.9 | 25.8 | 34.8 | 22.4 | **2,218** |
| 5th | 25.4 | 8.8 | 6.4 | 9.3 | 5.4 | 37.1 | 24.0 | 33.4 | 24.6 | **2,034** |
| 6th | 26.2 | 13.1 | 7.5 | 13.4 | 4.6 | 35.2 | 25.5 | 34.7 | 27.5 | **2,292** |
| 7th | 29.4 | 16.2 | 9.7 | 15.9 | 3.0 | 34.2 | 26.6 | 36.2 | 34.1 | **2,169** |
| 8th | 28.8 | 20.4 | 8.4 | 20.6 | 2.5 | 33.5 | 27.0 | 36.9 | 36.6 | **2,278** |
| 9th | 33.7 | 22.1 | 8.4 | 22.7 | 3.9 | 31.9 | 26.9 | 37.3 | 38.6 | **2,342** |
| least deprived | 35.8 | 26.7 | 8.9 | 27.8 | 2.5 | 29.5 | 28.2 | 39.8 | 43.4 | **2,011** |
| **deprived districts** | | | | | | | | | | |
| deprived | 21.9 | 7.3 | 5.5 | 8.0 | 4.2 | 37.9 | 24.0 | 34.0 | 19.4 | **9,030** |
| other district | 29.4 | 15.9 | 7.5 | 15.8 | 3.7 | 35.1 | 25.5 | 35.7 | 33.5 | **12,959** |

## Summary Statistics Table SS2.2: Stock and amenities-secondary amenities and age/size of WC – area *(Cont.)*

*percentage of dwellings within group*

| | 2nd WC | | 2nd bath/shower Room | | age and size of WC cistern | | | | water meter present | All dwellings in group ('000s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | Not-ensuite | Ensuite | Not-ensuite | Ensuite | Pre-1960 (13 litres) | 1960 to 1987 (9 litres) | 1988 to 1998 (7 litres) | 1999 and later (6.5 litres) | | |
| **regional group** | | | | | | | | | | |
| northern regions | 21.2 | 10.1 | 5.3 | 10.5 | 3.8 | 36.0 | 25.4 | 34.8 | 23.0 | **6,383** |
| south east regions | 27.0 | 12.1 | 7.5 | 12.8 | 4.0 | 36.3 | 24.9 | 34.8 | 23.5 | **6,728** |
| rest of England | 29.5 | 14.1 | 6.9 | 14.0 | 3.9 | 36.4 | 24.5 | 35.3 | 34.3 | **8,878** |
| **all dwellings** | **26.3** | **12.3** | **6.6** | **12.6** | **3.9** | **36.2** | **24.9** | **35.0** | **27.7** | **21,989** |
| **Base: all dwellings** | | | | | | | | | | |

## Summary Statistics Table SS2.3: Stock and amenities-secondary amenities and age/size of WC – households

*percentage of households within group*

| | 2nd WC | | 2nd bath/shower Room | | age and size of WC cistern | | | | water meter present | All households in group ('000s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | Not-ensuite | Ensuite | Not-ensuite | Ensuite | Pre-1960 (13 litres) | 1960 to 1987 (9 litres) | 1988 to 1998 (7 litres) | 1999 and later (6.5 litres) | | |
| **household composition** | | | | | | | | | | |
| couple under 60 | 26.6 | 14.3 | 7.3 | 15.1 | 1.9 | 29.5 | 28.5 | 40.1 | 25.5 | **4,013** |
| couple 60 or over | 34.1 | 15.2 | 9.0 | 15.2 | 4.8 | 38.6 | 26.1 | 30.4 | 36.1 | **3,534** |
| couple with children | 32.6 | 20.5 | 8.9 | 21.4 | 2.6 | 26.8 | 25.1 | 45.5 | 25.5 | **5,136** |
| lone parent | 21.5 | 5.8 | 2.5 | 5.4 | 3.1 | 40.3 | 25.7 | 31.0 | 17.8 | **1,527** |
| multi-person household | 30.2 | 8.7 | 7.3 | 8.5 | 3.8 | 42.4 | 25.6 | 28.2 | 17.9 | **1,467** |
| one person under 60 | 13.7 | 5.3 | 3.7 | 5.6 | 3.7 | 38.5 | 25.3 | 32.5 | 27.8 | **2,555** |
| one person 60 or over | 18.8 | 4.7 | 3.3 | 4.4 | 7.9 | 50.2 | 19.5 | 22.4 | 34.1 | **2,989** |
| **age of oldest** | | | | | | | | | | |
| under 60 years | 30.0 | 12.4 | 8.0 | 12.5 | 4.6 | 39.2 | 25.0 | 31.2 | 31.9 | **4,715** |
| all over 60 years | 26.7 | 7.9 | 6.0 | 7.3 | 7.4 | 47.8 | 21.9 | 22.9 | 34.4 | **2,166** |
| all over 75 years | 21.5 | 8.4 | 4.2 | 6.6 | 11.2 | 54.0 | 20.6 | 14.3 | 37.9 | **658** |
| **age of youngest** | | | | | | | | | | |
| under 5 years | 26.9 | 13.5 | 5.7 | 13.9 | 2.6 | 30.4 | 24.1 | 42.9 | 24.1 | **2,641** |
| under 16 years | 31.4 | 18.0 | 7.8 | 18.1 | 2.6 | 29.7 | 25.4 | 42.3 | 24.7 | **2,177** |
| 16 years or more | 33.9 | 19.3 | 8.8 | 20.4 | 2.3 | 29.5 | 27.7 | 40.5 | 20.0 | **1,492** |
| **income groups** | | | | | | | | | | |
| 1st quintile (lowest) | 3.1 | 17.4 | 2.7 | 3.2 | 6.7 | 48.8 | 21.4 | 23.1 | 22.0 | **4,246** |
| 2nd quintile | 5.5 | 23.4 | 5.3 | 4.8 | 4.5 | 42.4 | 24.5 | 28.6 | 27.2 | **4,245** |
| 3rd quintile | 8.5 | 26.5 | 8.5 | 5.4 | 3.2 | 35.6 | 25.5 | 35.7 | 26.7 | **4,243** |
| 4th quintile | 14.9 | 30.7 | 15.2 | 8.2 | 2.5 | 29.6 | 26.4 | 41.6 | 29.4 | **4,241** |
| 5th quintile (highest) | 30.7 | 34.6 | 32.6 | 11.6 | 2.2 | 23.7 | 28.5 | 45.6 | 33.1 | **4,245** |
| **living in poverty** | | | | | | | | | | |
| in poverty | 22.4 | 5.9 | 5.6 | 4.8 | 5.6 | 45.1 | 23.8 | 25.6 | 22.6 | **3,433** |
| not in poverty | 27.3 | 13.8 | 14.2 | 7.0 | 3.5 | 34.3 | 25.5 | 36.7 | 28.7 | **17,788** |

## Summary Statistics Table SS2.3: Stock and amenities-secondary amenities and age/size of WC – households *(Cont.)*

*percentage of households within group*

| | 2nd WC | | 2nd bath/shower Room | | age and size of WC cistern | | | | water meter present | All households in group ('000s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | Not-ensuite | Ensuite | Not-ensuite | Ensuite | Pre-1960 (13 litres) | 1960 to 1987 (9 litres) | 1988 to 1998 (7 litres) | 1999 and later (6.5 litres) | | |
| **workless households** | | | | | | | | | | |
| not workless | 28.1 | 14.9 | 7.5 | 15.6 | 2.5 | 30.9 | 26.8 | 39.8 | 25.6 | **13,449** |
| workless | 21.1 | 8.2 | 4.8 | 7.7 | 4.2 | 42.9 | 23.5 | 29.4 | 21.8 | **2,682** |
| **long term ill/disability** | | | | | | | | | | |
| yes | 8.8 | 25.8 | 8.7 | 5.5 | 5.2 | 41.1 | 23.7 | 30.0 | 27.3 | **6,198** |
| no | 14.1 | 26.8 | 14.6 | 7.1 | 3.3 | 34.0 | 25.9 | 36.9 | 27.8 | **15,020** |
| **ethnicity of HRP** | | | | | | | | | | |
| white | 26.5 | 13.0 | 13.3 | 6.5 | 3.9 | 35.8 | 25.4 | 35.0 | 28.6 | **19,363** |
| black | 24.4 | 3.3 | 4.4 | 3.8 | 5.0 | 43.2 | 17.8 | 34.0 | 16.9 | **596** |
| Asian | 33.5 | 8.9 | 10.1 | 11.6 | 3.0 | 35.0 | 26.1 | 35.8 | 16.8 | **853** |
| other | 18.3 | 10.1 | 8.9 | 5.5 | 1.5 | 40.1 | 27.5 | 30.9 | 22.9 | **410** |
| all minority | 27.2 | 7.4 | 7.8 | 8.0 | 3.3 | 38.8 | 23.8 | 34.1 | 18.2 | **1,858** |
| **length of residence** | | | | | | | | | | |
| less than 1 year | 18.9 | 10.2 | 5.3 | 10.7 | 2.1 | 33.4 | 29.6 | 34.9 | 28.2 | **1,973** |
| 1-4 years | 22.8 | 14.4 | 5.6 | 14.8 | 2.3 | 33.1 | 24.5 | 40.0 | 32.2 | **4,484** |
| 5-9 years | 25.0 | 17.7 | 5.7 | 17.9 | 2.5 | 31.9 | 23.3 | 42.3 | 31.2 | **4,418** |
| 10-19 years | 26.7 | 14.5 | 8.1 | 15.3 | 3.2 | 32.1 | 29.5 | 35.3 | 26.0 | **4,305** |
| 20-29 years | 21.4 | 9.9 | 8.7 | 10.0 | 4.7 | 42.7 | 24.1 | 28.4 | 21.0 | **3,046** |
| 30+ years | 34.2 | 3.5 | 6.2 | 3.1 | 9.2 | 47.1 | 21.3 | 22.4 | 24.5 | **2,995** |
| **all households** | **26.5** | **12.5** | **6.6** | **12.8** | **3.8** | **35.8** | **25.2** | **34.9** | **27.7** | **21,221** |

**Base: all households**

## Summary Statistics Table SS2.4: Stock and amenities-parking provision and smoke alarms – homes

*percentage of dwellings within group*

| | Parking provision | | | | | Smoke alarms* | | | | All dwellings in group ('000s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | garage | other off road parking | adequate street parking | inadequate street parking | no parking provision | mains powered | battery only | no smoke alarm | with a private plot | |
| **tenure** | | | | | | | | | | |
| owner occupied | 54.7 | 22.9 | 10.7 | 10.5 | 1.2 | 14.0 | 70.1 | 15.9 | 94.6 | **15,442** |
| private rented | 20.1 | 25.3 | 22.9 | 26.7 | 5.0 | 14.4 | 63.3 | 22.3 | 72.2 | **2,611** |
| local authority | 6.6 | 20.3 | 41.2 | 28.1 | 3.7 | 31.3 | 52.7 | 16.0 | 66.1 | **2,086** |
| RSL | 6.5 | 28.7 | 38.8 | 22.6 | 3.5 | 45.2 | 43.8 | 11.0 | 66.6 | **1,850** |
| all private | 49.7 | 23.3 | 12.4 | 12.9 | 1.7 | 14.0 | 69.2 | 16.7 | 91.3 | **18,053** |
| all social | 6.6 | 24.3 | 40.1 | 25.5 | 3.6 | 37.8 | 48.5 | 13.7 | 66.4 | **3,936** |
| **vacant** | | | | | | | | | | |
| occupied | 43.0 | 23.5 | 17.0 | 14.6 | 1.9 | 18.2 | 65.6 | 16.2 | 87.7 | **21,055** |
| vacant | 20.6 | 23.1 | 24.9 | 26.6 | 4.8 | n/a | n/a | n/a | 67.9 | **934** |
| **dwelling age** | | | | | | | | | | |
| pre-1919 | 20.6 | 19.0 | 22.9 | 32.7 | 4.9 | 12.4 | 65.6 | 21.7 | 89.2 | **4,776** |
| 1919-1944 | 41.9 | 30.1 | 14.6 | 12.4 | 1.1 | 12.1 | 69.5 | 18.2 | 94.4 | **4,002** |
| 1945-1964 | 40.1 | 24.7 | 20.5 | 13.4 | 1.3 | 16.9 | 67.2 | 15.7 | 89.9 | **4,362** |
| 1965-1980 | 56.4 | 14.5 | 17.2 | 10.5 | 1.5 | 14.4 | 69.4 | 15.7 | 80.6 | **4,838** |
| 1981-1990 | 50.5 | 28.9 | 13.5 | 6.0 | 1.0 | 14.5 | 70.9 | 13.6 | 78.6 | **1,836** |
| post 1990 | 54.0 | 33.6 | 7.9 | 3.2 | 1.3 | 54.6 | 39.5 | 5.1 | 83.0 | **2,174** |

## Summary Statistics Table SS2.4: Stock and amenities-parking provision and smoke alarms - homes *(Cont.)*

*percentage of dwellings within group*

| | Parking provision | | | | | Smoke alarms* | | | | All dwellings in group ('000s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | garage | other off road parking | adequate street parking | inadequate street parking | no parking provision | mains powered | battery only | no smoke alarm | with a private plot | |
| **dwelling type** | | | | | | | | | | |
| end terrace | 29.7 | 30.7 | 20.4 | 17.2 | 1.9 | 16.6 | 66.4 | 16.9 | 98.8 | **2,149** |
| mid terrace | 17.3 | 22.8 | 28.5 | 28.9 | 2.6 | 13.5 | 67.9 | 18.4 | 99.3 | **4,253** |
| small terraced house | 15.7 | 29.0 | 26.8 | 26.4 | 2.2 | 15.1 | 66.3 | 18.6 | 98.8 | **2,221** |
| medium/large terraced house | 24.5 | 23.5 | 25.2 | 24.3 | 2.4 | 14.3 | 68.2 | 17.5 | 99.3 | **4,180** |
| all terrace | 21.1 | 25.1 | 26.8 | 24.6 | 2.3 | 15.4 | 66.8 | 17.5 | 98.5 | **6,401** |
| semi detached | 50.2 | 32.8 | 9.9 | 6.3 | 0.8 | 14.2 | 72.4 | 13.3 | 99.9 | **6,039** |
| detached | 86.4 | 11.7 | 0.8 | 0.9 | 0.2 | 23.2 | 65.3 | 11.5 | 99.9 | **3,734** |
| bungalow | 60.5 | 20.0 | 13.3 | 5.1 | 1.1 | 18.2 | 65.7 | 16.0 | 96.9 | **1,987** |
| converted flat | 7.1 | 19.5 | 24.3 | 40.3 | 8.9 | 21.7 | 51.8 | 26.5 | 48.5 | **744** |
| purpose built flat, low rise | 11.7 | 19.0 | 36.9 | 27.5 | 5.0 | 26.7 | 51.4 | 21.8 | 25.5 | **2,762** |
| purpose built flat, high rise | 10.0 | 12.1 | 23.8 | 49.1 | 4.9 | 31.1 | 42.4 | 26.3 | 2.4 | **322** |
| **size** | | | | | | | | | | |
| less than $50m^2$ | 7.4 | 25.5 | 33.8 | 29.0 | 4.4 | 26.5 | 53.3 | 20.2 | 43.3 | **2,462** |
| 50 to $69m^2$ | 25.5 | 26.8 | 24.4 | 20.6 | 2.7 | 18.3 | 63.0 | 18.7 | 81.6 | **5,165** |
| 70 to $89m^2$ | 38.4 | 26.3 | 18.5 | 15.3 | 1.5 | 14.1 | 69.9 | 16.0 | 94.6 | **6,535** |
| 90 to $109m^2$ | 55.8 | 22.7 | 9.7 | 10.1 | 1.7 | 14.9 | 71.2 | 13.9 | 97.1 | **3,071** |
| $110m^2$ or more | 73.8 | 15.4 | 4.6 | 5.1 | 1.1 | 21.8 | 64.9 | 13.2 | 97.9 | **4,756** |
| **all dwellings** | **42.0** | **23.4** | **17.4** | **15.1** | **2.0** | **18.2** | **65.6** | **16.2** | **86.9** | **21,989** |

**Base: all dwellings**
*** smoke alarms are based on households not dwellings**

## Summary Statistics Table SS2.5: Stock and amenities-parking provision and smoke alarms – area

*percentage of dwellings within group*

| | Parking provision | | | | | Smoke alarms* | | | | All dwellings in group ('000s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | garage | other off road parking | adequate street parking | inadequate street parking | no parking provision | mains powered | battery only | no smoke alarm | with a private plot | |
| **type** | | | | | | | | | | |
| city centre | 10.2 | 18.6 | 16.1 | 35.8 | 19.2 | 21.5 | 51.7 | 25.8 | 46.4 | **660** |
| other urban centre | 17.6 | 19.9 | 26.7 | 32.4 | 3.3 | 16.9 | 61.4 | 20.8 | 75.9 | **4,206** |
| suburban residential | 46.2 | 24.5 | 16.8 | 11.7 | 0.8 | 18.2 | 66.7 | 14.9 | 89.6 | **12,859** |
| rural residential | 60 | 23.7 | 10.5 | 4.6 | 1.2 | 18.4 | 67.9 | 13.1 | 96.2 | **2,584** |
| village centre | 52.1 | 23.2 | 12.9 | 9.3 | 2.6 | 18.2 | 65.1 | 16.6 | 93.3 | **1,004** |
| rural | 60.9 | 30.1 | 4.4 | 2.0 | 2.6 | 19.2 | 65.4 | 15.3 | 97.4 | **676** |
| all city/urban centres | 16.6 | 19.7 | 25.3 | 32.9 | 5.5 | 17.8 | 60.8 | 21.5 | 71.9 | **4,866** |
| suburban | 46.2 | 24.5 | 16.8 | 11.7 | 0.8 | 18.2 | 66.9 | 14.9 | 89.6 | **12,859** |
| all rural areas | 58.3 | 24.6 | 10.1 | 5.3 | 1.8 | 18.6 | 67.2 | 14.3 | 95.7 | **4,263** |
| **deprived local areas** | | | | | | | | | | |
| most deprived 10% | 9.2 | 26.5 | 32.6 | 26.8 | 5.0 | 21.5 | 58.4 | 19.3 | 74.1 | **2,184** |
| 2nd | 15.7 | 25.5 | 29.1 | 26.6 | 3.1 | 19.1 | 61.9 | 18.6 | 78.5 | **2,174** |
| 3rd | 23.7 | 22.5 | 26.6 | 24.6 | 2.5 | 18.1 | 63.6 | 17.7 | 83.4 | **2,286** |
| 4th | 33.2 | 24.1 | 22.1 | 18.1 | 2.5 | 16.5 | 66.2 | 16.9 | 85.6 | **2,218** |
| 5th | 37.5 | 25.4 | 18.3 | 16.5 | 2.4 | 16.5 | 67.8 | 15.2 | 87.0 | **2,034** |
| 6th | 47.4 | 26.8 | 14.2 | 10.3 | 1.3 | 16.3 | 66.3 | 17.1 | 89.3 | **2,292** |
| 7th | 54.5 | 23.8 | 10.4 | 9.8 | 1.4 | 17.6 | 67.1 | 14.9 | 91.4 | **2,169** |
| 8th | 60.1 | 21.7 | 8.0 | 8.7 | 1.4 | 18.2 | 65.2 | 16.2 | 91.1 | **2,278** |
| 9th | 66.0 | 20.5 | 7.3 | 5.8 | 0.4 | 19.2 | 67.7 | 12.8 | 93.8 | **2,342** |
| least deprived 10% | 73.0 | 17.4 | 5.0 | 4.2 | 0.5 | 18.0 | 68.6 | 13.1 | 94.3 | **2,011** |
| **deprived districts** | | | | | | | | | | |
| deprived | 29.9 | 22.9 | 23.0 | 21.4 | 2.9 | 16.1 | 65.0 | 18.9 | 82.4 | **9,030** |
| other district | 50.5 | 23.9 | 13.4 | 10.7 | 1.5 | 19.6 | 66.1 | 14.3 | 89.9 | **12,959** |

Summary Statistics Table SS2.5: Stock and amenities-parking provision and smoke alarms – area *(Cont.)*

| | Parking provision | | | | | Smoke alarms* | | | | All dwellings in group ('000s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | garage | other off road parking | adequate street parking | inadequate street parking | no parking provision | mains powered | battery only | no smoke alarm | with a private plot | |
| **regional group** | | | | | | | | | | |
| northern regions | 39.6 | 24.1 | 10.3 | 14.2 | 1.8 | 17.1 | 67.0 | 15.9 | 90.8 | **6,383** |
| south east regions | 35.8 | 22.5 | 18.4 | 20.7 | 2.7 | 17.1 | 63.1 | 19.8 | 78.8 | **6,728** |
| rest of England | 48.4 | 23.7 | 14.5 | 11.6 | 1.8 | 19.8 | 66.5 | 13.7 | 90.1 | **8,878** |
| **all dwellings** | **42.0** | **23.4** | **17.4** | **15.1** | **2.0** | **18.2** | **65.6** | **16.2** | **86.9** | **21,989** |

**Base: all dwellings**
*** smoke alarms are based on households not dwellings**

## Summary Statistics Table SS2.6: Stock and amenities-parking provision and smoke alarms – households

*percentage of households within group*

| | Parking provision | | | | | Smoke alarms | | | | All households in group ('000s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | garage | other off road parking | adequate street parking | inadequate street parking | no parking provision | mains powered | battery only | no smoke alarm | with a private plot | |
| **household composition** | | | | | | | | | | |
| couple under 60 | 29.6 | 22.7 | 24.9 | 20.1 | 2.7 | 18.1 | 59.9 | 22.1 | 73.3 | **4,013** |
| couple over 60 | 50.0 | 21.5 | 14.4 | 12.3 | 1.8 | 15.2 | 68.8 | 26.1 | 89.6 | **3,534** |
| couple with dependent children | 41.9 | 25.0 | 16.5 | 14.8 | 1.8 | 17.9 | 67.9 | 14.2 | 92.8 | **5,136** |
| lone parent | 49.9 | 26.0 | 12.0 | 11.1 | 1.0 | 22.7 | 67.3 | 10.1 | 96.2 | **1,527** |
| multi-person household | 44.5 | 26.6 | 14.1 | 13.1 | 1.7 | 24.6 | 63.6 | 11.8 | 96.3 | **1,467** |
| one person under 60 | 31.6 | 28.9 | 15.4 | 19.0 | 5.1 | 26.6 | 54.7 | 18.7 | 95.4 | **2,555** |
| one person 60 or over | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | **2,989** |
| **age of oldest** | 9.4 | 27.6 | 33.0 | 25.2 | 4.7 | 22.7 | 54.8 | 22.5 | 65.2 | **469** |
| under 60 | 24.1 | 28.4 | 21.7 | 23.4 | 2.4 | 18.8 | 63.7 | 17.5 | 78.2 | **2,689** |
| all over 60 years | 41.1 | 25.8 | 16.4 | 14.9 | 1.8 | 22.0 | 64.4 | 13.6 | 90.1 | **6,545** |
| all over 75 years | 49.7 | 23.2 | 13.4 | 12.0 | 1.8 | 15.5 | 67.3 | 17.2 | 91.0 | **3,980** |
| **age of youngest** | | | | | | | | | | |
| under 5 years | 35.2 | 25.7 | 20.1 | 16.9 | 2.1 | 23.0 | 65.7 | 10.6 | 90.2 | **2,641** |
| under 16 years | 43.7 | 27.7 | 14.3 | 12.9 | 1.3 | 23.0 | 64.6 | 12.2 | 95.1 | **3,670** |
| 16 years or more | 43.8 | 22.0 | 17.3 | 14.8 | 2.1 | 16.0 | 65.3 | 18.3 | 84.9 | **14,911** |
| **income groups** | | | | | | | | | | |
| 1st quintile (lowest) | 22.3 | 21.5 | 31.9 | 21.3 | 3.0 | 20.6 | 57.5 | 20.9 | 75.1 | **4,246** |
| 2nd quintile | 34.7 | 24.9 | 19.8 | 18.2 | 2.4 | 16.7 | 64.7 | 18.3 | 85.3 | **4,245** |
| 3rd quintile | 42.2 | 26.3 | 15.5 | 14.2 | 1.8 | 15.6 | 66.9 | 17.1 | 90.0 | **4,243** |
| 4th quintile | 51.4 | 24.7 | 11.4 | 11.1 | 1.4 | 17.0 | 69.6 | 13.0 | 92.4 | **4,241** |
| 5th quintile (highest) | 63.0 | 19.7 | 7.0 | 9.0 | 1.3 | 20.6 | 67.2 | 12.0 | 93.8 | **4,245** |

## Summary Statistics Table SS2.6: Stock and amenities-parking provision and smoke alarms – households *(Cont.)*

*percentage of households within group*

| | Parking provision | | | | | Smoke alarms | | | | All households in group ('000s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | garage | other off road parking | adequate street parking | inadequate street parking | no parking provision | mains powered | battery only | no smoke alarm | with a private plot | |
| **living in poverty** | | | | | | | | | | |
| in poverty | 30.1 | 22.9 | 25.3 | 19.4 | 2.3 | 17.7 | 61.2 | 20.3 | 84.7 | **3,433** |
| not in poverty | 45.2 | 23.5 | 15.5 | 13.9 | 1.9 | 18.2 | 66.0 | 15.5 | 87.8 | **17,788** |
| **workless households** | | | | | | | | | | |
| not workless | 44.5 | 25.4 | 14.1 | 14.1 | 1.9 | 18.0 | 66.5 | 15.5 | 90.1 | **13,449** |
| workless | 24.6 | 22.8 | 28.5 | 21.1 | 3.0 | 22.2 | 56.7 | 21.1 | 78.0 | **2,682** |
| **long term ill/ disabilty** | | | | | | | | | | |
| yes | 37.8 | 23.5 | 21.7 | 14.9 | 2.0 | 19.9 | 63.2 | 16.5 | 85.5 | **6,198** |
| no | 44.8 | 23.4 | 15.2 | 14.7 | 1.9 | 17.3 | 66.0 | 16.1 | 88.1 | **15,020** |
| **ethnicity of HRP** | | | | | | | | | | |
| white | 44.5 | 23.5 | 16.4 | 13.8 | 1.8 | 18.5 | 66.0 | 15.2 | 88.6 | **19,363** |
| black | 15.9 | 21.5 | 32.1 | 26.2 | 4.4 | 13.9 | 60.5 | 25.6 | 66.2 | **596** |
| Asian | 31.0 | 24.8 | 17.9 | 23.3 | 3.0 | 12.5 | 55.9 | 31.0 | 83.0 | **853** |
| other | 23.3 | 22.1 | 26.4 | 25.5 | 2.9 | 18.2 | 56.7 | 24.7 | 66.6 | **410** |
| all minority | 24.4 | 23.1 | 24.3 | 24.6 | 3.4 | 14.1 | 57.1 | 1.1 | 74.0 | **1,858** |
| **length of residence** | | | | | | | | | | |
| less than 1 year | 26.1 | 24.4 | 22.3 | 24.1 | 3.2 | 21.6 | 59.4 | 19.0 | 74.1 | **1,973** |
| 1-4 years | 35.9 | 25.5 | 20.2 | 16.2 | 2.5 | 24.3 | 61.3 | 13.7 | 81.2 | **4,484** |
| 5-9 years | 41.8 | 24.5 | 17.3 | 14.6 | 1.8 | 23.7 | 62.9 | 13.4 | 86.8 | **4,418** |
| 10-19 years | 46.7 | 24.1 | 15.2 | 12.3 | 1.7 | 17.3 | 66.0 | 16.7 | 89.0 | **4,305** |
| 20-29 years | 52.2 | 21.4 | 12.9 | 12.0 | 1.5 | 8.6 | 72.0 | 19.4 | 94.4 | **3,046** |
| 30+ years | 49.9 | 20.0 | 15.9 | 12.9 | 1.3 | 9.5 | 71.8 | 18.7 | 96.3 | **2,995** |
| **Total** | **42.7** | **23.4** | **17.1** | **14.8** | **2.0** | **18.2** | **65.5** | **16.3** | **87.3** | **21,221** |

**Base: all households**

## Summary Statistics Table SS3.1: Decent homes trend 96 – 06

| | 1996 | | 2001 | | 2003 | | 2004 | | 2005 | | 2006 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | decent | non decent | decent | non decent | decent | non decent | decent | non decent | decent | non decent | decent | non decent |
| **number (000s):** | | | | | | | | | | | | |
| owner occupied | 8,392 | 5,535 | 10,483 | 4,316 | 10,982 | 4,219 | 11,213 | 4,066 | 11,509 | 3,822 | 11,738 | 3,704 |
| private rented | 752 | 1,246 | 1,072 | 1,101 | 1,149 | 1,056 | 1,340 | 994 | 1,464 | 1,003 | 1,556 | 1,055 |
| **all private** | **9,144** | **6,781** | **11,554** | **5,416** | **12,131** | **5,275** | **12,554** | **5,060** | **12,974** | **4,825** | **13,294** | **4,759** |
| local authority | 1,600 | 1,869 | 1,637 | 1,174 | 1,482 | 975 | 1,519 | 816 | 1,437 | 0 | 1,391 | 695 |
| RSL | 493 | 448 | 952 | 472 | 1,154 | 467 | 1,228 | 437 | 1,384 | 433 | 1,414 | 436 |
| **all social** | **2,092** | **2,318** | **2,589** | **1,647** | **2,636** | **1,442** | **2,748** | **1,252** | **2,821** | **1,162** | **2,805** | **1,131** |
| **all tenures** | **11,236** | **9,099** | **14,143** | **7,063** | **14,767** | **6,717** | **15,301** | **6,312** | **15,794** | **5,987** | **16,099** | **5,890** |
| **percentage:** | | | | | | | | | | | | |
| owner occupied | 60.3 | 39.7 | 70.8 | 29.2 | 72.2 | 27.8 | 73.4 | 26.6 | 75.1 | 24.9 | 76.0 | 24.0 |
| private rented | 37.6 | 62.4 | 49.3 | 50.7 | 52.1 | 47.9 | 57.4 | 42.6 | 59.4 | 40.6 | 59.6 | 40.4 |
| **all private** | **57.4** | **42.6** | **68.1** | **31.9** | **69.7** | **30.3** | **71.3** | **28.7** | **72.9** | **27.1** | **73.6** | **26.4** |
| local authority | 46.1 | 53.9 | 58.2 | 41.8 | 60.3 | 39.7 | 65.1 | 34.9 | 66.3 | 33.7 | 66.7 | 33.3 |
| RSL | 52.4 | 47.6 | 66.8 | 33.2 | 71.2 | 28.8 | 73.8 | 26.2 | 76.2 | 23.8 | 76.4 | 23.6 |
| **all social** | **47.4** | **52.6** | **61.1** | **38.9** | **64.6** | **35.4** | **68.7** | **31.3** | **70.8** | **29.2** | **71.3** | **28.7** |
| **all tenures** | **55.3** | **44.7** | **66.7** | **33.3** | **68.7** | **31.3** | **70.8** | **29.2** | **72.5** | **27.5** | **73.2** | **26.8** |

**Base: all dwellings**
**Note: Decent homes (using fitness as the statutory component) by housing tenure, 1996 - 2006**

## Summary Statistics Table SS3.2: Decent homes – homes

*percentage/mean/median of group*

| | % group failing | | | | | average cost to make decent (£s) | | all dwellings in group |
|---|---|---|---|---|---|---|---|---|
| | non-decent | HHSRS | repair | modern facilities and services | thermal comfort | mean | median | number of dwellings (000s) |
| **tenure** | | | | | | | | |
| owner occupied | 34.6 | 22.4 | 7.2 | 1.8 | 15.6 | 7,143 | 2,736 | **15,442** |
| private rented | 46.8 | 30.5 | 14.3 | 4.2 | 25.1 | 8,909 | 4,583 | **2,611** |
| local authority | 32.4 | 14.2 | 6.8 | 5.6 | 14.5 | 4,646 | 2,286 | **2,086** |
| RSL | 25.2 | 11.1 | 4.0 | 2.4 | 13.6 | 3,612 | 1,177 | **1,850** |
| all private | 36.3 | 23.5 | 8.3 | 2.1 | 17.0 | 7,472 | 3,056 | **18,053** |
| all social | 29.0 | 12.8 | 5.5 | 4.1 | 14.1 | 4,224 | 1,525 | **3,936** |
| **vacant** | | | | | | | | |
| occupied | 34.4 | 21.1 | 7.4 | 2.4 | 15.8 | 6,592 | 2,734 | **21,055** |
| vacant | 49.0 | 32.1 | 17.0 | 3.8 | 30.0 | 13,290 | 4,521 | **934** |
| **dwelling age** | | | | | | | | |
| pre-1919 | 58.3 | 43.8 | 18.7 | 4.0 | 21.3 | 10,456 | 6,056 | **4,776** |
| 1919-44 | 39.8 | 25.3 | 10.6 | 3.0 | 16.8 | 7,469 | 3,549 | **4,002** |
| 1945-64 | 32.3 | 17.8 | 5.4 | 3.1 | 16.1 | 4,842 | 2,287 | **4,362** |
| 1965-80 | 29.6 | 13.7 | 3.0 | 2.2 | 19.0 | 3,611 | 1,581 | **4,838** |
| 1981-90 | 21.1 | 6.4 | 0.4 | 0.0 | 16.8 | 1,645 | 877 | **1,836** |
| post 1990 | 4.4 | 4.2 | 0.1 | 0.0 | 0.0 | 2,009 | 678 | **2,174** |

## Summary Statistics Table SS3.2: Decent homes – homes *(Cont.)*

*percentage/mean/median of group*

| | % group failing | | | | | average cost to make decent (£s) | | all dwellings in group |
|---|---|---|---|---|---|---|---|---|
| | non-decent | HHSRS | repair | modern facilities and services | thermal comfort | mean | median | number of dwellings (000s) |
| **dwelling type** | | | | | | | | |
| end terrace | 38.2 | 27.3 | 9.3 | 2.2 | 16.1 | 8,551 | 4,446 | **2,149** |
| mid terrace | 39.2 | 21.7 | 11.2 | 2.8 | 18.6 | 6,550 | 3,566 | **4,253** |
| small terraced house | 40.5 | 24.1 | 10.6 | 3.0 | 20.4 | 5,943 | 4,006 | **2,221** |
| medium/large terraced house | 38.0 | 23.3 | 10.6 | 2.4 | 16.4 | 7,928 | 3,479 | **4,180** |
| all terrace | 38.9 | 23.6 | 10.6 | 2.6 | 17.8 | 7,210 | 3,710 | **6,401** |
| semi-detached house | 34.0 | 21.4 | 7.4 | 1.8 | 16.3 | 6,819 | 2,546 | **6,039** |
| detached | 31.6 | 25.1 | 4.6 | 1.1 | 10.9 | 8,821 | 3,054 | **3,734** |
| bungalow | 25.4 | 19.4 | 3.0 | 1.6 | 12.2 | 5,752 | 1,624 | **1,987** |
| converted flat | 50.7 | 34.8 | 18.7 | 5.6 | 18.6 | 8,902 | 4,991 | **744** |
| purpose built flat, low rise | 34.6 | 11.6 | 6.2 | 4.9 | 22.9 | 4,724 | 1,655 | **2,762** |
| purpose built flat, high rise | 43.9 | 14.9 | 12.7 | 7.7 | 22.8 | 4,998 | 2,512 | **322** |
| all houses | 34.3 | 22.7 | 7.5 | 1.9 | 15.3 | 7,268 | 2,927 | **18,160** |
| all flats | 38.5 | 16.4 | 9.2 | 5.3 | 22.1 | 5,819 | 2,394 | **3,829** |
| **size** | | | | | | | | |
| less than 50m$^2$ | 39.1 | 18.1 | 7.2 | 4.5 | 24.1 | 4,576 | 1,886 | **2,462** |
| 50 to 69m$^2$ | 34.2 | 19.2 | 7.9 | 3.7 | 17.8 | 6,267 | 3,586 | **5,165** |
| 70 to 89m$^2$ | 33.4 | 20.8 | 8.1 | 2.1 | 15.8 | 6,497 | 2,397 | **6,535** |
| 90 to 109m$^2$ | 34.0 | 22.1 | 9.4 | 1.9 | 13.6 | 7,879 | 3,582 | **3,071** |
| 110m$^2$ or more | 36.7 | 26.8 | 6.5 | 1.1 | 13.7 | 9,140 | 2,840 | **4,756** |
| **all dwellings** | **35.0** | **21.6** | **7.8** | **2.5** | **16.4** | **6,990** | **2,814** | 21,989 |

**Base: all dwellings**

## Summary Statistcs Table SS3.3: Decent homes – area

*percentage/mean/median of group*

| | % of failing in group failing | | | | | average cost to make decent (£s) | | all dwellings in group |
|---|---|---|---|---|---|---|---|---|
| | non-decent | HHSRS | repair | modern facilities and services | thermal comfort | mean | median | number of dwellings(000s) |
| **type** | | | | | | | | |
| city centre | 43.5 | 28.0 | 12.6 | 4.7 | 19.2 | 8,667 | 3,859 | **660** |
| other urban centre | 41.4 | 23.1 | 11.6 | 4.1 | 19.0 | 7,925 | 4,293 | **4,206** |
| suburban | 29.8 | 16.8 | 6.3 | 2.1 | 14.3 | 6,130 | 2,609 | **12,859** |
| rural residential | 33.7 | 24.0 | 4.1 | 1.3 | 16.4 | 5,171 | 1,924 | **2,584** |
| village centre | 49.9 | 39.2 | 11.2 | 1.7 | 21.0 | 9,216 | 2,665 | **1,004** |
| rural | 68.6 | 62.3 | 15.5 | 4.6 | 32.1 | 10,568 | 2,985 | **676** |
| all city and urban areas | 41.7 | 23.7 | 11.8 | 4.2 | 19.0 | 8,030 | 4,125 | **4,866** |
| suburban residential | 29.8 | 16.8 | 6.3 | 2.1 | 14.3 | 6,130 | 2,609 | **12,859** |
| all rural | 43.0 | 33.7 | 7.6 | 1.9 | 20.0 | 7,638 | 2,353 | **4,263** |
| **deprived local areas** | | | | | | | | |
| most deprived 10% of areas | 37.9 | 21.6 | 9.6 | 4.8 | 17.4 | 7,223 | 3,648 | **2,184** |
| 2nd | 34.7 | 18.4 | 9.4 | 3.4 | 16.4 | 6,855 | 3,623 | **2,174** |
| 3rd | 34.7 | 20.6 | 9.0 | 3.0 | 16.6 | 6,607 | 3,112 | **2,286** |
| 4th | 41.3 | 24.3 | 9.6 | 3.0 | 18.2 | 6,828 | 2,633 | **2,218** |
| 5th | 38.2 | 24.0 | 8.3 | 2.4 | 19.8 | 7,738 | 3,135 | **2,034** |
| 6th | 38.0 | 24.6 | 7.4 | 2.3 | 18.0 | 6,929 | 2,775 | **2,292** |
| 7th | 36.5 | 23.9 | 8.0 | 2.1 | 17.9 | 7,648 | 2,734 | **2,169** |
| 8th | 33.1 | 22.0 | 6.1 | 1.6 | 15.9 | 6,921 | 2,355 | **2,278** |
| 9th | 29.9 | 19.6 | 5.2 | 1.5 | 12.9 | 6,440 | 2,342 | **2,342** |
| least deprived 10% of areas | 25.5 | 16.9 | 5.1 | 0.9 | 11.2 | 6,508 | 2,289 | **2,011** |
| **deprived districts** | | | | | | | | |
| deprived | 36.2 | 20.9 | 9.4 | 3.3 | 16.3 | 7,283 | 3,490 | **9,030** |
| other district | 34.2 | 22.1 | 6.6 | 2.0 | 16.5 | 6,774 | 2,516 | **12,959** |
| **regional group** | | | | | | | | |
| northern regions | 35.7 | 22.5 | 8.3 | 2.3 | 16.1 | 6,969 | 2,945 | **6,383** |
| south east regions | 33.8 | 18.9 | 7.5 | 3.1 | 16.0 | 7,340 | 2,949 | **6,728** |
| rest of England | 35.5 | 23.0 | 7.6 | 2.2 | 17.1 | 6,754 | 2,700 | **8,878** |
| **all dwellings** | **35.0** | **21.6** | **7.8** | **2.5** | **16.4** | **6,990** | **2,814** | **21,989** |

**Base: all dwellings**

## Summary Statistics Table SS3.4: Decent homes – households

*percentage/mean/median of group*

| | % of group failing | | | | | average cost to make decent (£s) | | all households in group |
|---|---|---|---|---|---|---|---|---|
| | non-decent | HHSRS | repair | modern facilities and services | thermal comfort | mean | median | number of households (000s) |
| **household composition** | | | | | | | | |
| couple, under 60 | 35.0 | 22.8 | 7.0 | 1.4 | 15.7 | 6,017 | 2,423 | **4,013** |
| couple,aged 60 or over | 32.4 | 20.8 | 5.3 | 2.5 | 15.8 | 6,826 | 2,636 | **3,534** |
| couple with children | 30.5 | 19.5 | 6.3 | 1.2 | 12.3 | 6,654 | 2,625 | **5,136** |
| lone parent | 33.0 | 20.8 | 8.4 | 2.5 | 13.5 | 5,887 | 2,949 | **1,527** |
| multi-person household | 37.4 | 23.0 | 9.5 | 2.5 | 16.8 | 6,259 | 3,046 | **1,467** |
| one person under 60 | 39.0 | 21.7 | 9.5 | 4.0 | 19.7 | 6,786 | 2,725 | **2,555** |
| one person aged 60 or over | 38.4 | 21.1 | 8.8 | 4.6 | 20.1 | 7,281 | 3,381 | **2,989** |
| **age of oldest person** | | | | | | | | |
| under 60 years | 34.0 | 21.1 | 7.6 | 1.9 | 15.0 | 6,295 | 2,569 | **13,682** |
| all over 60 years | 35.4 | 21.2 | 7.0 | 3.4 | 17.6 | 7,111 | 2,961 | **7,538** |
| all over 75 years | 36.7 | 21.1 | 7.8 | 4.6 | 20.0 | 7,471 | 3,379 | **2,824** |
| **age of youngest person** | | | | | | | | |
| under 5 years | 32.6 | 20.0 | 7.7 | 1.5 | 13.6 | 6,699 | 2,753 | **2,641** |
| under 16 years | 31.3 | 19.9 | 6.7 | 1.5 | 12.7 | 6,414 | 2,537 | **6,310** |
| 16 years or more | 35.8 | 21.7 | 7.7 | 2.9 | 17.3 | 6,658 | 2,814 | **14,911** |
| **income groups** | | | | | | | | |
| 1st quintile (lowest) | 36.8 | 22.2 | 8.3 | 3.6 | 17.5 | 6,589 | 3,202 | **4,195** |
| 2nd quintile | 35.2 | 19.9 | 8.2 | 3.8 | 17.2 | 6,637 | 3,098 | **4,399** |
| 3rd quintile | 33.5 | 20.3 | 6.9 | 2.3 | 16.3 | 6,743 | 2,792 | **4,165** |
| 4th quintile | 33.8 | 21.3 | 6.7 | 1.6 | 15.1 | 6,354 | 2,633 | **4,128** |
| 5th quintile (highest) | 32.9 | 22.1 | 6.7 | 0.9 | 13.4 | 6,633 | 2,363 | **4,334** |
| **poverty** | | | | | | | | |
| in poverty | 33.9 | 21.0 | 7.1 | 2.2 | 15.5 | 6,553 | 2,622 | **17,788** |
| not in poverty | 37.4 | 22.0 | 8.9 | 3.7 | 17.9 | 6,776 | 3,329 | **3,433** |
| **workless households** | | | | | | | | |
| workless | 35.3 | 19.7 | 8.3 | 4.1 | 15.8 | 6,564 | 2,992 | **2,682** |
| not workless | 33.9 | 21.5 | 7.5 | 1.7 | 14.9 | 6,526 | 2,604 | **13,449** |

## Summary Statistics Table SS3.4: Decent homes – households *(Cont.)*

*percentage/mean/median of group*

| | % of group failing | | | | | average cost to make decent (£s) | | all households in group |
|---|---|---|---|---|---|---|---|---|
| | non-decent | HHSRS | repair | modern facilities and services | thermal comfort | mean | median | number of households (000s) |
| **long term ill/disability** | | | | | | | | |
| yes | 34.1 | 20.4 | 7.2 | 3.5 | 16.5 | 6,650 | 3,153 | **6,198** |
| no | 34.6 | 21.5 | 7.5 | 2.0 | 15.7 | 6,569 | 2,589 | **15,020** |
| **ethnic group of HRP** | | | | | | | | |
| white | 34.3 | 21.5 | 7.2 | 2.3 | 15.9 | 6,578 | 2,657 | **19,363** |
| black | 37.9 | 16.9 | 8.5 | 6.5 | 17.8 | 6,073 | 3,732 | **596** |
| Asian | 33.4 | 18.3 | 9.4 | 2.1 | 14.6 | 7,447 | 3,859 | **853** |
| other | 37.9 | 19.9 | 8.6 | 4.5 | 15.8 | 6,380 | 3,180 | **409** |
| all minority | 35.8 | 18.2 | 8.9 | 4.1 | 15.9 | 6,732 | 3,582 | **1,858** |
| **length of residence** | | | | | | | | |
| less than 1 year | 36.5 | 22.3 | 9.1 | 1.7 | 16.1 | 5,857 | 2,274 | **1,973** |
| 1-4 years | 30.5 | 18.3 | 6.9 | 1.7 | 13.1 | 6,050 | 2,243 | **4,484** |
| 5-9 years | 31.8 | 19.4 | 6.4 | 1.7 | 13.4 | 5,732 | 2,225 | **4,418** |
| 10-19 years | 32.7 | 19.7 | 6.2 | 2.1 | 15.1 | 6,096 | 2,516 | **4,304** |
| 20-29 years | 37.1 | 23.5 | 7.6 | 2.4 | 17.8 | 6,825 | 3,011 | **3,046** |
| 30 or more years | 43.0 | 27.2 | 9.9 | 5.8 | 22.9 | 8,838 | 5,009 | **2,994** |
| **decent homes target group** | | | | | | | | |
| social sector households | 27.8 | 12.2 | 4.9 | 4.3 | 13.1 | 3,876 | 1,495 | **3,725** |
| private sector vulnerable | 41.2 | 25.9 | 10.4 | 3.8 | 20.9 | 7,998 | 4,529 | **3,190** |
| private sector non-vulnerable | 34.7 | 22.5 | 7.4 | 1.7 | 15.5 | 6,786 | 2,633 | **14,306** |
| **all households** | 34.5 | 21.2 | 7.4 | 2.5 | 15.9 | 6,589 | 2,735 | **21,220** |

**Base: all households**

## Summary Statistics Table SS4.1: Health and Safety – homes

*percentage/mean/median of group*

| | % in this group | | | | costs to make safe (£) | | all dwellings in group |
|---|---|---|---|---|---|---|---|
| | fail HHSRS | fails excess cold | fails on falls | fails on other hazards | mean | median | number of dwellings (000s) |
| **tenure** | | | | | | | |
| owner occupied | 22.4 | 11.9 | 11.0 | 3.0 | 4,063 | 1,675 | **15,442** |
| private rented | 30.5 | 16.8 | 14.4 | 6.4 | 4,518 | 2,377 | **2,611** |
| local authority | 14.2 | 4.3 | 8.3 | 2.9 | 2,429 | 902 | **2,086** |
| RSL | 11.1 | 3.2 | 5.9 | 3.0 | 2,272 | 1,052 | **1,850** |
| all private | 23.5 | 12.6 | 11.5 | 3.5 | 4,148 | 1,723 | **18,053** |
| all social | 12.8 | 3.8 | 7.2 | 2.9 | 2,365 | 994 | **3,936** |
| **vacant** | | | | | | | |
| occupied | 21.1 | 10.8 | 10.4 | 3.2 | 3,797 | 1,645 | **21,055** |
| vacant | 32.1 | 16.8 | 17.0 | 9.1 | 6,368 | 2,799 | **934** |
| **dwelling age** | | | | | | | |
| pre-1919 | 43.8 | 25.6 | 21.3 | 8.2 | 5,635 | 2,475 | **4,776** |
| 1919-44 | 25.3 | 12.2 | 12.1 | 4.3 | 3,543 | 1,675 | **4,002** |
| 1945-64 | 17.8 | 8.3 | 9.1 | 2.0 | 2,209 | 1,111 | **4,362** |
| 1965-80 | 13.7 | 6.1 | 6.7 | 1.6 | 2,103 | 995 | **4,838** |
| 1981-90 | 6.4 | 2.1 | 4.0 | 0.5 | 1,482 | 917 | **1,836** |
| post 1990 | 4.2 | 1.0 | 2.5 | 0.7 | 1,667 | 791 | **2,174** |

## Summary Statistics Table SS4.1: Health and Safety – homes *(Cont.)*

*percentage/mean/median of group*

| | % in this group | | | | costs to make safe (£) | | all dwellings in group |
|---|---|---|---|---|---|---|---|
| | fail HHSRS | fails excess cold | fails on falls | fails on other hazards | mean | median | number of dwellings (000s) |
| **dwelling type** | | | | | | | |
| end terrace | 27.3 | 14.0 | 13.4 | 4.6 | 4,936 | 2,149 | **2,149** |
| mid terrace | 21.7 | 5.3 | 15.0 | 5.4 | 2,721 | 1,219 | **4,253** |
| small terrace | 24.1 | 7.2 | 16.1 | 5.2 | 2,650 | 1,502 | **2,221** |
| medium/large terrace | 23.3 | 8.7 | 13.6 | 5.1 | 4,094 | 1,634 | **4,180** |
| all terrace | 23.6 | 8.2 | 14.5 | 5.1 | 3,581 | 1,577 | **6,401** |
| semi-detached house | 21.4 | 10.9 | 11.1 | 2.8 | 3,574 | 1,502 | **6,039** |
| detached | 25.1 | 18.2 | 9.5 | 1.9 | 6,046 | 2,020 | **3,734** |
| bungalow | 19.4 | 14.8 | 4.4 | 2.4 | 3,263 | 1,645 | **1,987** |
| converted flat | 34.8 | 17.6 | 16.3 | 8.2 | 3,878 | 2,553 | **744** |
| purpose built flat, low rise | 11.6 | 4.5 | 6.1 | 2.2 | 2,292 | 1,280 | **2,762** |
| purpose built flat, high rise | 14.9 | 5.7 | 5.9 | 4.4 | 2,781 | 1,505 | **322** |
| all houses | 22.7 | 11.9 | 11.3 | 3.4 | 4,108 | 1,675 | **18,160** |
| all flats | 16.4 | 7.1 | 8.1 | 3.5 | 2,982 | 1,794 | **3,829** |
| **size** | | | | | | | |
| less than 50 sqm | 18.1 | 9.2 | 8.1 | 4.0 | 2,707 | 1,678 | **2,462** |
| 50 to 69 sqm | 19.2 | 8.3 | 10.5 | 3.4 | 2,986 | 1,585 | **5,165** |
| 70 to 89 sqm | 20.8 | 9.2 | 10.8 | 3.6 | 3,046 | 1,372 | **6,535** |
| 90 to 109 sqm | 22.1 | 11.1 | 11.0 | 3.7 | 4,623 | 1,788 | **3,071** |
| 110 sqm or more | 26.8 | 17.6 | 12.0 | 2.6 | 5,773 | 1,915 | **4,756** |
| **all dwellings** | **21.6** | **5.7** | **5.9** | **4.4** | **3,959** | **1,675** | 21,989 |
| **Base: all dwellings** | | | | | | | |

## Summary Statistics Table SS4.2: Health and Safety – areas

*percentage/mean/median of group*

| | % in this group | | | | costs to make safe (£) | | all dwellings in area |
|---|---|---|---|---|---|---|---|
| | fail HHSRS | fails excess cold | fails on falls | fails on other hazards | mean | median | number of dwellings (000s) |
| **type** | | | | | | | |
| city centre | 28.0 | 12.9 | 15.2 | 5.3 | 4,050 | 2,051 | **660** |
| other urban centre | 23.1 | 8.7 | 12.5 | 5.5 | 4,163 | 1,730 | **4,206** |
| suburban residential | 16.8 | 7.3 | 9.3 | 2.5 | 3,491 | 1,388 | **12,859** |
| rural residential | 24.0 | 15.2 | 9.7 | 2.4 | 3,630 | 1,416 | **2,584** |
| village centre | 39.2 | 27.5 | 16.2 | 5.9 | 5,537 | 2,057 | **1,004** |
| rural | 62.3 | 55.2 | 17.6 | 5.9 | 4,867 | 2,023 | **676** |
| all city and urban areas | 23.7 | 9.2 | 12.9 | 12.9 | 4,145 | 1,794 | **1,794** |
| surburban residential | 16.8 | 7.3 | 9.3 | 9.3 | 3,491 | 1,388 | **1,388** |
| all rural | 33.7 | 24.5 | 12.5 | 12.5 | 4,516 | 1,791 | **1,791** |
| **deprived local areas** | | | | | | | |
| most deprived 10% of areas | 21.6 | 7.6 | 11.7 | 6.6 | 3,332 | 1,675 | **2,184** |
| 2nd | 18.4 | 5.9 | 11.5 | 3.8 | 2,915 | 1,510 | **2,174** |
| 3rd | 20.6 | 8.3 | 11.2 | 4.1 | 3,279 | 1,446 | **2,286** |
| 4th | 24.3 | 10.4 | 12.8 | 4.1 | 3,696 | 1,585 | **2,218** |
| 5th | 24.0 | 13.5 | 11.5 | 4.2 | 4,696 | 1,824 | **2,034** |
| 6th | 24.6 | 14.7 | 10.9 | 3.7 | 4,597 | 1,730 | **2,292** |
| 7th | 23.9 | 15.2 | 9.9 | 2.2 | 4,426 | 1,760 | **2,169** |
| 8th | 22.0 | 13.8 | 9.8 | 2.2 | 4,027 | 1,569 | **2,278** |
| 9th | 19.6 | 11.3 | 9.4 | 1.8 | 4,035 | 1,529 | **2,342** |
| least deprived 10% of areas | 16.9 | 9.7 | 8.2 | 1.1 | 4,394 | 1,727 | **2,011** |
| **deprived districts** | | | | | | | |
| deprived | 20.9 | 7.7 | 11.9 | 4.7 | 3,470 | 1,477 | **9,030** |
| other district | 22.1 | 13.4 | 9.8 | 2.5 | 4,281 | 1,730 | **12,959** |
| **regional group** | | | | | | | |
| northern regions | 22.5 | 9.4 | 11.7 | 5.3 | 3,207 | 1,550 | **6,383** |
| south east regions | 18.9 | 9.6 | 9.6 | 2.4 | 4,139 | 1,794 | **6,728** |
| rest of England | 23.0 | 13.3 | 10.8 | 2.8 | 4,376 | 1,727 | **8,878** |
| **all dwellings** | **21.6** | **11.1** | **10.7** | **3.4** | **3,959** | **1,675** | 21,989 |
| **Base: all dwellings** | | | | | | | |

## Summary Statistics Table SS4.3: Health and Safety – households

*percentage/mean/median of group*

| | % in this group | | | | costs to make safe (£) | | all households in group |
|---|---|---|---|---|---|---|---|
| | fail HHSRS | fails excess cold | fails on falls | fails on other hazards | mean | median | number of households(000s) |
| **household composition** | | | | | | | |
| couple under 60 | 22.8 | 11.5 | 11.7 | 3.2 | 3,907 | 1,675 | **4,013** |
| couple 60 or over | 20.8 | 13.2 | 8.1 | 2.1 | 3,700 | 1,631 | **3,534** |
| couple with children | 19.5 | 8.9 | 10.5 | 3.0 | 4,477 | 1,510 | **5,136** |
| lone parent | 20.8 | 6.9 | 11.8 | 4.6 | 2,924 | 1,151 | **1,527** |
| multi-person household | 23.0 | 9.2 | 13.0 | 3.5 | 3,356 | 1,675 | **1,467** |
| one person under 60 | 21.7 | 10.8 | 11.8 | 3.1 | 3,171 | 1,585 | **2,555** |
| one person 60 or over | 21.1 | 13.1 | 8.3 | 3.8 | 3,859 | 1,844 | **2,989** |
| **age of oldest person** | | | | | | | |
| under 60 years | 21.1 | 9.5 | 11.5 | 3.3 | 3,743 | 1,543 | **13,682** |
| all over 60 years | 21.2 | 13.2 | 8.5 | 2.9 | 3,880 | 1,730 | **7,538** |
| all over 75 years | 21.1 | 13.8 | 7.6 | 3.5 | 3,749 | 1,844 | **2,824** |
| **age of youngest person** | | | | | | | |
| under 5 years | 20.0 | 8.5 | 11.4 | 4.1 | 4,234 | 1,505 | **2,641** |
| under 16 years | 19.9 | 8.3 | 11.0 | 3.5 | 4,024 | 1,416 | **6,310** |
| 16 years and over | 21.7 | 11.9 | 10.2 | 3.0 | 3,702 | 1,675 | **14,911** |
| **income groups** | | | | | | | |
| 1st quintile (lowest) | 22.2 | 11.3 | 10.2 | 4.2 | 3,332 | 1,658 | **4,195** |
| 2nd quintile | 19.9 | 9.4 | 9.7 | 3.9 | 3,171 | 1,416 | **4,399** |
| 3rd quintile | 20.3 | 9.9 | 10.9 | 2.7 | 3,884 | 1,569 | **4,165** |
| 4th quintile | 21.3 | 11.0 | 10.8 | 2.5 | 4,155 | 1,730 | **4,128** |
| 5th quintile (highest) | 22.1 | 12.5 | 10.6 | 2.5 | 4,389 | 1,675 | **4,334** |
| **poverty** | | | | | | | |
| in poverty | 22.0 | 11.1 | 10.0 | 4.3 | 3,305 | 1,645 | **3,433** |
| not in poverty | 21.0 | 10.7 | 10.5 | 2.9 | 3,890 | 1,652 | **17,788** |

## Summary Statistics Table SS4.3: Health and Safety – households *(Cont.)*

*percentage/mean/median of group*

| | % in this group | | | | costs to make safe (£) | | all households in group |
|---|---|---|---|---|---|---|---|
| | fail HHSRS | fails excess cold | fails on falls | fails on other hazards | mean | median | number of households(000s) |
| **workless households** | | | | | | | |
| workless | 19.7 | 8.5 | 9.9 | 4.3 | 3,192 | 1,517 | **2,682** |
| not workless | 21.5 | 10.3 | 11.4 | 3.0 | 3,869 | 1,633 | **13,449** |
| **long term ill/disability** | | | | | | | |
| yes | 20.4 | 10.7 | 9.5 | 3.3 | 3,723 | 1,675 | **6,198** |
| no | 21.5 | 10.9 | 10.8 | 3.1 | 3,818 | 1,641 | **15,020** |
| **ethnic group of HRP** | | | | | | | |
| white | 21.5 | 11.4 | 10.4 | 3.0 | 3,809 | 1,652 | **19,363** |
| black | 16.9 | 5.7 | 8.0 | 5.5 | 3,659 | 2,396 | **596** |
| Asian | 18.3 | 4.3 | 10.5 | 5.4 | 3,744 | 1,452 | **853** |
| other | 19.9 | 6.1 | 13.5 | 3.8 | 3,154 | 1,585 | **409** |
| all minority | 18.2 | 5.1 | 10.4 | 5.1 | 3,577 | 1,593 | **1,858** |
| **length of residence** | | | | | | | |
| less than 1 year | 22.3 | 10.2 | 12.2 | 3.6 | 3,786 | 1,580 | **1,973** |
| 1-4 years | 18.3 | 7.5 | 10.9 | 2.8 | 3,106 | 1,416 | **2,110** |
| 5-9 years | 19.4 | 9.4 | 10.0 | 2.9 | 3,892 | 1,591 | **4,418** |
| 10-19 years | 19.7 | 9.9 | 9.5 | 3.4 | 3,763 | 1,658 | **4,304** |
| 20-29 years | 23.5 | 13.1 | 10.8 | 2.2 | 3,829 | 1,641 | **3,046** |
| 30 or more years | 27.2 | 17.2 | 10.8 | 4.6 | 4,151 | 2,154 | **2,994** |
| **all households** | **21.2** | **10.8** | **10.4** | **3.2** | **3,790** | **1,646** | **21,220** |
| **Base: all households** | | | | | | | |

## Summary Statistics Table SS5.1: Damp and mould – homes

*percentage of group*

| | condensation/mould | penetrating damp | rising damp | any damp | number of dwellings (000s) |
|---|---|---|---|---|---|
| **tenure** | | | | | |
| owner occupied | 2.9 | 3.2 | 3.0 | 7.8 | **15,442** |
| private rented | 8.3 | 9.1 | 6.9 | 19.5 | **2,611** |
| local authority | 8.3 | 4.5 | 2.1 | 13.1 | **2,086** |
| RSL | 5.8 | 2.8 | 2.0 | 9.1 | **1,850** |
| all private | 3.7 | 4.1 | 3.6 | 9.5 | **18,053** |
| all social | 7.1 | 3.7 | 2.1 | 11.2 | **3,936** |
| **vacant** | | | | | |
| occupied | 4.3 | 3.8 | 3.1 | 9.5 | **21,055** |
| vacant | 3.8 | 9.8 | 8.2 | 17.5 | **934** |
| **dwelling age** | | | | | |
| pre-1919 | 6.0 | 10.0 | 10.9 | 21.7 | **4,776** |
| 1919-44 | 4.9 | 4.3 | 2.9 | 10.4 | **4,002** |
| 1945-64 | 4.6 | 2.4 | 1.2 | 7.3 | **4,362** |
| 1965-80 | 3.9 | 2.1 | 0.5 | 5.9 | **4,838** |
| 1981-90 | 3.0 | 1.3 | 0.1 | 4.1 | **1,836** |
| post 1990 | 1.1 | 0.2 | 0.2 | 1.3 | **2,174** |
| **dwelling type** | | | | | |
| end terrace | 6.2 | 5.2 | 4.3 | 13.0 | **2,149** |
| mid terrace | 5.2 | 5.4 | 6.8 | 14.2 | **4,253** |
| small terrace | 5.6 | 3.7 | 5.0 | 11.8 | **2,221** |
| medium/large terrace | 5.5 | 6.2 | 6.6 | 14.9 | **4,179** |
| all terrace | 5.6 | 5.3 | 6.0 | 13.8 | **6,401** |

## Summary Statistics Table SS5.1: Damp and mould – homes *(Cont.)*

*percentage of group*

| | condensation/mould | penetrating damp | rising damp | any damp | number of dwellings (000s) |
|---|---|---|---|---|---|
| semi detached | 3.6 | 2.9 | 2.6 | 7.7 | **6,039** |
| detached | 1.9 | 2.7 | 1.9 | 5.6 | **3,734** |
| bungalow | 3.9 | 2.2 | 1.5 | 6.6 | **1,987** |
| converted flat | 6.0 | 9.8 | 5.6 | 18.2 | **744** |
| purpose built flat, low rise | 6.0 | 5.1 | 1.3 | 10.8 | **2,762** |
| purpose built flat, high rise | 5.6 | 4.0 | 1.4 | 10.2 | **322** |
| all houses | 4.0 | 3.6 | 3.5 | 9.3 | **18,160** |
| all flats | 6.0 | 6.0 | 2.1 | 12.2 | **3,828** |
| **size** | | | | | |
| less than 50m$^2$ | 6.2 | 4.4 | 2.2 | 11.0 | **2,462** |
| 50 to 69m$^2$ | 5.1 | 3.8 | 3.3 | 10.3 | **5,165** |
| 70 to 89m$^2$ | 4.8 | 4.1 | 3.7 | 10.7 | **6,535** |
| 90 to 109m$^2$ | 4.0 | 4.2 | 3.6 | 9.5 | **3,071** |
| 110m$^2$ or more | 2.1 | 3.8 | 3.1 | 7.7 | **4,756** |
| **all dwellings** | **4.3** | **4.0** | **3.3** | **9.8** | **21,989** |

**Base: all dwellings**

## Summary Statistics Table SS5.2: Damp and mould – area

*percentage of group*

| | condensation/mould | penetrating damp | rising damp | any damp | number of dwellings (000s) |
|---|---|---|---|---|---|
| **type** | | | | | |
| city centre | 5.4 | 7.2 | 4.7 | 15.0 | **660** |
| other urban centre | 5.7 | 7.2 | 5.6 | 15.4 | **4,205** |
| surburban residential | 3.8 | 2.7 | 2.2 | 7.5 | **12,859** |
| rural residential | 3.1 | 2.7 | 1.9 | 6.7 | **2,583** |
| village centre | 5.7 | 5.3 | 6.6 | 14.4 | **1,003** |
| rural | 5.6 | 9.9 | 9.3 | 19.7 | **675** |
| all city and urban centres | 5.7 | 7.2 | 5.5 | 15.4 | **4,866** |
| surburban residential | 3.8 | 2.7 | 2.2 | 7.5 | **12,859** |
| all rural | 4.1 | 4.5 | 4.2 | 10.6 | **4,263** |
| **deprived local areas** | | | | | |
| most deprived 10% of areas | 7.8 | 6.1 | 4.1 | 14.7 | **2,184** |
| 2nd | 6.0 | 5.5 | 4.1 | 13.3 | **2,174** |
| 3rd | 5.1 | 4.8 | 3.8 | 11.8 | **2,286** |
| 4th | 6.4 | 4.3 | 4.9 | 12.9 | **2,218** |
| 5th | 4.8 | 4.3 | 4.2 | 11.4 | **2,034** |
| 6th | 3.7 | 3.6 | 3.1 | 8.5 | **2,292** |
| 7th | 2.7 | 3.5 | 2.7 | 7.7 | **2,169** |
| 8th | 2.8 | 3.4 | 2.4 | 7.4 | **2,278** |
| 9th | 2.0 | 2.4 | 1.8 | 5.2 | **2,342** |
| least deprived 10% of areas | 2.0 | 2.3 | 1.9 | 5.5 | **2,011** |
| **deprived district** | | | | | |
| deprived district | 5.1 | 5.1 | 4.0 | 12.0 | **9,030** |
| other district | 3.7 | 3.3 | 2.8 | 8.3 | **12,959** |
| **regional area** | | | | | |
| northern regions | 3.9 | 3.8 | 4.1 | 9.8 | **6,383** |
| south east regions | 4.0 | 4.7 | 2.5 | 9.7 | **6,728** |
| rest of England | 4.8 | 3.7 | 3.3 | 9.8 | **8,878** |
| **all dwellings** | **4.3** | **4.0** | **3.3** | **9.8** | **21,989** |
| **Base: all dwellings** | | | | | |

## Summary Statistics Table SS5.3: Damp and mould – household

*percentage of group*

| | condensation/mould | penetrating damp | rising damp | any damp | number of households (000s) |
|---|---|---|---|---|---|
| **composition** | | | | | |
| couple under 60 | 4.0 | 3.3 | 3.2 | 8.9 | **4,013** |
| couple 60 or over | 2.3 | 2.3 | 2.0 | 5.8 | **3,534** |
| couple with children | 4.9 | 3.4 | 3.0 | 9.7 | **5,136** |
| lone parent | 7.5 | 4.9 | 2.7 | 12.9 | **1,527** |
| multi-person household | 7.5 | 5.8 | 4.3 | 14.3 | **1,467** |
| one person under 60 | 4.8 | 5.5 | 3.7 | 11.7 | **2,555** |
| one person 60 or over | 2.8 | 3.9 | 3.5 | 8.6 | **2,989** |
| **age of oldest** | | | | | |
| under 60 years | 5.2 | 4.1 | 3.1 | 10.6 | **13,682** |
| all over 60 years | 2.8 | 3.2 | 3.0 | 7.6 | **7,538** |
| all over 75 years | 3.3 | 3.3 | 3.2 | 7.7 | **2,824** |
| **age of youngest** | | | | | |
| under 5 years | 5.2 | 4.2 | 3.1 | 11.1 | **2,641** |
| under 16 years | 5.5 | 3.8 | 2.9 | 10.4 | **6,310** |
| 16 years or more | 3.9 | 3.8 | 3.2 | 9.2 | **14,911** |
| **income groups** | | | | | |
| 1st quintile (lowest) | 7.3 | 5.3 | 4.2 | 13.8 | **4,195** |
| 2nd quintile | 4.8 | 3.3 | 3.2 | 9.8 | **4,399** |
| 3rd quintile | 4.1 | 3.6 | 2.9 | 8.8 | **4,165** |
| 4th quintile | 3.3 | 3.9 | 2.9 | 8.6 | **4,128** |
| 5th quintile (highest) | 2.2 | 3.0 | 2.3 | 6.7 | **4,334** |
| **living in poverty** | | | | | |
| in poverty | 3.7 | 3.5 | 2.9 | 8.7 | **17,788** |
| not in poverty | 7.6 | 5.3 | 4.1 | 14.0 | **3,433** |

## Summary Statistics Table SS5.3: Damp and mould – household *(Cont.)*

*percentage of group*

| | condensation/mould | penetrating damp | rising damp | any damp | number of households (000s) |
|---|---|---|---|---|---|
| **workless** | | | | | |
| workless | 7.7 | 5.1 | 3.6 | 13.6 | **2,682** |
| not workless | 4.4 | 3.8 | 3.1 | 9.6 | **13,449** |
| **long term ill/disability** | | | | | |
| yes | 4.9 | 3.9 | 3.2 | 10.0 | **6,198** |
| no | 4.1 | 3.8 | 3.0 | 9.3 | **15,020** |
| **ethnicity of HRP** | | | | | |
| white | 3.9 | 3.6 | 3.0 | 8.8 | **19,363** |
| black | 9.6 | 5.5 | 2.0 | 15.2 | **596** |
| Asian | 10.9 | 7.1 | 4.4 | 18.3 | **853** |
| other | 7.0 | 6.1 | 5.6 | 15.4 | **409** |
| all minority | 9.6 | 6.3 | 3.9 | 16.7 | **1,858** |
| **length of residence** | | | | | |
| less than 1 year | 5.2 | 4.0 | 3.6 | 10.5 | **1,973** |
| 1-4 years | 4.9 | 3.5 | 3.2 | 9.9 | **4,484** |
| 5-9 years | 4.2 | 4.0 | 2.7 | 9.3 | **4,418** |
| 10-19 years | 4.5 | 3.7 | 2.2 | 9.0 | **4,304** |
| 20-29 years | 4.0 | 3.3 | 3.2 | 8.9 | **3,046** |
| 30 or more years | 3.4 | 4.4 | 4.3 | 10.0 | **2,994** |
| **all households** | **4.4** | **3.8** | **3.1** | **9.5** | **21,220** |

**Base: all households**

## Summary Statistics Table SS6.1: Heating and Insulation – heating and homes

*percentage of group*

| | heating | | | main fuel type | | | | water heating system | | | | type of boiler | | | | | | all dwellings in group (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | central | storage | room[1] | gas fired | oil fired | solid fuel | elec-trical | with central heating | dedi-cated boiler | electric immer-sion | instan-taneous | stan-dard | back boiler | combi-nation | conden-sing | conden-sing-combi | no boiler | |
| **tenure** | | | | | | | | | | | | | | | | | | |
| owner occupied | 91.3 | 4.9 | 3.8 | 87.6 | 5.2 | 1.3 | 6.0 | 88.5 | 1.3 | 7.8 | 2.4 | 45.5 | 8.4 | 28.9 | 2.3 | 6.0 | 8.9 | **15,442** |
| private rented | 78.1 | 13.4 | 8.5 | 76.4 | 3.6 | 2.9 | 17.1 | 75.3 | 2.2 | 18.6 | 3.9 | 29.0 | 7.5 | 33.2 | 0.7 | 5.3 | 24.4 | **2,611** |
| local authority | 88.3 | 8.3 | 3.4 | 87.7 | 0.6 | 1.7 | 10.1 | 83.9 | 0.8 | 13.3 | 2.0 | 31.1 | 18.6 | 23.6 | 2.6 | 6.4 | 17.8 | **2,086** |
| RSL | 85.0 | 13.4 | 1.6 | 82.5 | 0.9 | 1.2 | 15.4 | 82.6 | 0.8 | 15.4 | 1.2 | 31.4 | 13.6 | 26.4 | 2.1 | 5.7 | 20.9 | **1,850** |
| all private | 89.4 | 6.2 | 4.5 | 86.0 | 4.9 | 1.5 | 7.5 | 86.6 | 1.4 | 9.4 | 2.6 | 43.1 | 8.3 | 29.5 | 2.0 | 5.9 | 11.2 | **18,053** |
| all social | 86.8 | 10.7 | 2.5 | 85.3 | 0.7 | 1.4 | 12.6 | 83.3 | 0.8 | 14.3 | 1.6 | 31.2 | 16.2 | 24.9 | 2.3 | 6.1 | 19.2 | **3,936** |
| vacant | | | | | | | | | | | | | | | | | | |
| occupied | 89.5 | 6.7 | 3.8 | 86.4 | 4.3 | 1.4 | 7.9 | 86.6 | 1.2 | 10.0 | 2.2 | 41.8 | 9.7 | 28.7 | 2.1 | 5.8 | 11.8 | **21,055** |
| vacant | 76.2 | 11.9 | 11.9 | 74.4 | 2.6 | 3.8 | 19.2 | 71.9 | 3.6 | 16.5 | 8.0 | 23.6 | 9.1 | 28.2 | 1.3 | 7.6 | 30.3 | **934** |
| **dwelling age** | | | | | | | | | | | | | | | | | | |
| pre-1919 | 86.6 | 5.5 | 7.9 | 81.7 | 7.8 | 3.0 | 7.4 | 83.9 | 2.3 | 9.1 | 4.8 | 32.1 | 7.7 | 37.9 | 1.4 | 7.0 | 13.9 | **4,776** |
| 1919-44 | 92.2 | 2.7 | 5.1 | 92.6 | 1.8 | 1.7 | 3.9 | 89.9 | 1.3 | 5.9 | 2.8 | 36.2 | 12.1 | 35.2 | 1.8 | 6.3 | 8.5 | **4,002** |
| 1945-64 | 91.0 | 5.4 | 3.6 | 89.4 | 3.0 | 1.4 | 6.2 | 88.3 | 1.6 | 8.1 | 2.0 | 35.4 | 18.2 | 28.1 | 2.0 | 6.6 | 9.7 | **4,362** |
| 1965-80 | 89.1 | 8.6 | 2.3 | 84.1 | 4.4 | 0.9 | 10.6 | 84.4 | 0.8 | 13.1 | 1.8 | 47.4 | 8.4 | 22.2 | 2.3 | 4.8 | 14.9 | **4,838** |
| 1981-90 | 81.9 | 15.7 | 2.4 | 79.1 | 3.0 | 0.5 | 17.4 | 79.3 | 1.0 | 18.8 | 0.9 | 53.8 | 3.3 | 16.6 | 1.8 | 4.2 | 20.4 | **1,836** |
| post 1990 | 89.2 | 10.2 | 0.6 | 85.1 | 4.1 | 0.0 | 10.9 | 87.8 | 0.1 | 11.7 | 0.3 | 55.6 | 0.8 | 22.4 | 4.2 | 5.4 | 11.7 | **2,174** |
| **dwelling type** | | | | | | | | | | | | | | | | | | |
| end terrace | 91.3 | 3.9 | 4.9 | 91.2 | 1.8 | 1.7 | 5.2 | 88.1 | 1.4 | 7.3 | 3.1 | 38.1 | 12.5 | 32.9 | 2.0 | 5.4 | 9.1 | **2,149** |
| mid terrace | 88.7 | 4.3 | 7.0 | 92.6 | 0.7 | 1.5 | 5.2 | 86.3 | 1.5 | 8.2 | 4.0 | 33.3 | 10.8 | 36.2 | 1.6 | 6.4 | 11.8 | **4,253** |
| small terrace | 84.8 | 5.4 | 9.8 | 91.5 | 0.5 | 1.1 | 6.9 | 82.6 | 1.6 | 11.1 | 4.7 | 31.0 | 11.1 | 36.4 | 0.6 | 5.3 | 15.6 | **2,221** |
| medium/large terrace | 92.1 | 3.5 | 4.4 | 92.5 | 1.4 | 1.8 | 4.3 | 89.2 | 1.4 | 6.3 | 3.2 | 37.0 | 11.5 | 34.3 | 2.3 | 6.5 | 8.4 | **4,180** |
| all terrace | 89.5 | 4.2 | 6.3 | 92.1 | 1.0 | 1.6 | 5.2 | 86.9 | 1.5 | 7.9 | 3.7 | 34.9 | 11.3 | 35.1 | 1.7 | 6.1 | 10.9 | **6,401** |
| semi detached | 93.4 | 3.4 | 3.3 | 90.6 | 3.2 | 2.2 | 4.1 | 90.9 | 1.2 | 5.9 | 2.0 | 42.0 | 13.6 | 29.3 | 1.8 | 6.6 | 6.7 | **6,039** |
| detached | 97.2 | 2.1 | 0.7 | 83.8 | 13.0 | 0.8 | 2.5 | 94.4 | 1.0 | 3.7 | 0.8 | 68.4 | 2.7 | 16.5 | 4.6 | 4.9 | 2.8 | **3,734** |
| bungalow | 89.7 | 7.9 | 2.3 | 80.4 | 8.5 | 2.2 | 8.8 | 87.2 | 1.3 | 10.2 | 1.3 | 42.7 | 13.4 | 25.8 | 1.8 | 5.3 | 10.9 | **1,987** |
| converted flat | 77.9 | 12.2 | 9.8 | 78.7 | 0.6 | 1.9 | 18.8 | 75.9 | 1.8 | 17.7 | 4.5 | 17.9 | 4.1 | 45.2 | 0.2 | 7.7 | 25.0 | **744** |
| pb flat, low rise | 70.9 | 23.8 | 5.2 | 70.6 | 0.0 | 0.3 | 29.1 | 66.7 | 1.2 | 29.2 | 2.8 | 22.0 | 6.4 | 28.7 | 0.9 | 5.8 | 36.1 | **2,762** |
| pb flat, high rise | 71.6 | 23.7 | 4.7 | 60.5 | 0.0 | 0.0 | 39.5 | 57.1 | 3.3 | 35.8 | 3.8 | 32.1 | 1.2 | 13.1 | 0.8 | 0.7 | 52.1 | **322** |

## Summary Statistics Table SS6.1: Heating and Insulation – heating and homes *(Cont.)*

*percentage of group*

| | heating | | | main fuel type | | | | water heating system | | | | type of boiler | | | | | | all dwellings in group (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | central | storage | room[1] | gas fired | oil fired | solid fuel | elec-trical | with central heating | dedi-cated boiler | electric immer-sion | instan-taneous | stand ard | back boiler | combi-nation | conden-sing | conden-sing-combi | no boiler | |
| all houses | 92.4 | 3.9 | 3.7 | 88.6 | 5.0 | 1.7 | 4.7 | 89.8 | 1.3 | 6.6 | 2.3 | 45.0 | 10.6 | 28.3 | 2.4 | 5.9 | 7.8 | **18,160** |
| all flats | 72.4 | 21.6 | 6.1 | 71.6 | 0.1 | 0.6 | 27.7 | 67.7 | 1.5 | 27.6 | 3.2 | 22.0 | 5.5 | 30.6 | 0.8 | 5.8 | 35.3 | **3,829** |
| **size** | | | | | | | | | | | | | | | | | | |
| less than 50m$^2$ | 69.9 | 22.7 | 7.4 | 68.9 | 0.3 | 1.1 | 29.7 | 65.6 | 1.5 | 29.4 | 3.6 | 21.2 | 8.0 | 25.8 | 0.6 | 6.0 | 38.4 | **2,462** |
| 50 to 69m$^2$ | 84.5 | 9.0 | 6.5 | 86.9 | 1.1 | 1.3 | 10.7 | 82.4 | 1.1 | 13.3 | 3.3 | 31.2 | 12.0 | 33.1 | 1.2 | 5.9 | 16.6 | **5,165** |
| 70 to 89m$^2$ | 91.6 | 4.4 | 4.0 | 90.4 | 1.9 | 2.2 | 5.4 | 88.4 | 1.6 | 7.5 | 2.5 | 37.6 | 14.0 | 31.6 | 1.8 | 5.8 | 9.1 | **6,535** |
| 90 to 109m$^2$ | 94.6 | 3.2 | 2.2 | 91.0 | 3.8 | 1.5 | 3.6 | 92.3 | 1.1 | 5.4 | 1.2 | 48.7 | 7.9 | 29.7 | 1.5 | 6.2 | 5.9 | **3,071** |
| 110m$^2$ or more | 96.2 | 2.7 | 1.1 | 83.1 | 12.9 | 0.9 | 3.1 | 93.0 | 1.3 | 4.1 | 1.6 | 61.5 | 3.3 | 20.7 | 4.6 | 5.7 | 4.1 | **4,756** |
| **all dwellings** | **88.9** | **7.0** | **4.1** | **85.9** | **4.2** | **1.5** | **8.4** | **86.0** | **1.3** | **10.3** | **2.4** | **41.0** | **9.7** | **28.7** | **2.1** | **5.9** | **12.6** | **21,989** |

**Base: all dwellings**

**Notes:**

1. Room heating includes fixed heaters/fires and non-fixed heaters

## Summary Statistics Table SS6.2: Heating and Insulation – heating and areas

*percentage of group*

| | heating | | | main fuel type | | | | water heating system | | | | type of boiler | | | | | | all dwellings in group (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | central | storage | room[1] | gas fired | oil fired | solid fuel | elec-trical | with central heating | dedi-cated boiler | electric immer-sion | instan-taneous | stan-dard | back boiler | combi-nation | conden-sing | conden-sing-combi | no boiler | |
| **type** | | | | | | | | | | | | | | | | | | |
| city centre | 77.2 | 15.1 | 7.6 | 78.5 | 0.3 | 0.1 | 21.1 | 74.2 | 1.9 | 19.9 | 3.9 | 29.8 | 5.1 | 31.7 | 0.7 | 5.8 | 26.9 | **660** |
| other urban centre | 85.7 | 8.1 | 6.2 | 89.5 | 0.0 | 0.5 | 9.9 | 82.8 | 1.3 | 11.8 | 4.2 | 30.3 | 7.3 | 38.0 | 1.3 | 5.8 | 17.4 | **4,206** |
| suburban | 90.9 | 5.4 | 3.7 | 92.3 | 0.4 | 0.8 | 6.5 | 88.0 | 1.1 | 8.8 | 2.1 | 41.8 | 10.6 | 28.5 | 2.3 | 6.4 | 10.3 | **12,859** |
| rural residential | 89.7 | 8.3 | 2.1 | 75.9 | 11.2 | 3.2 | 9.6 | 86.6 | 1.0 | 11.0 | 1.4 | 50.5 | 10.0 | 21.3 | 2.8 | 4.9 | 10.7 | **2,584** |
| village centre | 85.1 | 12.1 | 2.8 | 59.1 | 23.3 | 4.4 | 13.1 | 82.2 | 1.6 | 14.5 | 1.7 | 45.9 | 11.2 | 20.6 | 2.4 | 4.4 | 15.4 | **1,004** |
| rural | 84.8 | 10.3 | 5.0 | 27.5 | 50.2 | 10.6 | 11.6 | 82.0 | 4.9 | 11.2 | 1.9 | 60.1 | 8.6 | 11.7 | 1.0 | 2.9 | 15.7 | **676** |
| all city/urban centres | 84.6 | 9.0 | 6.4 | 88.1 | 0.1 | 0.4 | 11.4 | 81.6 | 1.4 | 12.9 | 4.1 | 30.2 | 7.0 | 37.1 | 1.2 | 5.8 | 18.7 | **4,866** |
| suburban | 90.9 | 5.4 | 3.7 | 92.3 | 0.4 | 0.8 | 6.5 | 88.0 | 1.1 | 8.8 | 2.1 | 41.8 | 10.6 | 28.5 | 2.3 | 6.4 | 10.3 | **12,859** |
| all rural areas | 87.8 | 9.5 | 2.7 | 64.3 | 20.2 | 4.7 | 10.7 | 84.8 | 1.8 | 11.8 | 1.6 | 50.9 | 10.0 | 19.6 | 2.4 | 4.5 | 12.6 | **4,263** |
| **deprived local areas** | | | | | | | | | | | | | | | | | | |
| most deprived 10% | 85.6 | 7.4 | 6.9 | 88.9 | 0.1 | 1.6 | 9.5 | 82.6 | 1.2 | 12.5 | 3.7 | 29.0 | 13.5 | 31.2 | 1.1 | 7.0 | 18.3 | **2,184** |
| 2nd | 88.0 | 6.4 | 5.6 | 90.4 | 0.3 | 1.1 | 8.1 | 84.9 | 1.2 | 10.5 | 3.4 | 30.5 | 13.9 | 33.7 | 1.3 | 5.9 | 14.8 | **2,174** |
| 3rd | 87.5 | 7.1 | 5.4 | 89.6 | 0.7 | 1.3 | 8.3 | 84.8 | 1.5 | 10.3 | 3.3 | 28.5 | 10.8 | 39.2 | 1.5 | 6.1 | 13.9 | **2,286** |
| 4th | 87.0 | 7.9 | 5.1 | 86.6 | 2.2 | 1.7 | 9.5 | 83.5 | 1.8 | 11.4 | 3.3 | 31.7 | 11.0 | 33.8 | 1.2 | 6.8 | 15.4 | **2,218** |
| 5th | 86.4 | 8.8 | 4.8 | 82.5 | 4.3 | 2.6 | 10.6 | 83.0 | 2.1 | 12.0 | 2.9 | 35.6 | 10.4 | 31.5 | 1.5 | 5.9 | 15.1 | **2,034** |
| 6th | 88.9 | 7.2 | 4.0 | 81.1 | 8.5 | 1.9 | 8.5 | 86.9 | 1.2 | 9.7 | 2.2 | 43.3 | 8.4 | 27.5 | 1.7 | 7.0 | 12.2 | **2,292** |
| 7th | 89.2 | 7.1 | 3.7 | 81.0 | 8.5 | 1.7 | 8.7 | 86.5 | 1.3 | 10.5 | 1.7 | 47.6 | 7.1 | 25.3 | 2.5 | 5.8 | 11.6 | **2,169** |
| 8th | 88.2 | 9.3 | 2.6 | 80.1 | 7.8 | 1.2 | 10.9 | 85.3 | 0.9 | 12.0 | 1.9 | 49.6 | 6.8 | 23.2 | 2.8 | 4.9 | 12.6 | **2,278** |
| 9th | 93.1 | 4.9 | 1.9 | 87.4 | 5.7 | 1.1 | 5.8 | 89.8 | 1.0 | 7.8 | 1.4 | 54.5 | 8.8 | 21.1 | 3.7 | 4.7 | 7.2 | **2,342** |
| least deprived 10% | 95.5 | 3.5 | 1.0 | 91.8 | 3.4 | 0.9 | 4.0 | 92.6 | 0.9 | 6.0 | 0.5 | 60.1 | 6.2 | 20.3 | 3.6 | 4.9 | 5.0 | **2,011** |

## Summary Statistics Table SS6.2: Heating and Insulation – heating and areas *(Cont.)*

*percentage of group*

| | heating | | | main fuel type | | | | water heating system | | | | type of boiler | | | | | | all dwellings in group (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | central | storage | room[1] | gas fired | oil fired | solid fuel | elec-trical | with central heating | dedi-cated boiler | electric immer-sion | instan-taneous | stan-dard | back boiler | combi-nation | conden-sing | conden-sing combi | no boiler | |
| **deprived districts** | | | | | | | | | | | | | | | | | | |
| deprived | 89.3 | 5.4 | 5.3 | 91.7 | 0.4 | 1.1 | 6.8 | 86.1 | 1.3 | 9.1 | 3.5 | 32.7 | 10.1 | 36.0 | 1.5 | 6.7 | 13.1 | **9,030** |
| other district | 88.7 | 8.1 | 3.3 | 81.9 | 6.8 | 1.8 | 9.5 | 85.9 | 1.3 | 11.1 | 1.7 | 46.8 | 9.4 | 23.6 | 2.5 | 5.4 | 12.3 | **12,959** |
| regional group | | | | | | | | | | | | | | | | | | |
| northern regions | 90.2 | 4.4 | 5.3 | 90.5 | 2.3 | 1.8 | 5.4 | 87.5 | 1.5 | 7.2 | 3.8 | 34.2 | 11.8 | 34.3 | 1.3 | 7.3 | 11.1 | **6,383** |
| south east regions | 89.4 | 7.2 | 3.4 | 87.8 | 2.6 | 0.6 | 9.0 | 85.8 | 1.2 | 10.7 | 2.2 | 46.4 | 6.3 | 27.3 | 2.7 | 4.3 | 13.0 | **6,728** |
| rest of England | 87.6 | 8.6 | 3.8 | 81.1 | 6.9 | 2.0 | 10.0 | 85.0 | 1.2 | 12.2 | 1.6 | 41.8 | 10.7 | 25.8 | 2.2 | 6.1 | 13.5 | **8,878** |
| **all dwellings** | **88.9** | **7.0** | **4.1** | **85.9** | **4.2** | **1.5** | **8.4** | **86.0** | **1.3** | **10.3** | **2.4** | **41.0** | **9.7** | **28.7** | **2.1** | **5.9** | **12.6** | **21,989** |

**Base: all dwellings**

**Notes:**

1. Room heating includes fixed heaters/fires and non-fixed heaters

## Summary Statistics Table SS6.3: Heating and Insulation – heating and households

*percentage of group*

| | heating | | | main fuel type | | | | water heating system | | | | type of boiler | | | | | | all dwellings in group (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | central | storage | room[1] | gas fired | oil fired | solid fuel | elec-trical | with central heating | dedi-cated boiler | electric immer-sion | instan-taneous | stan-dard | back boiler | combi-nation | conden-sing | conden-sing-combi | no boiler | |
| couple under 60 | 91.8 | 5.0 | 3.2 | 87.0 | 5.2 | 1.7 | 6.1 | 88.8 | 0.8 | 8.0 | 2.3 | 44.3 | 7.3 | 31.3 | 2.0 | 6.1 | 9.0 | **4,013** |
| couple 60 or over | 90.3 | 6.2 | 3.4 | 84.9 | 6.4 | 1.4 | 7.3 | 86.9 | 1.7 | 9.2 | 2.2 | 48.2 | 10.4 | 22.6 | 2.9 | 5.3 | 10.6 | **3,534** |
| couple with children | 95.4 | 2.7 | 2.0 | 90.6 | 5.5 | 0.7 | 3.2 | 93.1 | 0.7 | 4.5 | 1.7 | 46.4 | 7.9 | 32.2 | 2.7 | 5.8 | 5.0 | **5,136** |
| lone parent | 89.9 | 7.0 | 3.2 | 89.1 | 1.5 | 1.1 | 8.2 | 87.0 | 0.5 | 10.3 | 2.2 | 37.8 | 11.3 | 32.3 | 1.4 | 6.0 | 11.2 | **1,527** |
| multi-person h'hold | 90.2 | 5.6 | 4.2 | 90.1 | 2.2 | 1.3 | 6.3 | 87.6 | 1.3 | 9.1 | 2.0 | 38.6 | 10.8 | 31.5 | 2.5 | 5.9 | 10.7 | **1,467** |
| one person under 60 | 80.0 | 13.8 | 6.2 | 80.7 | 1.4 | 1.5 | 16.3 | 77.5 | 1.9 | 18.2 | 2.4 | 30.6 | 8.3 | 31.7 | 1.1 | 6.5 | 21.6 | **2,555** |
| one person 60 or over | 81.8 | 11.9 | 6.3 | 80.3 | 3.1 | 2.3 | 14.3 | 78.1 | 1.8 | 17.4 | 2.7 | 35.0 | 14.7 | 21.2 | 1.3 | 5.4 | 22.4 | **2,989** |
| **age of oldest** | | | | | | | | | | | | | | | | | | |
| under 60 years | 90.6 | 6.1 | 3.3 | 87.7 | 3.9 | 1.2 | 7.2 | 88.0 | 1.0 | 9.0 | 2.1 | 41.1 | 8.3 | 32.2 | 2.1 | 6.1 | 10.3 | **13,682** |
| all over 60 years | 87.1 | 8.3 | 4.6 | 83.5 | 5.0 | 1.8 | 9.7 | 83.7 | 1.7 | 12.2 | 2.4 | 42.6 | 12.2 | 22.5 | 2.2 | 5.3 | 15.1 | **7,538** |
| all over75 years | 82.3 | 12.0 | 5.7 | 80.3 | 3.5 | 2.3 | 13.9 | 78.9 | 1.9 | 16.5 | 2.7 | 39.4 | 14.7 | 18.9 | 1.8 | 4.6 | 20.6 | **2,824** |
| **age of youngest** | | | | | | | | | | | | | | | | | | |
| under 5 years | 93.0 | 4.7 | 2.3 | 90.4 | 3.6 | 0.6 | 5.3 | 90.8 | 0.5 | 7.4 | 1.3 | 39.3 | 8.4 | 35.5 | 2.4 | 6.8 | 7.6 | **2,641** |
| under 16 years | 94.1 | 3.8 | 2.2 | 90.3 | 4.6 | 0.7 | 4.3 | 91.8 | 0.5 | 5.9 | 1.7 | 43.6 | 8.8 | 32.7 | 2.3 | 6.0 | 6.5 | **6,310** |
| 16 years or more | 87.3 | 8.2 | 4.5 | 84.5 | 4.1 | 1.7 | 9.7 | 84.2 | 1.5 | 11.9 | 2.4 | 40.8 | 10.1 | 27.1 | 2.0 | 5.8 | 14.3 | **14,911** |
| **income groups** | | | | | | | | | | | | | | | | | | |
| 1st quintile (lowest) | 86.6 | 7.9 | 5.6 | 85.0 | 3.0 | 2.5 | 9.4 | 83.9 | 1.8 | 11.8 | 2.6 | 36.7 | 13.6 | 27.9 | 1.6 | 5.1 | 15.2 | **4,195** |
| 2nd quintile | 86.5 | 8.6 | 4.9 | 85.8 | 2.8 | 1.6 | 9.9 | 83.0 | 1.5 | 12.7 | 2.7 | 35.3 | 12.5 | 29.0 | 1.7 | 5.8 | 15.8 | **4,399** |
| 3rd quintile | 88.9 | 6.9 | 4.1 | 86.6 | 3.6 | 1.2 | 8.5 | 85.8 | 1.1 | 10.8 | 2.4 | 40.0 | 9.9 | 30.1 | 1.8 | 5.9 | 12.4 | **4,165** |
| 4th quintile | 91.4 | 5.8 | 2.8 | 87.1 | 4.9 | 1.1 | 6.9 | 89.0 | 0.9 | 8.5 | 1.6 | 45.0 | 7.7 | 29.2 | 2.0 | 6.6 | 9.4 | **4,128** |
| 5th quintile (highest) | 93.3 | 5.1 | 1.6 | 86.8 | 7.0 | 0.6 | 5.7 | 90.7 | 0.8 | 6.9 | 1.6 | 51.2 | 4.8 | 27.6 | 3.5 | 5.8 | 7.2 | **4,334** |
| **living in poverty** | | | | | | | | | | | | | | | | | | |
| in poverty | 86.3 | 7.8 | 5.9 | 85.3 | 2.9 | 2.4 | 9.4 | 83.5 | 1.8 | 11.9 | 2.8 | 35.4 | 13.3 | 28.3 | 1.7 | 5.6 | 15.6 | **3,433** |
| not in poverty | 89.9 | 6.7 | 3.4 | 86.4 | 4.5 | 1.2 | 7.8 | 87.0 | 1.1 | 9.8 | 2.1 | 42.8 | 9.0 | 28.9 | 2.2 | 5.9 | 11.3 | **17,788** |
| **workless households** | | | | | | | | | | | | | | | | | | |
| workless | 87.2 | 8.0 | 4.7 | 86.5 | 2.3 | 1.8 | 9.3 | 84.7 | 1.8 | 11.3 | 2.2 | 36.9 | 11.9 | 28.2 | 2.0 | 5.9 | 14.9 | **2,682** |
| not workless | 91.4 | 5.3 | 3.3 | 87.9 | 4.6 | 1.2 | 6.4 | 88.7 | 0.9 | 8.3 | 2.2 | 42.8 | 7.8 | 31.8 | 2.2 | 6.2 | 9.2 | **13,449** |

## Summary Statistics Table SS6.3: Heating & Insulation – heating and households *(Cont.)*

*percentage of group*

| | heating | | | main fuel type | | | | water heating system | | | | type of boiler | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | central | storage | room[1] | gas fired | oil fired | solid fuel | elec-trical | with central heating | dedi-cated boiler | electric immer-sion | instan-taneous | stan-dard | back boiler | combi-nation | conden-sing | conden-sing-combi | no boiler | all dwellings in group (000s) |
| **long term ill/ disability** | | | | | | | | | | | | | | | | | | |
| yes | 87.1 | 8.5 | 4.4 | 85.3 | 3.1 | 1.6 | 10.0 | 84.1 | 1.5 | 11.8 | 2.6 | 39.1 | 11.5 | 27.1 | 1.9 | 5.5 | 14.8 | **6,198** |
| no | 90.3 | 6.2 | 3.6 | 86.6 | 4.8 | 1.3 | 7.3 | 87.4 | 1.1 | 9.4 | 2.0 | 42.7 | 8.9 | 29.5 | 2.2 | 5.9 | 10.8 | **15,020** |
| **ethnicity of HRP** | | | | | | | | | | | | | | | | | | |
| white | 89.3 | 6.9 | 3.8 | 85.7 | 4.6 | 1.5 | 8.2 | 86.4 | 1.3 | 10.3 | 2.1 | 42.1 | 10.0 | 27.9 | 2.2 | 5.8 | 12.0 | **19,363** |
| black | 87.3 | 9.8 | 2.9 | 88.7 | 0.2 | 0.4 | 10.7 | 84.7 | 0.4 | 13.0 | 1.9 | 38.1 | 5.9 | 35.5 | 1.8 | 3.7 | 15.0 | **596** |
| Asian | 92.8 | 3.3 | 4.0 | 96.2 | 0.2 | 0.0 | 3.6 | 90.1 | 0.4 | 4.8 | 4.8 | 34.6 | 6.0 | 39.7 | 1.4 | 9.4 | 9.0 | **853** |
| other | 89.1 | 6.8 | 4.1 | 90.2 | 0.9 | 0.2 | 8.7 | 85.1 | 2.1 | 9.8 | 2.9 | 37.6 | 7.4 | 35.6 | 0.3 | 4.2 | 14.9 | **409** |
| all minority | 90.2 | 6.1 | 3.6 | 92.5 | 0.4 | 0.2 | 7.0 | 87.3 | 0.8 | 8.5 | 3.5 | 36.4 | 6.3 | 37.5 | 1.3 | 6.4 | 12.2 | **1,858** |
| **length of residence** | | | | | | | | | | | | | | | | | | |
| less than 1 year | 86.6 | 10.4 | 2.9 | 83.4 | 3.4 | 0.6 | 12.6 | 84.5 | 0.6 | 13.2 | 1.7 | 32.5 | 6.0 | 35.5 | 2.1 | 8.3 | 15.6 | **1,973** |
| 1-4 years | 90.6 | 7.1 | 2.3 | 87.1 | 4.2 | 0.4 | 8.2 | 88.5 | 0.8 | 9.4 | 1.4 | 37.0 | 7.1 | 35.4 | 2.2 | 7.1 | 11.1 | **4,484** |
| 5-9 years | 91.1 | 6.5 | 2.4 | 87.2 | 4.5 | 0.7 | 7.5 | 88.1 | 0.6 | 9.2 | 2.2 | 41.8 | 8.0 | 31.8 | 2.4 | 5.5 | 10.5 | **4,418** |
| 10-19 years | 89.2 | 7.6 | 3.2 | 85.7 | 4.5 | 1.2 | 8.6 | 86.0 | 1.1 | 10.7 | 2.1 | 45.4 | 9.3 | 26.6 | 1.7 | 4.8 | 12.2 | **4,304** |
| 20-29 years | 91.0 | 4.4 | 4.5 | 86.6 | 5.6 | 2.4 | 5.4 | 87.2 | 1.4 | 8.7 | 2.7 | 48.0 | 12.3 | 22.6 | 2.1 | 5.3 | 9.8 | **3,046** |
| 30 or more years | 85.2 | 6.1 | 8.8 | 85.7 | 2.9 | 3.6 | 7.8 | 82.2 | 3.1 | 11.4 | 3.4 | 42.3 | 16.3 | 19.3 | 2.1 | 4.8 | 15.2 | **2,994** |
| **all households** | **89.3** | **6.9** | **3.8** | **86.2** | **4.3** | **1.4** | **8.1** | **86.5** | **1.2** | **10.1** | **2.2** | **41.6** | **9.7** | **28.8** | **2.1** | **5.8** | **12.0** | **21,221** |

**Base: all households**

**Notes:**

1. Room heating includes fixed heaters/fires and non-fixed heaters

## Table SS6.4: Heating and Insulation – insulation and homes

*percentage of group*

| | wall type and insulation | | | loft present and insulation | | | | | | extent of double glazing | | | | all dwellings in group (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | cavity insulated | cavity uninsulated | non-cavity wall[1] | none in loft | less than 50mm | 50 to 99mm | 100 to 199mm | 200mm or more | no loft | none | less than half | more than half | all | |
| **tenure** | | | | | | | | | | | | | | |
| owner occupied | 30.1 | 39.6 | 30.3 | 3.8 | 3.3 | 21.7 | 50.4 | 15.9 | 4.8 | 9.5 | 7.7 | 19.0 | 63.8 | **15,442** |
| private rented | 14.6 | 35.9 | 49.5 | 6.2 | 2.7 | 26.7 | 33.7 | 8.5 | 22.3 | 28.2 | 10.0 | 13.0 | 48.8 | **2,611** |
| local authority | 40.0 | 33.7 | 26.3 | 2.0 | 1.5 | 9.3 | 37.9 | 20.2 | 29.1 | 21.6 | 5.8 | 6.6 | 66.0 | **2,086** |
| RSL | 42.1 | 39.9 | 17.9 | 1.2 | 0.9 | 9.1 | 42.3 | 22.5 | 24.0 | 15.4 | 3.5 | 4.5 | 76.6 | **1,850** |
| all private | 27.9 | 39.1 | 33.1 | 4.2 | 3.2 | 22.4 | 48.0 | 14.9 | 7.3 | 12.2 | 8.0 | 18.1 | 61.7 | **18,053** |
| all social | 41.0 | 36.6 | 22.4 | 1.6 | 1.2 | 9.2 | 39.9 | 21.3 | 26.7 | 18.7 | 4.7 | 5.6 | 71.0 | **3,936** |
| **vacant** | | | | | | | | | | | | | | |
| occupied | 30.6 | 38.7 | 30.7 | 3.6 | 2.9 | 20.0 | 46.9 | 16.3 | 10.2 | 12.9 | 7.4 | 16.0 | 63.7 | **21,055** |
| vacant | 21.0 | 37.1 | 41.8 | 6.3 | 2.6 | 20.8 | 38.0 | 9.0 | 23.4 | 23.9 | 8.0 | 14.1 | 54.0 | **934** |
| **dwelling age** | | | | | | | | | | | | | | |
| pre-1919 | 2.3 | 12.4 | 85.2 | 8.7 | 2.6 | 21.7 | 43.4 | 12.4 | 11.1 | 28.4 | 15.9 | 18.7 | 37.0 | **4,776** |
| 1919-44 | 20.2 | 37.9 | 41.8 | 5.2 | 3.3 | 22.9 | 47.7 | 15.7 | 5.1 | 9.9 | 8.5 | 26.8 | 54.8 | **4,002** |
| 1945-64 | 40.1 | 46.5 | 13.4 | 2.4 | 3.3 | 19.3 | 47.3 | 18.2 | 9.5 | 9.6 | 4.6 | 17.4 | 68.5 | **4,362** |
| 1965-80 | 37.8 | 54.0 | 8.3 | 1.4 | 4.3 | 24.2 | 43.3 | 12.4 | 14.4 | 9.0 | 5.1 | 12.3 | 73.7 | **4,838** |
| 1981-90 | 49.1 | 47.4 | 3.5 | 0.6 | 0.7 | 17.6 | 54.2 | 12.1 | 14.9 | 14.6 | 4.2 | 7.3 | 73.9 | **1,836** |
| post 1990 | 57.2 | 40.3 | 2.5 | 0.5 | 0.3 | 5.6 | 50.8 | 31.3 | 11.5 | 3.1 | 0.4 | 1.8 | 94.6 | **2,174** |
| **dwelling type** | | | | | | | | | | | | | | |
| end terrace | 27.5 | 35.7 | 36.8 | 4.6 | 2.7 | 24.8 | 50.5 | 17.4 | 0.0 | 14.0 | 8.8 | 16.3 | 60.9 | **2,149** |
| mid terrace | 17.1 | 31.0 | 51.9 | 6.3 | 3.4 | 23.8 | 50.8 | 15.7 | 0.0 | 14.3 | 10.0 | 16.8 | 58.8 | **4,253** |
| small terrace | 22.0 | 33.7 | 44.2 | 5.8 | 2.4 | 25.2 | 52.5 | 14.2 | 0.0 | 14.2 | 7.6 | 13.8 | 64.4 | **2,221** |
| medium/large terrace | 19.8 | 32.0 | 48.2 | 5.7 | 3.5 | 23.6 | 49.7 | 17.4 | 0.0 | 14.2 | 10.6 | 18.2 | 56.9 | **4,180** |
| all terrace | 20.6 | 32.6 | 46.8 | 5.7 | 3.1 | 24.2 | 50.7 | 16.3 | 0.0 | 14.2 | 9.6 | 16.7 | 59.5 | **6,401** |
| semi detached | 31.4 | 43.3 | 25.3 | 3.7 | 4.2 | 22.4 | 51.5 | 18.2 | 0.0 | 7.8 | 7.1 | 21.2 | 63.9 | **6,039** |
| detached | 41.3 | 40.0 | 18.6 | 2.8 | 3.2 | 20.5 | 55.3 | 18.3 | 0.0 | 9.6 | 8.5 | 17.5 | 64.4 | **3,734** |
| bungalow | 47.1 | 39.8 | 13.0 | 1.8 | 1.7 | 19.7 | 52.4 | 24.3 | 0.0 | 7.7 | 3.9 | 12.3 | 76.1 | **1,987** |
| converted flat | 2.4 | 15.4 | 82.2 | 5.8 | 0.9 | 14.5 | 14.1 | 4.2 | 60.4 | 43.8 | 13.9 | 12.0 | 30.2 | **744** |

## Summary Statistics Table SS6.4: Heating and Insulation – insulation and homes *(Cont.)*

*percentage of group*

| | wall type and insulation | | | loft present and insulation | | | | | | extent of double glazing | | | | all dwellings in group (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | cavity insulated | cavity uninsulated | non-cavity wall[1] | none in loft | less than 50mm | 50 to 99mm | 100 to 199mm | 200mm or more | no loft | none | less than half | more than half | all | |
| purpose built flat, low rise | 32.4 | 46.7 | 20.9 | 1.6 | 0.7 | 8.5 | 23.2 | 6.5 | 59.5 | 21.7 | 3.2 | 5.2 | 70.0 | **2,762** |
| purpose built flat, high rise | 10.9 | 33.4 | 55.7 | 0.0 | 0.0 | 4.6 | 10.2 | 0.0 | 85.3 | 37.0 | 2.2 | 4.0 | 56.8 | **322** |
| all houses | 31.4 | 38.5 | 30.2 | 4.0 | 3.3 | 22.3 | 52.1 | 18.2 | 0.0 | 10.4 | 7.9 | 17.9 | 63.8 | **18,160** |
| all flats | 24.7 | 39.5 | 35.8 | 2.3 | 0.7 | 9.3 | 20.4 | 5.5 | 61.8 | 27.2 | 5.2 | 6.4 | 61.1 | **3,829** |
| **size** | | | | | | | | | | | | | | |
| less than 50m$^2$ | 30.6 | 38.9 | 30.5 | 2.5 | 1.0 | 14.0 | 31.8 | 9.4 | 41.4 | 23.6 | 5.9 | 5.8 | 64.7 | **2,462** |
| 50 to 69m$^2$ | 28.6 | 39.4 | 32.0 | 3.6 | 2.1 | 18.6 | 43.5 | 15.5 | 16.7 | 14.8 | 5.5 | 12.4 | 67.3 | **5,165** |
| 70 to 89m$^2$ | 29.6 | 39.7 | 30.7 | 3.9 | 3.9 | 22.0 | 47.3 | 17.8 | 5.1 | 11.1 | 6.3 | 17.2 | 65.4 | **6,535** |
| 90 to 109m$^2$ | 31.5 | 38.5 | 30.0 | 3.9 | 3.1 | 23.8 | 51.5 | 15.4 | 2.3 | 9.3 | 8.3 | 21.2 | 61.3 | **3,071** |
| 110m$^2$ or more | 31.8 | 36.3 | 31.9 | 4.2 | 3.1 | 19.8 | 53.2 | 17.9 | 1.7 | 12.3 | 11.4 | 19.6 | 56.8 | **4,756** |
| **all dwellings** | 30.2 | 38.6 | 31.1 | 3.7 | 2.9 | 20.1 | 46.6 | 16.0 | 10.8 | 13.4 | 7.4 | 15.9 | 63.3 | **21,989** |

**Base: all dwellings**

**Notes:**

1. Non-cavity walls are predominantly brick and stone solid walls but also include a minority of homes with walls of timber, concrete and metal frames, or are of modular construction

## Summary Statistics Table SS6.5: Heating and Insulation – insulation and areas

*percentage of group*

| | wall type and insulation | | | loft present and insulation | | | | | | extent of double glazing | | | | all dwellings in group (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | cavity insulated | cavity uninsulated | non-cavity wall[1] | none in loft | less than 50mm | 50 to 99mm | 100 to 199mm | 200mm or more | no loft | none | less than half | more than half | all | |
| **type** | | | | | | | | | | | | | | |
| city centre | 16.7 | 21.4 | 61.9 | 5.4 | 1.3 | 17.3 | 30.9 | 9.4 | 35.6 | 32.4 | 10.6 | 8.9 | 48.0 | **660** |
| other urban centre | 15.5 | 30.9 | 53.6 | 5.4 | 2.1 | 18.0 | 41.0 | 12.0 | 21.4 | 20.5 | 9.2 | 16.3 | 54.1 | **4,206** |
| suburban | 34.6 | 42.8 | 22.6 | 3.0 | 3.3 | 20.2 | 47.9 | 17.2 | 8.5 | 9.7 | 6.5 | 16.5 | 67.3 | **12,859** |
| rural residential | 38.9 | 41.0 | 20.1 | 2.0 | 2.7 | 21.7 | 51.2 | 18.5 | 3.8 | 9.7 | 6.9 | 13.7 | 69.7 | **2,584** |
| village centre | 30.7 | 30.3 | 39.0 | 4.9 | 3.3 | 21.8 | 50.3 | 16.3 | 3.4 | 16.9 | 9.1 | 14.0 | 59.9 | **1,004** |
| rural | 18.6 | 27.5 | 53.9 | 10.5 | 2.1 | 23.8 | 47.8 | 14.8 | 1.0 | 28.4 | 11.6 | 18.7 | 41.2 | **676** |
| all city/urban centres | 15.7 | 29.6 | 54.8 | 5.4 | 2.0 | 17.9 | 39.7 | 11.7 | 23.4 | 22.1 | 9.4 | 15.3 | 53.3 | **4,866** |
| suburban | 34.6 | 42.8 | 22.6 | 3.0 | 3.3 | 20.2 | 47.9 | 17.2 | 8.5 | 9.7 | 6.5 | 16.5 | 67.3 | **12,859** |
| all rural areas | 33.8 | 36.4 | 29.9 | 4.0 | 2.7 | 22.0 | 50.5 | 17.4 | 3.3 | 14.4 | 8.1 | 14.6 | 62.9 | **4,263** |
| **deprived local areas** | | | | | | | | | | | | | | |
| most deprived 10% | 29.7 | 34.0 | 36.3 | 3.7 | 1.6 | 14.8 | 39.3 | 19.2 | 21.3 | 20.0 | 7.2 | 10.5 | 62.3 | **2,184** |
| 2nd | 30.9 | 34.0 | 35.1 | 4.0 | 2.3 | 16.8 | 41.4 | 17.6 | 17.9 | 16.2 | 6.0 | 12.2 | 65.6 | **2,174** |
| 3rd | 25.4 | 36.2 | 38.4 | 4.2 | 2.6 | 19.1 | 42.4 | 17.0 | 14.8 | 15.9 | 7.6 | 15.5 | 61.0 | **2,286** |
| 4th | 25.9 | 36.7 | 37.4 | 4.0 | 2.5 | 20.2 | 44.2 | 15.8 | 13.2 | 12.8 | 8.1 | 18.4 | 60.7 | **2,218** |
| 5th | 27.3 | 34.9 | 37.8 | 5.0 | 3.1 | 19.3 | 46.0 | 15.7 | 11.0 | 13.8 | 6.5 | 17.3 | 62.4 | **2,034** |
| 6th | 26.5 | 41.2 | 32.3 | 4.7 | 3.0 | 20.8 | 48.6 | 14.5 | 8.5 | 12.9 | 7.9 | 17.1 | 62.2 | **2,292** |
| 7th | 30.5 | 40.6 | 28.9 | 3.7 | 3.2 | 20.4 | 51.4 | 15.1 | 6.3 | 11.5 | 7.8 | 17.1 | 63.5 | **2,169** |
| 8th | 33.1 | 40.6 | 26.3 | 3.0 | 3.2 | 22.6 | 47.9 | 16.4 | 6.8 | 10.4 | 7.5 | 16.9 | 65.2 | **2,278** |
| 9th | 35.1 | 43.7 | 21.2 | 2.8 | 4.2 | 23.6 | 52.1 | 13.4 | 4.1 | 10.5 | 8.8 | 17.9 | 62.9 | **2,342** |
| least deprived 10% | 38.2 | 44.4 | 17.4 | 2.1 | 3.0 | 22.9 | 52.5 | 15.6 | 3.9 | 9.6 | 6.7 | 15.7 | 68.0 | **2,011** |

## Summary Statistics Table SS6.5: Heating and Insulation – insulation and areas *(Cont.)*

*percentage of group*

| | wall type and insulation | | | loft present and insulation | | | | | | extent of double glazing | | | | all dwellings in group (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | cavity insulated | cavity uninsulated | non-cavity wall[1] | none in loft | less than 50mm | 50 to 99mm | 100 to 199mm | 200mm or more | no loft | none | less than half | more than half | all | |
| **deprived districts** | | | | | | | | | | | | | | |
| deprived | 26.9 | 36.3 | 36.7 | 4.2 | 2.5 | 18.7 | 41.9 | 17.6 | 15.1 | 16.8 | 7.6 | 16.0 | 59.7 | **9,030** |
| other district | 32.5 | 40.2 | 27.2 | 3.4 | 3.1 | 21.0 | 49.8 | 14.9 | 7.7 | 11.0 | 7.3 | 15.8 | 65.9 | **12,959** |
| regional group | | | | | | | | | | | | | | |
| northern regions | 33.9 | 42.8 | 23.3 | 3.7 | 2.4 | 18.7 | 47.7 | 21.0 | 6.4 | 11.1 | 6.8 | 15.5 | 66.5 | **6,383** |
| south east regions | 23.6 | 36.2 | 40.2 | 4.2 | 2.0 | 19.7 | 44.7 | 10.3 | 19.0 | 18.3 | 8.1 | 15.0 | 58.5 | **6,728** |
| rest of England | 32.6 | 37.5 | 30.0 | 3.3 | 3.9 | 21.3 | 47.1 | 16.7 | 7.6 | 11.2 | 7.3 | 16.8 | 64.7 | **8,878** |
| all dwellings | **30.2** | **38.6** | **31.1** | **3.7** | **2.9** | **20.1** | **46.6** | **16.0** | **10.8** | **13.4** | **7.4** | **15.9** | **63.3** | **21,989** |

**Base: all dwellings**

**Notes:**

1. Non-cavity walls are predominantly brick and stone solid walls but also include a minority of homes with walls of timber, concrete and metal frames, or are of modular construction

## Summary Statistics Table SS6.6: Heating and Insulation – insulation and households

*percentage of group*

| | wall type and insulation | | | loft present and insulation | | | | | | extent of double glazing | | | | all house-holds in group (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | cavity insulated | cavity uninsulated | non-cavity wall[1] | none in loft | less than 50mm | 50 to 99mm | 100 to 199mm | 200mm or more | no loft | none | less than half | more than half | all | |
| **composition** | | | | | | | | | | | | | | |
| couple under 60 | 27.0 | 41.5 | 31.5 | 4.2 | 2.9 | 20.1 | 50.1 | 14.7 | 8.1 | 10.5 | 7.2 | 16.5 | 65.9 | **4,013** |
| couple 60 or over | 39.0 | 36.7 | 24.2 | 2.9 | 3.4 | 20.3 | 49.8 | 18.5 | 5.1 | 10.2 | 7.4 | 19.0 | 63.4 | **3,534** |
| couple with children | 29.0 | 39.5 | 31.5 | 3.7 | 2.8 | 21.8 | 50.6 | 17.1 | 4.0 | 8.9 | 7.2 | 17.6 | 66.3 | **5,136** |
| lone parent | 30.1 | 37.5 | 32.4 | 3.9 | 1.6 | 19.6 | 44.4 | 18.0 | 12.5 | 16.3 | 6.9 | 12.1 | 64.7 | **1,527** |
| multi-person household | 25.9 | 37.6 | 36.5 | 3.4 | 3.5 | 25.0 | 43.1 | 14.9 | 10.1 | 16.1 | 9.6 | 18.7 | 55.7 | **1,467** |
| one person under 60 | 24.4 | 38.5 | 37.1 | 4.0 | 2.9 | 18.0 | 39.7 | 10.2 | 25.2 | 21.1 | 8.1 | 10.4 | 60.4 | **2,555** |
| one person 60 or over | 35.5 | 37.4 | 27.2 | 3.1 | 2.6 | 16.0 | 41.1 | 19.1 | 18.1 | 16.9 | 6.7 | 14.0 | 62.5 | **2,989** |
| **age of oldest** | | | | | | | | | | | | | | |
| under 60 years | 27.3 | 39.6 | 33.1 | 3.8 | 2.8 | 20.7 | 47.3 | 14.8 | 10.6 | 13.1 | 7.4 | 15.3 | 64.2 | **13,682** |
| all over 60 years | 36.4 | 37.1 | 26.4 | 3.2 | 3.1 | 18.8 | 45.7 | 18.9 | 10.4 | 12.9 | 7.3 | 17.1 | 62.6 | **7,538** |
| all over 75 years | 37.4 | 37.6 | 25.1 | 3.4 | 3.2 | 16.1 | 44.7 | 19.8 | 12.8 | 14.2 | 7.7 | 17.5 | 60.6 | **2,824** |
| **age of youngest** | | | | | | | | | | | | | | |
| under 5 years | 25.6 | 39.8 | 34.6 | 3.8 | 2.7 | 21.6 | 48.3 | 15.5 | 8.2 | 12.0 | 7.4 | 15.5 | 65.1 | **2,641** |
| under 16 years | 29.3 | 38.9 | 31.8 | 3.7 | 2.7 | 21.2 | 49.0 | 17.4 | 6.1 | 10.4 | 7.0 | 16.7 | 65.9 | **6,310** |
| 16 years or more | 31.0 | 38.6 | 30.3 | 3.6 | 3.0 | 19.5 | 45.8 | 15.7 | 12.4 | 14.1 | 7.6 | 15.6 | 62.7 | **14,911** |
| **income groups** | | | | | | | | | | | | | | |
| 1st quintile (lowest) | 32.4 | 35.5 | 32.1 | 4.1 | 2.8 | 17.9 | 43.8 | 18.2 | 13.2 | 16.1 | 7.2 | 15.2 | 61.5 | **4,195** |
| 2nd quintile | 33.7 | 39.4 | 26.9 | 3.2 | 2.4 | 17.5 | 46.0 | 18.4 | 12.5 | 12.7 | 5.9 | 12.9 | 68.5 | **4,399** |
| 3rd quintile | 30.4 | 39.4 | 30.2 | 3.5 | 3.3 | 21.6 | 46.3 | 14.9 | 10.3 | 11.8 | 6.1 | 16.9 | 65.3 | **4,165** |
| 4th quintile | 30.3 | 38.7 | 30.9 | 3.8 | 3.2 | 22.6 | 47.2 | 15.1 | 8.1 | 11.5 | 7.8 | 17.6 | 63.1 | **4,128** |
| 5th quintile (highest) | 25.8 | 40.5 | 33.7 | 3.4 | 2.7 | 20.6 | 50.4 | 14.5 | 8.4 | 13.1 | 10.0 | 17.1 | 59.8 | **4,334** |
| **living in poverty** | | | | | | | | | | | | | | |
| in poverty | 31.6 | 35.4 | 33.1 | 4.4 | 2.9 | 18.2 | 44.1 | 17.4 | 12.9 | 16.2 | 7.0 | 15.9 | 61.0 | **3,433** |
| not in poverty | 30.3 | 39.4 | 30.3 | 3.5 | 2.9 | 20.3 | 47.3 | 16.0 | 10.1 | 12.4 | 7.5 | 15.9 | 64.2 | **17,788** |

## Summary Statistics Table SS6.6: Heating and Insulation – insulation and households *(Cont.)*

*percentage of group*

| | wall type and insulation | | | loft present and insulation | | | | | | extent of double glazing | | | | all house-holds in group (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | cavity insulated | cavity uninsulated | non-cavity wall[1] | none in loft | less than 50mm | 50 to 99mm | 100 to 199mm | 200mm or more | no loft | none | less than half | more than half | all | |
| **workless households** | | | | | | | | | | | | | | |
| workless | 32.5 | 36.9 | 30.6 | 3.5 | 2.2 | 16.3 | 40.3 | 18.9 | 18.8 | 18.6 | 6.7 | 10.4 | 64.3 | **2,682** |
| not workless | 27.3 | 39.7 | 33.0 | 3.8 | 2.9 | 21.7 | 48.8 | 14.6 | 8.1 | 11.7 | 7.8 | 16.8 | 63.7 | **13,449** |
| **long term ill/disability** | | | | | | | | | | | | | | |
| yes | 36.1 | 37.3 | 26.6 | 3.3 | 2.5 | 17.3 | 44.6 | 19.6 | 12.6 | 13.6 | 6.4 | 14.3 | 65.7 | **6,198** |
| no | 28.2 | 39.3 | 32.5 | 3.7 | 3.0 | 21.1 | 47.6 | 14.9 | 9.7 | 12.8 | 7.8 | 16.6 | 62.8 | **15,020** |
| **ethnicity of HRP** | | | | | | | | | | | | | | |
| white | 31.7 | 39.3 | 29.1 | 3.4 | 3.0 | 20.2 | 47.2 | 16.7 | 9.5 | 12.9 | 7.5 | 15.8 | 63.9 | **19,363** |
| black | 18.0 | 34.0 | 48.0 | 5.3 | 1.5 | 15.6 | 38.8 | 10.0 | 28.7 | 15.5 | 6.6 | 13.3 | 64.6 | **596** |
| Asian | 18.6 | 31.7 | 49.6 | 5.9 | 1.6 | 19.6 | 48.8 | 12.3 | 11.9 | 10.4 | 6.6 | 21.5 | 61.5 | **853** |
| other | 19.5 | 33.6 | 46.9 | 4.7 | 1.3 | 19.9 | 34.8 | 11.0 | 28.3 | 23.2 | 7.4 | 15.0 | 54.4 | **409** |
| all minority | 18.6 | 32.9 | 48.5 | 5.4 | 1.5 | 18.4 | 42.5 | 11.3 | 20.9 | 14.8 | 6.8 | 17.4 | 61.0 | **1,858** |
| **length of residence** | | | | | | | | | | | | | | |
| less than 1 year | 22.7 | 38.5 | 38.8 | 3.5 | 1.9 | 21.5 | 40.3 | 12.1 | 20.6 | 18.2 | 6.4 | 13.0 | 62.4 | **1,973** |
| 1-4 years | 28.0 | 39.7 | 32.2 | 3.5 | 2.3 | 18.9 | 43.6 | 17.4 | 14.3 | 13.7 | 7.5 | 13.2 | 65.6 | **4,484** |
| 5-9 years | 32.0 | 38.9 | 29.1 | 3.3 | 2.4 | 17.6 | 47.7 | 18.1 | 10.9 | 11.6 | 6.6 | 14.2 | 67.5 | **4,418** |
| 10-19 years | 33.9 | 38.1 | 28.0 | 3.1 | 2.1 | 19.2 | 50.7 | 14.7 | 10.2 | 11.9 | 7.6 | 14.9 | 65.5 | **4,304** |
| 20-29 years | 30.1 | 40.9 | 29.0 | 3.2 | 3.9 | 22.5 | 50.1 | 14.8 | 5.6 | 12.7 | 7.6 | 19.3 | 60.5 | **3,046** |
| 30 or more years | 32.8 | 35.7 | 31.5 | 5.4 | 5.1 | 22.8 | 45.3 | 18.2 | 3.2 | 12.7 | 8.6 | 22.4 | 56.3 | **2,994** |
| **all households** | 30.5 | 38.7 | 30.8 | 3.6 | 2.9 | 20.0 | 46.8 | 16.2 | 10.5 | 13.0 | 7.4 | 15.9 | 63.6 | **21,221** |

**Base: all households**

**Notes:**

1. Non-cavity walls are predominantly brick and stone solid walls but also include a minority of homes with walls of timber, concrete and metal frames, or are of modular construction

## Summary Statistics Table SS7.1: Energy Performance – homes[1]

*percentage/means of group*

| | energy efficiency rating (EER) band[2] (% of all in group) | | | | | | mean EER (SAP) rating | environmental impact rating (EIR) band(2) (% of all in group) | | | | | | mean EIR rating | mean energy use (kWh/m$^2$ per year) | mean energy cost (£ per year)[3] | mean $CO_2$ emissions (tonnes/ year) | number of dwellings (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A/B | C | D | E | F | G | | A/B | C | D | E | F | G | | | | | |
| **tenure** | | | | | | | | | | | | | | | | | | |
| owner occupied | 0.0 | 3.6 | 26.9 | 45.1 | 20.3 | 4.1 | 46.9 | 0.0 | 1.7 | 15.2 | 46.2 | 32.1 | 4.7 | 42.4 | 419 | 702 | 7.4 | **15,442** |
| private rented | 0.2 | 9.1 | 26.0 | 37.1 | 17.8 | 9.7 | 46.6 | 0.0 | 5.1 | 17.4 | 42.6 | 27.5 | 7.3 | 43.3 | 469 | 616 | 6.2 | **2,611** |
| local authority | 0.5 | 13.5 | 45.3 | 31.9 | 6.9 | 1.9 | 55.8 | 0.0 | 6.0 | 33.7 | 47.4 | 11.3 | 1.5 | 51.1 | 391 | 443 | 4.4 | **2,086** |
| RSL | 0.8 | 25.4 | 42.2 | 25.4 | 5.0 | 1.2 | 59.3 | 0.1 | 14.5 | 38.3 | 37.1 | 8.7 | 1.2 | 54.8 | 369 | 406 | 4.0 | **1,850** |
| all private | 0.1 | 4.4 | 26.7 | 44.0 | 20.0 | 4.9 | 46.8 | 0.0 | 2.2 | 15.5 | 45.7 | 31.4 | 5.1 | 42.5 | 427 | 689 | 7.2 | **18,053** |
| all social | 0.6 | 19.1 | 43.9 | 28.9 | 6.0 | 1.6 | 57.4 | 0.1 | 10.0 | 35.9 | 42.6 | 10.1 | 1.4 | 52.8 | 381 | 425 | 4.2 | **3,936** |
| **vacant** | | | | | | | | | | | | | | | | | | |
| occupied | 0.1 | 6.8 | 29.9 | 41.7 | 17.5 | 4.0 | 48.8 | 0.0 | 3.5 | 19.2 | 45.2 | 27.7 | 4.3 | 44.3 | 416 | 643 | 6.7 | **21,055** |
| vacant | 0.6 | 12.7 | 27.2 | 32.2 | 16.0 | 11.4 | 47.7 | 0.0 | 6.8 | 18.2 | 43.3 | 24.7 | 7.1 | 44.6 | 469 | 630 | 6.2 | **934** |
| **dwelling age** | | | | | | | | | | | | | | | | | | |
| pre-1919 | 0.0 | 0.3 | 12.9 | 45.5 | 30.3 | 10.9 | 39.5 | 0.0 | 0.2 | 4.6 | 39.9 | 43.1 | 12.3 | 35.4 | 506 | 848 | 9.0 | **4,776** |
| 1919-44 | 0.0 | 1.1 | 19.9 | 50.0 | 24.5 | 4.5 | 44.2 | 0.0 | 0.2 | 8.7 | 45.7 | 41.1 | 4.3 | 39.6 | 451 | 693 | 7.3 | **4,002** |
| 1945-64 | 0.1 | 2.9 | 30.8 | 46.5 | 17.1 | 2.5 | 48.4 | 0.0 | 0.9 | 15.4 | 53.5 | 27.4 | 2.8 | 43.7 | 417 | 607 | 6.3 | **4,362** |
| 1965-80 | 0.2 | 8.3 | 35.8 | 41.7 | 11.6 | 2.4 | 51.7 | 0.0 | 4.0 | 25.3 | 48.4 | 20.5 | 1.8 | 47.5 | 392 | 564 | 5.7 | **4,838** |
| 1981-90 | 0.5 | 13.6 | 44.5 | 36.4 | 4.3 | 0.7 | 56.4 | 0.2 | 6.4 | 29.5 | 54.9 | 8.8 | 0.3 | 51.7 | 367 | 507 | 5.1 | **1,836** |
| post 1990 | 0.7 | 32.3 | 57.4 | 8.3 | 1.2 | 0.1 | 64.7 | 0.1 | 19.8 | 55.9 | 23.6 | 0.7 | 0.0 | 60.7 | 271 | 455 | 4.5 | **2,174** |

## Summary Statistics Table SS7.1: Energy Performance – homes[1] *(Cont.)*

*percentage/means of group*

| | energy efficiency rating (EER) band[2] (% of all in group) | | | | | | mean EER (SAP) rating | environmental impact rating (EIR) band(2) (% of all in group) | | | | | | mean EIR rating | mean energy use (kWh/m² per year) | mean energy cost (£ per year)[3] | mean $CO_2$ emissions (tonnes/ year) | number of dwellings (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A/B | C | D | E | F | G | | A/B | C | D | E | F | G | | | | | |
| **dwelling type** | | | | | | | | | | | | | | | | | | |
| end terrace | 0.0 | 4.0 | 24.6 | 43.2 | 24.1 | 4.1 | 46.0 | 0.0 | 1.3 | 16.0 | 41.3 | 36.2 | 5.2 | 41.6 | 441 | 653 | 6.8 | **2,149** |
| mid terrace | 0.0 | 7.6 | 36.7 | 44.4 | 8.9 | 2.3 | 52.2 | 0.0 | 4.1 | 22.7 | 53.8 | 17.7 | 1.8 | 47.6 | 387 | 539 | 5.5 | **4,253** |
| small terrace | 0.0 | 8.3 | 35.8 | 41.9 | 11.3 | 2.7 | 51.8 | 0.0 | 4.4 | 24.1 | 51.0 | 18.7 | 1.7 | 47.7 | 428 | 461 | 4.6 | **2,221** |
| medium/large terrace | 0.0 | 5.4 | 31.0 | 45.1 | 15.4 | 3.1 | 49.2 | 0.0 | 2.5 | 18.5 | 48.9 | 26.6 | 3.5 | 44.4 | 392 | 638 | 6.7 | **4,180** |
| all terrace | 0.0 | 6.4 | 32.6 | 44.0 | 14.0 | 2.9 | 50.1 | 0.0 | 3.1 | 20.4 | 49.6 | 23.9 | 2.9 | 45.6 | 405 | 577 | 5.9 | **6,401** |
| semi detached | 0.0 | 2.0 | 23.9 | 48.7 | 21.2 | 4.2 | 45.7 | 0.0 | 0.6 | 12.1 | 46.8 | 35.8 | 4.7 | 40.9 | 433 | 674 | 7.1 | **6,039** |
| detached | 0.0 | 1.8 | 28.3 | 37.5 | 26.2 | 6.2 | 44.7 | 0.1 | 0.4 | 15.3 | 40.1 | 35.2 | 8.9 | 39.9 | 395 | 956 | 10.3 | **3,734** |
| bungalow | 0.0 | 2.0 | 22.9 | 47.0 | 22.2 | 5.9 | 44.9 | 0.0 | 0.5 | 10.6 | 49.5 | 33.3 | 6.1 | 40.5 | 479 | 609 | 6.3 | **1,987** |
| converted flat | 0.0 | 0.8 | 20.3 | 54.6 | 12.4 | 12.0 | 43.0 | 0.0 | 0.4 | 7.6 | 52.5 | 33.3 | 6.2 | 40.0 | 564 | 586 | 5.8 | **744** |
| purpose built flat, low rise | 1.1 | 30.0 | 43.7 | 18.4 | 4.7 | 2.1 | 60.6 | 0.1 | 17.9 | 42.6 | 34.5 | 4.7 | 0.2 | 57.5 | 372 | 364 | 3.4 | **2,762** |
| purpose built flat, high rise | 1.3 | 23.1 | 46.5 | 20.0 | 7.0 | 2.0 | 59.1 | 0.0 | 11.6 | 49.4 | 32.7 | 6.2 | 0.0 | 56.5 | 367 | 412 | 3.6 | **322** |
| all houses | 0.0 | 3.5 | 27.8 | 44.6 | 19.8 | 4.3 | 46.9 | 0.0 | 1.5 | 15.5 | 46.7 | 31.2 | 5.1 | 42.3 | 420 | 691 | 7.3 | **18,160** |
| all flats | 0.9 | 23.7 | 39.4 | 25.5 | 6.4 | 4.0 | 57.1 | 0.1 | 13.9 | 36.4 | 37.8 | 10.4 | 1.4 | 54.0 | 409 | 411 | 3.8 | **3,829** |
| **size** | | | | | | | | | | | | | | | | | | |
| less than 50m² | 0.9 | 22.2 | 37.8 | 26.2 | 7.9 | 4.9 | 55.8 | 0.0 | 12.0 | 34.3 | 40.8 | 10.9 | 1.9 | 52.8 | 471 | 355 | 3.3 | **2,462** |
| 50 to 69m² | 0.2 | 9.6 | 35.5 | 39.5 | 11.5 | 3.7 | 51.6 | 0.0 | 5.0 | 24.2 | 48.2 | 19.7 | 2.8 | 47.5 | 428 | 473 | 4.7 | **5,165** |
| 70 to 89m² | 0.0 | 4.4 | 29.1 | 47.2 | 15.3 | 4.1 | 48.2 | 0.0 | 2.2 | 16.4 | 49.8 | 27.3 | 4.3 | 43.5 | 417 | 586 | 6.1 | **6,535** |
| 90 to 109m² | 0.0 | 3.3 | 25.4 | 45.2 | 22.6 | 3.6 | 46.3 | 0.0 | 1.6 | 13.2 | 44.3 | 36.6 | 4.3 | 41.6 | 404 | 695 | 7.3 | **3,071** |
| 110m² or more | 0.0 | 2.5 | 23.3 | 40.3 | 28.6 | 5.3 | 44.2 | 0.0 | 1.1 | 13.4 | 38.2 | 39.4 | 7.8 | 39.5 | 391 | 1018 | 10.9 | **4,756** |
| **all dwellings** | **0.2** | **7.0** | **29.8** | **41.3** | **17.5** | **4.3** | **48.7** | **0.0** | **3.6** | **19.2** | **45.2** | **27.6** | **4.4** | **44.4** | **418** | **642** | **6.7** | **21,989** |

**Base: all dwellings**

**Notes:**

1. Energy performance statistics are based on standard occupation and heating patterns and therefore do not measure actual costs and consumption by households.
2. EER and EIR bands A and B are grouped. There are currently insufficient numbers of Band A properties existing for which meaningful estimates can be made through a sample survey.
3. Energy costs are at constant 2005 prices.

## Summary Statistics Table SS7.2: Energy Performance – areas[1]

*percentage/means of group*

| | energy efficiency rating (EER) band[2] (% of all in group) | | | | | | mean EER (SAP) rating | environmental impact rating (EIR) band[2] (% of all in group) | | | | | | mean EIR rating | mean energy use (kWh/m² per year) | mean energy cost (£ per year)[3] | mean $CO_2$ emissions (tonnes /year) | number of dwellings (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A/B | C | D | E | F | G | | A/B | C | D | E | F | G | | | | | |
| **area type:** | | | | | | | | | | | | | | | | | | |
| city centre | 0.4 | 12.2 | 31.5 | 34.4 | 16.3 | 5.2 | 50.4 | 0.0 | 7.1 | 23.8 | 39.7 | 26.3 | 3.2 | 46.6 | 451 | 567 | 5.6 | **660** |
| other urban centre | 0.4 | 9.6 | 27.3 | 43.8 | 15.8 | 3.1 | 49.9 | 0.0 | 5.0 | 19.0 | 47.0 | 26.8 | 2.2 | 45.7 | 428 | 576 | 5.9 | **4,206** |
| suburban residential | 0.1 | 7.2 | 33.1 | 42.3 | 15.1 | 2.2 | 50.4 | 0.0 | 3.6 | 21.3 | 47.9 | 25.1 | 2.1 | 45.9 | 404 | 595 | 6.1 | **12,859** |
| rural residential | 0.1 | 4.1 | 28.0 | 40.5 | 20.6 | 6.7 | 46.0 | 0.0 | 1.9 | 15.5 | 41.9 | 33.1 | 7.6 | 41.4 | 421 | 741 | 7.9 | **2,584** |
| village centre | 0.0 | 2.6 | 18.2 | 36.8 | 31.3 | 11.2 | 40.8 | 0.1 | 1.7 | 10.2 | 33.4 | 39.6 | 15.0 | 36.7 | 460 | 870 | 9.3 | **1,004** |
| rural | 0.0 | 1.1 | 5.4 | 21.9 | 41.5 | 30.1 | 29.4 | 0.3 | 2.1 | 2.3 | 15.9 | 42.1 | 37.2 | 26.4 | 533 | 1,304 | 14.2 | **676** |
| all city and urban centres | 0.4 | 9.9 | 27.8 | 42.5 | 15.9 | 3.4 | 50.0 | 0.0 | 5.3 | 19.7 | 46.0 | 26.7 | 2.3 | 45.8 | 431 | 574 | 5.8 | **4,866** |
| suburban residential | 0.1 | 7.2 | 33.1 | 42.3 | 15.1 | 2.2 | 50.4 | 0.0 | 3.6 | 21.3 | 47.9 | 25.1 | 2.1 | 45.9 | 404 | 595 | 6.1 | **12,859** |
| all rural | 0.0 | 3.3 | 22.1 | 36.7 | 26.4 | 11.5 | 42.1 | 0.1 | 1.9 | 12.2 | 35.8 | 36.0 | 14.0 | 37.9 | 448 | 860 | 9.2 | **4,263** |
| **deprived local areas** | | | | | | | | | | | | | | | | | | |
| 10% most deprived | 0.5 | 12.3 | 37.7 | 35.8 | 10.9 | 2.7 | 53.1 | 0.0 | 6.3 | 27.4 | 45.6 | 18.2 | 2.5 | 48.8 | 404 | 509 | 5.1 | **2,184** |
| 2nd | 0.3 | 12.0 | 34.1 | 39.6 | 11.2 | 2.9 | 52.5 | 0.0 | 5.6 | 24.7 | 49.7 | 18.1 | 1.8 | 48.3 | 401 | 518 | 5.2 | **2,174** |
| 3rd | 0.1 | 7.7 | 34.0 | 41.0 | 13.5 | 3.7 | 50.4 | 0.1 | 3.7 | 22.1 | 47.9 | 23.7 | 2.6 | 46.1 | 416 | 561 | 5.7 | **2,286** |
| 4th | 0.1 | 6.4 | 30.6 | 41.6 | 17.0 | 4.2 | 48.7 | 0.0 | 3.2 | 17.7 | 46.9 | 27.9 | 4.3 | 44.2 | 427 | 601 | 6.2 | **2,218** |
| 5th | 0.1 | 6.4 | 26.7 | 42.2 | 18.8 | 5.9 | 47.1 | 0.0 | 3.3 | 15.9 | 46.3 | 29.2 | 5.3 | 43.1 | 446 | 655 | 6.7 | **2,034** |
| 6th | 0.1 | 5.9 | 27.4 | 40.2 | 20.4 | 6.0 | 46.8 | 0.2 | 3.1 | 17.8 | 40.1 | 31.9 | 6.9 | 42.5 | 428 | 691 | 7.3 | **2,292** |
| 7th | 0.1 | 5.6 | 27.1 | 40.2 | 21.3 | 5.7 | 46.6 | 0.0 | 2.9 | 17.0 | 42.0 | 31.6 | 6.5 | 42.3 | 438 | 710 | 7.5 | **2,169** |
| 8th | 0.1 | 5.4 | 27.0 | 39.9 | 22.0 | 5.6 | 46.9 | 0.0 | 3.1 | 17.4 | 41.9 | 31.2 | 6.4 | 42.5 | 418 | 732 | 7.7 | **2,278** |
| 9th | 0.0 | 4.4 | 25.0 | 46.5 | 20.7 | 3.4 | 47.0 | 0.0 | 2.4 | 15.6 | 43.6 | 34.4 | 4.1 | 42.4 | 408 | 713 | 7.6 | **2,342** |
| 10% least deprived | 0.1 | 4.1 | 28.7 | 45.8 | 18.6 | 2.7 | 48.2 | 0.0 | 2.6 | 15.8 | 48.2 | 29.4 | 3.9 | 43.3 | 398 | 734 | 7.8 | **2,011** |
| **deprived districts** | | | | | | | | | | | | | | | | | | |
| deprived | 0.1 | 6.2 | 28.5 | 40.5 | 19.4 | 5.3 | 47.6 | 0.0 | 3.4 | 17.9 | 43.3 | 29.4 | 6.0 | 43.2 | 423 | 684 | 7.2 | **12,959** |
| other districts | 0.2 | 8.2 | 31.7 | 42.4 | 14.7 | 2.8 | 50.4 | 0.0 | 3.9 | 20.9 | 47.8 | 25.1 | 2.3 | 46.0 | 411 | 582 | 6.0 | **9,030** |

## Summary Statistics Table SS7.2: Energy Performance – areas[1] *(Cont.)*

*percentage/means of group*

| | energy efficiency rating (EER) band[2] (% of all in group) | | | | | | mean EER (SAP) rating | environmental impact rating (EIR) band[2] (% of all in group) | | | | | | mean EIR rating | mean energy use (kWh/m² per year) | mean energy cost (£ per year)[3] | mean $CO_2$ emissions (tonnes /year) | number of dwellings (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A/B | C | D | E | F | G | | A/B | C | D | E | F | G | | | | | |
| **regional groups:** | | | | | | | | | | | | | | | | | | |
| northern regions | 0.2 | 5.8 | 32.7 | 41.7 | 16.3 | 3.4 | 49.4 | 0.0 | 3.0 | 19.9 | 48.0 | 25.2 | 3.8 | 45.0 | 409 | 622 | 6.4 | **6,383** |
| south east regions | 0.2 | 9.5 | 30.7 | 40.3 | 15.5 | 3.7 | 50.1 | 0.0 | 5.1 | 21.1 | 44.7 | 26.2 | 2.9 | 45.9 | 413 | 620 | 6.4 | **6,728** |
| rest of England | 0.1 | 6.0 | 27.0 | 41.7 | 19.8 | 5.4 | 47.1 | 0.0 | 2.9 | 17.2 | 43.4 | 30.4 | 6.1 | 42.8 | 429 | 673 | 7.1 | **8,878** |
| **all homes** | **0.2** | **7.0** | **29.8** | **41.3** | **17.5** | **4.3** | **48.7** | **0.0** | **3.6** | **19.2** | **45.2** | **27.6** | **4.4** | **44.4** | **418** | **642** | **6.7** | **21,989** |

**Base: all dwellings**

**Notes:**

1. Energy performance statistics are based on standard occupation and heating patterns and therefore do not measure actual costs and consumption by households.
2. EER and EIR bands A and B are grouped. There are currently insufficient numbers of Band A properties existing for which meaningful estimates can be made through a sample survey.
3. Energy costs are at constant 2005 prices.

## Summary Statistics Table SS7.3: Energy Performance – households[1]

*percentage/means of group*

| | energy efficiency rating (EER) band[2] (% of all in group) | | | | | | mean EER (SAP) rating | environmental impact rating (EIR) band[2] (% of all in group) | | | | | | mean EIR rating | mean energy use (kWh/m² per year) | mean energy cost (£ per year)[3] | mean $CO_2$ emissions (tonnes/ year) | number of house holds (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A/B | C | D | E | F | G | | A/B | C | D | E | F | G | | | | | |
| **composition** | | | | | | | | | | | | | | | | | | |
| couple under 60 | 0.0 | 4.8 | 26.2 | 46.0 | 18.9 | 4.1 | 47.4 | 0.1 | 2.6 | 16.6 | 44.7 | 31.2 | 4.7 | 43.0 | 419 | 677 | 7.1 | 4,013 |
| couple 60 or over | 0.2 | 3.5 | 25.3 | 45.2 | 21.2 | 4.7 | 46.3 | 0.0 | 2.1 | 13.5 | 47.0 | 31.9 | 5.4 | 41.9 | 425 | 720 | 7.6 | 3,534 |
| couple with children | 0.0 | 4.8 | 32.8 | 42.4 | 17.3 | 2.6 | 49.2 | 0.0 | 2.1 | 19.0 | 47.7 | 27.7 | 3.5 | 44.3 | 389 | 695 | 7.3 | 5,136 |
| lone parent | 0.0 | 11.5 | 36.0 | 38.6 | 11.0 | 2.9 | 52.2 | 0.0 | 5.4 | 26.4 | 44.0 | 21.7 | 2.5 | 47.8 | 390 | 547 | 5.6 | 1,527 |
| multi-person h'hold | 0.1 | 7.4 | 28.4 | 43.0 | 17.0 | 4.0 | 48.7 | 0.0 | 3.9 | 18.5 | 45.7 | 27.8 | 4.2 | 44.3 | 416 | 635 | 6.6 | 1,467 |
| one person under 60 | 0.3 | 12.3 | 32.3 | 35.6 | 15.1 | 4.3 | 51.0 | 0.1 | 6.7 | 25.1 | 42.0 | 22.3 | 3.9 | 47.2 | 438 | 517 | 5.2 | 2,555 |
| one person 60 or over | 0.4 | 9.7 | 31.2 | 35.9 | 17.1 | 5.8 | 49.3 | 0.0 | 5.0 | 21.8 | 42.5 | 25.3 | 5.3 | 45.3 | 444 | 568 | 5.8 | 2,989 |
| **age of oldest** | | | | | | | | | | | | | | | | | | |
| under 60 years | 0.1 | 7.2 | 31.2 | 42.0 | 16.2 | 3.3 | 49.5 | 0.0 | 3.7 | 20.4 | 45.6 | 26.6 | 3.7 | 45.0 | 407 | 630 | 6.5 | 13,682 |
| all over 60 years | 0.2 | 6.3 | 27.6 | 40.8 | 19.8 | 5.2 | 47.5 | 0.0 | 3.3 | 17.2 | 44.6 | 29.6 | 5.4 | 43.2 | 434 | 662 | 6.9 | 7,538 |
| all over 75 years | 0.4 | 7.2 | 27.3 | 38.8 | 20.1 | 6.2 | 47.3 | 0.0 | 3.8 | 17.5 | 43.2 | 29.1 | 6.3 | 43.2 | 448 | 643 | 6.7 | 2,824 |
| **age of youngest** | | | | | | | | | | | | | | | | | | |
| under 5 years | 0.1 | 6.9 | 33.2 | 40.8 | 16.3 | 2.7 | 50.1 | 0.0 | 3.3 | 21.3 | 46.7 | 25.8 | 3.0 | 45.3 | 397 | 627 | 6.5 | 2,641 |
| under 16 years | 0.0 | 6.3 | 33.8 | 41.4 | 15.8 | 2.6 | 50.0 | 0.0 | 2.9 | 21.2 | 46.9 | 25.9 | 3.2 | 45.2 | 389 | 653 | 6.8 | 6,310 |
| 16 years or more | 0.2 | 7.1 | 28.3 | 41.7 | 18.2 | 4.6 | 48.3 | 0.0 | 3.8 | 18.5 | 44.5 | 28.4 | 4.8 | 44.0 | 428 | 637 | 6.6 | 14,911 |
| **income groups** | | | | | | | | | | | | | | | | | | |
| 1st quintile (lowest) | 0.1 | 8.3 | 32.4 | 39.2 | 15.4 | 4.5 | 49.6 | 0.0 | 3.6 | 21.1 | 47.2 | 23.3 | 4.7 | 45.3 | 422 | 581 | 6.0 | 4,195 |
| 2nd quintile | 0.3 | 8.9 | 32.0 | 40.2 | 14.1 | 4.4 | 50.2 | 0.0 | 4.9 | 21.7 | 46.4 | 23.4 | 3.5 | 46.1 | 416 | 569 | 5.8 | 4,399 |
| 3rd quintile | 0.2 | 6.3 | 30.1 | 42.8 | 17.0 | 3.7 | 49.0 | 0.1 | 3.4 | 18.5 | 47.2 | 27.4 | 3.6 | 44.6 | 419 | 614 | 6.3 | 4,165 |
| 4th quintile | 0.1 | 5.0 | 29.1 | 43.3 | 18.6 | 3.9 | 47.9 | 0.0 | 2.5 | 18.0 | 44.9 | 29.4 | 5.2 | 43.3 | 419 | 672 | 7.0 | 4,128 |
| 5th quintile (highest) | 0.0 | 5.7 | 26.2 | 42.4 | 22.3 | 3.4 | 47.3 | 0.0 | 3.2 | 17.0 | 40.5 | 34.7 | 4.6 | 42.6 | 405 | 771 | 8.2 | 4,334 |
| **living in poverty** | | | | | | | | | | | | | | | | | | |
| in poverty | 0.2 | 8.2 | 32.5 | 39.0 | 15.6 | 4.6 | 49.6 | 0.0 | 3.5 | 21.4 | 46.9 | 23.6 | 4.5 | 45.3 | 422 | 583 | 6.0 | 3,433 |
| not in poverty | 0.1 | 6.6 | 29.5 | 42.1 | 17.8 | 3.9 | 48.6 | 0.0 | 3.5 | 18.9 | 44.9 | 28.4 | 4.3 | 44.2 | 415 | 653 | 6.8 | 17,788 |
| **workless households** | | | | | | | | | | | | | | | | | | |
| workless | 0.2 | 12.4 | 33.7 | 37.0 | 13.1 | 3.6 | 51.7 | 0.0 | 6.4 | 23.7 | 45.8 | 20.9 | 3.2 | 47.4 | 405 | 561 | 5.7 | 2,682 |
| not workless | 0.1 | 5.7 | 29.9 | 43.1 | 17.7 | 3.5 | 48.6 | 0.0 | 2.9 | 18.8 | 45.6 | 28.7 | 4.0 | 44.1 | 410 | 661 | 6.9 | 13,449 |

## Summary Statistics Table SS7.3: Energy Performance – households[1] *(Cont.)*

*percentage/means of group*

| | energy efficiency rating (EER) band[2] (% of all in group) | | | | | | mean EER (SAP) rating | environmental impact rating (EIR) band[2] (% of all in group) | | | | | | mean EIR rating | mean energy use (kWh/m² per year) | mean energy cost (£ per year)[3] | mean $CO_2$ emissions (tonnes/ year) | number of house holds (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A/B | C | D | E | F | G | | A/B | C | D | E | F | G | | | | | |
| **long term ill/ disability** | | | | | | | | | | | | | | | | | | |
| yes | 0.3 | 8.0 | 31.6 | 39.5 | 16.4 | 4.2 | 49.5 | 0.0 | 4.1 | 20.4 | 47.0 | 24.1 | 4.4 | 45.2 | 420 | 605 | 6.2 | 6,198 |
| no | 0.1 | 6.4 | 29.3 | 42.4 | 17.9 | 3.9 | 48.5 | 0.0 | 3.3 | 18.8 | 44.5 | 29.1 | 4.3 | 44.0 | 415 | 657 | 6.8 | 15,020 |
| **ethnicity of HRP** | | | | | | | | | | | | | | | | | | |
| white | 0.1 | 6.3 | 29.7 | 41.4 | 18.1 | 4.2 | 48.4 | 0.0 | 3.3 | 18.8 | 44.7 | 28.4 | 4.7 | 44.0 | 419 | 651 | 6.8 | 19,363 |
| black | 0.3 | 16.3 | 35.5 | 38.4 | 8.5 | 1.0 | 54.7 | 0.0 | 7.9 | 29.7 | 46.5 | 15.2 | 0.8 | 50.6 | 383 | 485 | 4.9 | 596 |
| Asian | 0.0 | 9.5 | 31.6 | 46.2 | 11.3 | 1.4 | 51.8 | 0.0 | 3.4 | 20.6 | 53.5 | 21.5 | 1.0 | 46.9 | 390 | 576 | 5.9 | 853 |
| other | 0.4 | 13.1 | 29.1 | 43.5 | 11.8 | 2.1 | 52.4 | 0.0 | 6.4 | 22.2 | 47.7 | 23.6 | 0.2 | 48.0 | 402 | 535 | 5.4 | 409 |
| all minority | 0.2 | 12.5 | 32.3 | 43.1 | 10.5 | 1.4 | 52.8 | 0.0 | 5.5 | 23.8 | 50.0 | 19.9 | 0.7 | 48.3 | 390 | 538 | 5.5 | 1,858 |
| **length of residence** | | | | | | | | | | | | | | | | | | |
| less than 1 year | 0.3 | 12.2 | 31.7 | 36.8 | 16.1 | 2.9 | 51.1 | 0.0 | 6.4 | 23.9 | 42.6 | 24.0 | 3.1 | 46.9 | 418 | 559 | 5.7 | 1,973 |
| 1-4 years | 0.2 | 10.2 | 33.7 | 39.5 | 13.8 | 2.5 | 51.6 | 0.0 | 5.6 | 24.3 | 43.6 | 23.7 | 2.8 | 47.1 | 397 | 588 | 6.0 | 4,484 |
| 5-9 years | 0.1 | 8.1 | 35.5 | 37.6 | 15.5 | 3.3 | 50.7 | 0.0 | 4.1 | 23.9 | 45.3 | 23.3 | 3.4 | 46.3 | 397 | 623 | 6.4 | 4,418 |
| 10-19 years | 0.2 | 6.2 | 30.8 | 42.0 | 17.2 | 3.5 | 48.9 | 0.0 | 3.1 | 18.9 | 46.2 | 28.1 | 3.7 | 44.3 | 415 | 651 | 6.8 | 4,304 |
| 20-29 years | 0.0 | 2.9 | 21.9 | 48.5 | 22.0 | 4.8 | 45.4 | 0.1 | 1.5 | 10.9 | 47.6 | 33.8 | 6.1 | 40.9 | 432 | 710 | 7.5 | 3,046 |
| 30 or more years | 0.0 | 1.5 | 22.1 | 45.9 | 22.6 | 7.8 | 43.5 | 0.0 | 0.4 | 11.0 | 45.3 | 35.6 | 7.8 | 39.5 | 457 | 720 | 7.5 | 2,994 |
| **all households** | 0.1 | 6.9 | 30.0 | 41.6 | 17.5 | 4.0 | 48.8 | 0.0 | 3.5 | 19.3 | 45.2 | 27.7 | 4.3 | 44.4 | 416 | 642 | 6.7 | 21,221 |

**Base: all households**

**Notes:**

1. Energy performance statistics are based on standard occupation and heating patterns and therefore do not measure actual costs and consumption by households.
2. EER and EIR bands A and B are grouped. There are currently insufficient numbers of Band A properties existing for which meaningful estimates can be made through a sample survey.
3. Energy costs are at constant 2005 prices.

## Summary Statistics Table 7.4: Energy Performance – heating and insulation characteristics of homes[1]

*percentage/means of group*

| | energy efficiency rating (EER) band[2] (% of all in group) | | | | | | mean EER (SAP) rating | environmental impact rating (EIR) band[2] (% of all in group) | | | | | | mean EIR rating | mean energy use (kWh /m$^2$ per year) | mean energy cost (£ per year)[3] | mean $CO_2$ emissions (tonnes /year) | number of dwellings (000s) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A/B | C | D | E | F | G | | A/B | C | D | E | F | G | | | | | |
| **heating type:** | | | | | | | | | | | | | | | | | | |
| central heating | 0.2 | 7.3 | 31.4 | 43.2 | 15.9 | 2.1 | 50.2 | 0.0 | 3.9 | 19.6 | 46.6 | 26.8 | 3.0 | 45.2 | 395 | 631 | 6.6 | **19,553** |
| storage heaters | 0.0 | 7.6 | 22.1 | 26.3 | 28.4 | 15.5 | 41.7 | 0.0 | 1.6 | 18.6 | 32.4 | 30.9 | 16.6 | 38.6 | 611 | 653 | 6.6 | **1,532** |
| room heaters | 0.0 | 0.6 | 9.1 | 25.2 | 32.8 | 32.4 | 29.5 | 0.0 | 0.9 | 9.8 | 35.3 | 39.0 | 14.9 | 35.8 | 589 | 861 | 7.5 | **904** |
| **heating fuel:** | | | | | | | | | | | | | | | | | | |
| gas fired system | 0.1 | 6.7 | 32.3 | 44.6 | 15.1 | 1.1 | 50.6 | 0.0 | 3.5 | 19.9 | 49.0 | 26.6 | 1.0 | 45.9 | 395 | 607 | 6.3 | **18,557** |
| oil fired system | 0.0 | 0.6 | 8.6 | 30.6 | 47.3 | 12.8 | 36.0 | 0.0 | 0.0 | 2.6 | 18.6 | 53.0 | 25.8 | 28.9 | 423 | 1138 | 13.3 | **915** |
| solid fuel fired system | 0.0 | 0.0 | 1.5 | 6.4 | 30.1 | 62.0 | 16.2 | 1.1 | 4.6 | 3.2 | 1.6 | 9.3 | 80.2 | 13.6 | 716 | 1226 | 15.2 | **325** |
| electrical system | 0.0 | 6.5 | 19.1 | 24.2 | 27.6 | 22.7 | 38.1 | 0.0 | 1.6 | 17.7 | 31.6 | 33.3 | 15.8 | 38.4 | 614 | 714 | 6.6 | **1,812** |
| communal systems | 4.2 | 48.4 | 32.8 | 13.2 | 1.2 | 0.3 | 66.8 | 0.0 | 26.2 | 43.4 | 24.8 | 5.3 | 0.3 | 59.8 | 363 | 306 | 2.3 | **380** |
| **cavity walls and insulation:** | | | | | | | | | | | | | | | | | | |
| cavity with insulation | 0.2 | 12.5 | 47.8 | 33.6 | 5.0 | 1.0 | 56.4 | 0.1 | 6.5 | 32.0 | 51.2 | 9.0 | 1.1 | 51.5 | 344 | 529 | 5.4 | **6,644** |
| cavity uninsulated | 0.2 | 7.0 | 26.7 | 44.9 | 18.2 | 3.0 | 48.6 | 0.0 | 3.6 | 18.2 | 44.3 | 30.9 | 3.0 | 44.2 | 418 | 627 | 6.5 | **8,497** |
| solid wall | 0.1 | 1.8 | 16.2 | 44.2 | 28.6 | 9.1 | 41.4 | 0.0 | 0.8 | 7.9 | 40.3 | 41.6 | 9.4 | 37.5 | 491 | 771 | 8.1 | **6,848** |

## Summary Statistics Table 7.4: Energy Performance – heating and insulation characteristics of homes[1] *(Cont.)*

*percentage/means of group*

| | energy efficiency rating (EER) band[(2)] (% of all in group) | | | | | | | environmental impact rating (EIR) band[(2)] (% of all in group) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A/B | C | D | E | F | G | mean EER (SAP) rating | A/B | C | D | E | F | G | mean EIR rating | mean energy use (kWh /m² per year) | mean energy cost (£ per year)[(3)] | mean $CO_2$ emissions (tonnes /year) | number of dwellings (000s) |
| **lofts and insulation:** | | | | | | | | | | | | | | | | | | |
| none | 0.0 | 0.2 | 8.5 | 39.5 | 32.5 | 19.3 | 34.7 | 0.0 | 0.1 | 2.5 | 30.2 | 48.2 | 18.9 | 31.9 | 561 | 927 | 9.6 | **819** |
| less than 50mm | 0.0 | 0.8 | 13.3 | 47.1 | 32.6 | 6.2 | 41.1 | 0.0 | 0.5 | 4.4 | 42.6 | 45.0 | 7.4 | 36.9 | 469 | 762 | 8.1 | **633** |
| 50 to 99mm | 0.0 | 1.6 | 21.0 | 50.4 | 21.9 | 5.0 | 44.8 | 0.0 | 0.6 | 10.8 | 47.0 | 36.4 | 5.2 | 40.4 | 444 | 698 | 7.3 | **4,412** |
| 100 to 199mm | 0.1 | 5.4 | 30.6 | 43.0 | 17.4 | 3.5 | 48.7 | 0.0 | 2.4 | 18.3 | 47.6 | 27.7 | 4.0 | 44.0 | 412 | 655 | 6.8 | **10,238** |
| 200mm or more | 0.1 | 9.9 | 39.4 | 35.2 | 12.9 | 2.6 | 52.3 | 0.0 | 5.1 | 26.4 | 44.8 | 20.8 | 2.9 | 47.6 | 376 | 611 | 6.3 | **3,520** |
| no loft | 1.1 | 23.9 | 40.2 | 24.8 | 6.7 | 3.2 | 57.7 | 0.1 | 14.6 | 37.3 | 37.4 | 9.3 | 1.4 | 54.5 | 401 | 400 | 3.7 | **2,368** |
| **all homes** | **0.2** | **7.0** | **29.8** | **41.3** | **17.5** | **4.3** | **48.7** | **0.0** | **3.6** | **19.2** | **45.2** | **27.6** | **4.4** | **44.4** | **418** | **642** | **6.7** | **21,989** |

**Base: all dwellings**

**Notes:**

1. Energy performance statistics are based on standard occupation and heating patterns and therefore do not measure actual costs and consumption of households. The table does not indicate a simple link between specific heating and insulation measures and energy performance. The energy performance of homes is determined by a wider range of factors than the heating and insulation measures included in this table. Homes also have different mixes of these characteristics.
2. EER and EIR bands A and B are grouped. There are currently insufficient numbers of Band A properties existing for which meaningful estimates can be made through a sample survey.
3. Energy costs are at constant 2005 prices.

# Appendix A: Decent Homes: updated definition and adjusted EHCS interpretation of the thermal comfort insulation requirements

This Appendix covers two changes affecting the EHCS estimates of decent homes: firstly the **updated definition of the standard** with the replacement of the Fitness Standard by the Housing Health and Safety Rating System (HHSRS) as one of the four criteria a home must meet to be decent; and secondly the **revised EHCS interpretation of the thermal comfort requirements** for insulating ground and mid-floor flats.

## Updated definition of Decent Homes (HHSRS)

- The number of non-decent homes under the updated definition is not comparable with decent homes figures for previous years which incorporate Fitness as the criterion for meeting the statutory minimum standard. The Fitness Standard was replaced by the HHSRS as the new statutory assessment tool for housing from April 2006 and this change was reflected in the updated definition of decent homes published in the same year.[1] For 2006, the EHCS collected information covering the Fitness Standard and the new HHSRS to enable an assessment of the impact of the change in definition.

- The HHSRS involves a systematic and comprehensive risk assessment of hazards that may be present in homes. This is a radically different approach to that of the Fitness Standard it replaced because the latter focused on property condition and provision of amenities, rather than the potential impact of deficiencies in design or maintenance on the health and safety of the occupants. Chapter 4 provides a detailed assessment of the housing stock using the HHSRS.

- As a result of the change to the statutory standard more homes now fail this criterion of the decent homes definition. Under the Fitness Standard 900 thousand (4% of) homes failed the statutory component compared to 4.8 million (22%) with Category 1 hazards now included in the updated definition of decent homes, Table A1. A Category 1 hazard poses the most severely rated risk to a potential occupant who is most vulnerable to that hazard[2].

- The impact of the introduction of the HHSRS is greatest in the private sector. Some 4.2 million homes (24%) in the private sector have Category 1 hazards present compared to 500 thousand (13%) in the social sector. The relative concentration of Category 1 hazards in the private sector is mainly related to the older age profile of its housing stock, with the risks often being related to original design and construction features.

[1] The June 2006 Decent Homes Guidance can be obtained at http://www.communities.gov.uk/publications/housing/decenthome

[2] For the HHSRS the property is not assessed on the basis of actual occupants. This is based on the approach that a dwelling safe for the most vulnerable is safe for all.

Table A1: Homes not meeting the statutory criterion of the Decent Homes standard: Fitness and Housing Health and Rating System (HHSRS), 2006

| number ('000s): | fitness | HHSRS | fitness percentage: | HHSRS percentage: |
|---|---|---|---|---|
| owner occupied | 457 | 3,452 | 3.0 | 22.4 |
| private rented | 250 | 797 | 9.6 | 30.5 |
| **private** | **707** | **4,249** | **3.9** | **23.5** |
| local authority | 118 | 297 | 5.6 | 14.2 |
| RSL | 57 | 206 | 3.1 | 11.1 |
| **social** | **175** | **503** | **4.4** | **12.8** |
| **all tenures** | **882** | **4,752** | **4.0** | **21.6** |

**Base: all dwellings**

## Adjusted EHCS implementation of thermal comfort insulation requirements

- The estimates of non-decent homes in this report also include an adjustment to the modelling of the thermal comfort criterion for ground and mid-floor flats. Detailed analysis suggested that some flats apparently failing the thermal comfort criterion nevertheless had relatively high energy efficiency (SAP) ratings. This in turn drew attention to the EHCS interpretation of the thermal comfort insulation requirements for ground and mid-floor flats where gas central heating is present.

- Specifically, where gas central heating is present a home requires cavity wall insulation or loft insulation to meet the thermal comfort criterion (2006 Decent Homes Guidance). In previous years the implementation of this requirement in the EHCS has assumed that, in cases where there is no loft (ie ground or mid-floor flats) and therefore no loft insulation, cavity walls should be filled to meet the thermal comfort criterion. It is these 483,000 homes which are nevertheless typically energy efficient: The 227, 000 social sector flats in this group had an average SAP rating of 64 in 2006, compared to an average of 59 for all *decent* homes in the sector and 52 for those failing the (unadjusted) thermal comfort criterion; in the private sector the 256,000 flats affected had an average SAP rating of 59 compared to 47 for all *decent* homes and only 37 for those failing the (unadjusted) thermal comfort criterion.

- A more practical interpretation of the thermal comfort requirement for these properties recognises that the presence of another flat above provides adequate insulation and therefore cavity wall insulation would not be additionally necessary to meet the criterion. Further discussion with social landlords suggested that most would agree with this approach.

- This revision to the EHCS has reduced the number of homes failing thermal comfort by 480,000 overall (270,000 in the social sector and 256,000 in the private sector). The adjustment was made following the publication of the 2006 Headline Report (January 2008) and therefore decent homes figures presented in this Annual Report supersede 2006 figures published in January 2008. A revised version of the 2006 Headline Report has also been published to ensure consistency.

## Impact of changes

- For 2006, using the updated definition of decent homes and the adjusted requirement for the thermal comfort criterion, the number of non-decent homes increases by 1.8 million, from 5.9 million (27%) to 7.7 million (35%), Table A2. This increase is the net outcome of the change in definition and how the EHCS implements the thermal comfort criterion and does *not* indicate any deterioration of the housing stock. Housing conditions as a whole have improved since 2005.

- The net impact of these two changes has been greatest in the private sector. In fact, the increase of 1.8 million non-decent homes is accounted for almost entirely in the private sector where non-decent homes have increased from 4.8 million (26%) to 6.6 million (36%). There has been no significant overall net change in the social sector where the number of non-decent homes remains at 1.1 million (29%).

### Table A2: Non-decent homes – updated definition and revised thermal comfort criterion, 2006

| | original definition | | updated definition only | | updated definition and revised thermal comfort criterion | |
|---|---|---|---|---|---|---|
| | number non-decent (000s) | % of tenure | number non-decent (000s) | % of tenure | number non-decent (000s) | % of tenure |
| owner occupied | 3,704 | 24.0 | 5,473 | 35.4 | 5,335 | 34.6 |
| private rented | 1,055 | 40.4 | 1,298 | 49.7 | 1,223 | 46.8 |
| **all private** | **4,759** | **26.4** | **6,771** | **37.5** | **6,558** | **36.3** |
| local authority | 695 | 33.3 | 801 | 38.4 | 676 | 32.4 |
| RSL | 436 | 23.6 | 530 | 28.7 | 465 | 25.2 |
| **all social** | **1,131** | **28.7** | **1,331** | **33.8** | **1,142** | **29.0** |
| **all tenures** | **5,890** | **26.8** | **8,102** | **36.8** | **7,700** | **35.0** |

**Base: all dwellings**
**Notes:**

1) Figures under the initially updated definition of decent homes are those arising from the replacement of the Fitness Standard by the HHSRS. These figures were originally published in the EHCS 2006: Headline Report in January 2008.

2) Figures under the updated and revised definition also include the adjustment made to how the thermal comfort requirement is implemented in the survey. These are the figures used in the EHCS 2006: Annual Report and in the revised Headline Report published November 2008.

# Appendix B: Decent Homes Treatment Scale: derivation of the scale

Chapter 3 of the report covers homes which are not straightforward to make decent. This Appendix provides details of the criteria on which 'treatability' is assessed for each of the four components of the decent homes standard.

## Modernisation

No dwellings are defined as 'inappropriate' or 'not feasible'. The following are all classed as **'difficult' to treat**:

- Dwellings failing on kitchen where the size of the kitchen is defective and the dwelling is problematic or impossible to extend (a mid-terraced house or a flat not on the ground floor). In many cases, the only way to extend would be to remodel the interior reducing the size/number of rooms in the dwelling, affecting its lettability/value.

- Dwellings failing on bathroom location and the dwelling is problematic or impossible to extend (a mid-terraced house or a flat not on the ground floor). In many cases, the only way to extend would be to remodel the interior reducing the size/number of rooms in the dwelling, affecting its lettability/value.

- Dwellings failing on noise where the installation of sound insulation would make a very small dwelling even smaller. A cut-off of 50m$^2$ for a 'small' dwelling has been used.

- Dwellings failing on size/layout of common areas that are high rise flats. Works are likely to be problematic (due to block height and framed construction) – and also very expensive.

## HHSRS

No dwellings are defined as 'inappropriate' to treat. The following are all classed as **'not feasible'**:

- Small terraced houses failing on falls on stairs that require redesign of the staircase. These dwellings are normally too small to enable the staircase to be redesigned to make them less steep/windy or work may create other potential hazards eg fire safety hazards created when stairs come down into living rooms or kitchens.

The following are classed as **'difficult' to treat**:

- Dwellings failing on excess cold that cannot be improved using conventional measures (up to and including external insulation to solid walls). Although renewables technology has been developed, and in some cases is not that expensive, it is less mainstream so these situations have been classed as difficult to treat.

- Dwellings failing on falls on stairs requiring redesign of the staircase that are not small terraced houses (see above). Works are likely to involve substantial remodelling and loss of space in other rooms or whole rooms.

- Dwellings failing on fire safety where action is to upgrade the protected route. Works are likely to involve extensive remodelling of landings and halls which will reduce space/number of rooms.

- Dwellings failing on fire safety where action required is to extend or re-site the kitchen. In many cases this could only be done by taking space from other rooms (ie the dwelling is a mid-terraced house or a flat not at ground floor level).

- Dwellings failing on noise where the installation of sound insulation would make a very small dwelling even smaller. A cut-off of 50m$^2$ for a 'small' dwelling has been used.

- Dwellings failing on domestic hygiene and the dwelling is problematic or impossible to extend (a mid-terraced house or a flat not on the ground floor). In many cases, the only way to extend would be to remodel the interior, thereby reducing the size/number of rooms in the dwelling, affecting its lettability/value.

- Dwellings failing on personal hygiene and the dwelling is problematic or impossible to extend (a mid-terraced house or a flat not on the ground floor). In many cases, the only way to extend would be to remodel the interior reducing the size/number of rooms in the dwelling, affecting its lettability/value.

## Disrepair

All dwellings failing on this are classed as 'straightforward'.

## Thermal comfort

The following are defined as **'inappropriate' to treat**:

- fails thermal comfort but with a current energy efficiency (SAP) rating of 65 or more.

The following are classed as **'difficult' to treat**:

- installation of cavity wall insulation required but falls into one of the 'complex to fill' categories (see Appendix C).

The following are classed as **'not feasible' to treat**:

- Dwelling requires installation of cavity wall insulation but falls into one of the 'do not fill' categories (see Appendix C).

## Over-arching categories based on cost

**'Difficult' to treat**:

- total cost to make decent is more than £20,000.

**'Uneconomic' to treat**:

- total cost to make decent is more than 50% of rebuild cost OR
- total cost to make decent is more than 50% of market value.

# Appendix C: Cavity Wall 'fillability': developing a scale for the EHCS

The 'treatment scale' detailed in Appendix B covers situations where insulation of cavity walls is not straightforward as action required to meet the thermal comfort criterion of decent homes. The considerations underpinning this assessment are provided in this Appendix. Table C1 provides estimates of 'fillability' from these modelled assumptions for the stock as a whole.

## General assumptions made or restrictions:

- If the dwelling has a cavity wall, assume that the cavity is greater than 50mm wide.
- Assume there are no obstructions within the cavity or that it is partly filled.
- Assume that all flats have occupant conflicts and that no other dwelling types do.
- Assume no exposure to driving rain.
- The EHCS only records cavity walls with masonry construction; therefore cavity walls of other construction types have not been identified.

## Criteria for different classifications of 'fillability':

### 1. Standard 'fillable':

- If the dwelling has 100% cavity walls, **and**
- Greater than or equal to 75% masonry pointing finish, **and**
- Does not have a conservatory, **and**
- Has four or less floors, **and**
- Is not a flat, **and**
- Does not have a timber or metal frame.

### 2. Non-standard 'fillable' – less problematic:

- The dwelling has less than 100% cavity wall (but has some cavity wall), **and**
- Greater than or equal to 75% masonry pointing finish, **and**
- Has four floors or less, **and**
- Does not have a timber or metal frame.

**Or**

- If the dwelling has 100% cavity walls, **and**
- Greater than or equal to 75% masonry pointing finish, **and**
- Has a conservatory, **and**
- Has four or less floors, **and**
- Does not have a timber or metal frame.

### 3. Non-standard 'fillable' – more problematic:

- If the dwelling has some cavity wall, **and**
- Has more than four floors, **and**
- Has some masonry pointing finish, **and**
- Does not have a metal or timber frame.

**Or**

- If the flat has some cavity wall, **and**
- Has more some masonry pointing, **and**
- Does not have a timber or metal frame.

**Or**

- If the dwelling has some cavity wall, **and**
- Has less than 75% masonry pointing (but has some), **and**
- Does not have a timber or metal frame.

### 4. Unfillable:

- If the dwelling has a cavity wall, **and**
- Has a timber or metal frame.

**Or**

- If the dwelling has a cavity wall, **and**
- Has no masonry pointing.

The results of the above model of cavity wall 'fillability' are set out below for the stock as a whole.

Table C1: Homes (000s) by whether cavity walls are present, whether they are insulated, and the ease of treatment of those that remain uninsulated, 2006

| | private sector | | | social sector | | | all stock | | |
|---|---|---|---|---|---|---|---|---|---|
| | houses | flats | all | houses | flats | all | houses | flats | all |
| cavity walls filled | 4,631 | 400 | 5,031 | 1,066 | 547 | 1,613 | 5,697 | 947 | 6,644 |
| cavity walls unfilled | 6,216 | 839 | 7,055 | 769 | 673 | 1,442 | 6,985 | 1,512 | 8,497 |
| of which: | | | | | | | | | |
| standard fillable | 2,915 | 0 | 2,915 | 494 | 0 | 494 | 3,409 | 0 | 3,409 |
| non-standard, less problematic | 1,196 | 0 | 1,196 | 40 | 0 | 40 | 1,236 | 0 | 1,236 |
| non-standard, more problematic | 1,483 | 786 | 2,268 | 118 | 637 | 754 | 1,601 | 1,422 | 3,023 |
| unfillable | 622 | 53 | 674 | 117 | 36 | 153 | 739 | 89 | 828 |
| all homes with cavity walls | 10,847 | 1,239 | 12,086 | 1,835 | 1,220 | 3,055 | 12,681 | 2,459 | 15,141 |
| homes with non-cavity walls | 5,013 | 955 | 5,967 | 466 | 415 | 881 | 5,479 | 1,369 | 6,848 |

**Base: all dwellings**

# Glossary of key definitions and terms 2006

Key definitions and terms are included with entries being grouped under the following headings:

# Homes

## Tenure

Four categories are used for most reporting purposes:

***owner-occupied:*** includes all households who own their own homes outright or buying them with a mortgage/loan; also includes shared-ownership schemes.

***private rented:*** includes all households living in privately owned property which they do not own. Includes households living rent free, or in tied homes and tenants of Housing Associations that are not registered.

***local authority:*** includes all households who rent from a local authority or (former) new town.

***registered social landlord (RSL):*** includes all households living in the property of registered housing associations.

For some analyses these four tenure categories are collapsed into two groups:

***private sector:*** owner-occupied and private rented.

***social rented:*** local authority and registered social landlords.

## Vacant dwellings

The assessment of whether or not a dwelling is vacant is made at the time of the interviewer's visit. Clarification of vacancy is sought from neighbours. Surveyors are required to gain access to vacant dwellings and undertake full inspections.

## Dwelling

A dwelling is a self-contained unit of accommodation (normally a house or flat) where all the rooms and amenities (ie kitchen, bath/shower room and WC) are for the exclusive use of the household(s) occupying them. In rare cases, amenities may be located outside the front door but provided they are for the exclusive use of the occupants, the accommodation is still classed as a dwelling.

For the most part a dwelling will be occupied by one household. However, it may contain none (vacant dwelling) or may contain more than one (House in Multiple occupation or HMO).

## Age

This is the date of construction of the oldest part of the building.

## Size

The total usable internal floor area of the home as measured by the surveyor, rounded to the nearest square metre. It excludes integral garages, balconies, stores accessed from the outside only and the area under partition walls. Homes are also grouped into the following five categories:

- less than 50m$^2$
- 50 to 69m$^2$
- 70 to 89m$^2$
- 90 to 109m$^2$
- 110m$^2$ or more.

## Type

Dwellings are classified, on the basis of the surveyors' inspection, into the following categories:

***terraced house***

a) size

*small terraced house:* a house with a total floor area of less than 70m$^2$ forming part of a block where at least one house is attached to two or more other houses.

*medium/large terraced house:* a house with a total floor area of 70m$^2$ or more forming part of a block where at least one house is attached to two or more other houses.

b) attachment

*end terraced house:* a house attached to one other house only in a block where at least one house is attached to two or more other houses.

*mid-terraced house:* a house attached to two other houses in a block.

***semi-detached house:*** a house that is attached to just one other in a block of two.

***detached house:*** a house where none of the habitable structure is joined to another building (other than garages, outhouses etc.).

***bungalow:*** a house with all of the habitable accommodation on one floor. This excludes chalet bungalows and bungalows with habitable loft conversions, which are treated as houses.

***converted flat:*** a flat resulting from the conversion of a house or former non-residential building. Includes buildings converted into a flat plus commercial premises (typically corner shops).

***purpose built flat, low rise:*** a flat in a purpose built block less than six storeys high. Includes cases where there is only one flat with independent access in a building which is also used for non-domestic purposes.

***purpose built flat, high rise:*** a flat in a purpose built block of at least six storeys high.

For some analyses the dwelling type categories are collapsed into two groups:

***house:*** terrace house, semi-detached house, detached house and bungalow.

***flat:*** converted flat, low rise purpose built flat and high rise purpose built built flat.

## Areas

### Type

***city or other urban centre:*** includes:

*city centre:* the area around the core of a large city.

*other urban centre:* the area around towns and small cities, and also older urban areas which have been swallowed up by a metropolis.

***suburban residential:*** the outer area of a town or city; characterised by large planned housing estates.

***rural:*** includes:

*rural residential:* a suburban area of a village, often meeting the housing needs of people who work in nearby towns and cities.

*village centre:* the traditional village or the old heart of a village which has been suburbanised.

*rural:* an area which is predominantly rural eg mainly agricultural land with isolated dwellings or small hamlets.

### Regional areas

***northern regions:*** includes the following Government Office Regions: North East, North West, and Yorkshire and the Humber.

***south east regions:*** includes the following Government Office Regions: London and South East.

***rest of England:*** includes the following Government Office Regions: East Midlands, West Midlands, South West and East of England.

### Deprived local areas

These are Lower Layer Super Output Areas (LSOAs) scored and ranked by the 2004 Index of Multiple Deprivation (IMD).

The Index is made up of seven domain indices relating to: Income deprivation, Employment deprivation, Health deprivation and disability, Education, skills and training deprivation, Barriers to housing and services, Living environment deprivation and Crime.

LSOAs are a statistical geography providing uniformity of size. There are 32,482 in England and on average each contains around 625 homes.

These ranked areas have been placed into ten groups of equal numbers of areas, from the 10% most deprived areas on the Index, to the 10% least deprived.

### Deprived districts

These are based on districts supported through the Neighbourhood Renewal Fund (NRF).

The NRF aims to enable England's most deprived local authorities to improve services, narrowing the gap between deprived areas and the rest of the country. This report uses two different groupings:

***to examining trends 1996-2006:*** includes only the 88 districts that had received NRF funding from 2001-2006.

***to illustrate the position in 2006:*** it includes households and dwellings in those districts that were receiving an NRF allocation 2006 to 2008 or had received an allocation in earlier years (91 districts in total).

## Households

### Household

A household is defined as one person living alone or a group of people, who may or may not be related, living in the same dwelling who share at least one living or sitting room and/or have a regular arrangement to share at least one meal a day. Shared houses where the occupants have a joint tenancy or where they came together as a group to rent the house and would themselves fill any vacancies rather than expecting the landlord to do this are also classed as a single household; even though they may not share a sitting room or a meal per day.

### Household Reference Person (HRP)

This is the person in whose name the dwelling is owned or rented or who is otherwise responsible for the accommodation. In the case of joint owners and tenants, the person with the highest income is taken as the HRP. Where incomes are equal, the older is taken as the HRP. This procedure increases the likelihood that the HRP better characterises the household's social and economic position.

### Household groups

***children (0-15):*** a household that includes at least one person under 16 years of age.

***elderly 75+:*** a household that includes at least one person aged 75 years or over.

***ethnic minorities:*** where the respondent defines their ethnicity as something other than white.

***illness or disability:*** a household where at least one person in the household has a long-tern illness or disability. The respondent assesses this and long-term is defined as anything that has troubled the person, or is likely to affect them, over a period of time.

***in poverty:*** a household with income below 60% of the equivalised median household income (calculated before any housing costs are deducted).

***lone parents:*** a household comprising a lone parent with at least one dependent child (ie a person under 16 years of age, or aged 16 to 18, single and in full-time education).

***low income:*** a household with equivalised income (calculated before any housing costs are deducted) in the lowest 20% of all households income.

***older people 60+:*** a household that includes at least one person aged 60 or over.

***vulnerable:*** a household in receipt of at least one of the principal means tested or disability related benefits.

> The definition of vulnerable households for April 2005 to March 2007 was households in receipt of: income support, housing benefit, attendance allowance, disability living allowance, industrial injuries disablement benefit, war disablement pension, pension credit, child tax credit and working tax credit. For child tax credit and working tax credit the household is only considered vulnerable if the household has a relevant income of less than £15,050.
>
> The focus of the report is on vulnerable households in the private housing sector where choice and achievable standards are constrained by resources available to the household.
>
> Survey estimates do not include two benefits listed in the decent homes guidance (A Decent Home – the definition and guidance for implementation, Communities and Local Government, June 2006), council tax benefit and income based job seekers allowance. Any households in receipt of either of these two benefits only will therefore be excluded from the survey's estimate of vulnerable households.

***workless:*** a household containing at least one person of working age (between 16 and current state retirement age) where nobody is in employment (full or part time).

## Income (equivalised)

Household incomes have been 'equivalised', that is adjusted (using the modified OECD scale) to reflect the number of people in a household. This allows the comparison of incomes for households with different sizes and compositions.

The EHCS variables are modelled to produce a Before Housing Cost (BHC) income measure for the purpose of equivalisation. The BHC income variable includes: Household Reference Person and partner's income from benefits and private sources (including income from savings), income from other household members, housing benefit, winter fuel payment and the deduction of net council tax payment. For more detail see the 2006 EHCS Technical Report.

# Conditions

## Decent homes

A decent home is one that meets **all** of the following four criteria:

a) meets the statutory minimum standard for housing. This was the Fitness Standard up to April 2006 when it was replaced by the Housing Health and Safety Rating System (HHSRS). Homes posing a Category 1 hazard under the HHSRS are considered non-decent under the updated definition of decent homes (see Housing Health and Safety Rating System).

b) it is in a reasonable state of repair (assessed from the age and condition of a range of building components including walls, roofs, windows, doors, chimneys, electrics and heating systems).

c) it has reasonably modern facilities and services (assessed according to the age, size and layout/location of the kitchen, bathroom and WC and any common areas for blocks of flats, and to noise insulation).

d) it provides a reasonable degree of thermal comfort (adequate heating and effective thermal insulation).

The detailed definition for each of these criteria is included in A Decent Home: Definition and guidance for implementation, Communities and Local Government, June 2006.

The original definition of decent homes incorporated the Fitness Standard as the statutory criterion. The updated definition of decent homes, from 2006, replaces this statutory minimum standard with the HHSRS. Estimates of decent homes based on the updated definition are not comparable with those based on the original definition. In reporting times series the EHCS uses only comparable statistics (ie 1996 to 2006 using the original definition and, in future years, from 2006 to the latest estimates using the updated definition).

The adjustment to the EHCS implementation of the thermal comfort insulation requirements (see Appendix A in this report for details) has only been applied to the 2006 estimates based on the updated definition of decent homes. It has not been retrospectively applied to estimates for 1996 to 2006 based on the original definition. This underlines the need to consider the two sets of estimates separately.

## Cost to make decent

The cost of carrying out all works required to ensure that the dwelling meets the Decent Homes standard. This is the estimated required expenditure which includes access equipment eg scaffolding and prelims and also takes into account regional and tenure variations in building prices. For more detail, see the 2006 EHCS Technical Report.

## Treatment scale for non-decent homes

The five point scale used to determine how easy it would be to make a home decent.

***straightforward to treat:*** where the required treatment can be readily carried out.

***inappropriate to treat:*** where treatment would be straightforward but measurable performance is already of a good standard even though the property fails the formal decent homes criterion.

***difficult to treat:*** where the required work is subject to technical issues/difficulties and/or cost of the work is high.

***uneconomic to treat:*** where the cost, in relation to the value of the property, is high.

***not feasible to treat:*** where the required treatment to make decent is not possible given the design layout or construction of the property of where the treatment would itself create new problems.

The scale is derived by examining each criterion of decent homes individually, and then taking the worst scenario, eg if it is inappropriate to treat on thermal comfort but feasible to treat on HHSRS, then it would be coded as 'not feasible' overall. More details can be found in Appendix B of this report.

## Housing Health and Safety Rating System (HHSRS)

The Housing Health and Safety Rating System (HHSRS) is a risk assessment tool used to assess potential risks to the health and safety of occupants in residential properties in England and Wales. It replaced the Fitness Standard in April 2006.

The purpose of the HHSRS assessment is not to set a standard but to generate objective information in order to determine and inform enforcement decisions. There are 29 types of hazard, each of which is separately rated, based on risk to the potential occupant who is most vulnerable to that hazard. The individual hazard scores are grouped into 10 bands where the highest bands (A-C representing scores of 1000 or more) are considered to pose Category 1 hazards. Local authorities have a duty to act where Category 1 hazards are present and may take into account the vulnerability of the actual occupant in determining the best course of action.

For the purposes of the Decent Homes standard, dwellings posing a Category 1 hazard are non-decent on its criterion that a home must meet the statutory minimum requirements.

The EHCS is not able to replicate the HHSRS assessment in full as part of a large scale survey. Its assessment employs a mix of hazards that are directly assessed by surveyors in the field and others that are indirectly assessed from detailed related information collected.

Not all hazards are covered by the EHCS but it is expected that those included account for more than 95% of all Category 1 hazards. Details of how the HHSRS is measured by the EHCS are provided in the 2006 EHCS Technical Report.

An overview and links to more detailed guidance on the HHSRS are available from: http://www.communities.gov.uk/hhsrs

## Cost to remedy HHSRS hazards

This is the **nominal** cost of making the dwelling reasonably safe and healthy – reducing any Category 1 hazard to a level that is 'average' for that type and age of dwelling. It is based on public sector prices and assumes that work is carried out as large contracts. It does not include access equipment like scaffolding or prelims, nor does it take into account regional variations in the price of building work. See the 2006 EHCS Technical Report for more detail of how these are calculated and the level of improvement assumed.

## Excess cold (HHSRS Category 1 hazard)

Households living in homes with a threat to health arising from sub-optimal indoor temperatures. The assessment is based on the most vulnerable group who for this hazard are those aged 65 years or more (the assessment does not require a person of this age to be an occupant). The EHCS does not measure achieved temperatures in the home and therefore this hazard is based on homes with an energy efficiency rating of less than 35 based on the SAP 2001 methodology. Under the SAP 2005 methodology the comparable threshold was recalculated to be 31.49 and the latter is used in providing statistics for the HHSRS Category 1 hazard.

## Fitness (Standard)

The Fitness Standard was the statutory minimum standard for housing conditions as defined under the 1989 Local Government and Housing Act. Under the Act, a home was fit for human habitation unless it failed to meet a number of requirements related to: disrepair, structural stability, dampness, lighting, heating, ventilation, water supply, drainage, food preparation, WC and bath/shower. Following the 2004 Housing Act, the Fitness Standard was replaced in April 2006 by the Housing Health and Safety Rating System as the statutory assessment tool for housing conditions.

## Damp and mould growth

Damp and mould in homes fall into three main categories:

***rising damp:*** where the surveyor has noted the presence of rising damp in at least one of the rooms surveyed during the physical survey. Rising damp occurs when water from the ground rises up into the walls or floors because damp proof courses in walls or damp proof membranes in floors are either not present or faulty.

***penetrating damp:*** where the surveyor has noted the presence of penetrating damp in at least one of the rooms surveyed during the physical survey. Penetrating damp is caused by leaks from faulty components of the external fabric eg roof covering, gutters etc. or leaks from internal plumbing eg water pipes, radiators etc.

***condensation or mould:*** caused by water vapour generated by activities like cooking and bathing condensing on cold surfaces like windows and walls. Virtually all homes have some level of condensation occurring. Only *serious* levels of condensation or mould are considered as a problem in this report.

### Serious disrepair

These are the occupied homes with the highest 10% of comprehensive repair costs per $m^2$. The EHCS 2006 Technical Report explains how these costs are calculated from the detailed assessments in the physical survey.

## Energy measures and performance

### Heating system

**a) main space heating type:**

***central heating system:*** most commonly a system with a gas fired boiler and radiators which distribute heat throughout the dwelling (but also included in this definition are warm air systems, electric ceiling/underfloor and communal heating). It is generally considered to be a cost effective and relatively efficient method of heating a dwelling.

***storage heaters:*** predominately used in dwellings that have an off-peak electricity tariff. Storage heaters use off-peak electricity to store heat in clay bricks or a ceramic material, this heat is then released throughout the day. However, storage heating can prove expensive if too much on peak electricity is used during the day.

***room heaters:*** this category includes all other types of heater such as fixed gas, fixed electric or portable electric heaters, this type of heating is generally considered to be the least cost effective of the main systems and produces more carbon dioxide emissions per kWh.

**b) heating fuel:**

***gas:*** mains gas is relatively inexpensive and produces lower emissions per unit of energy than most other commonly used fuels. Liquefied Petroleum Gas and bottled gas are still associated with slightly higher costs and emissions.

***electricity:*** standard rate electricity has the highest costs and $CO_2$ emissions associated with main fuels, but is used in dwellings without a viable alternative or a back-up to mains gas. An off-peak tariff such as Economy 7, is cheaper than bottled gas but with the same emissions as standard electricity.

***oil:*** in terms of both costs and emissions, oil lies between main gas and electricity.

***solid fuel:*** these are similar costs to oil with the exception of processed wood which can be more expensive than off-peak electricity. Fuels included are coal and anthracite, with $CO_2$ emissions above those of gas and oil; wood, which has the lowest emissions of the main fuels; and smokeless fuel, whose emissions are close to those of electricity. By law, areas (usually towns or cities) are designated as smoke control areas where solid fuels emitting smoke are illegal.

**c) water heating system:**

***combined:*** a central heating system that also provides heat to supply hot water for the dwelling.

***separate:*** dwellings which have electrical space heating systems often use electric immersion heaters to heat water. Other dwellings may be fitted within instantaneous water heaters, such as electric showers.

**d) boiler type:**

***standard:*** provides hot water or warm air for space heating with the former also providing hot water via a separate storage cylinder.

***back:*** located behind a room heater and feeds hot water to a separate storage cylinder. They are generally less efficient than other boiler types.

***combination:*** provides hot water or warm air for space heating and can provide hot water on demand negating the need for a storage cylinder, therefore requiring less room.

***condensing:*** standard and combination boilers can also be condensing. A condensing boiler uses a larger, or dual, heat exchanger to obtain more heat from burning fuel than an ordinary boiler, and is generally the most efficient boiler type.

## Double glazing

This covers factory made sealed window units only. It does not include windows with secondary glazing or external doors with double or secondary glazing (other than double glazed patio doors which are surveyed as representing two windows).

## Energy Performance Certificate (EPC)

An Energy Performance Certificate (EPC) is a key component of a Home Information Pack (HIP).

The EPC provides a range of indicators based on current performance, whether the property would benefit in terms of improved performance from a range of low cost and higher cost measures, and the likely performance arising from the application of those measures. The EPC assessment is based on a simplified form of the energy efficiency Standard Assessment Procedure (SAP) known as Reduced Data SAP (RDSAP).

The EHCS currently provides the following EPC based indicators but using the survey's own approach to SAP:

***current performance:***

- *energy efficiency rating* and bands
- *environmental impact rating* (EIR) and bands
- *primary energy use* (kWh/$m^2$ per year)
- *energy cost* (£ per year), but unlike the EPC these are based on 2005 constant prices
- $CO_2$ (carbon dioxide) emissions (tonnes per year).

***improvement measures:*** as part of the EPC, certain improvement measures are suggested, which would improve the energy efficiency of the dwelling. These include improvements to both heating and insulation measures.

a) *higher cost measures* (more than £500):
- standard boiler – install a class A condensing boiler using the same fuel
- electric heating – install fan assisted storage heaters with an additional secondary heating system if not present
- solid fuel heating – install a biomass boiler with radiators
- warm air heating – install a warm air system, using the same fuel, with controls and a fan assisted flue.

b) *lower cost measures* (less than £500):

- cavity wall insulation – installation where none present
- loft insulation – install/top up existing insulation less than or equal to 150mm to 250mm.

From 2008 the EHCS will provide the following additional improvement measures as part of the EPC: hot water cylinder and heating system controls. The survey will not be able to include the following improvements: draft proofing and low energy lighting.

***improved performance:*** no indicators are currently provided. Development work is in progress to provide these for EHCS 2008 and subsequent reporting.

While the EHCS uses its own simplified form of SAP it is not expected that the statistical result would be significantly different from an RDSAP based approach. The survey is now collecting additional data to enable the provision of RDSAP based indicators for reporting from EHCS 2008.

For more information on the EPC and the HIP see:
http://www.homeinformationpacks.gov.uk

## Energy efficiency rating

The measure of energy efficiency used is the energy cost rating as determined by the Government's Standard Assessment Procedure (SAP), used to monitor the energy efficiency of homes. This is based on a home's energy costs per $m^2$ of floor area for standard occupancy of a dwelling and a standard heating regime and is calculated from the survey using a simplified form of the SAP. The energy costs take into account the costs of space and water heating, ventilation and lighting, less cost savings from energy generation technologies. They do not take into account variation in geographical location. The rating is expressed on a scale of 1-100 where a dwelling with a rating of 1 has poor energy efficiency (high costs) and a dwelling with a rating of 100 represents zero net energy cost per year.

The detailed methodology for calculating the Government's SAP to monitor the energy efficiency of homes was comprehensively updated in 2005 to reflect developments in the energy efficiency technologies and knowledge of dwelling energy performance. The rating scale was also revised to run between 1 and 100 under the 2005 methodology (under the previous 2001 methodology the scale ran between 1 and 120). Therefore, a SAP rating using

the 2001 method is not directly comparable to one calculated under the 2005 methodology, and it would be incorrect to do so. All SAP statistics used in reporting from 2005 are based on the SAP 2005 methodology and this includes time series data from 1996 to the current reporting period (ie the SAP 2005 methodology has been retrospectively applied to 1996 and subsequent survey data to provide consistent results in the 2005 and following reports).

## Energy Efficiency Rating (EER) Bands

The energy efficiency rating is also presented in an A-G banding system for an Energy Performance Certificate, where Band A rating represents low energy costs (ie the most efficient band) and Band G rating represents high energy costs (the least efficient band). The break points in SAP used for the EER bands are:

- Band A (92-100)
- Band B (81-91)
- Band C (69-80)
- Band D (55-68)
- Band E (39–54)
- Band F (21–38)
- Band G (1–20).

## Environmental Impact Rating (EIR)

Based on the Energy Performance Certificate the EIR is a measure of a home's impact on the environment in terms of $CO_2$ emissions/$m^2$ of floor area. The emissions take into account space heating, water heating, ventilation and lighting, less the emissions saved by energy generation technologies. The rating is expressed on a scale of 1-100 where a dwelling with a rating of 1 has high $CO_2$ emissions and a dwelling with a rating of 100 represents zero net emissions per year.

The EIR rating is also expressed in a A-G banding system for Energy Performance Certificates where an A rating represents low carbon emissions and a G rating represents high carbon emissions. The energy efficiency rating and the EIR use common break points for their Bands (see above).

## Energy Use (primary)

The energy use relates to the primary energy used. This takes into account distribution losses and energy used to produce fuels along with the energy actually used in the dwelling (as derived from SAP calculations and assumptions). This is measured in kWh/$m^2$ per year. Energy use for each dwelling is based on a standard occupancy and a standard heating regime.

## Energy cost

This represents the total energy cost from space heating, water heating, ventilation and lighting, less the costs saved by energy generation as derived from SAP calculations and assumptions. This is measured in £ per year using constant prices based on average fuel prices for 2005 (which input into the 2005 Standard Assessment Procedure) and do not reflect subsequent changes in fuel prices. Energy costs for each dwelling are based on a standard occupancy and a standard heating regime.

### Carbon dioxide ($CO_2$) emissions

The total carbon dioxide emissions from space heating, water heating, ventilation and lighting, less the emissions saved by energy generation as derived from SAP calculations and assumptions. These are measured in tonnes/year. Unlike the EIR the $CO_2$ emissions presented in the 2006 report are not adjusted for floor area and represent emissions from the whole dwelling. The highest and lowest emitting performers have also been grouped with cut-off points set at 3 tonnes per year for the low emitters and 10 tonnes per year for the highest. $CO_2$ emissions for each dwelling are based on a standard occupancy and a standard heating regime.

## Area characteristics and neighbourhood problems

### Area classification

The surveyor classifies the area in which a sample property is located in a number of ways which include:

***predominant age:*** the surveyors' assessment of the age of the majority of dwellings in the local area. This will not necessarily be the same as that of the surveyed dwelling as this may be atypical of the area.

***predominant built tenure:*** assessed by the surveyor in the field and relates to the tenure of the local area as built rather than its current tenure. For example, areas that were originally built by local authorities and have subsequently been transferred to Housing Associations or where the majority of homes were purchased by their occupants through Right to Buy are coded as 'local authority' built. If there is no clear predominant built tenure then the area is classified as 'mixed'.

***predominant residential built type:*** the surveyor's assessment of the current built form of the majority of dwellings in the area. This will not necessarily be the same as that of the surveyed dwelling as this may be atypical of the area.

The demarcation of the area is made by the surveyor in the field using physical boundaries such as main roads, railways, canals, etc.

### Neighbourhood problems

Two sources of information on the quality of the local environment are available from the survey:

***surveyors observations*** and rating of problems in the immediate environment of the sample property.

***interview respondents' views*** of whether the neighbourhood suffers from serious problems that might undermine their quality of living there.

## 'Worst' neighbourhood problems

To focus on neighbourhoods with the most serious problems two distinct but related indicators have been developed from overall scores created respectively from surveyor and respondent assessments of problems in the neighbourhood. Together these indicators provide complementary information about the neighbourhood. The indicators are based on the 10% of households living in neighbourhoods with the highest (='worst') scores. The two indicators are neighbourhoods with:

***'worst' upkeep problems,*** based on surveyors observations of the presence of neglected, poorly maintained and vandalised public and private space/buildings at the time of their visit. The particular problems the score reflects are:

- scruffy gardens/landscaping
- scruffy/neglected buildings
- litter and rubbish
- poor condition of homes
- dog and other excrement
- nuisance from street parking
- graffiti
- vandalism.

***'worst' behavioural problems,*** based on respondent views of whether any anti-social and criminal behaviours pose serious problems for the neighbourhood. The particular problems reflected in the score are:

- troublesome teenagers/children
- presence of drug dealers/users
- vandalism and hooliganism
- racial harassment
- problems with neighbours
- fear of being burgled
- general level of crime
- poor state of open spaces/gardens
- presence of graffiti.

The scores reflect the number and seriousness of problems observed/reported. The above listings reflect the weighting given to each particular problem in the overall score, the problem with the highest weighting being listed first. Details of the scores and their construction (using factor analysis) are provided in the 2006 EHCS Technical Report.

The focus on the *10%* of households in neighbourhoods with the highest scores ('worst') is a nominal cut off and does not indicate an absolute measure as such. The indicators are used to identify where problems are likely to be most acute rather than to present definitive counts of how many households live in neighbourhoods with severe problems.

# Further Information and Contacts

If you would like further information about the EHCS please contact us at:

EHCS Project Management
Communities and Local Government
2/A2
Eland House
Bressenden Place
London
SW1E 5DU

Tel 020 7944 3526
fax 020 7944 3529
e-mail:
ehcs@communities.gsi.gov.uk

## Reports

The 2006 and all recent reports from the survey are available from the Department's website. They, along with other materials, can be accessed from:
http://www.communities.gov.uk/housing/housingresearch/housingsurveys/

## Tables

A set of standard tables providing selected results since 2001 are available on the survey's website
www.communities.gov.uk/housing/housingresearch/housingsurveys/englishhousecondition/ehcsdatasupporting/

## Data

The EHCS data is available and can be obtained free of charge by contacting the EHCS team via e-mail:
ehcs@communities.gov.uk

The data is held in SPSS format only and requires SPSS or compatible statistical software to access and interrogate it. The data is provided with documentation on its content and use. Please note that the Department can not provide support for use of the data.

## Additional analysis

The Building Research Establishment (BRE) also provide a service by which non-government users can purchase customised analysis of EHCS data. For further details, please contact:

Kevin White via e-mail:
whitekj@bre.co.uk
Tel: 01923 664 136

This report provides a detailed account of living conditions in England in 2006.

The report covers a number of key policy areas including decent homes; energy efficiency; neighbourhoods; and disparities in living conditions.

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